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110TH CONGRESS
1ST SESSION

H. R. 3236

[Report No. 110-304, Part I]

To promote greater energy efficiency.

IN THE HOUSE OF REPRESENTATIVES

JULY 31, 2007

Mr. BOUCHER (for himself and Mr. DINGELL) introduced the following bill; which was referred to the Committee on Energy and Commerce, and in addition to the Committees on Transportation and Infrastructure and Oversight and Government Reform, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

AUGUST 3, 2007

Reported from the Committee on Energy and Commerce

AUGUST 3, 2007

Committees on Transportation and Infrastructure and Oversight and Government Reform discharged; committed to the Committee of the Whole House on the State of the Union and ordered to be printed

A BILL

To promote greater energy efficiency.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

1 **SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

2 (a) SHORT TITLE.—This Act may be cited as the
3 “Energy Efficiency Improvement Act of 2007”.

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

Sec. 1. Short title; table of contents.

TITLE I—PROMOTING ENERGY EFFICIENCY

Subtitle A—Appliance Efficiency

- Sec. 101. Energy standards for home appliances.
- Sec. 102. Electric motor efficiency standards.
- Sec. 103. Residential boilers.
- Sec. 104. Regional variations in heating or cooling standards.
- Sec. 105. Procedure for prescribing new or amended standards.
- Sec. 106. Expediting Appliance Standards Rulemakings.
- Sec. 107. Correction of large air conditioner rule issuance constraint.
- Sec. 108. Definition of energy conservation standard.
- Sec. 109. Improving schedule for standards updating and clarifying State authority.
- Sec. 110. Updating appliance test procedures.
- Sec. 111. Furnace fan standard process.
- Sec. 112. Technical corrections.
- Sec. 113. Energy efficient standby power devices.
- Sec. 114. External power supply efficiency standards.
- Sec. 115. Standby mode.

Subtitle B—Lighting Efficiency

- Sec. 121. Efficient light bulbs.
- Sec. 122. Incandescent reflector lamps.
- Sec. 123. Use of energy efficient lighting fixtures and bulbs.

Subtitle C—Residential Building Efficiency

- Sec. 131. Encouraging stronger building codes.
- Sec. 132. Energy code improvements applicable to manufactured housing.
- Sec. 133. Baseline building designs.
- Sec. 134. Reauthorization of weatherization assistance program.

Subtitle D—Commercial and Federal Building Efficiency

- Sec. 141. Definitions.
- Sec. 142. High-performance green buildings.
- Sec. 143. Zero-energy commercial buildings initiative.
- Sec. 144. Public outreach.
- Sec. 145. Budget and life-cycle costing and contracting.
- Sec. 146. Incentives.
- Sec. 147. Federal procurement.
- Sec. 148. Use of energy and water efficiency measures in Federal buildings.
- Sec. 149. Demonstration project.

- Sec. 150. Energy efficiency for data center buildings.
- Sec. 151. Authorization of appropriations.
- Sec. 152. Study and report on use of power management software.

Subtitle E—Industrial Energy Efficiency

- Sec. 161. Industrial energy efficiency.

Subtitle F—Energy Efficiency of Public Institutions

- Sec. 171. Short title.
- Sec. 172. Findings.
- Sec. 173. Definitions.
- Sec. 174. Technical Assistance Program.
- Sec. 175. Revolving Fund.
- Sec. 176. Reauthorization of State energy programs.

Subtitle G—Energy Savings Performance Contracting

- Sec. 181. Definition of energy savings.
- Sec. 182. Financing flexibility.
- Sec. 183. Authority to enter into contracts; reports.
- Sec. 184. Permanent reauthorization.
- Sec. 185. Training Federal contracting officers to negotiate energy efficiency contracts.
- Sec. 186. Promoting long-term energy savings performance contracts and verifying savings.

Subtitle H—Advisory Committee on Energy Efficiency Financing

- Sec. 189. Advisory committee.

Subtitle I—Energy Efficiency Block Grant Program

- Sec. 191. Definitions.
- Sec. 192. Establishment of program.
- Sec. 193. Allocations.
- Sec. 194. Eligible activities.
- Sec. 195. Requirements.
- Sec. 196. Review and evaluation.
- Sec. 197. Technical Assistance and Education Program.
- Sec. 198. Authorization of appropriations.

Subtitle J—Green Buildings Retrofit Loan Guarantees

- Sec. 199. Green buildings retrofit loan guarantees.

1 **TITLE I—PROMOTING ENERGY**
 2 **EFFICIENCY**

3 **Subtitle A—Appliance Efficiency**

4 **SEC. 101. ENERGY STANDARDS FOR HOME APPLIANCES.**

5 (a) APPLIANCES.—The Energy Policy and Conserva-
 6 tion Act is amended as follows:

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

9 “(2) Dehumidifiers manufactured on or after October
 10 1, 2012, shall have an Energy Factor that meets or ex-
 11 ceeds 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”. |

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

16 “(9) Clotheswashers manufactured on or after Janu-
 17 ary 1, 2011, shall have—

18 “(A) a Modified Energy Factor of at least 1.26;

19 and

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

1 “(10) No later than December 31, 2011, the Sec-
2 retary shall publish a final rule determining whether to
3 amend the standards in effect for clotheswashers manufac-
4 tured on or after January 1, 2015. Such rule shall contain
5 such amendment, if any.

6 “(11) Dishwashers manufactured on or after January
7 1, 2010, shall—

8 “(A) for standard size dishwashers not exceed
9 355 kwh/year and 6.5 gallon per cycle; and

10 “(B) for compact size dishwashers not exceed
11 260 kwh/year and 4.5 gallons per cycle.

12 “(12) No later than January 1, 2015, the Secretary
13 shall publish a final rule determining whether to amend
14 the standards for dishwashers manufactured on or after
15 January 1, 2018. Such rule shall contain such amend-
16 ment, if any.”.

17 (3) ENERGY CONSERVATION STANDARD.—Sec-
18 tion 321(6)(A) (42 U.S.C. 6291(6)(A)) is amended
19 by striking “or, in the case of” and inserting “and,
20 in the case of residential clotheswashers, residential
21 dishwashers,”.

22 (4) REFRIGERATORS AND FREEZERS.—Section
23 325(b) (42 U.S.C. 6295(b)) is amended by adding
24 at the end the following new paragraph:

1 “(4) Not later than December 31, 2010, the Sec-
2 retary shall publish a final rule determining whether to
3 amend the standards in effect for refrigerators, refrig-
4 erator-freezers, and freezers manufactured on or after
5 January 1, 2014. Such rule shall contain such amend-
6 ment, if any.”.

7 (b) ENERGY STAR.—Section 324A(d)(2) of the En-
8 ergy Policy and Conservation Act (42 U.S.C. 6294a(d)(2))
9 is amended by striking “January 1, 2010” and inserting
10 “July 1, 2009”.

11 **SEC. 102. ELECTRIC MOTOR EFFICIENCY STANDARDS.**

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

15 (1) by redesignating subparagraphs (B)
16 through (H) as subparagraphs (C) through (I), re-
17 spectively; and

18 (2) by striking the text of subparagraph (A)
19 and inserting the following: “The term ‘general pur-
20 pose electric motor (subtype I)’ means any motor
21 that meets the definition of ‘General Purpose’ as es-
22 tablished in the final rule issued by the Department
23 of Energy for ‘Energy Efficiency Program for Cer-
24 tain Commercial and Industrial Equipment: Test
25 Procedures, Labeling, and Certification Require-

1 ments for Electric Motors’ (10 C.F.R. 431), as in ef-
2 fect on the date of enactment of the [short title].

3 “(B) The term ‘general purpose electric motor
4 (subtype II)’ means motors incorporating the design ele-
5 ments of a general purpose electric motor (subtype I) that
6 are configured as one of the following:

7 “(i) U-Frame Motors.

8 “(ii) Design C Motors.

9 “(iii) Close-coupled pump motors.

10 “(iv) Footless motors.

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

13 “(vi) 8-pole motors (~900 rpm).

14 “(vii) All poly-phase motors with voltages up to
15 600 volts other than 230/460 volts.”.

16 (b) STANDARDS.—Section 342(b) of the Energy Pol-
17 icy and Conservation Act (42 U.S.C. 6313(b)) is amended
18 by striking the text of paragraph (1) and inserting the
19 following: “(A) Each general purpose electric motor
20 (subtype I), except as provided in subparagraph (B), with
21 a power rating of 1 horsepower or greater, but not greater
22 than 200 horsepower, manufactured (alone or as a compo-
23 nent of another piece of equipment) after the 36-month
24 period beginning on the date of enactment of the [short

1 title], shall have a nominal full load efficiency not less
2 than as defined in NEMA MG-1 (2006) table 12-12.

3 “(B) Each fire pump motor manufactured (alone or
4 as a component of another piece of equipment) after the
5 36-month period beginning on the date of enactment of
6 the [short title], shall have nominal full load efficiency not
7 less than as defined in NEMA MG-1 (2006) table 12-
8 11.

9 “(C) Each general purpose electric motor (subtype
10 II) with a power rating of 1 horsepower or greater, but
11 not greater than 200 horsepower, manufactured (alone or
12 as a component of another piece of equipment) after the
13 36-month period beginning on the date of enactment of
14 the [short title], shall have a nominal full load efficiency
15 not less than as defined in NEMA MG-1 (2006) table 12-
16 11.

17 “(D) Each NEMA Design B, general purpose electric
18 motor with a power rating of more than 200 horsepower,
19 but not greater than 500 horsepower, manufactured
20 (alone or as a component of another piece of equipment)
21 after the 36-month period beginning on the date of enact-
22 ment of the [short title], shall have a nominal full load
23 efficiency not less than as defined in NEMA MG-1 (2006)
24 table 12-11.”.

1 **SEC. 103. RESIDENTIAL BOILERS.**

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

4 (1) in the subsection heading, by inserting
 5 “AND BOILERS” after “FURNACES”;

6 (2) in paragraph (1), by striking “except that”
 7 and all that follows through “(B)” and inserting
 8 “except that”;

9 (3) by redesignating paragraph (3) as para-
 10 graph (4); and

11 (4) by inserting after paragraph (2) the fol-
 12 lowing:

13 “(3) BOILERS.—

14 “(A) IN GENERAL.—Subject to subparagraph
 15 (B), boilers manufactured on or after September 1,
 16 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 |
| Oil Hot Water | 84% | Automatic Means for Adjusting Temperature |
| Oil Steam | 82% | None |

| Boiler Type | Minimum Annual Fuel Utilization Efficiency | Design Requirements |
|--------------------------|--|---|
| Electric Hot Water | None | Automatic Means for Adjusting Temperature |
| Electric Steam | None | None |

1 “(B) AUTOMATIC MEANS FOR ADJUSTING
2 WATER TEMPERATURE.—

3 “(i) IN GENERAL.—The manufacturer
4 shall equip each gas, oil and electric hot water
5 boiler, except boilers equipped with tankless do-
6 mestic water heating coils, with automatic
7 means for adjusting the temperature of the
8 water supplied by the boiler to ensure that an
9 incremental change in inferred heat load pro-
10 duces a corresponding incremental change in
11 the temperature of water supplied.

12 “(ii) SINGLE INPUT RATE.—For a boiler
13 that fires at one input rate this requirement
14 may be satisfied by providing an automatic
15 means that allows the burner or heating ele-
16 ment to fire only when such means has deter-
17 mined that the inferred heat load cannot be met
18 by the residual heat of the water in the system.

19 “(iii) NO INFERRED HEAT LOAD.—When
20 there is no inferred heat load with respect to a
21 hot water boiler, the automatic means described

1 in clause (i) and (ii) shall limit the temperature
2 of the water in the boiler to not more than 140
3 degrees Fahrenheit.

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

8 **SEC. 104. REGIONAL VARIATIONS IN HEATING OR COOLING**
9 **STANDARDS.**

10 (a) CONSUMER APPLIANCES.—Section 325(o) of the
11 Energy Policy and Conservation Act (42 U.S.C. 6925(o))
12 is amended by adding at the end the following new para-
13 graph:

14 “(6)(A) The Secretary may establish regional stand-
15 ards for space heating and air conditioning products, other
16 than window-unit air-conditioners and portable space
17 heaters. For each space heating and air conditioning prod-
18 uct, the Secretary may establish a national minimum
19 standard and two more stringent regional standards for
20 regions determined to have significantly differing climatic
21 conditions. Any standards set for any such region shall
22 achieve the maximum level of energy savings that are tech-
23 nically feasible and economically justified within that re-
24 gion. As a preliminary step to determining the economic
25 justifiability of establishing any such regional standard,

1 the Secretary shall conduct a study involving stakeholders,
2 including but not limited to a representative from the Na-
3 tional Institute of Standards and Technology; representa-
4 tives of nongovernmental advocacy organizations; rep-
5 resentatives of product manufacturers, distributors, and
6 installers; representatives of the gas and electric utility in-
7 dustries; and such other individuals as the Secretary may
8 designate. Such study shall determine the potential bene-
9 fits and consequences of prescribing regional standards for
10 heating and cooling products, and may, if favorable to
11 such standards, constitute the evidence of economic justifi-
12 ability required under this Act. Regional boundaries shall
13 follow State borders and only include contiguous States
14 (except Alaska and Hawaii), except that on the request
15 of a State, the Secretary may divide that State to include
16 a part of that State in each of two regions.

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

21 “(C)(i) Except as provided in clause (ii), no product
22 manufactured to a regional standard established pursuant
23 to subparagraph (A) shall be distributed in commerce
24 without a prominent label affixed to the product which in-
25 cludes at the top of the label, in print of not less than

1 14-point type, the following: ‘It is a violation of Federal
2 law for this product to be installed in any State outside
3 the region shaded on the map printed on this label.’.
4 Below this notice shall appear a map of the United States
5 with clearly defined State boundaries and names, and with
6 all States in which the product meets or exceeds the stand-
7 ard established pursuant to subparagraph (A) shaded in
8 a color or a manner as to be easily visible without obscur-
9 ing the State boundaries and names. Below the map shall
10 be printed on each label the following: ‘It is a violation
11 of Federal law for this label to be removed, except by the
12 owner and legal resident of any single-family home in
13 which this product is installed.’.

14 “(ii) A product manufactured that meets or exceeds
15 all regional standards established under this paragraph
16 shall bear a prominent label affixed to the product which
17 includes at the top of the label, in print of not less than
18 14-point type the following: ‘This product has achieved an
19 energy efficiency rating under Federal law allowing its in-
20 stallation in any State.’.

21 “(D) Manufacturers of space heating and air condi-
22 tioning equipment subject to regional standards estab-
23 lished under this paragraph shall obtain and retain
24 records on the intended installation locations of the equip-

1 ment sold, and shall make such records available to the
2 Secretary on request.”.

3 (b) INDUSTRIAL EQUIPMENT.—Section 342(a) of the
4 Energy Policy and Conservation Act (42 U.S.C. 6313(a))
5 is amended by adding at the end the following new para-
6 graph:

7 “(10)(A) The Secretary may establish regional stand-
8 ards for space heating and air conditioning products sub-
9 ject to this subsection. For each space heating and air con-
10 ditioning product, the Secretary may establish a national
11 minimum standard and two more stringent regional stand-
12 ards for regions determined to have significantly differing
13 climatic conditions. Any standards set for any such region
14 shall achieve the maximum level of energy savings that
15 are technically feasible and economically justified within
16 that region. Regional boundaries shall follow State borders
17 and only include contiguous States (except Alaska and
18 Hawaii), except that on the request of a State, the Sec-
19 retary may divide that State to include a part of that State
20 in each of two regions.

21 “(B) If the Secretary establishes regional standards,
22 it shall be unlawful under section 345 to offer for sale
23 at retail, sell at retail, or install noncomplying products
24 except within the specified regions.

1 “(C) Manufacturers of space heating and air condi-
2 tioning equipment subject to regional standards estab-
3 lished under this paragraph shall obtain and retain
4 records on the intended installation locations of the equip-
5 ment sold, and shall make such records available to the
6 Secretary on request.”.

7 **SEC. 105. PROCEDURE FOR PRESCRIBING NEW OR AMEND-**
8 **ED STANDARDS.**

9 Section 325(p) of the Energy Policy and Conserva-
10 tion Act (42 U.S.C. 6925(p)) is amended—

11 (1) by striking paragraph (1); and

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

14 **SEC. 106. EXPEDITING APPLIANCE STANDARDS**
15 **RULEMAKINGS.**

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

19 “(5) If manufacturers of any type (or class) of
20 covered products or covered equipment, States, and
21 efficiency advocates, or persons determined by the
22 Secretary to fully represent such parties, submit to
23 the Secretary a joint recommendation of an energy
24 or water conservation standard and the Secretary
25 determines that the recommended standard complies

1 with subsection (o) or section 342(a)(6)(B), as appli-
2 cable, to that type (or class) of covered products or
3 covered equipment to which the standard would
4 apply, the Secretary may then issue a direct final
5 rule including the standard recommended. If the
6 Secretary determines that a direct final rule cannot
7 be issued based on such a submitted joint rec-
8 ommendation, the Secretary shall publish a deter-
9 mination with an explanation as to why the joint
10 recommendation does not comply with this para-
11 graph. For purposes of this paragraph, the term ‘di-
12 rect final rule’ means a final rule published the same
13 day with a parallel notice of proposed rulemaking
14 that proposes a new or amended energy or water
15 conservation standard that is identical to the stand-
16 ard set forth in the final rule. There shall be a 110-
17 day period for public comment with respect to the
18 direct final rule. Not later than 10 days after the ex-
19 piration of such 110-day period, the Secretary shall
20 publish a notice responding to comments received
21 with respect to the direct final rule. The Secretary
22 shall withdraw a direct final rule promulgated pur-
23 suant to this paragraph within 120 days after publi-
24 cation in the Federal Register if the Secretary re-
25 ceives, with respect to the direct final rule, one or

1 more adverse public comments or any alternate joint
2 recommendation and, based on the rulemaking
3 record, the Secretary determines that such adverse
4 comments or alternate joint recommendation may
5 provide a reasonable basis for withdrawing the direct
6 final rule under subsection (o), section 342(a)(6)(B),
7 or any applicable law. In such a case, the Secretary
8 shall then proceed with the parallel notice of pro-
9 posed rulemaking, and shall identify in a notice pub-
10 lished in the Federal Register the reasons for the
11 withdrawal of the direct final rule. A direct final rule
12 that is withdrawn in accordance with this paragraph
13 shall not be considered final for purposes of sub-
14 section (o)(1) of this section. No person shall be
15 found in violation of this part for noncompliance
16 with a direct final rule that is withdrawn under this
17 paragraph, if that person has complied with the ap-
18 plicable standard in effect under this part imme-
19 diately prior to issuance of that direct final rule.”.

20 (b) CONFORMING AMENDMENT.—Section 345(b)(1)
21 of the Energy Policy and Conservation Act (42 U.S.C.
22 6316(b)(1)) is amended by inserting after “section” the
23 first time it appears “325(p)(5), section”.

1 **SEC. 107. CORRECTION OF LARGE AIR CONDITIONER RULE**
2 **ISSUANCE CONSTRAINT.**

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

6 “(22) The term ‘single package vertical air con-
7 ditioner’ means air-cooled commercial package air
8 conditioning and heating equipment; factory assem-
9 bled as a single package having its major compo-
10 nents arranged vertically, which is an encased com-
11 bination of cooling and optional heating components,
12 is intended for exterior mounting on, adjacent inte-
13 rior to, or through an outside wall; and is powered
14 by a single- or three-phase current. It may contain
15 separate indoor grille(s), outdoor louvers, various
16 ventilation options, indoor free air discharge, duct-
17 work, well plenum, or sleeve. Heating components
18 may include electrical resistance, steam, hot water,
19 or gas, but may not include reverse cycle refrigera-
20 tion as a heating means.

21 “(23) The term ‘single package vertical heat
22 pump’ means a single package vertical air condi-
23 tioner that utilizes reverse cycle refrigeration as its
24 primary heat source, that may include secondary
25 supplemental heating by means of electrical resist-
26 ance, steam, hot water, or gas.”.

1 (b) STANDARDS.—Section 342(a) of the Energy Pol-
2 icy and Conservation Act (42 U.S.C. 6313(a)) is amend-
3 ed—

4 (1) in each of paragraphs (1) and (2), by in-
5 serting after “heating equipment” in the first sen-
6 tence “, including single package vertical air condi-
7 tioners and single package vertical heat pumps,”;

8 (2) in paragraph (1), by striking “but before
9 January 1, 2010,”;

10 (3) in paragraph (6)(A)(i), by striking “Janu-
11 ary 1, 2010,” and inserting “October 24, 1992”;

12 (4) in paragraph (6)(A)(ii)—

13 (A) by striking “5” and inserting “2”; and

14 (B) by striking “the effective date of a
15 standard” and inserting “January 10, 2010, or
16 beginning on the effective date of the most re-
17 cent revision made under clause (i) of this sub-
18 paragraph,”; and

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

21 “(iii) The Secretary may only initiate a rulemaking
22 under clause (ii) of this subparagraph for a particular
23 product so long as any standard established under a pre-
24 vious rulemaking with respect to that product has become
25 effective.”;

1 (5) in each of paragraphs (7), (8), and (9), by
2 inserting after “heating equipment” in the first sen-
3 tence “, excluding single package vertical air condi-
4 tioners and single package vertical heat pumps,”;

5 (6) in paragraph (7)—

6 (A) by striking “manufactured on or after
7 January 1, 2010”;

8 (B) in each of subparagraphs (A), (B), and
9 (C), by adding at the beginning “For equip-
10 ment manufactured on or after January 1,
11 2010,”; and

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

14 “(D) For equipment manufactured on or after
15 the later of January 1, 2008, or the date six months
16 after enactment of this section, the minimum sea-
17 sonal energy efficiency ratio of air-cooled three-phase
18 electric central air conditioners and central air con-
19 ditioning heat pumps less than 65,000 Btu per hour
20 (cooling capacity), split systems, shall be 13.0.

