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[Report No. 110-65]

To enhance the energy security of the United States by promoting biofuels, energy efficiency, and carbon capture and storage, and for other purposes.

IN THE SENATE OF THE UNITED STATES

MAY 7, 2007

Mr. BINGAMAN, from the Committee on Energy and Natural Resources, reported the following original bill; which was read twice and placed on the calendar

A BILL

To enhance the energy security of the United States by promoting biofuels, energy efficiency, and carbon capture and storage, and for other purposes.

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

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

4 (a) SHORT TITLE.—This Act may be cited as the
5 “Energy Savings Act of 2007”.

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

- Sec. 1. Short title; table of contents.
- Sec. 2. Definition of Secretary.

TITLE I—BIOFUELS FOR ENERGY SECURITY AND TRANSPORTATION

- Sec. 101. Short title.
- Sec. 102. Definitions.

Subtitle A—Renewable Fuel Standard

- Sec. 111. Renewable fuel standard.
- Sec. 112. Production of renewable fuel using renewable energy.

Subtitle B—Renewable Fuels Infrastructure

- Sec. 121. Infrastructure pilot program for renewable fuels.
- Sec. 122. Bioenergy research and development.
- Sec. 123. Bioresearch centers for systems biology program.
- Sec. 124. Loan guarantees for renewable fuel facilities.
- Sec. 125. Grants for renewable fuel production research and development in certain States.
- Sec. 126. Grants for infrastructure for transportation of biomass to local biorefineries.
- Sec. 127. Biorefinery information center.
- Sec. 128. Alternative fuel database and materials.
- Sec. 129. Fuel tank cap labeling requirement.
- Sec. 130. Biodiesel.

Subtitle C—Studies

- Sec. 141. Study of advanced biofuels technologies.
- Sec. 142. Study of increased consumption of ethanol-blended gasoline with higher levels of ethanol.
- Sec. 143. Pipeline feasibility study.
- Sec. 144. Study of optimization of flexible fueled vehicles to use E-85 fuel.
- Sec. 145. Study of credits for use of renewable electricity in electric vehicles.
- Sec. 146. Study of engine durability associated with the use of biodiesel.
- Sec. 147. Study of incentives for renewable fuels.
- Sec. 148. Study of streamlined lifecycle analysis tools for the evaluation of renewable carbon content of biofuels.
- Sec. 149. Study of the adequacy of railroad transportation of domestically-produced renewable fuel.
- Sec. 150. Study of effects of ethanol-blended gasoline on off road vehicles.

TITLE II—ENERGY EFFICIENCY PROMOTION

- Sec. 201. Short title.

Subtitle A—Promoting Advanced Lighting Technologies

- Sec. 211. Accelerated procurement of energy efficient lighting.
- Sec. 212. Incandescent reflector lamp efficiency standards.
- Sec. 213. Bright Tomorrow Lighting Prizes.
- Sec. 214. Sense of Senate concerning efficient lighting standards.
- Sec. 215. Renewable energy construction grants.

Subtitle B—Expediting New Energy Efficiency Standards

- Sec. 221. Definition of energy conservation standard.
- Sec. 222. Regional efficiency standards for heating and cooling products.
- Sec. 223. Furnace fan rulemaking.
- Sec. 224. Expedited rulemakings.
- Sec. 225. Periodic reviews.
- Sec. 226. Energy efficiency labeling for consumer products.
- Sec. 227. Residential boiler efficiency standards.
- Sec. 228. Technical corrections.
- Sec. 229. Electric motor efficiency standards.
- Sec. 230. Energy standards for home appliances.
- Sec. 231. Improved energy efficiency for appliances and buildings in cold climates.
- Sec. 232. Deployment of new technologies for high-efficiency consumer products.
- Sec. 233. Industrial efficiency program.

Subtitle C—Promoting High Efficiency Vehicles, Advanced Batteries, and Energy Storage

- Sec. 241. Lightweight materials research and development.
- Sec. 242. Loan guarantees for fuel-efficient automobile parts manufacturers.
- Sec. 243. Advanced technology vehicles manufacturing incentive program.
- Sec. 244. Energy storage competitiveness.
- Sec. 245. Advanced transportation technology program.

Subtitle D—Setting Energy Efficiency Goals

- Sec. 251. National goals for energy savings in transportation.
- Sec. 252. National energy efficiency improvement goals.
- Sec. 253. National media campaign.
- Sec. 254. Modernization of electricity grid system.