21 “(E) For equipment manufactured on or after
22 the later of January 1, 2008, or the date six months
23 after enactment of this section, minimum seasonal
24 energy efficiency ratio of air-cooled three-phase elec-
25 tric central air conditioners and central air condi-

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

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

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

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

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

22 “(A) The minimum energy efficiency ratio of
23 single package vertical air conditioners less than
24 65,000 Btu per hour (cooling capacity), single-
25 phase, shall be 9.0.

1 “(B) The minimum energy efficiency ratio of
2 single package vertical air conditioners less than
3 65,000 Btu per hour (cooling capacity), three-phase,
4 shall be 9.0.

5 “(C) The minimum energy efficiency ratio of
6 single package vertical air conditioners at or above
7 65,000 Btu per hour (cooling capacity) but less than
8 135,000 Btu per hour (cooling capacity), shall be
9 8.9.

10 “(D) The minimum energy efficiency ratio of
11 single package vertical air conditioners at or above
12 135,000 Btu per hour (cooling capacity) but less
13 than 240,000 Btu per hour (cooling capacity), shall
14 be 8.6.

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

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

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

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

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

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

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

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

1 quantity of water use, determined in
2 accordance with those test procedures.

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

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

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

9 “(II) as part of a consensus
10 agreement under section 325(hh); and

11 “(ii) any other requirements that the
12 Secretary may prescribe under section
13 325(r).

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

20 **SEC. 109. IMPROVING SCHEDULE FOR STANDARDS UPDAT-**
21 **ING AND CLARIFYING STATE AUTHORITY.**

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

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

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

9 “(B) a notice of proposed rulemaking including
10 new proposed standards based on the criteria in sub-
11 section (o) and the procedures in subsection (p).

12 In either case, the Secretary shall also publish a notice
13 stating that the Department’s analysis is publicly avail-
14 able, and provide opportunity for written comment.

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

21 “(3) An amendment prescribed under this subsection
22 shall apply to products manufactured after a date which
23 is 3 years after publication of the final rule establishing
24 a standard, except that a manufacturer shall not be re-
25 quired to apply new standards to a product with respect

1 to which other new standards have been required within
2 the prior 6 years.

3 “(4) The Secretary shall promptly submit to the
4 Committee on Energy and Commerce of the House of
5 Representatives and the Committee on Energy and Nat-
6 ural Resources of the Senate—

7 “(A) a progress report every 180 days on com-
8 pliance with this section, including a specific plan to
9 remedy any failures to comply with deadlines for ac-
10 tion set forth in this section; and

11 “(B) all required reports to the Court or to any
12 party to the Consent Decree in State of New York
13 v. Bodman, Consolidated Civil Actions No. 05 Civ.
14 7807 and No. 05 Civ. 7808.”.

15 (b) INDUSTRIAL EQUIPMENT.—Section 342(a)(6) of
16 the Energy Policy and Conservation Act (42 U.S.C.
17 6313(a)(6)) is amended—

18 (1) by redesignating subparagraph (C) as sub-
19 paragraph (D); and

20 (2) by amending the remainder of the para-
21 graph to read as follows:

22 “(6)(A) If ASHRAE/IES Standard 90.1 is
23 amended with respect to any small, large, or very
24 large commercial package air conditioning and heat-
25 ing equipment, packaged terminal air conditioners,

1 packaged terminal heat pumps, warm-air furnaces,
2 packaged boilers, storage water heaters, instanta-
3 neous water heaters, or unfired hot water storage
4 tanks, the Secretary shall within 6 months publish
5 in the Federal Register for public comment an anal-
6 ysis of the energy savings potential of the amended
7 energy efficiency standards. The Secretary shall es-
8 tablish an amended uniform national standard for
9 that product at the minimum level for each effective
10 date specified in the amended ASHRAE/IES Stand-
11 ard 90.1 within 18 months of the ASHRAE amend-
12 ment’s publication, unless the Secretary determines,
13 by rule published in the Federal Register, and sup-
14 ported by clear and convincing evidence, that adop-
15 tion of a uniform national standard more stringent
16 than such amended ASHRAE/IES Standard 90.1
17 for such product would result in significant addi-
18 tional conservation of energy and is technologically
19 feasible and economically justified.

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

24 “(C)(i) Not later than 6 years after issuance of
25 any final rule establishing or amending a standard,

1 as required for a product under this part, the Sec-
2 retary shall publish either—

3 “(I) a notice of the Secretary’s determina-
4 tion that standards for that product do not
5 need to be amended, based on the criteria in
6 subparagraph (A); or

7 “(II) a notice of proposed rulemaking in-
8 cluding new proposed standards based on the
9 criteria and procedures in subparagraph (B).

10 In either case, the Secretary shall also publish a no-
11 tice stating that the Department’s analysis is pub-
12 licly available, and provide opportunity for written
13 comment.

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

21 “(iii) An amendment prescribed under this
22 subparagraph shall apply to products manufac-
23 tured after a date which is 3 years after publi-
24 cation of the final rule establishing a standard,
25 except that a manufacturer shall not be re-

1 required to apply new standards to a product
2 with respect to which other new standards have
3 been required within the prior 6 years.

4 “(iv) The Secretary shall promptly submit
5 to the House Committee on Energy and Com-
6 merce and to the Senate Committee on Energy
7 and Natural Resources a progress report every
8 180 days on compliance with this paragraph,
9 including a specific plan to remedy any failures
10 to comply with deadlines for action set forth in
11 this paragraph.”.

12 **SEC. 110. UPDATING APPLIANCE TEST PROCEDURES.**

13 (a) CONSUMER APPLIANCES.—Section 323(b)(1)(A)
14 of the Energy Policy and Conservation Act (42 U.S.C.
15 6923(b)(1)(A)) is amended by striking “The Secretary
16 may” and all that follows through “paragraph (3)” and
17 inserting “At least every 7 years the Secretary shall review
18 test procedures for all covered products and shall—

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

24 “(ii) publish notice in the Federal Register of
25 any determination not to amend a test procedure”.

1 (b) INDUSTRIAL EQUIPMENT.—Section 343(a)(1) of
2 the Energy Policy and Conservation Act (42 U.S.C.
3 6314(a)(1)) is amended by striking “The Secretary may”
4 and all that follows through “this section” and inserting
5 “At least every 7 years the Secretary shall conduct an
6 evaluation of each class of covered equipment and—

7 “(B) if the Secretary determines that amended
8 test procedures would more accurately or fully com-
9 ply with the requirements of paragraphs (2) and (3),
10 shall prescribe test procedures for such class in ac-
11 cordance with the provisions of this section; or

12 “(C) shall publish notice in the Federal Reg-
13 ister of any determination not to amend a test pro-
14 cedure”.

15 **SEC. 111. FURNACE FAN STANDARD PROCESS.**

16 Section 325(f)(3)(D) of the Energy Policy and Con-
17 servation Act (42 U.S.C. 6295(f)(3)(D)) is amended—

18 (1) by striking “may” and inserting “shall”; and

19 (2) by inserting “not later than July 1, 2013” after
20 “duct work”.

21 **SEC. 112. TECHNICAL CORRECTIONS.**

22 (a) Section 135(a)(1)(A)(ii) of the Energy Policy Act
23 of 2005 (Public Law 109–58) is amended by striking
24 “C78.1–1978(R1984)” and inserting “C78.3–
25 1978(R1984)”.

1 (b) Section 325 of the Energy Policy and Conserva-
2 tion Act (42 U.S.C. 6295) (as amended by section
3 135(e)(4) of the Energy Policy Act of 2005) is amended—

4 (1) in subsection (v)—

5 (A) in the subsection heading, by striking
6 “CEILING FANS AND”;

7 (B) by striking paragraph (1); and

8 (C) by redesignating paragraphs (2)
9 through (4) as paragraphs (1) through (3), re-
10 spectively; and

11 (2) in subsection (ff)—

12 (A) in paragraph (1)(A)—

13 (i) by striking clause (iii);

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

16 (iii) in clause (iii)(II) (as so redesign-
17 ated), by inserting “fans sold for” before
18 “outdoor”; and

19 (B) in paragraph (4)(C)—

20 (i) in the matter preceding clause (i),
21 by striking “subparagraph (B)” and in-
22 serting “subparagraph (A)”;

23 (ii) by striking clause (ii) and insert-
24 ing the following:

1 “(ii) shall be packaged with lamps to fill all
2 sockets.”;

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

6 (D) in paragraph (7), by striking “327”
7 the second place it appears and inserting
8 “324”.

9 **SEC. 113. ENERGY EFFICIENT STANDBY POWER DEVICES.**

10 (a) DEFINITIONS.—In this section:

11 (1) AGENCY.—

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

15 (B) INCLUSIONS.—The term “agency” in-
16 cludes military departments, as the term is de-
17 fined in section 102 of title 5, United States
18 Code.

19 (2) ELIGIBLE PRODUCT.—The term “eligible
20 product” means a commercially available, off-the-
21 shelf product that—

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

23 or

24 (ii) contains an internal standby power
25 function; and

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

3 (b) FEDERAL PURCHASING REQUIREMENT.—Subject
4 to subsection (c), if an agency purchases an eligible prod-
5 uct, the agency shall purchase—

6 (1) an eligible product that uses not more than
7 1 watt in the standby power consuming mode of the
8 eligible product; or

9 (2) if an eligible product described in paragraph
10 (1) is not available, the eligible product with the low-
11 est available standby power wattage in the standby
12 power consuming mode of the eligible product.

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

15 (1) the lower-wattage eligible product is—

16 (A) lifecycle cost-effective; and

17 (B) practicable; and

18 (2) the utility and performance of the eligible
19 product is not compromised by the lower wattage re-
20 quirement.

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

1 **SEC. 114. EXTERNAL POWER SUPPLY EFFICIENCY STAND-**
2 **ARDS.**

3 (a) Section 321 of the Energy Policy and Conserva-
4 tion Act (42 U.S.C. 6291) is amended—

5 (1) in paragraph (36) by inserting “(A)” before
6 the text and adding at the end the following:

7 “(B) The term ‘class A external power
8 supply’ means a device that—

9 “(i) is designed to convert line voltage
10 AC input into lower voltage AC or DC out-
11 put;

12 “(ii) is able to convert to only one AC
13 or DC output voltage at a time;

14 “(iii) is sold with, or intended to be
15 used with, a separate end-use product that
16 constitutes the primary load;

17 “(iv) is contained in a separate phys-
18 ical enclosure from the end-use product;

19 “(v) is connected to the end-use prod-
20 uct via a removable or hard-wired male/fe-
21 male electrical connection, cable, cord or
22 other wiring; and

23 “(vi) has nameplate output power less
24 than or equal to 250 watts.

25 “(C) The term ‘class A external power
26 supply’ does not include any device that—

1 “(i) requires Federal Food and Drug
2 Administration listing and approval as a
3 medical device, as described under section
4 513 of the Food, Drug, and Cosmetic Act
5 of 1938; or

6 “(ii) powers the charger of a detach-
7 able battery pack or charges the battery of
8 a product that is fully or primarily motor
9 operated.

10 “(D) The term ‘active mode’ means the
11 mode of operation when an external power sup-
12 ply is connected to the main electricity supply
13 and the output is connected to a load.

14 “(E) The term ‘no-load mode’ means the
15 mode of operation when an external power sup-
16 ply is connected to the main electricity supply
17 and the output is not connected to a load.”

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

19 “(52) The term ‘detachable battery’ means a
20 battery that is contained in a separate enclosure
21 from the product and is intended to be removed or
22 disconnected from the product for recharging.”.

23 (b) Section 323 of the Energy Policy and Conserva-
24 tion Act (42 U.S.C. 6293) is amended in subsection (b)
25 by adding at the end the following:

1 “(16) Test procedures for class A external
 2 power supplies shall be based upon the U.S. Envi-
 3 ronmental Protection Agency’s ‘Test Method for
 4 Calculating the Energy Efficiency of Single-Voltage
 5 External AC–DC and AC–AC Power Supplies’, Au-
 6 gust 11, 2004, provided that the test voltage speci-
 7 fied in section 4(d) of such test method shall be only
 8 115 volts, 60 Hz.”.

9 (c) Section 325 of the Energy Policy and Conserva-
 10 tion Act (42 U.S.C. 6295) is amended in subsection (u)
 11 by adding at the end the following:

12 “(6) EFFICIENCY STANDARDS FOR CLASS A EX-
 13 TERNAL POWER SUPPLIES.—

14 “(A) Class A external power supplies man-
 15 ufactured on or after July 1, 2008 (or the date
 16 of enactment of this paragraph, if later) shall
 17 meet the following standards:

| “Active Mode | |
|--|---|
| “Nameplate Output | Required Efficiency (decimal equivalent of a percentage) |
| Less than 1 watt | 0.5 times the Nameplate Output |
| From 1 watt to not more than 51 watts | The sum of 0.09 times the Natural Logarithm of the Nameplate Output and 0.5 |
| Greater than 51 watts | 0.85 |
| “No-Load Mode | |
| “Nameplate Output | Maximum Consumption |
| Not more than 250 watts | 0.5watts |

1 “(B) Notwithstanding paragraph (A), any
2 class A external power supply manufactured on
3 or after July 1, 2008, and before July 1, 2015,
4 and made available by the manufacturer as a
5 service part or a spare part for an end-use
6 product—

7 “(i) that constitutes the primary load;

8 and

9 “(ii) was manufactured before July 1,
10 2008,

11 shall not be subject to the requirements of
12 paragraph (A).

13 “(C) Any class A external power supply
14 manufactured on or after July 1, 2008 (or the
15 date of enactment of this paragraph, if later)
16 shall be clearly and permanently marked in ac-
17 cordance with the External Power Supply Inter-
18 national Efficiency Marking Protocol, as ref-
19 erenced in the ‘Energy Star Program Require-
20 ments for Single Voltage External AC–DC and
21 AC–AC Power Supplies, version 1.1’ published
22 by the Environmental Protection Agency.

23 “(D)(i) Not later than July 1, 2011 the
24 Secretary shall publish a final rule to determine
25 whether the standards established under para-

1 graph (A) should be amended. Such rule shall
2 provide that any amended standard shall apply
3 to products manufactured on or after July 1,
4 2013.

5 “(ii) Not later than July 1, 2015 the Sec-
6 retary shall publish a final rule to determine
7 whether the standards established under para-
8 graph (A) should be amended. Such rule shall
9 provide that any amended standard shall apply
10 to products manufactured on or after July 1,
11 2017.

12 “(7) An energy conservation standard for exter-
13 nal power supplies shall not constitute an energy
14 conservation standard for the separate end-use prod-
15 uct to which it is connected.”.

16 **SEC. 115. STANDBY MODE.**

17 (a) CONSUMER APPLIANCE REQUIREMENT.—Section
18 325 of the Energy Policy and Conservation Act (42 U.S.C.
19 6295) is amended by adding at the end the following new
20 subsection:

21 “(ii) STANDBY MODE.—

22 “(1) REQUIREMENT.—Except as provided in
23 paragraph (2), any final rule adopted after July 1,
24 2012, to set a new or revised energy efficiency
25 standard for a covered product shall specify that a

1 covered product manufactured on or after the effective date of such new or revised standard shall, when
2 in standby mode, operate with not more than 1 watt
3 of electric power.

4
5 “(2) EXCEPTIONS.—

6 “(A) EXTENSIONS.—The Secretary may
7 provide a single extension of up to 2 years for
8 compliance with paragraph (1) with respect to
9 a covered product if the Secretary finds that
10 such extension is appropriate.

11 “(B) EXEMPTIONS.—The Secretary may
12 provide an exemption from the requirement
13 under paragraph (1) for a covered product,
14 after public notice and opportunity for comment,
15 if the Secretary finds that—

16 “(i) achieving the requirement is not
17 technologically feasible and economically
18 justified for that covered product; or

19 “(ii) such an exemption is warranted
20 for medical or military reasons.

21 Any exemption provided under this subparagraph shall be reviewed at least once every 5
22 years.”.

23
24 (b) CONSUMER APPLIANCE TEST PROCEDURES.—

25 Section 323(b) of the Energy Policy and Conservation Act

1 (42 U.S.C. 6293(b)) is amended by adding at the end the
2 following new paragraph:

3 “(17) Not later than July 1, 2009, the Secretary
4 shall issue a final rule establishing test procedures for
5 standby power consumption for all covered products, ex-
6 cept for products for which the current test procedure al-
7 ready measures standby power consumption.”.

8 (c) REPEAL.—

9 (1) IN GENERAL.—Section 325(u) of the En-
10 ergy Policy and Conservation Act (42 U.S.C.
11 6295(u)) is amended—

12 (A) by striking paragraph (2); and

13 (B) by redesignating paragraphs (3)
14 through (5) as paragraphs (2) through (4), re-
15 spectively.

16 (2) EFFECTIVE DATE.—The amendments made
17 by paragraph (1) shall take effect on the date de-
18 scribed in section 325(ii)(I) of the Energy Policy
19 and Conservation Act as, added by subsection (a) of
20 this section.

21 (d) INDUSTRIAL EQUIPMENT REQUIREMENT.—Sec-
22 tion 342 of the Energy Policy and Conservation Act (42
23 U.S.C. 6313) is amended by adding at the end the fol-
24 lowing new subsection:

25 “(f) STANDBY POWER.—

1 “(1) REQUIREMENT.—Except as provided in
2 paragraph (2), any final rule adopted after July 1,
3 2012, to set a new or revised energy efficiency
4 standard for covered equipment shall specify that
5 covered equipment manufactured on or after the ef-
6 fective date of such new or revised standard shall,
7 when in standby mode, operate with not more than
8 1 watt of electric power.

9 “(2) EXCEPTIONS.—

10 “(A) EXTENSIONS.—The Secretary may
11 provide a single extension of up to 5 years for
12 compliance with paragraph (1) with respect to
13 a covered equipment if the Secretary finds that
14 such extension is appropriate.

15 “(B) EXEMPTIONS.—The Secretary may
16 provide an exemption from the requirement
17 under paragraph (1) for covered equipment,
18 after public notice and opportunity for com-
19 ment, if the Secretary finds that—

20 “(i) achieving the requirement is not
21 technologically feasible and economically
22 justified for that covered equipment; or

23 “(ii) such an exemption is warranted
24 for medical or military reasons.

1 Any exemption provided under this subpara-
2 graph shall be reviewed at least once every 5
3 years.”.

4 (e) INDUSTRIAL EQUIPMENT TEST PROCEDURES.—
5 Section 343(a) of the Energy Policy and Conservation Act
6 (42 U.S.C. 6314(a)) is amended by adding at the end the
7 following new paragraph:

8 “(9) Not later than July 1, 2009, the Secretary shall
9 issue a final rule establishing test procedures for standby
10 power consumption for all covered equipment, except for
11 equipment for which the current test procedure already
12 measures standby power consumption.”.

13 **Subtitle B—Lighting Efficiency**

14 **SEC. 121. EFFICIENT LIGHT BULBS.**

15 (a) PROHIBITION.—

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

19 (A) prohibiting the sale of 100 watt gen-
20 eral service incandescent lamps after January
21 1, 2012, unless those lamps emit at least 60
22 lumens per watt;

23 (B) prohibiting the sale of general service
24 lamps manufactured after the effective dates
25 shown in the table below that do not meet the

1 minimum efficacy levels (lumens/watt) shown in
2 the following table:

Minimum Efficacy Levels and Effective Dates

| Lumen Range (Lumens) | Minimum Efficacy (Lumens/Watt) | Effective Dates |
|----------------------|--------------------------------|-----------------|
| 200–449 | 15 | 1/1/2014 |
| 450–699 | 17 | 1/1/2014 |
| 700–999 | 20 | 1/1/2013 |
| 1000–1500 | 22 | 1/1/2012 |
| 1501–3000 | 24 | 1/1/2012 |

3 (C) after January 1, 2020, prohibiting the
4 sale of general service lamps that emit less than
5 300 percent of the average lumens per watt
6 emitted by 100 watt incandescent general serv-
7 ice lamps that are commercially available as of
8 the date of enactment of this Act;

9 (D) establishing a minimum color ren-
10 dering index (CRI) of 80 or higher for all gen-
11 eral service lamps manufactured as of the effec-
12 tive dates in subparagraph (B); and

13 (E) prohibiting the manufacture or import
14 for sale in the United States of an adapter de-
15 vice designed to allow a lamp with a different
16 base to fit into a medium screw base socket
17 manufactured after January 1, 2009.

1 (2) EXEMPTIONS.—The regulations issued
2 under paragraph (1) shall include procedures for the
3 Secretary to exempt specialty lamps from the re-
4 quirements of paragraph (1). The Secretary may
5 provide such an exemption only in cases where the
6 Secretary finds, after a hearing and opportunity for
7 public comment, that it is not technically feasible to
8 serve a specialized lighting application, such as a
9 military, medical, public safety application, or in cer-
10 tified historic lighting applications using bulbs that
11 meet the requirements of paragraph (1). In addition,
12 the Secretary shall include as an additional criterion
13 that exempted products are unlikely to be used in
14 the general service lighting applications.

15 (3) ADDITIONAL LAMPS TYPES.—

16 (A) Manufacturers of rough service, vibra-
17 tion service, vibration resistant, appliance, shat-
18 ter resistant, and three-way lamps shall report
19 annual sales volume to the Secretary. If the
20 Secretary determines that annual sales volume
21 for any of these lamp types increases by 100
22 percent relative to 2009 sales in any later year,
23 then such lamps shall be subject to the fol-
24 lowing standards:

1 (i) Appliance lamps shall use no more
2 than 40 watts.

3 (ii) Rough service lamps shall use no
4 more than 40 watts.

5 (iii) Vibration service and vibration
6 resistant lamps shall use no more than 40
7 watts.

8 (iv) Three-way lamps shall comply
9 with the standards in paragraph (1) at
10 each level of rated lumen output.

11 (B) Rough service, vibration service, vibra-
12 tion resistant, appliance, shatter resistant, and
13 three-way lamps shall be available for sale at
14 retail in single packs only.

15 (4) CIVIL PENALTY.—The Secretary of Energy
16 shall include in regulations under this subsection a
17 schedule of appropriate civil penalties for violations
18 of the prohibitions under this subsection. Such pen-
19 alties shall be in an amount sufficient to ensure
20 compliance with this section.

21 (5) STATE PREEMPTION.—State standards for
22 general service lamps are preempted as of the date
23 of enactment of this Act, except—

24 (A) any State standard already enacted or
25 adopted as of the date of enactment of this Act

1 may be enforced until the Federal effective
2 dates for each lamp category, and such States
3 may modify existing State standards for general
4 service lamps to conform with the standards in
5 paragraph (1) at any time;

6 (B) any State standard identical to the
7 standards in paragraph (1)(B) with an effective
8 date no sooner than January 1, 2015; and

9 (C) any State standard identical to Fed-
10 eral standards, after such Federal standards
11 are in effect.

12 (6) DEFINITIONS.—For purposes of this sec-
13 tion, the following definitions apply:

14 (A) The term “general service lamp”
15 means a nonreflectorized lamp that—

16 (i) is intended for general service ap-
17 plications;

18 (ii) has a medium screw base;

19 (iii) has an initial lumen output no
20 less than 200 lumens and no more than
21 3000 lumens;

22 (iv) has an input voltage range at
23 least partially within 110 and 130 volts;

24 (v) has a A-15, A-19, A-21, A-23,
25 A-25, PS-25, PS-30, BT-14.5, BT-15,

1 CP-19, TB-19, CA-22, or similar shape
2 as defined in ANSI C78.20-2003; and

3 (vi) has a bulb finish of the frosted,
4 clear, soft white, modified spectrum, en-
5 hanced spectrum, full spectrum, or equiva-
6 lent type.

7 The following incandescent lamps are not gen-
8 eral service lamps: appliance, black light, bug,
9 colored, infrared, left-hand thread, marine, ma-
10 rine signal service, mine service, plant light, re-
11 flector, rough service, shatter resistant, sign
12 service, silver bowl, three-way, traffic signal,
13 and vibration service or vibration resistant.

14 (B) The term “appliance lamp” means any
15 lamp specifically designed to operate in a house-
16 hold appliance. Examples of appliance lamps in-
17 clude oven lamps, refrigerator lamps, and vacu-
18 um cleaner lamps.

19 (C) The term “black light lamp” means a
20 lamp that emits radiant energy in the UV-A
21 band (315–400 nm) and is designated and mar-
22 keted as a “black light”.

23 (D) The term “bug lamp” means a lamp
24 that contains a filter to suppress the blue and

1 green portions of the visible spectrum and is
2 designated and marketed as a “bug light”.

3 (E) The term “colored incandescent lamp”
4 means an incandescent lamp designated and
5 marketed as a colored lamp that has a CRI of
6 less than 50, as determined according to the
7 test method given in CIE publication 13.2, and
8 has a correlated color temperature less than
9 2,500K, or greater than 4,600K, where cor-
10 related color temperature is defined as the ab-
11 solute temperature of a blackbody whose chro-
12 maticity nearly resembles that of the light
13 source.

14 (F) The term “infrared lamp” means a
15 lamp that radiates predominately in the infra-
16 red region of the electromagnetic spectrum, and
17 where visible radiation is not of principal inter-
18 est.

19 (G) The term “lamp” means an electrical
20 appliance that includes a glass envelope and
21 produces optical radiation for the purpose of
22 visual illumination, designed to be installed into
23 a luminaire by means of an integral lamp-hold-
24 er. Types of lamps include incandescent, fluo-

1 rescent, and high intensity discharge (high
2 pressure sodium and metal halide).

3 (H) The term “left-handed thread lamp”
4 means a lamp on which the base screws into a
5 lamp socket in a counter-clockwise direction,
6 and screws out of a lamp socket in a clockwise
7 direction.

8 (I) The term “marine lamp” means a lamp
9 specifically designed and marketed to operate in
10 a marine application.

11 (J) The term “marine signal service lamp”
12 means a lamp specifically designed to provide
13 signals to marine vessels for seaway safety.

14 (K) The term “mine service lamp” means
15 a lamp specifically designed and marketed for
16 use in mine applications.

17 (L) The term “plant light lamp” means a
18 lamp that contains a filter to suppress yellow
19 and green portions of the spectrum and is des-
20 ignated and marketed as a “plant light”.

21 (M) The term “rough service lamp” means
22 a lamp that has a minimum of 5 supports with
23 filament configurations similar to but not lim-
24 ited to C7A, C11, C17, and C22 as listed in
25 Figure 6–12 of the 9th edition of the IESNA

1 Lighting handbook, where lead wires are not
2 counted as supports and that is designated and
3 marketed specifically for “rough service” appli-
4 cations.

5 (N) The term “shatter resistant lamp”
6 means a lamp with an external coating on the
7 bulb wall to resist breakage and which is des-
8 ignated and marketed as a shatter resistant
9 lamp.

10 (O) The term “showcase lamp” means a
11 lamp that has a tubular bulb with a conven-
12 tional screw base and which is designated and
13 marketed as a showcase lamp.

14 (P) The term “sign service lamp” means a
15 lamp of the vacuum type or gas-filled with suf-
16 ficiently low bulb temperature to permit ex-
17 posed outdoor use on high-speed flashing cir-
18 cuits. The designation shall be on the lamp
19 packaging, and marketing materials shall iden-
20 tify the lamp as being a sign service lamp.

21 (Q) The term “silver bowl lamp” means a
22 lamp that has a reflective coating applied di-
23 rectly to part of the bulb surface and that re-
24 flects light in a backward direction toward the
25 lamp base. The designation shall be on the

1 lamp packaging, and marketing materials shall
2 identify the lamp as being a silver bowl lamp or
3 similar designation.

4 (R) The term “three-way lamp” means a
5 lamp that employs two filaments, operated sep-
6 arately and in combination, to provide three
7 light levels. The designation shall be on the
8 lamp packaging, and marketing materials shall
9 identify the lamp as being a three-way lamp.

10 (S) The term “traffic signal lamp” means
11 a lamp that is designed with lifetime, wattage,
12 focal length, filament configuration, mounting,
13 lamp glass, and lamp base characteristics ap-
14 propriate for use in traffic signals.

15 (T) The term “vibration service lamp” or
16 “vibration resistant lamp” means a lamp with
17 filament configurations similar to but not lim-
18 ited to C-5, C-7A, or C-9, as listed in Figure
19 6-12 of the 9th Edition of the IESNA Lighting
20 Handbook. The lamp is designated and mar-
21 keted specifically for vibration service or vibra-
22 tion resistant applications. The designation
23 shall be on the lamp packaging, and marketing
24 materials shall identify the lamp as being vibra-
25 tion resistant or vibration service.

1 (b) INCENTIVE PLAN AND PUBLIC EDUCATION.—

2 (1) INCENTIVE PLAN.—Not later than 6
3 months after the date of enactment of this Act, the
4 Secretary of Energy shall transmit to the Congress
5 a plan for encouraging and providing incentives for
6 the domestic production of light bulbs by United
7 States manufacturers that meet the efficacy levels
8 shown in the table in subsection (a)(1)(B).

9 (2) LABELING RULEMAKING.—The Federal
10 Trade Commission shall conduct a rulemaking to
11 consider the effectiveness of current lamp labeling
12 requirements and to consider alternative labeling ap-
13 proaches that will help consumers to understand new
14 high-efficiency lamp products. Such labeling shall in-
15 clude, at a minimum, information on lighting output
16 (lumens), input power (watts), efficiency (lumens per
17 watt), lamp rated lifetime (hours), annual or lifetime
18 energy operating cost, and any hazardous materials
19 (such as mercury) that may be contained in lamp
20 products. The Federal Trade Commission shall com-
21 plete this rulemaking within one year after the date
22 of enactment of this Act.

23 (3) NATIONAL SALES DATA TRACKING SYS-
24 TEM.—The Secretary of Energy shall develop and
25 implement within one year after the date of enact-

1 ment of this Act a national sales data tracking sys-
2 tem in conjunction with the National Electrical
3 Manufacturers Association and other stakeholders
4 for lamp technologies, including Light Emitting Di-
5 odes, halogens, incandescents, and compact fluores-
6 cent lamps.

7 (c) REPORT ON MERCURY USE AND RELEASE.—Not
8 later than 1 year after the date of enactment of this Act,
9 the Secretary of Energy, in cooperation with the Adminis-
10 trator of the Environmental Protection Agency, shall sub-
11 mit to Congress a report describing recommendations re-
12 lating to the means by which the Federal Government may
13 reduce or prevent the release of mercury during the manu-
14 facture, transportation, storage, or disposal of general
15 service lamps.

16 **SEC. 122. INCANDESCENT REFLECTOR LAMPS.**

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

19 (1) in paragraph (30)(C)(ii)—

20 (A) in the matter preceding subclause

21 (I)—

22 (i) by striking “or similar bulb shapes
23 (excluding ER or BR)” and inserting “ER,
24 BR, BPAR, or similar bulb shapes”; and

1 (ii) by striking “2.75” and inserting
2 “2.25”; and

3 (B) by striking “is either—” and all that
4 follows through subclause (II) and inserting
5 “has a rated wattage that is greater than 40
6 watts.”; and

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

8 “(52) The term ‘BPAR incandescent reflector
9 lamp’ means a reflector lamp as shown in figure
10 C78.21–278 on page 32 of ANSI C78.21–2003.

11 “(53)(A) The term ‘BR incandescent reflector
12 lamp’ means a reflector lamp that has—

13 “(i) a bulged section below the major di-
14 ameter of the bulb and above the approximate
15 baseline of the bulb, as shown in figure 1 (RB)
16 on page 7 of ANSI C79.1–1994, incorporated
17 by reference in section 430.22 of title 10, Code
18 of Federal Regulations (as in effect on the date
19 of enactment of this paragraph); and

20 “(ii) a finished size and shape shown in
21 ANSI C78.21–1989, including the referenced
22 reflective characteristics in part 7 of ANSI
23 C78.21.

24 “(B) The term ‘BR30’ refers to a BR incandes-
25 cent reflector lamp with a diameter of 30/8ths of an

1 inch and the term ‘BR40’ refers to a BR incandescent reflector lamp with a diameter of 40/8ths of an
2 inch.
3

4 “(54)(A) The term ‘ER incandescent reflector
5 lamp’ means a reflector lamp that has—

6 “(i) an elliptical section below the major
7 diameter of the bulb and above the approximate
8 baseline of the bulb, as shown in figure 1 (RE)
9 on page 7 of ANSI C79.1–1994, incorporated
10 by reference in section 430.22 of title 10, Code
11 of Federal Regulations (as in effect on the date
12 of enactment of this paragraph); and

13 “(ii) a finished size and shape shown in
14 ANSI C78.21–1989, incorporated by reference
15 in section 430.22 of title 10, Code of Federal
16 Regulations (as in effect on the date of enact-
17 ment of this paragraph).

18 “(B) The term ‘ER30’ refers to an ER incan-
19 descent reflector lamp with a diameter of 30/8ths of
20 an inch and the term ‘ER40’ refers to an ER incan-
21 descent reflector lamp with a diameter of 40/8ths of
22 an inch.

23 “(55) The term ‘R20 incandescent reflector
24 lamp’ means a reflector lamp that has a face diame-

1 ter of approximately 2.5 inches, as shown in figure
2 1(R) on page 7 of ANSI C79.1–1994.”.

3 (b) STANDARDS FOR FLUORESCENT LAMPS AND IN-
4 CANDESCENT REFLECTOR LAMPS.—Section 325(i) of the
5 Energy Policy and Conservation Act (42 U.S.C. 6925(i))
6 is amended by striking paragraph (1) and inserting the
7 following:

8 “(1) STANDARDS.—

9 “(A) DEFINITION OF EFFECTIVE DATE.—

10 In this paragraph, except as specified in sub-
11 paragraphs (C) and (D), the term ‘effective
12 date’ means, with respect to each type of lamp
13 specified in a table contained in subparagraph
14 (B), the last day of the period of months cor-
15 responding to that type of lamp, as specified in
16 the table, that follows the date of enactment of
17 the [short title].

18 “(B) MINIMUM STANDARDS.—Each of the
19 following general service fluorescent lamps and
20 incandescent reflector lamps manufactured
21 after the effective date specified in the tables
22 contained in this paragraph shall meet or ex-
23 ceed the following lamp efficacy and CRI stand-
24 ards:

“FLUORESCENT LAMPS

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

“INCANDESCENT REFLECTOR LAMPS

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

1 “(C) EXEMPTIONS.—The standards speci-
2 fied in subparagraph (B) shall not apply to the
3 following types of incandescent reflector lamps:

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

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

10 “(iii) R20 incandescent reflector
11 lamps of 45 watts or less.

12 “(D) EFFECTIVE DATES.—

13 “(i) ER, BR, AND BPAR LAMPS.—EX-
14 cept as provided in subparagraph (A), the

1 standards specified in subparagraph (B)
2 shall apply with respect to ER incandes-
3 cent reflector lamps, BR incandescent re-
4 flector lamps, BPAR incandescent reflector
5 lamps, and similar bulb shapes on and
6 after January 1, 2008.

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

14 **SEC. 123. USE OF ENERGY EFFICIENT LIGHTING FIXTURES**
15 **AND BULBS.**

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

18 (1) by redesignating sections 3313, 3314, and
19 3315 as sections 3314, 3315, and 3316, respectively;
20 and

21 (2) by inserting after section 3312 the fol-
22 lowing:

1 **“§ 3313. Use of energy efficient lighting fixtures and**
2 **bulbs**

3 “(a) CONSTRUCTION AND ALTERATION OF PUBLIC
4 BUILDINGS.—Each public building constructed or signifi-
5 cantly altered by the Administrator of General Services
6 shall be equipped, to the maximum extent feasible as de-
7 termined by the Administrator, with lighting fixtures and
8 bulbs that are energy efficient.

9 “(b) MAINTENANCE OF PUBLIC BUILDINGS.—Each
10 lighting fixture or bulb that is replaced by the Adminis-
11 trator in the normal course of maintenance of public build-
12 ings shall be replaced, to the maximum extent feasible as
13 determined by the Administrator, with a lighting fixture
14 or bulb that is energy efficient.

15 “(c) CONSIDERATIONS.—In making a determination
16 under this section concerning the feasibility of installing
17 a lighting fixture or bulb that is energy efficient, the Ad-
18 ministrator shall consider—

19 “(1) the life cycle cost effectiveness of the fix-
20 ture or bulb;

21 “(2) the compatibility of the fixture or bulb
22 with existing equipment;

23 “(3) whether use of the fixture or bulb could re-
24 sult in interference with productivity;

25 “(4) the aesthetics relating to use of the fixture
26 or bulb; and

1 “(5) such other factors as the Administrator
2 determines appropriate.

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

6 “(1) the fixture or bulb is certified under the
7 Energy Star program established by section 324A of
8 the Energy Policy and Conservation Act (42 U.S.C.
9 6294a);

10 “(2) in the case of all LED luminaires, lamps,
11 and systems whose efficacy (lumens per watt) and
12 Color Rendering Index (CRI) meet the requirements
13 for minimum luminaire efficacy and CRI for the En-
14 ergy Star certification, as verified by an independent
15 third-party testing laboratory that conducts its tests
16 according to the procedures and recommendations of
17 the Illuminating Engineering Society of North
18 America, even if these luminaires, lamps, and sys-
19 tems have not received such certification; or

20 “(3) the Administrator has otherwise deter-
21 mined that the fixture or bulb is energy efficient.

22 “(e) SIGNIFICANT ALTERATIONS.—A public building
23 shall be treated as being significantly altered for purposes
24 of subsection (a) if the alteration is subject to congres-
25 sional approval under section 3307.

1 “(f) EFFECTIVE DATE.—The requirements of sub-
 2 sections (a) and (b) shall take effect one year after the
 3 date of enactment of this subsection.”.

4 (b) CONFORMING AMENDMENT.—The analysis for
 5 chapter 33 of title 40, United States Code, is amended
 6 by striking the items relating to sections 3313, 3314, and
 7 3315 and inserting the following:

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

“3314. Delegation.

“3315. Report to Congress.

“3316. Certain authority not affected.”.

8 **Subtitle C—Residential Building** 9 **Efficiency**

10 **SEC. 131. ENCOURAGING STRONGER BUILDING CODES.**

11 (a) IN GENERAL.—Section 304 of the Energy Con-
 12 servation and Production Act (42 U.S.C. 6833) is amend-
 13 ed to read as follows:

14 **“SEC. 304. UPDATING STATE BUILDING ENERGY EFFI- 15 CIENCY CODES.**

16 “(a) UPDATING NATIONAL MODEL BUILDING EN-
 17 ERGY CODES.—(1) The Secretary shall support updating
 18 the national model building energy codes and standards
 19 at least every three years to achieve overall energy savings,
 20 compared to the 2006 IECC for residential buildings and
 21 ASHRAE Standard 90.1–2004 for commercial buildings,
 22 of at least—

23 “(A) 30 percent by 2010;

1 “(B) 50 percent by 2020; and

2 “(C) targets to be set by the Secretary in inter-
3 mediate and subsequent years, at the maximum level
4 of energy efficiency that is technologically feasible
5 and life-cycle cost effective.

6 “(2)(A) Whenever the provisions of the IECC or
7 ASHRAE Standard 90.1 regarding building energy use
8 are revised, the Secretary shall, not later than 6 months
9 after the date of such revision, determine—

10 “(i) whether such revision will improve energy
11 efficiency in buildings; and

12 “(ii) whether such revision will meet the targets
13 under paragraph (1).

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

22 “(C) The Secretary shall provide the opportunity for
23 public comment on targets, determinations, and modified
24 codes and standards under this subsection, and shall pub-
25 lish notice of targets, determinations, and modified codes

1 and standards under this subsection in the Federal Reg-
2 ister.

3 “(b) STATE CERTIFICATION OF BUILDING ENERGY
4 CODE UPDATES.—(1) Not later than 2 years after the
5 date of enactment of the [short title], each State shall cer-
6 tify to the Secretary that it has reviewed and updated the
7 provisions of its residential and commercial building codes
8 regarding energy efficiency. Such certification shall in-
9 clude a demonstration that such State’s code provisions
10 meet or exceed the 2006 IECC for residential buildings
11 and the ASHRAE Standard 90.1–2004 for commercial
12 buildings, or achieve equivalent or greater energy savings.

13 “(2)(A) If the Secretary makes an affirmative deter-
14 mination under subsection (a)(2)(A)(i) or proposes a
15 modified code or standard under subsection (a)(2)(B),
16 each State shall within 2 years certify that it has reviewed
17 and updated the provisions of its building code regarding
18 energy efficiency. Such certification shall include a dem-
19 onstration that such State’s code provisions meet or ex-
20 ceed the revised code or standard, or achieve equivalent
21 or greater energy savings.

22 “(B) If the Secretary fails to make a determination
23 under subsection (a)(2)(A)(i) by the date specified in sub-
24 section (a)(2), or makes a negative determination, each
25 State shall within 2 years after the specified date or the

1 date of the determination, certify that it has reviewed the
2 revised code or standard, and updated the provisions of
3 its building code regarding energy efficiency to meet or
4 exceed any provisions found to improve energy efficiency
5 in buildings, or to achieve equivalent or greater energy
6 savings in other ways.

7 “(c) STATE CERTIFICATION OF COMPLIANCE WITH
8 BUILDING CODES.—(1) Each State shall, not later than
9 3 years after a certification under subsection (b), certify
10 that it has achieved compliance with the certified building
11 energy code. Such certification shall include documenta-
12 tion of the rate of compliance based on independent in-
13 spections of a random sample of the new and renovated
14 buildings covered by the code in the preceding year.

15 “(2) A State shall be considered to achieve compli-
16 ance under paragraph (1) if—

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

21 “(B) the estimated excess energy use of new
22 and renovated buildings that did not meet the code
23 in the preceding year, compared to a baseline of
24 comparable buildings that meet the code, is not more
25 than 10 percent of the estimated energy use of all

1 new and renovated buildings covered by the code in
2 the preceding year.

3 “(d) FAILURE TO MEET DEADLINES.—(1) The Sec-
4 retary shall permit extensions of the deadlines for the cer-
5 tification requirements under subsections (b) and (c) of
6 this section for up to 1 year if a State can demonstrate
7 that it has made a good faith effort to comply with such
8 requirements and that it has made significant progress in
9 doing so.

10 “(2) Any State for which the Secretary has not ac-
11 cepted a certification by a deadline under subsection (b)
12 or (c) of this section, with any extension granted under
13 paragraph (1), is out of compliance with this section.

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

18 “(e) TECHNICAL ASSISTANCE.—(1) The Secretary
19 shall provide technical assistance, including building en-
20 ergy analysis and design tools, building demonstrations,
21 and design assistance and training to enable the national
22 model building energy codes and standards to meet the
23 targets in subsection (a)(1).