Subtitle E—Promoting Federal Leadership in Energy Efficiency and Renewable Energy

- Sec. 261. Federal fleet conservation requirements.
- Sec. 262. Federal requirement to purchase electricity generated by renewable energy.
- Sec. 263. Energy savings performance contracts.
- Sec. 264. Energy management requirements for Federal buildings.
- Sec. 265. Combined heat and power and district energy installations at Federal sites.
- Sec. 266. Federal building energy efficiency performance standards.
- Sec. 267. Application of International Energy Conservation Code to public and assisted housing.
- Sec. 268. Energy efficient commercial buildings initiative.

Subtitle F—Assisting State and Local Governments in Energy Efficiency

- Sec. 271. Weatherization assistance for low-income persons.
- Sec. 272. State energy conservation plans.
- Sec. 273. Utility energy efficiency programs.
- Sec. 274. Energy efficiency and demand response program assistance.
- Sec. 275. Energy and environmental block grant.
- Sec. 276. Energy sustainability and efficiency grants for institutions of higher education.
- Sec. 277. Workforce training.

Sec. 278. Assistance to States to reduce school bus idling.

TITLE III—CARBON CAPTURE AND STORAGE RESEARCH,
DEVELOPMENT, AND DEMONSTRATION

Sec. 301. Short title.

Sec. 302. Carbon capture and storage research, development, and demonstration program.

Sec. 303. Carbon dioxide storage capacity assessment.

Sec. 304. Carbon capture and storage initiative.

1 SEC. 2. DEFINITION OF SECRETARY.

2 In this Act, the term “Secretary” means the Sec-
3 retary of Energy.

4 TITLE I—BIOFUELS FOR ENERGY
5 SECURITY AND TRANSPORTATION
6 TATION

7 SEC. 101. SHORT TITLE.

8 This title may be cited as the “Biofuels for Energy
9 Security and Transportation Act of 2007”.

10 SEC. 102. DEFINITIONS.

11 In this title:

12 (1) **ADVANCED BIOFUEL.**—

13 (A) **IN GENERAL.**—The term “advanced
14 biofuel” means fuel derived from renewable bio-
15 mass other than corn starch.

16 (B) **INCLUSIONS.**—The term “advanced
17 biofuel” includes—

18 (i) ethanol derived from cellulose,
19 hemicellulose, or lignin;

1 (ii) ethanol derived from sugar or
2 starch, other than ethanol derived from
3 corn starch;

4 (iii) ethanol derived from waste mate-
5 rial, including crop residue, other vegeta-
6 tive waste material, animal waste, and food
7 waste and yard waste;

8 (iv) diesel-equivalent fuel derived from
9 renewable biomass, including vegetable oil
10 and animal fat;

11 (v) biogas produced through the con-
12 version of organic matter from renewable
13 biomass; and

14 (vi) butanol or higher alcohols pro-
15 duced through the conversion of organic
16 matter from renewable biomass.

17 (2) CELLULOSIC BIOMASS ETHANOL.—The
18 term “cellulosic biomass ethanol” means ethanol de-
19 rived from any cellulose, hemicellulose, or lignin that
20 is derived from renewable biomass.

21 (3) CONVENTIONAL BIOFUEL.—The term “con-
22 ventional biofuel” means ethanol derived from corn
23 starch.

24 (4) RENEWABLE BIOMASS.—The term “renew-
25 able biomass” means—

1 (A) biomass (as defined by section 210 of
2 the Energy Policy Act of 2005 (42 U.S.C.
3 15855)) (excluding the bole of old-growth trees
4 of a forest from the late successional state of
5 forest development) that is harvested where
6 permitted by law and in accordance with appli-
7 cable land management plans from—

8 (i) National Forest System land; or

9 (ii) public lands (as defined in section
10 103 of the Federal Land Policy and Man-
11 agement Act of 1976 (43 U.S.C. 1702));

12 or

13 (B) any organic matter that is available on
14 a renewable or recurring basis from non-Fed-
15 eral land or from land belonging to an Indian
16 tribe, or an Indian individual, that is held in
17 trust by the United States or subject to a re-
18 striction against alienation imposed by the
19 United States, including—

20 (i) renewable plant material, includ-
21 ing—

22 (I) feed grains;

23 (II) other agricultural commod-
24 ities;

25 (III) other plants and trees; and

- 1 (IV) algae; and
2 (ii) waste material, including—
3 (I) crop residue;
4 (II) other vegetative waste mate-
5 rial (including wood waste and wood
6 residues);
7 (III) animal waste and byprod-
8 ucts (including fats, oils, greases, and
9 manure); and
10 (IV) food waste and yard waste.