24 “(2) The Secretary shall provide technical assistance
25 to States to implement the requirements of this section,

1 including procedures for States to demonstrate that their
2 code provisions achieve equivalent or greater energy sav-
3 ings than the national model codes and standards, and to
4 improve and implement State residential and commercial
5 building energy efficiency codes or to otherwise promote
6 the design and construction of energy efficient buildings.

7 “(f) AVAILABILITY OF INCENTIVE FUNDING.—(1)
8 The Secretary shall provide incentive funding to States to
9 implement the requirements of this section, and to im-
10 prove and implement State residential and commercial
11 building energy efficiency codes, including increasing and
12 verifying compliance with such codes. In determining
13 whether, and in what amount, to provide incentive funding
14 under this subsection, the Secretary shall consider the ac-
15 tions proposed by the State to implement the requirements
16 of this section, to improve and implement residential and
17 commercial building energy efficiency codes, and to pro-
18 mote building energy efficiency through the use of such
19 codes.

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

1 “(A) to a State that has adopted and is imple-
2 menting, on a Statewide basis—

3 “(i) a residential building energy efficiency
4 code that meets or exceeds the requirements of
5 the 2006 IECC, or any succeeding version of
6 that code that has received an affirmative de-
7 termination from the Secretary under sub-
8 section (a)(2)(A)(i); and

9 “(ii) a commercial building energy effi-
10 ciency code that meets or exceeds the require-
11 ments of the ASHRAE Standard 90.1–2004, or
12 any succeeding version of that standard that
13 has received an affirmative determination from
14 the Secretary under subsection (a)(2)(A)(i); or

15 “(B) in a State in which there is no Statewide
16 energy code either for residential buildings or for
17 commercial buildings, or where State codes fail to
18 comply with subparagraph (A), to a local govern-
19 ment that has adopted and is implementing residen-
20 tial and commercial building energy efficiency codes,
21 as described in subparagraph (A).

22 “(3) Of the amounts made available under this sub-
23 section, the Secretary may use amounts required, not ex-
24 ceeding \$500,000 for each State, to train State and local
25 officials to implement codes described in paragraph (2).

1 “(4)(A) There are authorized to be appropriated to
2 carry out this subsection—

3 “(i) \$25,000,000 for each of fiscal years 2008
4 through 2012; and

5 “(ii) such sums as are necessary for fiscal year
6 2013 and each fiscal year thereafter.

7 “(B) Funding provided to States under paragraph
8 (2) for each fiscal year shall not exceed one-half of the
9 excess of funding under this subsection over \$5,000,000
10 for the fiscal year.”.

11 (b) DEFINITION.—Section 303 of the Energy Con-
12 servation and Production Act (42 U.S.C. 6832) is amend-
13 ed by adding at the end the following new paragraph:

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

16 **SEC. 132. ENERGY CODE IMPROVEMENTS APPLICABLE TO**
17 **MANUFACTURED HOUSING.**

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

22 (b) CERTAIN REQUIREMENTS.—The regulations
23 under subsection (a) shall be in accordance with the fol-
24 lowing:

1 (1) The energy conservation standards estab-
2 lished under this subsection shall be based on the
3 most recent version of the International Energy
4 Conservation Code (including supplements) except
5 where the Secretary finds that such code is not cost-
6 effective, or a more stringent standard would be
7 more cost-effective, based on total life-cycle con-
8 struction and operating costs.

9 (2) The energy conservation standards estab-
10 lished under this subsection may—

11 (A) take into consideration the design and
12 factory construction techniques of manufac-
13 tured homes;

14 (B) be based on the climate zones estab-
15 lished by the Department of Housing and
16 Urban Development rather than those under
17 the International Energy Conservation Code;
18 and

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

22 (3) The energy conservation standards estab-
23 lished under this subsection shall be updated within
24 one year after the date of enactment of this Act and

1 within one year after any revision to the Inter-
2 national Energy Conservation Code.

3 (c) ENFORCEMENT.—Any manufacturer of manufac-
4 tured housing that violates a provision of the regulations
5 under subsection (a) is liable to the United States for a
6 civil penalty in an amount not exceeding 1 percent of the
7 manufacturer’s retail list price of the manufactured hous-
8 ing.

9 **SEC. 133. BASELINE BUILDING DESIGNS.**

10 Section 327(f)(3)(D) of the Energy Policy and Con-
11 servation Act (42 U.S.C. 6297(f)(3)(D)) is amended to
12 read as follows:

13 “(D) If the code uses one or more baseline
14 building designs against which all submitted building
15 designs are to be evaluated and such baseline build-
16 ing designs contain a covered product subject to an
17 energy conservation standard established in or pre-
18 scribed under section 325, the baseline building de-
19 signs are based on the efficiency level for such cov-
20 ered product which—

21 “(i) meets but does not exceed such stand-
22 ard;

23 “(ii) is the efficiency level required by a
24 regulation of that State for which the Secretary

1 has issued a rule granting a waiver under sub-
2 section (d) of this section; or

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

6 **SEC. 134. REAUTHORIZATION OF WEATHERIZATION ASSIST-**
7 **ANCE PROGRAM.**

8 (a) AMENDMENT.—Section 422 of the Energy Con-
9 servation and Production Act (42 U.S.C. 6872) is amend-
10 ed by striking “\$500,000,000 for fiscal year 2006,
11 \$600,000,000 for fiscal year 2007, and \$700,000,000 for
12 fiscal year 2008” and inserting “\$600,000,000 for fiscal
13 year 2007, and \$750,000,000 for each of fiscal years
14 2008, 2009, 2010, 2011, and 2012. From those sums, the
15 Secretary is authorized to initiate an Alternative Delivery
16 System Pilot Project to examine options for decreasing en-
17 ergy consumption associated with heating and cooling
18 while increasing household participation by focusing on
19 key energy saving components. Alternative Delivery Sys-
20 tem Pilot Projects should be undertaken in both hot and
21 cold urban areas”.

22 (b) SUSTAINABLE ENERGY RESOURCES FOR CON-
23 SUMERS GRANTS.—(1) The Secretary of Energy may
24 make funding available to local Weatherization agencies
25 from amounts authorized under the amendment made by

1 subsection (a) to expand the weatherization assistance
2 program for residential buildings to include materials,
3 benefits, and renewable and domestic energy technologies
4 not currently covered by the program, provided that the
5 State Weatherization grantee has certified that the appli-
6 cant has the capacity to carry out the proposed activities
7 and that the grantee will include the project in its finan-
8 cial oversight of the Weatherization Assistance program.

9 (2) In selecting the grants, the program shall give
10 priority to—

11 (A) the expected effectiveness and benefits of
12 the proposed project to low- and moderate-income
13 energy consumers;

14 (B) the potential for replication of successful
15 results;

16 (C) the impact on the health and safety and en-
17 ergy costs of those served; and

18 (D) the extent of partnerships with other public
19 and private entities that contribute to the resources
20 and implementation of the program, including finan-
21 cial partnerships.

22 (3) Funding for such projects may equal up to two
23 percent of funding in any fiscal year, provided that no
24 funding is utilized for Sustainable Energy Resources for

1 Consumers grants in any fiscal year in which Weatheriza-
2 tion appropriations are less than \$275,000,000.

3 **Subtitle D—Commercial and**
4 **Federal Building Efficiency**

5 **SEC. 141. DEFINITIONS.**

6 In this subtitle:

7 (1) CONSORTIUM.—The term “Consortium”
8 means the Green Building Partnership Consortium
9 created in response to section 142(c)(1) to represent
10 the private sector in a Public-Private Partnership to
11 promote high-performance green buildings and zero-
12 net-energy commercial buildings.

13 (2) DIRECTOR.—The term “Director” means
14 the individual appointed to the position established
15 under section 142(b).

16 (3) FEDERAL FACILITY.—

17 (A) IN GENERAL.—The term “Federal fa-
18 cility” means any building or facility the in-
19 tended use of which requires the building or fa-
20 cility to be—

21 (i) accessible to the public; and

22 (ii) constructed or altered by or on be-
23 half of the United States.

24 (B) EXCLUSIONS.—The term “Federal fa-
25 cility” does not include a privately-owned resi-

1 dential or commercial structure that is not
2 leased by the Federal Government.

3 (4) HIGH-PERFORMANCE GREEN BUILDING.—

4 The term “high-performance green building” means
5 a building that, during its life-cycle—

6 (A) reduces energy, water, and material re-
7 source use, and in the case of a new or ren-
8 ovated Federal building, meets or exceeds the
9 standards under section 305(a)(3) of the En-
10 ergy Conservation and Production Act (42
11 U.S.C. 6834(a)(3));

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

17 (C) reduces negative impacts on the envi-
18 ronment throughout the life-cycle of the build-
19 ing, including air and water pollution and waste
20 generation;

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

1 (E) increases reuse and recycling opportu-
2 nities;

3 (F) integrates systems in the building;

4 (G) reduces the environmental and energy
5 impacts of transportation through building loca-
6 tion and site design that support a full range
7 of transportation choices for users of the build-
8 ing; and

9 (H) considers indoor and outdoor effects of
10 the building on human health and the environ-
11 ment, including—

12 (i) improvements in worker produc-
13 tivity;

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

16 (iii) other factors that the Office con-
17 siders to be appropriate.

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

1 maintenance, renovation, deconstruction or demoli-
2 tion, removal, and recycling of the green building.

3 (6) LIFE-CYCLE ASSESSMENT.—The term “life-
4 cycle assessment” means a comprehensive system
5 approach for measuring the environmental perform-
6 ance of a product or service over the life of the prod-
7 uct or service, beginning at raw materials acquisition
8 and continuing through manufacturing, transpor-
9 tation, installation, use, reuse, and end-of-life waste
10 management.

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

15 (A) sums, over a given study period, the
16 costs of initial investment (less resale value), re-
17 placements, operations (including energy use),
18 and maintenance and repair of an investment
19 decision; and

20 (B) is expressed—

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

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

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

5 (8) OFFICE.—The term “Office” means the Of-
6 fice of High-Performance Green Buildings estab-
7 lished under section 142(a).

8 (9) PRACTICES.—The term “practices” mean
9 design, financing, permitting, construction, commis-
10 sioning, operation and maintenance, and other prac-
11 tices that contribute to achieving zero-net-energy
12 commercial buildings.

13 (10) SECRETARY.—The term “Secretary”
14 means the Secretary of Energy.

15 (11) ZERO-NET-ENERGY.—The term “zero-net-
16 energy commercial building” means a commercial
17 building that is designed, constructed, and operated
18 to—

19 (A) require a greatly reduced quantity of
20 energy to operate;

21 (B) meet the balance of energy needs from
22 sources of energy that do not produce green-
23 house gases;

24 (C) therefore result in no net emissions of
25 greenhouse gases; and

1 (D) be economically viable.

2 **SEC. 142. HIGH-PERFORMANCE GREEN BUILDINGS.**

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

8 (b) DIRECTOR.—

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

13 (2) COMPENSATION.—The compensation of the
14 Director shall not exceed the maximum rate of basic
15 pay for the Senior Executive Service under section
16 5382 of title 5, United States Code, including any
17 applicable locality-based comparability payment that
18 may be authorized under section 5304(h)(2)(C) of
19 that title.

20 (3) DUTIES.—The Director shall, with respect
21 to Federal facilities—

22 (A) identify and biennially reassess im-
23 proved or higher rating standards;

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

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

6 (D) review and analyze current Federal
7 budget practices and life-cycle costing issues,
8 and make recommendations to Congress, in ac-
9 cordance with section 145;

10 (E) identify within the planning, budg-
11 eting, and construction process all types of Fed-
12 eral facility procedures that inhibit new and ex-
13 isting Federal facilities from becoming high-per-
14 formance green buildings;

15 (F) identify inconsistencies in Federal law
16 with respect to product acquisition guidelines
17 for energy efficient and environmentally pref-
18 erable products;

19 (G) recommend actions to improve compli-
20 ance by Federal agencies with standards for en-
21 vironmentally responsible acquisition;

22 (H) in coordination with the Office of
23 Management and Budget, review the budget
24 process for capital programs with respect to al-
25 ternatives for—

1 (i) restructuring of budgets to require
2 the use of complete energy- and environ-
3 mental-cost accounting;

4 (ii) using operations expenditures in
5 budget-related decisions while simulta-
6 neously incorporating productivity and
7 health measures (as those measures can be
8 quantified by the Office, with the assist-
9 ance of universities and national labora-
10 tories);

11 (iii) permitting Federal agencies to re-
12 tain all identified savings accrued as a re-
13 sult of the use of life-cycle costing for fu-
14 ture high-performance green building ini-
15 tiatives; and

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

20 (I) identify green, self-sustaining tech-
21 nologies to address the operational needs of
22 Federal facilities in times of national security
23 emergencies, natural disasters, or other dire
24 emergencies;

1 (J) in consultation with the Environmental
2 Protection Agency, develop and implement a
3 comprehensive indoor air quality program for
4 all Federal facilities to ensure the safety of
5 Federal workers and facility occupants—

6 (i) during new construction and ren-
7 ovation of facilities; and

8 (ii) in existing facilities;

9 (K) implement the zero-energy commercial
10 buildings initiative under section 143; and

11 (L) perform such other functions as are
12 assigned under this subtitle.

13 (4) DUTIES.—The Director shall, with respect
14 to development of high performance green buildings
15 and zero-energy commercial buildings throughout
16 the economy—

17 (A) develop the legal predicates and agree-
18 ments for, negotiate, and establish one or more
19 public-private partnerships with the Consor-
20 tium, members of the Consortium, and other
21 capable counterparties meeting the qualifica-
22 tions of the Consortium, to further such devel-
23 opment;

24 (B) represent the public and the Depart-
25 ment of Energy in negotiating and performing

1 in accord with such public-private partnerships;
2 and

3 (C) use appropriated funds in an effective
4 manner to encourage the maximum investment
5 of private funds to achieve such development.

6 (5) REPORTING.—The Director shall report di-
7 rectly to the Assistant Secretary for Energy Effi-
8 ciency and Renewable Energy, or to other senior of-
9 ficials in a way that facilitates the integrated pro-
10 gram of this subtitle for both energy efficiency and
11 renewable energy and both technology development
12 and technology deployment.

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

19 (A) the Environmental Protection Agency;

20 (B) the Office of the Federal Environ-
21 mental Executive;

22 (C) the Office of Federal Procurement Pol-
23 icy;

1 (D) the Department of Energy, particu-
2 larly the Federal Energy Management Pro-
3 gram;

4 (E) the Department of Health and Human
5 Services;

6 (F) the Department of Housing and Urban
7 Development;

8 (G) the Department of Defense;

9 (H) such other Federal agencies as the Di-
10 rector considers to be appropriate; and

11 (I) such nonprofit green building rating
12 and analysis entities as the Director determines
13 can offer support, expertise, and review serv-
14 ices.

15 (c) GREEN BUILDING PARTNERSHIP CONSORTIUM.—

16 (1) RECOGNITION.—Not later than 90 days
17 after the date of enactment of this Act, the Director
18 shall formally recognize one or more groups that
19 qualify as a green building partnership consortium.

20 (2) REPRESENTATION TO QUALIFY.—To qualify
21 under this section, any consortium shall include rep-
22 resentation from—

23 (A) the design professions, including na-
24 tional associations of architects and of profes-
25 sional engineers;

1 (B) the development, construction, finan-
2 cial, and real estate industries;

3 (C) building owners and operators from
4 the public and private sectors;

5 (D) academic and research organizations,
6 including at least one national laboratory with
7 extensive commercial building energy expertise;

8 (E) building code agencies and organiza-
9 tions, including a model energy code-setting or-
10 ganization;

11 (F) independent green building associa-
12 tions or councils;

13 (G) experts in indoor air quality and envi-
14 ronmental factors;

15 (H) experts in intelligent buildings and in-
16 tegrated building information systems;

17 (I) utility energy efficiency programs; and

18 (J) nongovernmental energy efficiency or-
19 ganizations.

20 (3) FUNDING.—The Secretary may make pay-
21 ments to the Consortium pursuant to the terms of
22 a public-private partnership for such activities of the
23 Consortium undertaken under such a partnership as
24 described in this subtitle directly to the Consortium
25 or through one or more of its members.

1 (d) REPORT.—Not later than 2 years after the date
2 of enactment of this Act, and biennially thereafter, the Di-
3 rector, in consultation with the Consortium, shall submit
4 to Congress a report that—

5 (1) describes the status of the green building
6 initiatives under this subtitle and other Federal pro-
7 grams in effect as of the date of the report, includ-
8 ing—

9 (A) the extent to which the programs are
10 being carried out in accordance with this sub-
11 title; and

12 (B) the status of funding requests and ap-
13 propriations for those programs;

14 (2) summarizes and highlights development, at
15 the State and local level, of green building initia-
16 tives, including executive orders, policies, or laws
17 adopted promoting green building (including the sta-
18 tus of implementation of those initiatives); and

19 (3) includes, for the 2-year period covered by
20 the report, recommendations to address each of the
21 matters, and a plan for implementation of each rec-
22 ommendation, described in paragraph (1) of this
23 subsection and subparagraphs (E) through (I) of
24 subsection (b)(3).

1 **SEC. 143. ZERO-ENERGY COMMERCIAL BUILDINGS INITIA-**
2 **TIVE.**

3 (a) GOAL.—The Director, in partnership with the
4 Consortium, shall periodically study and refine a national
5 goal to reduce commercial building energy use and achieve
6 zero-net-energy commercial buildings. Unless the Director
7 concludes that such targets are unachievable or unreal-
8 istic, the goal shall include objectives that—

9 (1) all new commercial buildings constructed
10 after the beginning of 2025 are zero-net-energy com-
11 mercial buildings;

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

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

18 (b) STRATEGY.—

19 (1) IN GENERAL.—The Director, in partnership
20 with the Consortium, shall develop a market trans-
21 formation strategy intended to achieve the adopted
22 goal by significantly accelerating the development
23 and widespread deployment of energy efficiency tech-
24 nologies, practices, and policies in both new and ex-
25 isting commercial buildings, and by leveraging State,

1 utility, and private sector commercial building en-
2 ergy efficiency programs.

3 (2) FEDERAL COMPLIANCE WITH GOAL.—The
4 Director, in partnership with the Consortium, shall
5 further identify and adopt a strategy leading to zero-
6 net-energy performance for all Federal buildings in
7 accordance with the adopted goal.

8 (c) INITIATIVE.—The Director, in partnership with
9 the Consortium, shall implement an initiative to carry out
10 the strategy that may include—

11 (1) support for industry efforts to develop ad-
12 vanced materials, equipment, controls, practices, and
13 integrated building systems aimed at achieving zero-
14 net-energy commercial buildings and monitoring and
15 benchmarking commercial building energy use;

16 (2) training, education, and awareness pro-
17 grams, including—

18 (A) programs in cooperation with industry
19 and professional associations and educational
20 institutions to provide education on achieving
21 sustainable and energy-efficient performance
22 through proper system and structure design,
23 construction, and operation to—

24 (i) architects;

1 (ii) mechanical, electrical, and plumb-
2 ing engineers;

3 (iii) contractors; and

4 (iv) construction managers and facil-
5 ity managers;

6 (B) programs to incorporate energy effi-
7 ciency and sustainability elements into architec-
8 ture, engineering, and vocational training and
9 certification curricula, including professional
10 certification and continuing education pro-
11 grams; and

12 (C) regional and national public education
13 campaigns to educate real estate, finance, and
14 other commercial buildings professionals and
15 the general public about the opportunities for
16 energy and cost savings and associated environ-
17 mental and health benefits associated with high
18 performance green buildings;

19 (3) pilot projects to demonstrate and document
20 the performance of scalable and replicable tech-
21 nologies, practices, and policies to achieve high-per-
22 formance green buildings and zero-net-energy com-
23 mercial buildings, including—

24 (A) pilot projects representing each market
25 segment or building type in each climate region

1 that include current best practice in integrated
2 design, technology and systems, construction,
3 commissioning, operation, and building infor-
4 mation management;

5 (B) pilot projects, in cooperation with
6 State and local governments, in public build-
7 ings; and

8 (C) pilot projects, in cooperation with pub-
9 lic school districts and colleges and universities,
10 to—

11 (i) demonstrate such technologies and
12 practices in new and existing facilities;

13 (ii) involve students and faculty mem-
14 bers in integrating energy efficiency and
15 green building concepts and measures
16 within the educational curriculum; and

17 (iii) use education facilities as show-
18 cases to communicate these concepts to the
19 community;

20 (4) technical assistance and funding of pilot
21 projects for the development and use of new building
22 energy design standards, model designs, model en-
23 ergy codes, and incentives and other policies, to be
24 provided to designers, builders, developers, commer-

1 cial building owners, and utility and government en-
2 ergy efficiency programs, including—

3 (A) support for code and standards organi-
4 zations to develop aggressive model energy
5 codes, beyond-code guidelines, and code compli-
6 ance programs for new and existing buildings;

7 (B) assistance to utilities, builders, and
8 State and local officials in developing, imple-
9 menting, and evaluating pilot programs to
10 achieve building design and actual energy per-
11 formance that meet and exceed performance
12 levels in the model energy codes; and

13 (C) support for development and dissemi-
14 nation of model programs and policies that pro-
15 vide incentives for high performance green
16 buildings, such as accelerated zoning and con-
17 struction permitting and inspections, density
18 bonuses, and State and local tax incentives;

19 (5) technical assistance and funding of pilot
20 projects for innovative market-based initiatives to
21 advance energy-efficient technologies and practices
22 in new and existing commercial buildings, provided
23 to State agencies, utilities, and other entities, includ-
24 ing—

1 (A) design assistance and incentives for in-
2 corporating sustainability and energy efficiency
3 beginning with the first stages of building de-
4 sign and continuing through start-up commis-
5 sioning and long-term operation;

6 (B) performance-based design and con-
7 struction fees for high performance green con-
8 struction and renovation;

9 (C) equipment leasing and financing strat-
10 egies for energy efficiency upgrades of new and
11 replacement commercial building equipment;

12 (D) trade-in programs for early retirement
13 of low-efficiency commercial building equipment
14 and system components, such as motors, air
15 conditioners, boilers, lighting, and windows;

16 (E) improved methods of energy perform-
17 ance contracting to reduce transaction costs
18 and encourage the use of third-party funding
19 and expertise for energy-efficient retrofitting of
20 existing commercial buildings;

21 (F) improved model protocols for commer-
22 cial building energy audits, energy performance
23 measurement and verification, continuous com-
24 missioning, and ongoing performance moni-
25 toring and diagnostics; and

1 (G) strategies to reduce barriers to energy
2 efficiency investment by addressing split incen-
3 tives between commercial building owners and
4 tenants;

5 (6) development, dissemination, technical assist-
6 ance, and pilot project activities to improve the prac-
7 tice of monitoring, benchmarking, and disclosure of
8 actual commercial building energy performance and
9 operating costs, including—

10 (A) improved methods of measuring and
11 compiling energy performance data on a statis-
12 tically significant share of commercial new con-
13 struction, renovation, and energy retrofit
14 projects;

15 (B) development and dissemination of en-
16 ergy performance metrics for the commercial
17 building stock and for important subcategories
18 of commercial buildings;

19 (C) improved methods of providing energy
20 performance feedback to commercial building
21 owners, operators, and occupants, including
22 real-time feedback and comparisons to perform-
23 ance goals, past performance, and similar build-
24 ings;

1 (D) voluntary programs at the national, re-
2 gional, and sectoral levels to recognize and re-
3 ward commercial buildings with exceptional per-
4 formance or performance improvement; and

5 (E) increased availability and use of tools
6 for post occupancy assessment of energy effi-
7 ciency and occupant satisfaction with commer-
8 cial high performance green buildings, and for
9 measuring and documenting non-energy finan-
10 cial and other benefits of such buildings;

11 (7) in cooperation with the Energy Information
12 Administration and with utility, State, and private
13 sector organizations, development and application of
14 improved methods for assessing trends in the energy
15 performance of the commercial buildings stock, new
16 construction, and building renovations, by building
17 type and region, in order to track progress toward
18 the goals adopted under subsection (a); and

19 (8) such otherwise authorized activities that the
20 Secretary and the Director determine are necessary
21 to the success of the initiative.

22 **SEC. 144. PUBLIC OUTREACH.**

23 The Director, in coordination with the Consortium,
24 shall carry out public outreach to inform individuals and

1 entities of the information and services available Govern-
2 mentwide by—

3 (1) establishing and maintaining a national
4 high-performance green building clearinghouse, in-
5 cluding on the internet, that—

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

8 (B) provides information relating to high-
9 performance green buildings, including
10 hyperlinks to internet sites that describe the ac-
11 tivities, information, and resources of—

12 (i) the Federal Government;

13 (ii) State and local governments;

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

17 (iv) international organizations;

18 (2) identifying and recommending educational
19 resources for implementing high-performance green
20 building practices, including security and emergency
21 benefits and practices;

22 (3) providing access to technical assistance on
23 using tools and resources to make more cost-effec-
24 tive, energy-efficient, health-protective, and environ-
25 mentally beneficial decisions for constructing high-

1 performance green buildings, particularly tools avail-
2 able to conduct life-cycle costing and life-cycle as-
3 sessment;

4 (4) providing information on application proc-
5 esses for certifying a high-performance green build-
6 ing, including certification and commissioning;

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

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

13 (7) surveying existing research and studies re-
14 lating to high-performance green buildings;

15 (8) coordinating activities of common interest;

16 (9) developing and recommending a high-per-
17 formance green building practices that—

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

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

23 (ii) natural day lighting;

24 (iii) ventilation choices and tech-
25 nologies;

- 1 (iv) heating, cooling, and system con-
2 trol choices and technologies;
- 3 (v) moisture control and mold;
- 4 (vi) maintenance, cleaning, and pest
5 control activities;
- 6 (vii) acoustics; and
- 7 (viii) other issues relating to the
8 health, comfort, productivity, and perform-
9 ance of occupants of the building; and
- 10 (B) promote the development and dissemi-
11 nation of high-performance green building
12 measurement tools that, at a minimum, may be
13 used—
- 14 (i) to monitor and assess the life-cycle
15 performance of facilities (including dem-
16 onstration projects) built as high-perform-
17 ance green buildings; and
- 18 (ii) to perform life-cycle assessments;
- 19 (10) assisting the budget and life-cycle costing
20 functions of the Office under section 145;
- 21 (11) studying and identifying potential benefits
22 of green buildings relating to security, natural dis-
23 aster, and emergency needs of the Federal Govern-
24 ment; and

1 (12) supporting other research initiatives deter-
2 mined by the Office.

3 **SEC. 145. BUDGET AND LIFE-CYCLE COSTING AND CON-**
4 **TRACTING.**

5 The Director, in coordination with the Consortium,
6 shall—

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

12 (2) develop guidance and conduct training ses-
13 sions with budget specialists and contracting per-
14 sonnel from Federal agencies and budget examiners
15 to apply life-cycle cost criteria to actual projects;

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

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

22 **SEC. 146. INCENTIVES.**

23 As soon as practicable after the date of enactment
24 of this Act, the Director shall identify incentives to encour-
25 age the use of green buildings and related technology in

1 the operations of the Federal Government, including
2 through—

3 (1) the provision of recognition awards; and

4 (2) the maximum feasible retention of financial
5 savings in the annual budgets of Federal agencies
6 for use in reinvesting in future green building initia-
7 tives.

8 **SEC. 147. FEDERAL PROCUREMENT.**

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

16 (1) to direct any Federal procurement execu-
17 tives involved in the acquisition, construction, or
18 major renovation (including contracting for the con-
19 struction or major renovation) of any facility—

20 (A) to employ integrated design principles;

21 (B) to improve site selection for environ-
22 mental and community benefits;

23 (C) to optimize building and systems en-
24 ergy performance;

25 (D) to protect and conserve water;

1 (E) to enhance indoor environmental qual-
2 ity; and

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

5 (2) to direct Federal procurement executives in-
6 volved in leasing buildings, to give preference to the
7 lease of facilities that—

8 (A) are energy-efficient; and

9 (B) to the maximum extent practicable,
10 have applied contemporary high-performance
11 and sustainable design principles during con-
12 struction or renovation.

13 (b) GUIDANCE.—Not later than 90 days after the
14 date of promulgation of the revised regulations under sub-
15 section (a), the Director of the Office of Procurement Pol-
16 icy shall issue guidance to all Federal procurement execu-
17 tives providing direction and instructions to renegotiate
18 the design of proposed facilities, renovations for existing
19 facilities, and leased facilities to incorporate improvements
20 that are consistent with this section.

21 **SEC. 148. USE OF ENERGY AND WATER EFFICIENCY MEAS-**
22 **URES IN FEDERAL BUILDINGS.**

23 Section 543 of the National Energy Conservation
24 Policy Act (42 U.S.C. 8253) is amended by adding at the
25 end the following:

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

3 “(1) FACILITY ENERGY MANAGERS.—

4 “(A) IN GENERAL.—Each Federal agency
5 shall designate a manager responsible for imple-
6 menting this subsection and reducing energy
7 use at each building or facility that meets cri-
8 teria under subparagraph (B).

9 “(B) COVERED FACILITIES.—The Sec-
10 retary shall develop criteria, after consultation
11 with affected agencies, energy efficiency advo-
12 cates, and energy and utility service providers,
13 that cover buildings and facilities, including
14 central utility plants and distribution systems
15 and other energy intensive operations, com-
16 prising at least two-thirds of total Federal
17 building and facility energy use.

18 “(2) ENERGY AND WATER EVALUATIONS AND
19 COMMISSIONING.—

20 “(A) EVALUATIONS.—Not later than 18
21 months after the date of enactment of this sub-
22 section, and every 5 years thereafter, each en-
23 ergy manager shall complete a comprehensive
24 energy and water evaluation for each building

1 or facility that meets criteria under paragraph
2 (1)(B).

3 “(B) RECOMMISSIONING AND RETRO-
4 FITTING.—As part of the evaluation under sub-
5 paragraph (A) or on the same schedule the en-
6 ergy manager shall recommission and retrofit
7 each such building and facility if applicable.

8 “(3) IMPLEMENTATION OF IDENTIFIED ENERGY
9 AND WATER EFFICIENCY MEASURES.—

10 “(A) IN GENERAL.—Not later than 2 years
11 after the completion of each evaluation under
12 paragraph (1), each energy manager—

13 “(i) shall fully implement each energy
14 and water-saving measure identified in the
15 evaluation conducted under paragraph (2)
16 that is life-cycle cost-effective and has a
17 12-year or shorter simple payback period;

18 “(ii) may implement any energy or
19 water-saving measure that the Federal
20 agency identified in the evaluation con-
21 ducted under paragraph (1) that is life-
22 cycle cost-effective and has longer than a
23 12-year simple payback period; and

1 “(iii) may bundle individual measures
2 of varying paybacks together into combined
3 projects.

4 “(B) PAYBACK PERIOD.—For the purpose
5 of subparagraph (A), the simple payback period
6 of a measure shall be obtained by dividing—

7 “(i) the estimated initial implementa-
8 tion cost of the measure (other than fi-
9 nancing costs); by

10 “(ii) the annual cost savings from the
11 measure.

12 “(C) COST SAVINGS.—For the purpose of
13 subparagraph (B), cost savings shall include net
14 savings in estimated—

15 “(i) energy and water costs; and

16 “(ii) operations, maintenance, repair,
17 replacement, and other direct costs.

18 “(D) EXCEPTIONS.—The Secretary may
19 modify or make exceptions to the calculation of
20 a 12-year simple payback under this paragraph
21 in the guidelines issued by the Secretary under
22 paragraph (5).

23 “(E) LIFE-CYCLE COST-EFFECTIVE.—For
24 the purpose of subparagraph (A), determination
25 of whether a measure is life-cycle cost-effective

1 shall use methods and procedures developed
2 pursuant to section 544.

3 “(4) FOLLOW-UP ON IMPLEMENTED MEAS-
4 URES.—For each measure implemented under para-
5 graph (3), each energy manager shall ensure that—

6 “(A) equipment, including building and
7 equipment controls, is fully commissioned at ac-
8 ceptance to be operating at design specifica-
9 tions;

10 “(B) a plan for appropriate operations,
11 maintenance, and repair of the equipment is in
12 place at acceptance and is followed;

13 “(C) equipment and system performance is
14 measured during its entire life to ensure proper
15 operations, maintenance, and repair; and

16 “(D) energy and water savings are meas-
17 ured and verified.

18 “(5) GUIDELINES.—

19 “(A) IN GENERAL.—The Secretary shall
20 issue guidelines and necessary criteria that each
21 Federal agency shall follow for implementation
22 of—

23 “(i) paragraphs (1) and (2) not later
24 than 180 days after the date of enactment
25 of this subsection; and

1 “(ii) paragraphs (3) and (4) not later
2 than 1 year after the date of enactment of
3 this subsection.

4 “(B) RELATIONSHIP TO FUNDING
5 SOURCE.—The guidelines issued by the Sec-
6 retary under subparagraph (A) shall be appro-
7 priate and uniform for measures funded with
8 each type of funding made available under
9 paragraph (9), but may distinguish between dif-
10 ferent types of measures project size, and other
11 criteria the Secretary determines are relevant.

12 “(6) WEB-BASED CERTIFICATION.—

13 “(A) IN GENERAL.—For each building or
14 facility that meets the criteria established by
15 the Secretary under paragraph (1), the energy
16 manager shall use the web-based tracking sys-
17 tem under subparagraph (B) to certify compli-
18 ance with the requirements for—

19 “(i) energy and water evaluations and
20 recommissioning and retrofitting under
21 paragraph (2);

22 “(ii) implementation of identified en-
23 ergy and water measures under paragraph
24 (3); and

1 “(iii) follow-up on implemented meas-
2 ures under paragraph (4).

3 “(B) DEPLOYMENT.—

4 “(i) IN GENERAL.—Not later than 1
5 year after the date of enactment of this
6 subsection, the Secretary shall develop and
7 deploy the web-based tracking system re-
8 quired under this paragraph in a manner
9 that tracks, at a minimum—

10 “(I) the covered buildings and fa-
11 cilities;

12 “(II) the status of meeting the
13 requirements specified in subpara-
14 graph (A);

15 “(III) the estimated cost and
16 savings for measures required to be
17 implemented in a building or facility;
18 and

19 “(IV) the measured savings and
20 persistence of savings for implemented
21 measures.

22 “(ii) EASE OF COMPLIANCE.—The
23 Secretary shall ensure that energy man-
24 ager compliance with the requirements in
25 this paragraph, to the greatest extent prac-

1 ticable, can be accomplished with the use
2 of streamlined procedures, and templates
3 that minimize the time demands on Fed-
4 eral employees.

5 “(C) AVAILABILITY.—

6 “(i) IN GENERAL.—Subject to clause
7 (ii), the Secretary shall make the web-
8 based tracking system required under this
9 paragraph available to Congress, other
10 Federal agencies, and the public through
11 the Internet.

12 “(ii) EXEMPTIONS.—At the request of
13 a Federal agency, the Secretary may ex-
14 empt specific data for specific buildings
15 from disclosure under clause (i) for na-
16 tional security purposes.

17 “(7) BENCHMARKING OF FEDERAL FACILI-
18 TIES.—

19 “(A) IN GENERAL.—The energy manager
20 shall enter energy use data for each building or
21 facility that meets the criteria established by
22 the Secretary under paragraph (1) into a build-
23 ing energy use benchmarking system, such as
24 the Energy Star Portfolio Manager.

1 “(B) SYSTEM AND GUIDANCE.—Not later
2 than 1 year after the date of enactment of this
3 subsection, the Secretary shall—

4 “(i) select or develop the building en-
5 ergy use benchmarking system required
6 under this paragraph for each type of
7 building; and

8 “(ii) issue guidance for use of the sys-
9 tem.

10 “(8) FEDERAL AGENCY SCORECARDS.—

11 “(A) IN GENERAL.—The Director of the
12 Office of Management and Budget shall issue
13 semiannual scorecards for energy management
14 activities carried out by each Federal agency
15 that includes—

16 “(i) summaries of the status of imple-
17 menting the various requirements of the
18 agency and its energy managers under this
19 subsection; and

20 “(ii) any other means of measuring
21 performance that the Director considers
22 appropriate.

23 “(B) AVAILABILITY.—The Director shall
24 make the scorecards required under this para-

1 graph available to Congress, other Federal
2 agencies, and the public through the Internet.

3 “(9) FUNDING AND IMPLEMENTATION.—

4 “(A) AUTHORIZATION OF APPROPRIA-
5 TIONS.—There are authorized to be appro-
6 priated such sums as are necessary to carry out
7 this subsection.

8 “(B) FUNDING OPTIONS.—

9 “(i) IN GENERAL.—To carry out this
10 subsection, a Federal agency may use any
11 combination of—

12 “(I) appropriated funds made
13 available under subparagraph (A);
14 and

15 “(II) private financing, including
16 financing available through energy
17 savings performance contracts or util-
18 ity energy service contracts.

19 “(ii) COMBINED FUNDING FOR SAME
20 MEASURE.—A Federal agency may use any
21 combination of appropriated funds and pri-
22 vate financing described in clause (i) to
23 carry out the same measure under this
24 subsection, with proportional allocation for
25 any energy and water savings.

1 “(iii) LACK OF APPROPRIATED
2 FUNDS.—Since measures may be carried
3 out using private financing described in
4 clause (i), a lack of available appropria-
5 tions shall not be considered a sufficient
6 reason for the failure of a Federal agency
7 to comply with this subsection.

8 “(C) IMPLEMENTATION.—Each Federal
9 agency may implement the requirements under
10 this subsection itself or may contract out per-
11 formance of some or all of the requirements.

12 “(10) RULE OF CONSTRUCTION.—This sub-
13 section shall not be construed either to require or to
14 obviate any contractor savings guarantees.”.

15 **SEC. 149. DEMONSTRATION PROJECT.**

16 (a) IN GENERAL.—The Director shall establish
17 guidelines to implement a demonstration project to con-
18 tribute to the research goals of the Office.

19 (b) PROJECTS.—In accordance with guidelines estab-
20 lished by the Director under subsection (a) and the duties
21 of the Director described in this subtitle, the Director shall
22 carry out—

23 (1) for each of fiscal years 2009 through 2014,
24 1 demonstration project in a Federal building se-

1 lected by the Director in accordance with relevant
2 agencies and described in subsection (c)(1), that—

3 (A) provides for the evaluation of the in-
4 formation obtained through the conduct of
5 projects and activities under this subtitle; and

6 (B) achieves the highest rating offered by
7 an existing high-performance green building
8 rating system that is developed through a con-
9 sensus-based process, provides minimum re-
10 quirements in all performance categories, re-
11 quires substantiating documentation and
12 verifiable calculations, employs third-party post-
13 construction review and verification, and is na-
14 tionally recognized within the building industry;

15 (2) no fewer than 4 demonstration projects at
16 4 universities, that, as competitively selected by the
17 director in accordance with subsection (c)(2), have—

18 (A) appropriate research resources and rel-
19 evant projects to meet the goals of the dem-
20 onstration project established by the Office; and

21 (B) the ability—

22 (i) to serve as a model for high-per-
23 formance green building initiatives, includ-
24 ing research and education;

1 (ii) to identify the most effective ways
2 o use high-performance green building and
3 landscape technologies to engage and edu-
4 cate undergraduate and graduate students;

5 (iii) to effectively implement a high-
6 performance green building education pro-
7 gram for students and occupants;

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

13 (v) to explore quantifiable and non-
14 quantifiable beneficial impacts on public
15 health and employee and student perform-
16 ance;

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

20 (4) deployment activities to disseminate infor-
21 mation on and encourage widespread adoption of
22 technologies, practices, and policies to achieve zero-
23 net-energy commercial buildings or low energy use
24 and effective monitoring of energy use in commercial
25 buildings.

1 (c) CRITERIA.—

2 (1) FEDERAL FACILITIES.—With respect to the
3 existing or proposed Federal facility at which a dem-
4 onstration project under this section is conducted,
5 the Federal facility shall—

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

8 (i) the effectiveness of high-perform-
9 ance technologies;

10 (ii) analysis of materials, components,
11 systems, and emergency operations in the
12 building, and the impact of those mate-
13 rials, components, and systems, including
14 the impact on the health of building occu-
15 pants;

16 (iii) life-cycle costing and life-cycle as-
17 sessment of building materials and sys-
18 tems; and

19 (iv) location and design that promote
20 access to the Federal facility through walk-
21 ing, biking, and mass transit; and

22 (B) possess sufficient technological and or-
23 ganizational adaptability.

1 (2) UNIVERSITIES.—With respect to the 4 uni-
2 versities at which a demonstration project under this
3 section is conducted—

4 (A) the universities should be selected,
5 after careful review of all applications received
6 containing the required information, as deter-
7 mined by the Director, based on—

8 (i) successful and established public-
9 private research and development partner-
10 ships;

11 (ii) demonstrated capabilities to con-
12 struct or renovate buildings that meet high
13 indoor environmental quality standards;

14 (iii) organizational flexibility;

15 (iv) technological adaptability;

16 (v) the demonstrated capacity of at
17 least 1 university to replicate lessons
18 learned among nearby or sister univer-
19 sities, preferably by participation in groups
20 or consortia that promote sustainability;

21 (vi) the demonstrated capacity of at
22 least 1 university to have officially-adopt-
23 ed, institution-wide “green building” guide-
24 lines for all campus building projects; and

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

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

10 (i) a hot, dry climate;

11 (ii) a hot, humid climate;

12 (iii) a cold climate; or

13 (iv) a temperate climate (including a
14 climate with cold winters and humid sum-
15 mers).

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

19 (1) the Director shall submit to the Secretary
20 a report that describes the status of the demonstra-
21 tion projects; and

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

1 **SEC. 150. ENERGY EFFICIENCY FOR DATA CENTER BUILD-**
2 **INGS.**

3 (a) IN GENERAL.—

4 (1) Not later than 90 days after the date of en-
5 actment of this Act, the Secretary of Energy and
6 Administrator of the Environmental Protection
7 Agency shall jointly, after consulting with informa-
8 tion technology industry and other interested par-
9 ties, initiate a voluntary national information pro-
10 gram for those types of data centers and data center
11 equipment and facilities that are widely used and for
12 which there is a potential for significant data center
13 energy savings as a result of such program.

14 (2) Such program shall—

15 (A) consistent with the objectives of para-
16 graph (1), determine the type of data center
17 and data center equipment and facilities to be
18 covered under such program; and

19 (B) include specifications, measurements,
20 and benchmarks that will enable data center op-
21 erators to make more informed decisions about
22 the energy efficiency and costs of data centers,
23 and that—

24 (i) reflect the total energy consump-
25 tion of data centers, including both equip-
26 ment and facilities, taking into account—

- 1 (I) the performance and utiliza-
2 tion of servers, data storage devices,
3 and other information technology
4 equipment;
- 5 (II) the efficiency of heating,
6 ventilation, and air conditioning, cool-
7 ing, and power conditioning systems;
- 8 (III) energy savings from the
9 adoption of software and data man-
10 agement techniques; and
- 11 (IV) other factors determined by
12 the organization described in sub-
13 section (b);
- 14 (ii) allow for creation of separate
15 specifications, measurements, and bench-
16 marks based on data center size and func-
17 tion, as well as other appropriate charac-
18 teristics determined by the organization
19 described in subsection (b);
- 20 (iii) advance the design and imple-
21 mentation of efficiency technologies to the
22 maximum extent economically practical;
23 and
- 24 (iv) provide to data center operators
25 in the private sector and the Federal Gov-

1 ernment information about best practices
2 and purchasing decisions that reduce the
3 energy consumption of data centers;

4 (C) publish the information described in
5 subparagraph (B), which may be disseminated
6 through catalogs, trade publications, the Inter-
7 net, or other mechanisms, that will allow data
8 center operators to assess the energy consump-
9 tion and potential cost savings of alternative
10 data centers and data center equipment and fa-
11 cilities; and

12 (D) not later than 1 year after the date of
13 enactment of this Act, and thereafter on an on-
14 going basis, transmit the information described
15 in subparagraph (B) to the Secretary and the
16 Administrator.

17 (3) Such program shall be developed and co-
18 ordinated by the data center efficiency organization
19 described in subsection (b) according to commonly
20 accepted procedures for the development of specifica-
21 tions, measurements, and benchmarks.

22 (b) DATA CENTER EFFICIENCY ORGANIZATION.—
23 Upon creation of the program under subsection (a), the
24 Secretary and the Administrator shall jointly designate an
25 information technology industry organization to coordi-

1 nate the program. Such organization, whether preexisting
2 or formed specifically for the purposes of subsection (a),
3 shall—

4 (1) consist of interested parties that have exper-
5 tise in energy efficiency and in the development, op-
6 eration, and functionality of computer data centers,
7 information technology equipment, and software, as
8 well as representatives of hardware manufacturers,
9 data center operators, and facility managers;

10 (2) obtain and address input from Department
11 of Energy National Laboratories or any college, uni-
12 versity, research institution, industry association,
13 company, or public interest group with applicable ex-
14 pertise in any of the areas listed in paragraph (1)
15 of this subsection;

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

19 (4) have a mission to develop and promote en-
20 ergy efficiency for data centers and information
21 technology; and

22 (5) have the primary responsibility to oversee
23 the development and publishing of the information,
24 measurements, and benchmarks described in sub-
25 section (a) and transmission of such information to

1 the Secretary and the Administrator for their adop-
2 tion under subsection (c).

3 (c) ADOPTION OF SPECIFICATIONS.—The Secretary
4 and the Administrator shall jointly, in accordance with the
5 requirements of section 12(d) of the National Technology
6 Transfer Advancement Act of 1995, adopt and publish the
7 specifications, measurements, and benchmarks described
8 in subsection (a) for use by the Federal Energy Manage-
9 ment Program and the Energy Star program as energy
10 efficiency requirements for the purposes of those pro-
11 grams.

12 (d) MONITORING.—The Secretary and the Adminis-
13 trator shall jointly monitor and evaluate the efforts to de-
14 velop the program described in subsection (a) and, not
15 later than 3 years after the date of enactment of this Act,
16 shall make a determination as to whether such program
17 is consistent with the objectives of subsection (a).

18 (e) ALTERNATIVE SYSTEM.—If the Secretary and the
19 Administrator make a determination under subsection (d)
20 that a voluntary national information program for data
21 centers consistent with the objectives of subsection (a) has
22 not been developed, the Secretary and the Administrator
23 shall jointly, after consultation with the National Institute
24 of Standards and Technology, develop, not later than 2

1 years after such determination, and implement the pro-
2 gram under subsection (a).

3 (f) PROTECTION OF PROPRIETARY INFORMATION.—

4 The Secretary, the Administrator, or the data center effi-
5 ciency organization shall not disclose any proprietary in-
6 formation or trade secrets provided by any individual or
7 company for the purposes of carrying out this program.

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

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

13 (A) a free-standing structure; or

14 (B) a facility within a larger structure,
15 that utilizes environmental control equipment to
16 maintain the proper conditions for the oper-
17 ation of electronic equipment.

18 (2) The term “data center operator” means any
19 person or government entity that builds or operates
20 a data center or purchases data center services,
21 equipment, and facilities.

22 **SEC. 151. AUTHORIZATION OF APPROPRIATIONS.**

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

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

2 (2) \$20,000,000 for each of the fiscal years
3 2009 through 2014, to remain available until ex-
4 pended.

5 (b) ZERO-ENERGY COMMERCIAL BUILDINGS INITIA-
6 TIVE.—There are authorized to be appropriated to carry
7 out the initiative described in section 143—

8 (1) \$20,000,000 for fiscal year 2008;

9 (2) \$50,000,000 for each of fiscal years 2009
10 and 2010;

11 (3) \$100,000,000 for each of fiscal years 2011
12 and 2012; and

13 (4) \$200,000,000 for each of fiscal years 2013
14 through 2050.

15 (c) DEMONSTRATION PROJECTS.—

16 (1) FEDERAL DEMONSTRATION PROJECT.—

17 There are authorized to be appropriated to carry out
18 the Federal demonstration project described in sec-
19 tion 149(b)(1) \$10,000,000 for the period of fiscal
20 years 2009 through 2014, to remain available until
21 expended.

22 (2) UNIVERSITY DEMONSTRATION PROJECTS.—

23 There are authorized to be appropriated to carry out
24 the university demonstration projects described in
25 section 149(b)(2) \$10,000,000 for the period of fis-

1 cal years 2009 through 2014, to remain available
2 until expended.

3 (d) ENERGY EFFICIENCY FOR DATA CENTER BUILD-
4 INGS.—There are authorized to be appropriated to each
5 of the Secretary and the Administrator for carrying out
6 section 150 \$250,000 for each of the fiscal years 2008
7 through 2012.

8 **SEC. 152. STUDY AND REPORT ON USE OF POWER MANAGE-**
9 **MENT SOFTWARE.**

10 (a) STUDY.—The Secretary of Energy, through the
11 Federal Energy Management Program, shall conduct a
12 study on the use of power management software by the
13 Department of Energy and Federal facilities to reduce the
14 use of electricity in computer monitors and personal com-
15 puters.

16 (b) REPORT.—Not later than 60 days after the date
17 of enactment of the Act, the Secretary shall submit to
18 Congress a report containing the results of the study
19 under subsection (a), including a description of the rec-
20 ommendations developed under the study. The Secretary
21 and the Federal Energy Management Program are en-
22 couraged to draw upon similar studies and efforts by other
23 Federal entities on power management software.

1 **Subtitle E—Industrial Energy**
2 **Efficiency**

3 **SEC. 161. INDUSTRIAL ENERGY EFFICIENCY.**

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

7 **“PART E—INDUSTRIAL ENERGY EFFICIENCY**

8 **“SEC. 371. SURVEY OF WASTE INDUSTRIAL ENERGY RECOV-**
9 **ERY AND POTENTIAL USE.**

10 “Congress finds that—

11 “(1) the Nation should encourage the use of
12 otherwise wasted energy and the development of
13 combined heat and power and other waste energy re-
14 covery projects where there is wasted thermal energy
15 in large volumes at potentially useful temperatures;

16 “(2) such projects would increase energy effi-
17 ciency and lower pollution by generating power with
18 no incremental fossil fuel consumption;

19 “(3) because recovered waste energy and com-
20 bined heat and power projects are associated with
21 end-uses of thermal energy and electricity at the
22 local level, they help avoid new transmission lines,
23 reduce line losses, reduce local air pollutant emis-
24 sions, and reduce vulnerability to extreme weather
25 and terrorism; and

1 “(4) States, localities, electric utilities, and
2 other electricity customers may benefit from private
3 investments in recovered waste energy and combined
4 heat and power projects at industrial and commer-
5 cial sites by avoiding generation, transmission and
6 distribution expenses, and transmission line loss ex-
7 penses that may otherwise be required to be recov-
8 ered from ratepayers.

9 **“SEC. 372. DEFINITIONS.**

10 “For purposes of this Part:

11 “(1) The term ‘Administrator’ means the Ad-
12 ministrator of the Environmental Protection Agency.

13 “(2) The term ‘waste energy’ means—

14 “(A) exhaust heat and flared gases from
15 any industrial process;

16 “(B) waste gas or industrial tail gas that
17 would otherwise be flared, incinerated or vent-
18 ed;

19 “(C) a pressure drop in any gas, excluding
20 any pressure drop to a condenser that subse-
21 quently vents the resulting heat; and

22 “(D) such other forms of waste energy as
23 the Administrator may identify.

24 “(3) The term ‘recoverable waste energy’ means
25 waste energy from which electricity or useful ther-

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

3 “(4) The term ‘net excess power’ means, for
4 any facility, recoverable waste energy recovered in
5 the form of electricity in amounts exceeding the total
6 consumption of electricity at the specific time of gen-
7 eration on the site where the facility is located.

8 “(5) The term ‘useful thermal energy’ is energy
9 in the forms of direct heat, steam, hot water, or
10 other thermal forms that is used in production and
11 beneficial measures for heating, cooling, humidity
12 control, process use, or other valid thermal end-use
13 energy requirements, and for which fuel or elec-
14 tricity would otherwise be consumed.

15 “(6) The term ‘combined heat and power sys-
16 tem’ means a facility—

17 “(A) that simultaneously and efficiently
18 produces useful thermal energy and electricity;
19 and

20 “(B) that recovers not less than 60 percent
21 of the energy value in the fuel (on a lower-heat-
22 ing-value basis) in the form of useful thermal
23 energy and electricity.

24 “(7) The terms ‘electric utility’, ‘State regu-
25 lated electric utility’, ‘nonregulated electric utility’

1 and other terms used in this Part have the same
2 meanings as when such terms are used in title I of
3 the Public Utility Regulatory Policies Act of 1978
4 (relating to retail regulatory policies for electric utili-
5 ties).

6 **“SEC. 373. SURVEY AND REGISTRY.**

7 “(a) RECOVERABLE WASTE-ENERGY INVENTORY
8 PROGRAM.—The Administrator, in cooperation with State
9 energy offices, shall establish a Recoverable Waste-Energy
10 Inventory Program. The program shall include an ongoing
11 survey of all major industrial and large commercial com-
12 bustion sources in the United States and the sites where
13 these are located, together with a review of each for quan-
14 tity and quality of waste energy.

15 “(b) CRITERIA.—The Administrator shall, within 120
16 days after the enactment of this section, develop and pub-
17 lish proposed criteria subject to notice and comment, and
18 within 270 days of enactment, establish final criteria, to
19 identify and designate those sources and sites in the inven-
20 tory under subsection (a) where recoverable waste energy
21 projects or combined heat and power system projects may
22 have economic feasibility with a payback of invested costs
23 within 5 years or less from the date of first full project
24 operation (including incentives offered under this Part).
25 Such criteria will include standards that insure that

1 projects proposed for inclusion in the Registry are not de-
2 veloped for the primary purpose of making sales of excess
3 electric power under the regulatory treatment provided
4 under this Part.

5 “(c) TECHNICAL SUPPORT.—The Administrator shall
6 provide to owners or operators of combustion sources tech-
7 nical support and offer partial funding (up to one-half of
8 total costs) for feasibility studies to confirm whether or
9 not investment in recovery of waste energy or combined
10 heat and power at that source would offer a payback pe-
11 riod of 5 years or less.

12 “(d) REGISTRY.—(1) The Administrator shall, within
13 one year after the enactment of this section, establish a
14 Registry of Recoverable Waste-energy Sources, and sites
15 on which those sources are located, which meet the criteria
16 set forth under subsection (b). The Administrator shall
17 update the Registry on not less than a monthly basis, and
18 make the Registry accessible to the public on the Environ-
19 mental Protection Agency web site. Any State or electric
20 utility may contest the listing of any source or site by sub-
21 mitting a petition to the Administrator.

22 “(2) The Administrator shall register and include on
23 the Registry all sites meeting the criteria of subsection (b).
24 The Administrator shall calculate the total amounts of po-
25 tentially recoverable waste energy from sources at such

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

6 “(3) The Administrator shall notify owners or opera-
7 tors of Recoverable Waste-Energy Sources and sites listed
8 in the Registry prior to publishing the listing. The owner
9 or operator of sources at such sites may elect to have de-
10 tailed quantitative information concerning that site not
11 made public by notifying the Administrator of that elec-
12 tion. Information concerning that site shall be included in
13 State totals unless there are fewer than 3 sites in the
14 State.

15 “(4) As waste energy projects achieve successful re-
16 covery of waste energy, the Administrator shall remove the
17 related sites or sources from the Registry, and shall des-
18 ignate the removed projects as eligible for the incentive
19 provisions provided under this Part and the regulatory
20 treatment required by this Part. No project shall be re-
21 moved from the Registry without the consent of the owner
22 or operator of the project if the owner or operator has
23 submitted a petition under section 375 and such petition
24 has not been acted upon or denied.

1 “(5) The Administrator shall not list any source con-
2 structed after the date of the enactment of this Part on
3 the Registry if the Administrator determines that such
4 source—

5 “(A) was developed for the primary purpose of
6 making sales of excess electric power under the reg-
7 ulatory treatment provided under this Part; or

8 “(B) does not capture at least 60 percent of the
9 total energy value of the fuels used (on a lower-heat-
10 ing-value basis) in the form of useful thermal en-
11 ergy, electricity, mechanical energy, chemical output,
12 or some combination of them.

13 “(e) SELF-CERTIFICATION.—Owners, operators, or
14 third-party developers of industrial waste-energy projects
15 that qualify under standards established by the Adminis-
16 trator may self-certify their sites or sources to the Admin-
17 istrator for inclusion in the Registry, subject to procedures
18 adopted by the Administrator. To prevent a fraudulent
19 listing, the sources shall be included on the Registry only
20 if the Administrator confirms the submitted data, at the
21 Administrator’s discretion.

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

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

5 “(g) OPTIMUM MEANS OF RECOVERY.—For each site
6 listed in the Registry, at the request of the owner or oper-
7 ator of the site, the Administrator shall offer, in coopera-
8 tion with Clean Energy Application Centers operated by
9 the Secretary of Energy, suggestions of optimum means
10 of recovery of value from waste energy stream in the form
11 of electricity, useful thermal energy, or other energy-re-
12 lated products.

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

17 “(i) AUTHORIZATION.—There are authorized to be
18 appropriated to the Administrator for the purposes of cre-
19 ating and maintaining the Registry and services author-
20 ized by this section not more than \$1,000,000 for each
21 of fiscal years 2008, 2009, 2010, 2010, and 2012 and not
22 more than \$5,000,000 to the States to provide funding
23 for State energy office functions under this section.

1 **“SEC. 374. WASTE ENERGY RECOVERY INCENTIVE GRANT**
2 **PROGRAM.**

3 “(a) ESTABLISHMENT OF PROGRAM.—There is es-
4 tablished in the Environmental Protection Agency a Waste
5 Energy Recovery Incentive Grant Program to provide in-
6 centive grants to owners and operators of projects that
7 successfully produce electricity or incremental useful ther-
8 mal energy from waste energy recovery (and to utilities
9 purchasing or distributing such electricity) and to reward
10 States that have achieved 80 percent or more of identified
11 waste-heat recovery opportunities.

12 “(b) GRANTS TO PROJECTS AND UTILITIES.—

13 “(1) IN GENERAL.—The Administrator shall
14 make grants to the owners or operators of waste en-
15 ergy recovery projects, and, in the case of excess
16 power purchased or transmitted by a electric utility,
17 to such utility. Grants may only be made upon re-
18 ceipt of proof of waste energy recovery or excess
19 electricity generation, or both, from the project in a
20 form prescribed by the Administrator, by rule.

21 “(2) EXCESS ELECTRIC ENERGY.—In the case
22 of waste energy recovery, the grants under this sec-
23 tion shall be made at the rate of \$10 per megawatt
24 hour of documented electricity produced from recov-
25 ered waste energy (or by prevention of waste energy
26 in the case of a new facility) by the project during

1 the first 3 calendar years of such production, begin-
2 ning on or after the date of enactment of this Part.
3 If the project produces net excess power and an elec-
4 tric utility purchases or transmits the excess power,
5 50 percent of so much of such grant as is attrib-
6 utable to the net excess power shall be paid to the
7 electric utility purchasing or transporting the net ex-
8 cess power.

9 “(3) USEFUL THERMAL ENERGY.—In the case
10 of waste energy recovery that produces useful ther-
11 mal energy that is used for a purpose different from
12 that for which the project is principally designed, the
13 grants under this section shall be made to the owner
14 or operator of the waste energy recovery project at
15 the rate of \$10 for each 3,412,000 Btus of such ex-
16 cess thermal energy used for such different purpose.

17 “(c) GRANTS TO STATES.—In the case of States that
18 have achieved 80 percent or more of waste-heat recovery
19 opportunities identified by the Administrator under this
20 Part, the Administrator shall make grants to the States
21 of up to \$1,000 per Megawatt of waste-heat capacity re-
22 covered (or its thermal equivalent) to support State-level
23 programs to identify and achieve additional energy effi-
24 ciency.

1 thority (with respect to each electric utility for which it
2 has ratemaking authority), or nonregulated electric utility,
3 of a request from a project sponsor or owner or operator,
4 the State regulatory authority or nonregulated electric
5 utility shall provide public notice and conduct a hearing
6 respecting the standard established by subsection (b) and,
7 on the basis of such hearing, shall consider and make a
8 determination whether or not it is appropriate to imple-
9 ment such standard to carry out the purposes of this Part.
10 For purposes of any such determination and any review
11 of such determination in any court the purposes of this
12 section supplement otherwise applicable State law. Noth-
13 ing in this Part prohibits any State regulatory authority
14 or nonregulated electric utility from making any deter-
15 mination that it is not appropriate to adopt any such
16 standard, pursuant to its authority under otherwise appli-
17 cable State law.

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

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

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

5 “(1) SALE OF NET EXCESS POWER TO UTIL-
6 ITY.—The electric utility shall purchase the net ex-
7 cess power from the owner or operator of the eligible
8 waste-energy recovery project during the operation
9 of the project under a contract entered into for that
10 purpose.

11 “(2) TRANSPORT BY UTILITY FOR DIRECT SALE
12 TO THIRD PARTY.—The electric utility shall transmit
13 the net excess power on behalf of the project owner
14 or operator to up to three separate locations on that
15 utility’s system for direct sale by that owner or oper-
16 ator to third parties at such locations.

17 “(3) TRANSPORT OVER PRIVATE TRANSMISSION
18 LINES.—The State and the electric utility shall per-
19 mit, and shall waive or modify such laws as would
20 otherwise prohibit, the construction and operation of
21 private electric wires constructed, owned and oper-
22 ated by the project owner or operator, to transport
23 such power to up to 3 purchasers within a 3-mile ra-
24 dius of the project, allowing such wires to utilize or
25 cross public rights-of-way, without subjecting the

1 project to regulation as a public utility, and accord-
2 ing such wires the same treatment for safety, zon-
3 ing, land-use and other legal privileges as apply or
4 would apply to the utility's own wires, except that—

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

8 “(B) such wires shall be physically seg-
9 regated and not interconnected with any portion
10 of the utility's system, except on the customer's
11 side of the utility's revenue meter and in a
12 manner that precludes any possible export of
13 such electricity onto the utility system, or dis-
14 ruption of such system.

15 “(4) AGREED UPON ALTERNATIVES.—The util-
16 ity and the owner or operator of the project may
17 reach agreement on any alternate arrangement and
18 its associated payments or rates that is mutually
19 satisfactory and in accord with State law.

20 “(d) RATE CONDITIONS AND CRITERIA.—

21 “(1) IN GENERAL.—The options described in
22 paragraphs (1) and (2) in subsection (c) shall be of-
23 fered under purchase and transport rate conditions
24 reflecting the rate components defined under para-
25 graph (2) of this subsection as applicable under the

1 circumstances described in paragraph (3) of this
2 subsection.

3 “(2) RATE COMPONENTS.—For purposes of this
4 section:

5 “(A) PER UNIT DISTRIBUTION COSTS.—
6 The term ‘per unit distribution costs’ means the
7 utility’s depreciated book-value distribution sys-
8 tem costs divided by the previous year’s volume
9 of utility electricity sales or transmission at the
10 distribution level in kilowatt hours.

11 “(B) PER UNIT DISTRIBUTION MARGIN.—
12 The term ‘per unit distribution margin’ means:

13 “(i) In the case of a State regulated
14 electric utility, a per-unit gross pretax
15 profit determined by multiplying the util-
16 ity’s State-approved percentage rate of re-
17 turn for distribution system assets by the
18 per unit distribution costs.

19 “(ii) In the case of an nonregulated
20 utility, a per unit contribution to net reve-
21 nues determined by dividing the amount of
22 any net revenue payment or contribution
23 to the nonregulated utility’s owners or sub-
24 scribers in the prior year by the utility’s
25 gross revenues for the prior year to obtain

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

4 “(C) PER UNIT TRANSMISSION COSTS.—
5 The term ‘per unit transmission costs’ means
6 the total cost of those transmission services
7 purchased or provided by a utility on a per-kilo-
8 watt-hour basis as included in that utility’s re-
9 tail rate.

10 “(3) APPLICABLE RATES.—

11 “(A) RATES APPLICABLE TO SALE OF NET
12 EXCESS POWER.—Sales made by a project
13 owner or operator under the option described in
14 subsection (c) (1) shall be paid for on a per kil-
15 owatt hour basis that shall equal the full
16 undiscounted retail rate paid to the utility for
17 power purchased by such a facility minus per
18 unit distribution costs, as applicable to the type
19 of utility purchasing the power. If the net ex-
20 cess power is made available for purchase at
21 voltages that must be transformed to or from
22 voltages exceeding 25 kilovolts to be available
23 for resale by the utility, then the purchase price
24 shall further be reduced by per unit trans-
25 mission costs.

1 “(B) RATES APPLICABLE TO TRANSPORT
2 BY UTILITY FOR DIRECT SALE TO THIRD PAR-
3 TIES.—Transportation by utilities of power on
4 behalf of the owner or operator of a project
5 under the option described in subsection (c)(2)
6 shall incur a transportation rate equal to the
7 per unit distribution costs and per unit dis-
8 tribution margin, as applicable to the type of
9 utility transporting the power. If the net excess
10 power is made available for transportation at
11 voltages that must be transformed to or from
12 voltages exceeding 25 kilovolts to be trans-
13 ported to the designated third-party purchasers,
14 then the transport rate shall further be in-
15 creased by per unit transmission costs. In
16 States with competitive retail markets for elec-
17 tricity, the applicable transportation rate for
18 similar transportation shall be applied in lieu of
19 any rate calculated under this paragraph.

20 “(4) LIMITATIONS.—(A) Any rate established
21 for sale or transportation under this section shall be
22 modified over time with changes in the electric util-
23 ity’s underlying costs or rates, and shall reflect the
24 same time-sensitivity and billing periods as are es-

1 established in the retail sales or transportation rates
2 offered by the utility.

3 “(B) No utility shall be required to purchase or
4 transport an amount of net excess power under this
5 section that exceeds the available capacity of the
6 wires, meter, or other equipment of the electric util-
7 ity serving the site unless the owner or operator of
8 the project agrees to pay necessary and reasonable
9 upgrade costs.

10 “(e) PROCEDURAL REQUIREMENTS FOR CONSIDER-
11 ATION AND DETERMINATION.—(1) The consideration re-
12 ferred to in subsection (b) shall be made after public no-
13 tice and hearing. The determination referred to in sub-
14 section (b) shall be—

15 “(A) in writing,

16 “(B) based upon findings included in such de-
17 termination and upon the evidence presented at the
18 hearing, and

19 “(C) available to the public.

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

1 “(3) Except as otherwise provided in paragraph (1),
2 and paragraph (2), the procedures for the consideration
3 and determination referred to in subsection (a) shall be
4 those established by the State regulatory authority or the
5 nonregulated electric utility. In the instance that there is
6 more than one project seeking such consideration simulta-
7 neously in connection with the same utility, such pro-
8 ceeding may encompass all such projects, provided that
9 full attention is paid to their individual circumstances and
10 merits, and an individual judgment is reached with respect
11 to each project.

12 “(f) IMPLEMENTATION.—(1) The State regulatory
13 authority (with respect to each electric utility for which
14 it has ratemaking authority) or nonregulated electric util-
15 ity may, to the extent consistent with otherwise applicable
16 State law—

17 “(A) implement the standard determined under
18 this section, or

19 “(B) decline to implement any such standard.

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

1 to the public, and the Administrator shall include the
2 project in an annual report to Congress concerning lost
3 opportunities for waste-heat recovery, specifically identi-
4 fying the utility and stating the amount of lost energy and
5 emissions savings calculated. If a State regulatory author-
6 ity (with respect to each electric utility for which it has
7 ratemaking authority) or nonregulated electric utility de-
8 clines to implement the standard established by this sec-
9 tion, the project sponsor may submit a new petition under
10 this section with respect to such project at any time after
11 24 months after the date on which the State regulatory
12 authority or nonregulated utility has declined to imple-
13 ment such standard.

14 **“SEC. 376. CLEAN ENERGY APPLICATION CENTERS.**

15 “(a) PURPOSE.—The purpose of this section is to re-
16 name and provide for the continued operation of the
17 United States Department of Energy’s Regional Com-
18 bined Heat and Power (CHP) Application Centers.

19 “(b) FINDINGS.—The Congress finds the Depart-
20 ment of Energy’s Regional Combined Heat and Power
21 (CHP) Application Centers program has produced signifi-
22 cant energy savings and climate change benefits and will
23 continue to do so through the deployment of clean energy
24 technologies such as Combined Heat and Power (CHP),

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

3 “(c) RENAMING.—The Combined Heat and Power
4 Application Centers at the Department of Energy are
5 hereby be redesignated as Clean Energy Application Cen-
6 ters. Any reference in any law, rule or regulation or publi-
7 cation to the Combined Heat and Power Application Cen-
8 ters shall be treated as a reference to the Clean Energy
9 Application Centers.

10 “(d) RELOCATION.—In order to better coordinate ef-
11 forts with the separate Industrial Assessment Centers and
12 to assure that the energy efficiency and, when applicable,
13 the renewable nature of deploying mature clean energy
14 technology is fully accounted for, the Secretary of Energy
15 shall relocate the administration of the Clean Energy Ap-
16 plication Centers to the Office of Energy Efficiency and
17 Renewable Energy within the Department of Energy. The
18 Office of Electricity Delivery and Energy Reliability shall
19 continue to perform work on the role of such technology
20 in support of the grid and its reliability and security, and
21 shall assist the Clean Energy Application Centers in their
22 work with regard to the grid and with electric utilities.

23 “(e) GRANTS.—

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

1 and other appropriate institutions to assure the con-
2 tinued operations and effectiveness of 8 Regional
3 Clean Energy Application Centers in each of the fol-
4 lowing regions (as designated for such purposes as
5 of the date of the enactment of this section):

6 “(A) Gulf Coast.

7 “(B) Intermountain.

8 “(C) Mid-Atlantic.

9 “(D) Midwest.

10 “(E) Northeast.

11 “(F) Northwest.

12 “(G) Pacific.

13 “(H) Southeast.

14 “(2) ESTABLISHMENT OF GOALS AND COMPLI-
15 ANCE.—In making grants under this section, the
16 Secretary shall ensure that sufficient goals are es-
17 tablished and met by each Center throughout the
18 program duration concerning outreach and tech-
19 nology deployment.

20 “(f) ACTIVITIES.—Each Clean Energy Application
21 Center shall operate a program to encourage deployment
22 of clean energy technologies through education and out-
23 reach to building and industrial professionals, and to other
24 individuals and organizations with an interest in efficient
25 energy use. In addition, the Centers shall provide project

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

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

8 “(2) Developing and conducting target market
9 workshops, seminars, internet programs and other
10 activities to educate end users, regulators, and
11 stakeholders in a manner that leads to the deploy-
12 ment of clean energy technologies.

13 “(3) Providing or coordinating onsite assess-
14 ments for sites and enterprises that may consider
15 deployment of clean energy technology.

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

18 “(5) Providing consulting support to sites con-
19 sidering deployment of clean energy technologies.

20 “(6) Assisting organizations developing clean
21 energy technologies to overcome barriers to deploy-
22 ment.

23 “(7) Assisting companies and organizations
24 with performance evaluations of any clean energy
25 technology implemented.

1 “(g) DURATION.—A grant awarded under this sec-
 2 tion shall be for a period of 5 years. Each grant shall be
 3 evaluated annually for its continuation based on its activi-
 4 ties and results.

5 “(h) AUTHORIZATION.—There is authorized to be ap-
 6 propriated for purposes of this section the sum of
 7 \$10,000,000 for each of fiscal years 2008, 2009, 2010,
 8 2011, and 2012.”.

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

“PART E—INDUSTRIAL ENERGY EFFICIENCY

“Sec. 371. Survey of waste industrial energy recovery and potential use.

“Sec. 372. Definitions.

“Sec. 373. Survey and registry.

“Sec. 374. Incentives for recovery, utilization and prevention of industrial waste
 energy.

“Sec. 375. Clean Energy Application Centers.”.

12 **Subtitle F—Energy Efficiency of**
 13 **Public Institutions**

14 **SEC. 171. SHORT TITLE.**

15 This subtitle may be cited as the “Sustainable En-
 16 ergy Institutional Infrastructure Act of 2007”.

17 **SEC. 172. FINDINGS.**

18 The Congress finds the following:

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

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

4 (3) Use of these renewable energy resources to
5 meet energy requirements will reduce reliance on
6 fossil fuels and the associated emissions of air pollu-
7 tion and carbon dioxide.

8 (4) CHP is a highly efficient and environ-
9 mentally beneficial means to generate electric energy
10 and heat, and offers total efficiency much greater
11 than conventional separate systems, where electric
12 energy is generated at and transmitted long dis-
13 tances from a centrally located generation facility,
14 and onsite heating and cooling equipment is used to
15 meet nonelectric energy requirements.

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

21 (6) The increased efficiency of CHP results in
22 reduction in emissions of air pollution and carbon di-
23 oxide.

24 (7) District energy systems represent a key op-
25 portunity for expanding implementation of CHP be-

1 cause district energy systems provide a means of de-
2 livering thermal energy from CHP to a substantial
3 base of end users.

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

11 (9) Evaluation and implementation of sustain-
12 able energy infrastructure is a complex undertaking
13 involving a variety of technical, economic, legal, and
14 institutional issues and barriers, and technical as-
15 sistance is often required to successfully navigate
16 these barriers.

17 (10) The major constraint to significant expan-
18 sion of sustainable energy infrastructure by institu-
19 tional entities is a lack of capital funding for imple-
20 mentation.

21 **SEC. 173. DEFINITIONS.**

22 For purposes of this subtitle—

23 (1) the term “CHP” means combined heat and
24 power, or the generation of electric energy and heat
25 in a single, integrated system;

1 (2) the term “district energy systems” means
2 systems providing thermal energy to buildings and
3 other energy consumers from one or more plants to
4 individual buildings to provide space heating, air
5 conditioning, domestic hot water, industrial process
6 energy, and other end uses;

7 (3) the term “institutional entities” means local
8 governments, public school districts, municipal utili-
9 ties, State governments, Federal agencies, and other
10 entities established by local, State, or Federal agen-
11 cies to meet public purposes, and public or private
12 colleges, universities, airports, and hospitals;

13 (4) the term “renewable thermal energy
14 sources” means non-fossil-fuel energy sources, in-
15 cluding biomass, geothermal, solar, natural sources
16 of cooling such as cold lake or ocean water, and
17 other sources that can provide heating or cooling en-
18 ergy;

19 (5) the term “sustainable energy infrastruc-
20 ture” means facilities for production of energy from
21 CHP or renewable thermal energy sources and dis-
22 tribution of thermal energy to users; and

23 (6) the term “thermal energy” means heating
24 or cooling energy in the form of hot water or steam
25 (heating energy) or chilled water (cooling energy).

1 **SEC. 174. TECHNICAL ASSISTANCE PROGRAM.**

2 (a) ESTABLISHMENT.—The Secretary of Energy
3 shall, with funds appropriated for this purpose, implement
4 a program of information dissemination and technical as-
5 sistance to institutional entities to assist them in identi-
6 fying, evaluating, designing, and implementing sustainable
7 energy infrastructure.

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

11 (1) identification of opportunities for sustain-
12 able energy infrastructure;

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

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

17 (4) financing alternatives;

18 (5) permitting and siting issues;

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

21 (7) computer software for assessment, design,
22 and operation and maintenance of sustainable en-
23 ergy infrastructure systems.

24 (c) ELIGIBLE COSTS.—Upon application by an insti-
25 tutional entity, the Secretary may make grants to such
26 applicant to fund—

1 (1) 75 percent of the cost of feasibility studies
2 to assess the potential for implementation or im-
3 provement of sustainable energy infrastructure;

4 (2) 60 percent of the cost of guidance on over-
5 coming barriers to project implementation, including
6 financial, contracting, siting, and permitting bar-
7 riers; and

8 (3) 45 percent of the cost of detailed engineer-
9 ing and design of sustainable energy infrastructure.

10 (d) AUTHORIZATION OF APPROPRIATIONS.—There
11 are authorized to be appropriated to carry out this section
12 \$15,000,000 for fiscal year 2008, \$15,000,000 for fiscal
13 year 2009, and \$15,000,000 for fiscal year 2010.

14 **SEC. 175. REVOLVING FUND.**

15 (a) ESTABLISHMENT.—The Secretary of Energy
16 shall, with funds appropriated for this purpose, create a
17 Sustainable Institutions Revolving Fund for the purpose
18 of establishing and operating a Sustainable Institutions
19 Revolving Fund (in this section referred to as the
20 “SIRF”) for the purpose of providing loans for the con-
21 struction or improvement of sustainable energy infrastruc-
22 ture to serve institutional entities.

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

1 \$15,000,000. Such loans shall be for constructing sustain-
2 able energy infrastructure, including—

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

5 (2) facilities for storing thermal energy;

6 (3) facilities for distribution of thermal energy;

7 and

8 (4) costs for converting buildings to use ther-
9 mal energy from sustainable energy sources.

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

14 (1) The project shall be technically and eco-
15 nomically feasible as determined by a detailed feasi-
16 bility analysis performed or corroborated by an inde-
17 pendent consultant.

18 (2) The borrower shall demonstrate that ade-
19 quate and comparable financing was not found to be
20 reasonably available from other sources, and that
21 the project is economically more feasible with the
22 availability of the SIRF loan.

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

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

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

16 (2) Interest shall accrue from the date of the loan,
17 but the first payment of interest shall be deferred, if de-
18 sired by the borrower, for a period ending not later than
19 3 years after the initial date of operation of the system.

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

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

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

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

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

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

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

13 (f) APPLICATION OF REPAYMENTS FOR DEFICIT RE-
14 DUCTION.—Loans from the SIRF shall be made, with
15 funds available for this purpose, during the 10 years start-
16 ing from the date that the first loan from the fund is
17 made. Until this 10-year period ends, funds repaid by bor-
18 rowers shall be deposited in the SIRF to be made available
19 for additional loans. Once loans from the SIRF are no
20 longer being made, repayments shall go directly into the
21 United States Treasury.

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

24 (1) maximize energy efficiency;

1 “\$125,000,000 for each of the fiscal years 2007, 2008,
2 2009, 2010, 2011, and 2012”.

3 **Subtitle G—Energy Savings**
4 **Performance Contracting**

5 **SEC. 181. DEFINITION OF ENERGY SAVINGS.**

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

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

11 (2) by striking “means a reduction” and insert-
12 ing “means—

13 “(A) a reduction”;

14 (3) by striking the period at the end and insert-
15 ing a semicolon; and

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

17 “(B) the increased efficient use of an exist-
18 ing energy source by cogeneration or heat re-
19 covery, and installation of renewable energy sys-
20 tems;

21 “(C) if otherwise authorized by Federal or
22 State law (including regulations), the sale or
23 transfer of electrical or thermal energy gen-
24 erated onsite but in excess of Federal needs, to
25 utilities or non-Federal energy users; and

1 “(D) the increased efficient use of existing
2 water sources in interior or exterior applica-
3 tions.”.

4 **SEC. 182. FINANCING FLEXIBILITY.**

5 Section 801(a)(2) of the National Energy Conserva-
6 tion Policy Act (42 U.S.C. 8287(a)(2)) is amended by add-
7 ing at the end the following:

8 “(E) SEPARATE CONTRACTS.—In carrying out a con-
9 tract under this title, a Federal agency may—

10 “(i) enter into a separate contract for energy
11 services and conservation measures under the con-
12 tract; and

13 “(ii) provide all or part of the financing nec-
14 essary to carry out the contract.”.

15 **SEC. 183. AUTHORITY TO ENTER INTO CONTRACTS; RE-**
16 **PORTS.**

17 (a) AUTHORITY TO ENTER INTO CONTRACTS.—Sec-
18 tion 801(a)(2)(D) of the National Energy Conservation
19 Policy Act (42 U.S.C. 8287(a)(2)(D)) is amended—

20 (1) in clause (ii), by inserting “and” after the
21 semicolon at the end;

22 (2) by striking clause (iii); and

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

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

1 is amended by inserting “and any termination penalty ex-
2 posure” after “the energy and cost savings that have re-
3 sulted from such contracts”.

4 (c) CONFORMING AMENDMENT.—Section 2913 of
5 title 10, United States Code is amended by striking sub-
6 section (e).

7 **SEC. 184. PERMANENT REAUTHORIZATION.**

8 Section 801 of the National Energy Conservation
9 Policy Act (42 U.S.C. 8287) is amended by striking sub-
10 section (c).

11 **SEC. 185. TRAINING FEDERAL CONTRACTING OFFICERS TO**
12 **NEGOTIATE ENERGY EFFICIENCY CON-**
13 **TRACTS.**

14 (a) PROGRAM.—The Secretary of Energy shall create
15 and administer in the Federal Energy Management Pro-
16 gram a training program to educate Federal contract ne-
17 gotiation and contract management personnel so that such
18 contract officers are prepared to—

19 (1) negotiate energy savings performance con-
20 tracts;

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

1 (3) review Federal contracts for all products
2 and services for their potential energy efficiency op-
3 portunities and implications.

4 (b) SCHEDULE.—The Federal Energy Management
5 Program shall plan, staff, announce, and begin such train-
6 ing not later than one year after the date of enactment
7 of this Act.

8 (c) PERSONNEL TO BE TRAINED.—Personnel appro-
9 priate to receive such training shall be selected by and sent
10 for such training from—

11 (1) the Department of Defense;

12 (2) the Department of Veterans Affairs;

13 (3) the Department of Energy;

14 (4) the General Services Administration;

15 (5) the Department of Housing and Urban De-
16 velopment;

17 (6) the United States Postal Service; and

18 (7) all other Federal agencies and departments
19 that enter contracts for buildings, building services,
20 electricity and electricity services, natural gas and
21 natural gas services, heating and air conditioning
22 services, building fuel purchases, and other types of
23 procurement or service contracts determined by Fed-
24 eral Energy Management Program to offer the po-
25 tential for energy savings and greenhouse gas emis-

1 sion reductions if negotiated with such goals in
2 mind.

3 (d) TRAINERS.—Such training may be conducted by
4 attorneys or contract officers with experience in negoti-
5 ating and managing such contracts from any agency, and
6 the Department of Energy shall reimburse their related
7 salaries and expenses from amounts appropriated for car-
8 rying out this section to the extent they are not already
9 employees of the Department of Energy. Such training
10 may also be provided by private experts hired by the De-
11 partment of Energy for the purposes of this section, except
12 that the Department may not hire experts who are simul-
13 taneously employed by any company under contract to
14 provide such energy efficiency services to the Federal Gov-
15 ernment.

16 (e) AUTHORIZATION OF APPROPRIATIONS.—There
17 are authorized to be appropriated to the Secretary of En-
18 ergy for carrying out this section \$750,000 for each of
19 fiscal years 2008 through 2012.

20 **SEC. 186. PROMOTING LONG-TERM ENERGY SAVINGS PER-**
21 **FORMANCE CONTRACTS AND VERIFYING SAV-**
22 **INGS.**

23 Section 801(a)(2) of the National Energy Conserva-
24 tion Policy Act (42 U.S.C. 8287(a)(2)) is amended—

1 (1) in subparagraph (D), by inserting “begin-
2 ning on the date of the delivery order” after “25
3 years”; and

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

5 “(F) PROMOTION OF CONTRACTS.—In car-
6 rying out this section, a Federal agency shall
7 not—

8 “(i) establish a Federal agency policy
9 that limits the maximum contract term
10 under subparagraph (D) to a period short-
11 er than 25 years; or

12 “(ii) limit the total amount of obliga-
13 tions under energy savings performance
14 contracts or other private financing of en-
15 ergy savings measures.

16 “(G) MEASUREMENT AND VERIFICATION
17 REQUIREMENTS FOR PRIVATE FINANCING.—

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

23 “(I) in the case of energy savings
24 performance contracts, the need for
25 energy audits, calculation of energy

1 savings, and any other evaluation of
2 costs and savings needed to imple-
3 ment the guarantee of savings under
4 this section; and

5 “(II) in the case of utility energy
6 service contracts, needs that are simi-
7 lar to the purposes described in sub-
8 clause (I).

9 “(ii) MODIFICATION OF EXISTING
10 CONTRACTS.—Not later than 180 days
11 after the date of enactment of this sub-
12 paragraph, each Federal agency shall, to
13 the maximum extent practicable, modify
14 any indefinite delivery and indefinite quan-
15 tity energy savings performance contracts,
16 and other indefinite delivery and indefinite
17 quantity contracts using private financing,
18 to conform to the amendments made by
19 subtitle G of title I of the [Energy Effi-
20 ciency Improvement Act of 2007].”

21 **Subtitle H—Advisory Committee on**
22 **Energy Efficiency Financing**

23 **SEC. 189. ADVISORY COMMITTEE.**

24 (a) ESTABLISHMENT.—The Assistant Secretary of
25 Energy for Energy Efficiency and Renewable Energy shall

1 establish an advisory committee to provide advice and rec-
2 ommendations to the Department of Energy on energy ef-
3 ficiency finance and investment issues, options, ideas, and
4 trends, and to assist the energy community in identifying
5 practical ways of lowering costs and increasing invest-
6 ments in energy efficiency technologies.

7 (b) MEMBERSHIP.—The advisory committee estab-
8 lished under this section shall have a balanced membership
9 that shall include members representing the following
10 communities:

11 (1) Providers of seed capital.

12 (2) Venture capitalists.

13 (3) Private equity sources.

14 (4) Investment banking corporate finance.

15 (5) Investment banking mergers and acquisi-
16 tions.

17 (6) Equity capital markets.

18 (7) Debt capital markets.

19 (8) Research analysts.

20 (9) Sales and trading.

21 (10) Commercial lenders.

22 (11) Residential lenders.

23 (c) AUTHORIZATION OF APPROPRIATIONS.—There
24 are authorized to be appropriated such sums as may be

1 necessary to the Secretary of Energy for carrying out this
2 section.

3 **Subtitle I—Energy Efficiency Block**
4 **Grant Program**

5 **SEC. 191. DEFINITIONS.**

6 For purposes of this subtitle—

7 (1) the term “eligible entity” means a State or
8 an eligible unit of local government within a State;

9 (2) the term “eligible unit of local government”
10 means—

11 (A) a city with a population of at least
12 50,000; and

13 (B) a county with a population of at least
14 200,000;

15 (3) the term “Secretary” means the Secretary
16 of Energy; and

17 (4) the term “State” means one of the 50
18 States, the District of Columbia, the Commonwealth
19 of Puerto Rico, Guam, American Samoa, the United
20 States Virgin Islands, the Commonwealth of the
21 Northern Mariana Islands, and any other common-
22 wealth, territory, or possession of the United States.

1 **SEC. 192. ESTABLISHMENT OF PROGRAM.**

2 The Secretary shall establish an Energy Efficiency
3 Block Grant Program to make block grants to eligible en-
4 tities as provided in this subtitle.

5 **SEC. 193. ALLOCATIONS.**

6 (a) **IN GENERAL.**—Of the funds appropriated for
7 making grants under this subtitle for each fiscal year, the
8 Secretary shall allocate 70 percent to be provided to eligi-
9 ble units of local government as provided in subsection (b)
10 and 30 percent to be provided to States as provided in
11 subsection (c).

12 (b) **ELIGIBLE UNITS OF LOCAL GOVERNMENT.**—The
13 Secretary shall provide grants to eligible units of local gov-
14 ernment according to a formula giving equal weight to—

15 (1) population, according to the most recent
16 available Census data; and

17 (2) daytime population, or another similar fac-
18 tor such as square footage of commercial, office, and
19 industrial space, as determined by the Secretary.

20 (c) **STATES.**—The Secretary shall provide grants to
21 States according to a formula based on population, accord-
22 ing to the most recent available Census data.

23 (d) **PUBLICATION OF ALLOCATION FORMULAS.**—Not
24 later than 90 days before the beginning of any fiscal year
25 in which grants are to made under this subtitle, the Sec-

1 retary shall publish in the Federal Register the formulas
2 for allocation described in subsection (b)(1) and (b)(2).

3 **SEC. 194. ELIGIBLE ACTIVITIES.**

4 Funds provided through a grant under this subtitle
5 may be used for the following activities:

6 (1) Development and implementation of an En-
7 ergy Efficiency Strategy under section 195.

8 (2) Retaining technical consultant services to
9 assist an eligible entity in the development of such
10 Strategy, including—

11 (A) formulation of energy efficiency, en-
12 ergy conservation, and energy usage goals;

13 (B) identification of strategies to meet
14 such goals through efforts to increase energy ef-
15 ficiency and reduce energy consumption;

16 (C) identification of strategies to encour-
17 age behavioral changes among the populace
18 that will help achieve such goals;

19 (D) development of methods to measure
20 progress in achieving such goals;

21 (E) development and preparation of annual
22 reports to the citizenry of the eligible entity's
23 energy efficiency strategies and goals, and
24 progress in achieving them; and

1 (F) other services to assist in the imple-
2 mentation of the Energy Efficiency Strategy.

3 (3) Conducting energy audits.

4 (4) Development and implementation of weath-
5 erization programs.

6 (5) Creation of financial incentive programs for
7 energy efficiency retrofits, including zero-interest or
8 low-interest revolving loan funds.

9 (6) Grants to nonprofit organizations and gov-
10 ernmental agencies for energy retrofits.

11 (7) Development and implementation of energy
12 efficiency programs and technologies for buildings
13 and facilities of nonprofit organizations and govern-
14 mental agencies.

15 (8) Development and implementation of build-
16 ing and home energy conservation programs, includ-
17 ing—

18 (A) design and operation of the programs;

19 (B) identifying the most effective methods
20 for achieving maximum participation and effi-
21 ciency rates;

22 (C) public education;

23 (D) measurement protocols; and

24 (E) identification of energy efficient tech-
25 nologies.

1 (9) Development and implementation of energy
2 conservation programs, including—

3 (A) use of flex time by employers;

4 (B) satellite work centers; and

5 (C) other measures that have the effect of
6 increasing energy efficiency and decreasing en-
7 ergy consumption.

8 (10) Development and implementation of build-
9 ing codes and inspection services for public, commer-
10 cial, industrial, and single and multifamily residen-
11 tial buildings to promote energy efficiency.

12 (11) Application and implementation of alter-
13 native energy and energy distribution technologies
14 that significantly increase energy efficiency and pro-
15 mote distributed resources and district heating and
16 cooling systems.

17 (12) Development and promotion of zoning
18 guidelines or requirements that result in increased
19 energy efficiency, efficient development, active living
20 land use planning, and infrastructure such as bike
21 lanes and pathways, and pedestrian walkways.

22 (13) Promotion of greater participation and ef-
23 ficiency rates for material conservation programs, in-
24 cluding source reduction, recycling, and recycled

1 content procurement programs that lead to increases
2 in energy efficiency.

3 (14) Establishment of a State, county, or city
4 office to assist in the development and implementa-
5 tion of the Energy Efficiency Strategy.

6 **SEC. 195. REQUIREMENTS.**

7 (a) REQUIREMENTS FOR ELIGIBLE UNITS OF LOCAL
8 GOVERNMENT.—

9 (1) PROPOSED STRATEGY.—Not later than 1
10 year after being awarded a grant under this subtitle,
11 an eligible unit of local government shall submit to
12 the Secretary a proposed Energy Efficiency Strategy
13 which establishes goals for increased energy effi-
14 ciency in the jurisdiction of the eligible units of local
15 government. The Strategy shall include plans for the
16 use of funds received under the grant to assist the
17 eligible unit of local government in the achievement
18 of such goals, consistent with section 194. In devel-
19 oping such a Strategy, an eligible unit of local gov-
20 ernment shall take into account any plans for the
21 use of funds by adjoining eligible units of local gov-
22 ernments funded under this subtitle.

23 (2) APPROVAL.—The Secretary shall approve or
24 disapprove a proposed Strategy submitted under
25 paragraph (1) not later than 90 days after receiving

1 it. If the Secretary disapproves a proposed Strategy,
2 the Secretary shall provide to the eligible unit of
3 local government the reasons for such disapproval.
4 The eligible unit of local government may revise and
5 resubmit the Strategy, as many times as required,
6 until approval is granted.

7 (3) FUNDING FOR PREPARATION OF STRAT-
8 EGY.—

9 (A) IN GENERAL.—Until the Secretary has
10 approved a proposed Energy Efficiency Strat-
11 egy under paragraph (2), the Secretary shall
12 only disburse to an eligible unit of local govern-
13 ment \$200,000 or 20 percent of the grant,
14 whichever is greater, which may be used only
15 for preparation of the Strategy.

16 (B) REMAINDER OF FUNDS.—The remain-
17 der of an eligible unit of local government's
18 grant funds awarded but not disbursed under
19 subparagraph (A) shall remain available and
20 shall be disbursed by the Secretary upon ap-
21 proval of the Strategy.

22 (4) LIMITATIONS ON USE OF FUNDS.—Of the
23 amounts provided through a grant under this sub-
24 title, an eligible unit of local government may use—

1 (A) not more than 10 percent, or \$75,000,
2 whichever is greater, for administrative ex-
3 penses, not including expenses needed to meet
4 reporting requirements under this subtitle;

5 (B) not more than 20 percent, or
6 \$250,000, whichever is greater, for the estab-
7 lishment of revolving loan funds; and

8 (C) not more than 20 percent, or
9 \$250,000, whichever is greater, for subgranting
10 to nongovernmental organizations for the pur-
11 pose of assisting in the implementation of the
12 Energy Efficiency Strategy.

13 (5) ANNUAL REPORT.—Not later than 2 years
14 after receipt of the first disbursement of funds from
15 a grant awarded under this subtitle, and annually
16 thereafter, an eligible unit of local government shall
17 submit a report to the Secretary on the status of the
18 Strategy’s development and implementation, and,
19 where practicable, a best available assessment of en-
20 ergy efficiency gains within the jurisdiction of the el-
21 igible unit of local government.

22 (b) REQUIREMENTS FOR STATES.—

23 (1) ALLOCATION OF GRANT FUNDS.—A State
24 receiving a grant under this subtitle shall use at
25 least 70 percent of the funds received to provide

1 subgrants to units of local government in the State
2 that are not eligible units of local government. The
3 State shall make such subgrant awards not later
4 than 6 months after approval of the State's Strategy
5 under paragraph (3).

6 (2) PROPOSED STRATEGY.—Not later than 120
7 days the date of enactment of this subtitle, each
8 State shall submit to the Secretary a proposed En-
9 ergy Efficiency Strategy which establishes a process
10 for making subgrants described in paragraph (1),
11 and establishes goals for increased energy efficiency
12 in the jurisdiction of the State. The Strategy shall
13 include plans for the use of funds received under a
14 grant under this subtitle to assist the State in the
15 achievement of such goals, consistent with section
16 194.

17 (3) APPROVAL.—The Secretary shall approve or
18 disapprove a proposed Strategy submitted under
19 paragraph (2) not later than 90 days after receiving
20 it. If the Secretary disapproves a proposed Strategy,
21 the Secretary shall provide to the State the reasons
22 for such disapproval. The State may revise and re-
23 submit the Strategy, as many times as required,
24 until approval is granted.

1 (4) FUNDING FOR PREPARATION OF STRAT-
2 EGY.—

3 (A) IN GENERAL.—Until the Secretary has
4 approved a proposed Energy Efficiency Strat-
5 egy under paragraph (2), the Secretary shall
6 only disburse to a State \$200,000 or 20 percent
7 of the grant, whichever is greater, which may
8 be used only for preparation of the Strategy.

9 (B) REMAINDER OF FUNDS.—The remain-
10 der of a State’s grant funds awarded but not
11 disbursed under subparagraph (A) shall remain
12 available and shall be disbursed by the Sec-
13 retary upon approval of the Strategy.

14 (5) LIMITATIONS ON USE OF FUNDS.—Of the
15 amounts provided through a grant under this sub-
16 title, a State may use not more than 10 percent for
17 administrative expenses.

18 (6) ANNUAL REPORTS.—A State shall annually
19 report to the Secretary on the development and im-
20 plementation of its Strategy. Each such report shall
21 include—

22 (A) a status report on the State’s subgrant
23 program described in paragraph (1);

1 (B) a best available assessment of energy
2 efficiency gains achieved through the State's
3 Strategy; and

4 (C) specific energy efficiency and energy
5 conservation goals for future years.

6 (c) STATE AND LOCAL ADVISORY COMMITTEE.—

7 (1) STATE AND LOCAL ADVISORY COM-
8 MITTEE.—The Secretary shall establish a State and
9 Local Advisory Committee to provide advice regard-
10 ing the administration, direction, and evaluation of
11 the program under this subtitle.

12 **SEC. 196. REVIEW AND EVALUATION.**

13 The Secretary may review and evaluate the perform-
14 ance of grant recipients, including by performing audits,
15 and may deny funding to such grant recipients for failure
16 to properly adhere to—

17 (1) the Secretary's guidelines and regulations
18 relating to the program under this subtitle, including
19 the misuse or misappropriation of funds; or

20 (2) the grant recipient's Strategy.

21 **SEC. 197. TECHNICAL ASSISTANCE AND EDUCATION PRO-**
22 **GRAM.**

23 (a) ESTABLISHMENT.—The Secretary shall establish
24 and carry out a technical assistance and education pro-
25 gram to provide—

1 (1) technical assistance to State and local gov-
2 ernments;

3 (2) public education programs;

4 (3) demonstration of innovative energy effi-
5 ciency systems and practices; and

6 (4) identification of effective measurement
7 methodologies and methods for changing or influ-
8 encing public participation in, and awareness of, en-
9 ergy efficiency programs.

10 (b) **ELIGIBLE RECIPIENTS.**—Eligible recipients of as-
11 sistance under this section shall include State and local
12 governments, State and local government associations,
13 public and private nonprofit organizations, and colleges
14 and universities.

15 (c) **AUTHORIZATION OF APPROPRIATIONS.**—There
16 are authorized to be appropriated to the Secretary for car-
17 rying out this section \$150,000,000 for each of the fiscal
18 years 2008 through 2012.

19 **SEC. 198. AUTHORIZATION OF APPROPRIATIONS.**

20 (a) **GRANTS.**—There are authorized to be appro-
21 priated to the Secretary for grants under this subtitle,
22 \$2,000,000,000 for each of fiscal years 2008 through
23 2012.

1 (b) ADMINISTRATION.—There are authorized to be
2 appropriated to the Secretary for administrative expenses
3 of the program established under this subtitle—

4 (1) \$20,000,000 for fiscal year 2008;

5 (2) \$20,000,000 for fiscal year 2009;

6 (3) \$25,000,000 for fiscal year 2010;

7 (4) \$25,000,000 for fiscal year 2011; and

8 (5) \$30,000,000 for fiscal year 2012.

9 **Subtitle J—Green Buildings**
10 **Retrofit Loan Guarantees**

11 **SEC. 199. GREEN BUILDINGS RETROFIT LOAN GUARAN-**
12 **TEES.**

13 (a) DEFINITIONS.—In this section:

14 (1) COST.—The term “cost” has the meaning
15 given the term “cost of a loan guarantee” within the
16 meaning of section 502(5)(C) of the Federal Credit
17 Reform Act of 1990 (2 U.S.C. 661a(5)(C)).

18 (2) GUARANTEE.—

19 (A) IN GENERAL.—The term “guarantee”
20 has the meaning given the term “loan guar-
21 antee” in section 502 of the Federal Credit Re-
22 form Act of 1990 (2 U.S.C. 661a).

23 (B) INCLUSION.—The term “guarantee”
24 includes a loan guarantee commitment (as de-

1 fined in section 502 of the Federal Credit Re-
2 form Act of 1990 (2 U.S.C. 661a)).

3 (3) OBLIGATION.—The term “obligation”
4 means the loan or other debt obligation that is guar-
5 anteed under this section.

6 (4) SECRETARY.—The term “Secretary” means
7 the Secretary of Energy.

8 (b) ELIGIBLE PURPOSES.—Except for division C of
9 Public Law 108–423, the Director shall make loan guar-
10 antees under this section for renovation projects that are
11 eligible projects within the meaning of section 1703 of the
12 Energy Policy Act of 2005 and that will result in a build-
13 ing achieving the United States Green Building Council
14 Leadership in Energy and Environmental Design “cer-
15 tified” level, or meeting a comparable standard approved
16 by the Director.

17 (c) TERMS AND CONDITIONS.—

18 (1) IN GENERAL.—The Director shall make
19 guarantees under this section for projects on such
20 terms and conditions as the Director determines,
21 after consultation with the Secretary of the Treas-
22 ury, in accordance with this section, including limi-
23 tations on the amount of any loan guarantee to en-
24 sure distribution to a variety of borrowers.

1 (2) SPECIFIC APPROPRIATION OR CONTRIBU-
2 TION.—No guarantee shall be made under this sec-
3 tion unless—

4 (A) an appropriation for the cost has been
5 made; or

6 (B) the Director has received from the bor-
7 rower a payment in full for the cost of the obli-
8 gation and deposited the payment into the
9 Treasury.

10 (3) LIMITATION.—Not more than \$100,000,000
11 in loans may be guaranteed under this section at
12 any one time.

13 (4) AMOUNT.—Unless otherwise provided by
14 law, a guarantee by the Director under this section
15 shall not exceed an amount equal to 80 percent of
16 the project cost that is the subject of the guarantee,
17 as estimated at the time at which the guarantee is
18 issued.

19 (5) REPAYMENT.—No guarantee shall be made
20 under this section unless the Director determines
21 that there is reasonable prospect of repayment of the
22 principal and interest on the obligation by the bor-
23 rower.

24 (6) INTEREST RATE.—An obligation shall bear
25 interest at a rate that does not exceed a level that

1 the Director determines appropriate, taking into ac-
2 count the prevailing rate of interest in the private
3 sector for similar loans and risks.

4 (7) TERM.—The term of an obligation shall re-
5 quire full repayment over a period not to exceed the
6 lesser of—

7 (A) 30 years; or

8 (B) 90 percent of the projected useful life
9 of the building whose renovation is to be fi-
10 nanced by the obligation (as determined by the
11 Director).

12 (8) DEFAULTS.—

13 (A) PAYMENT BY DIRECTOR.—

14 (i) IN GENERAL.—If a borrower de-
15 faults on the obligation (as defined in reg-
16 ulations promulgated by the Director and
17 specified in the guarantee contract), the
18 holder of the guarantee shall have the
19 right to demand payment of the unpaid
20 amount from the Director.

21 (ii) PAYMENT REQUIRED.—Within
22 such period as may be specified in the
23 guarantee or related agreements, the Di-
24 rector shall pay to the holder of the guar-
25 antee the unpaid interest on, and unpaid

1 principal of the obligation as to which the
2 borrower has defaulted, unless the Director
3 finds that there was no default by the bor-
4 rower in the payment of interest or prin-
5 cipal or that the default has been rem-
6 edied.

7 (iii) FORBEARANCE.—Nothing in this
8 paragraph precludes any forbearance by
9 the holder of the obligation for the benefit
10 of the borrower which may be agreed upon
11 by the parties to the obligation and ap-
12 proved by the Director.

13 (B) SUBROGATION.—

14 (i) IN GENERAL.—If the Director
15 makes a payment under subparagraph (A),
16 the Director shall be subrogated to the
17 rights of the recipient of the payment as
18 specified in the guarantee or related agree-
19 ments including, where appropriate, the
20 authority (notwithstanding any other pro-
21 vision of law) to—

22 (I) complete, maintain, operate,
23 lease, or otherwise dispose of any
24 property acquired pursuant to such
25 guarantee or related agreements; or

1 (II) permit the borrower, pursu-
2 ant to an agreement with the Direc-
3 tor, to continue to pursue the pur-
4 poses of the project if the Director de-
5 termines this to be in the public inter-
6 est.

7 (ii) SUPERIORITY OF RIGHTS.—The
8 rights of the Director, with respect to any
9 property acquired pursuant to a guarantee
10 or related agreements, shall be superior to
11 the rights of any other person with respect
12 to the property.

13 (iii) TERMS AND CONDITIONS.—A
14 guarantee agreement shall include such de-
15 tailed terms and conditions as the Director
16 determines appropriate to—

17 (I) protect the interests of the
18 United States in the case of default;
19 and

20 (II) have available all the patents
21 and technology necessary for any per-
22 son selected, including the Director, to
23 complete and operate the project.

24 (C) PAYMENT OF PRINCIPAL AND INTER-
25 EST BY DIRECTOR.—With respect to any obliga-

1 tion guaranteed under this section, the Director
2 may enter into a contract to pay, and pay, hold-
3 ers of the obligation, for and on behalf of the
4 borrower, from funds appropriated for that pur-
5 pose, the principal and interest payments which
6 become due and payable on the unpaid balance
7 of the obligation if the Director finds that—

8 (i)(I) the borrower is unable to meet
9 the payments and is not in default;

10 (II) it is in the public interest to
11 permit the borrower to continue to
12 pursue the purposes of the project;
13 and

14 (III) the probable net benefit to
15 the Federal Government in paying the
16 principal and interest will be greater
17 than that which would result in the
18 event of a default;

19 (ii) the amount of the payment that
20 the Director is authorized to pay shall be
21 no greater than the amount of principal
22 and interest that the borrower is obligated
23 to pay under the agreement being guaran-
24 teed; and

1 (iii) the borrower agrees to reimburse
2 the Director for the payment (including in-
3 terest) on terms and conditions that are
4 satisfactory to the Director.

5 (D) ACTION BY ATTORNEY GENERAL.—

6 (i) NOTIFICATION.—If the borrower
7 defaults on an obligation, the Director
8 shall notify the Attorney General of the de-
9 fault.

10 (ii) RECOVERY.—On notification, the
11 Attorney General shall take such action as
12 is appropriate to recover the unpaid prin-
13 cipal and interest due from—

14 (I) such assets of the defaulting
15 borrower as are associated with the
16 obligation; or

17 (II) any other security pledged to
18 secure the obligation.

19 (9) FEES.—

20 (A) IN GENERAL.—The Director shall
21 charge and collect fees for guarantees in
22 amounts the Director determines are sufficient
23 to cover applicable administrative expenses.

24 (B) AVAILABILITY.—Fees collected under
25 this paragraph shall—

1 (i) be deposited by the Director into
2 the Treasury; and

3 (ii) remain available until expended,
4 subject to such other conditions as are con-
5 tained in annual appropriations Acts.

6 (10) RECORDS; AUDITS.—

7 (A) IN GENERAL.—A recipient of a guar-
8 antee shall keep such records and other perti-
9 nent documents as the Director shall prescribe
10 by regulation, including such records as the Di-
11 rector may require to facilitate an effective
12 audit.

13 (B) ACCESS.—The Director and the Comp-
14 troller General of the United States, or their
15 duly authorized representatives, shall have ac-
16 cess, for the purpose of audit, to the records
17 and other pertinent documents.

18 (11) FULL FAITH AND CREDIT.—The full faith
19 and credit of the United States is pledged to the
20 payment of all guarantees issued under this section
21 with respect to principal and interest.

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110TH CONGRESS
1ST Session

H. R. 3236

[Report No. 110-304, Part I]

A BILL

To promote greater energy efficiency.

August 3, 2007

Committees on Transportation and Infrastructure and Oversight and Government Reform discharged; committed to the Committee of the Whole House on the State of the Union and ordered to be printed