11 (5) RENEWABLE FUEL.—

12 (A) IN GENERAL.—The term “renewable
13 fuel” means motor vehicle fuel, boiler fuel, or
14 home heating fuel that is—

- 15 (i) produced from renewable biomass;
16 and
17 (ii) used to replace or reduce the
18 quantity of fossil fuel present in a fuel or
19 fuel mixture used to operate a motor vehi-
20 cle, boiler, or furnace.

21 (B) INCLUSION.—The term “renewable
22 fuel” includes—

- 23 (i) conventional biofuel; and
24 (ii) advanced biofuel.

1 (6) SMALL REFINERY.—The term “small refin-
2 ery” means a refinery for which the average aggre-
3 gate daily crude oil throughput for a calendar year
4 (as determined by dividing the aggregate throughput
5 for the calendar year by the number of days in the
6 calendar year) does not exceed 75,000 barrels.

7 **Subtitle A—Renewable Fuel** 8 **Standard**

9 **SEC. 111. RENEWABLE FUEL STANDARD.**

10 (a) RENEWABLE FUEL PROGRAM.—

11 (1) REGULATIONS.—

12 (A) IN GENERAL.—Not later than 1 year
13 after the date of enactment of this Act, the
14 President shall promulgate regulations to en-
15 sure that motor vehicle fuel, home heating oil,
16 and boiler fuel sold or introduced into com-
17 merce in the United States (except in non-
18 contiguous States or territories), on an annual
19 average basis, contains the applicable volume of
20 renewable fuel determined in accordance with
21 paragraph (2).

22 (B) PROVISIONS OF REGULATIONS.—Re-
23 gardless of the date of promulgation, the regu-
24 lations promulgated under subparagraph (A)—

1 (i) shall contain compliance provisions
2 applicable to refineries, blenders, distribu-
3 tors, and importers, as appropriate, to en-
4 sure that—

5 (I) the requirements of this sub-
6 section are met; and

7 (II) renewable fuels produced
8 from facilities built after the date of
9 enactment of this Act achieve at least
10 a 20 percent reduction in life cycle
11 greenhouse gas emissions compared to
12 gasoline; but

13 (ii) shall not—

14 (I) restrict geographic areas in
15 the contiguous United States in which
16 renewable fuel may be used; or

17 (II) impose any per-gallon obliga-
18 tion for the use of renewable fuel.

19 (C) RELATIONSHIP TO OTHER REGULA-
20 TIONS.—Regulations promulgated under this
21 paragraph shall, to the maximum extent prac-
22 ticable, incorporate the program structure, com-
23 pliance, and reporting requirements established
24 under the final regulations promulgated to im-
25 plement the renewable fuel program established

1 by the amendment made by section 1501(a)(2)
 2 of the Energy Policy Act of 2005 (Public Law
 3 109–58; 119 Stat. 1067).

4 (2) APPLICABLE VOLUME.—

5 (A) CALENDAR YEARS 2008 THROUGH
 6 2022.—

7 (i) RENEWABLE FUEL.—For the pur-
 8 pose of paragraph (1), subject to clause
 9 (ii), the applicable volume for any of cal-
 10 endar years 2008 through 2022 shall be
 11 determined in accordance with the fol-
 12 lowing table:

Calendar year:	Applicable volume of renewable fuel (in billions of gallons):
2008	8.5
2009	10.5
2010	12.0
2011	12.6
2012	13.2
2013	13.8
2014	14.4
2015	15.0
2016	18.0
2017	21.0
2018	24.0
2019	27.0
2020	30.0
2021	33.0
2022	36.0.

13 (ii) ADVANCED BIOFUELS.—For the
 14 purpose of paragraph (1), of the volume of
 15 renewable fuel required under clause (i),
 16 the applicable volume for any of calendar
 17 years 2016 through 2022 for advanced

1 biofuels shall be determined in accordance
 2 with the following table:

Calendar year:	Applicable volume of advanced biofuels (in billions of gallons):
2016	3.0
2017	6.0
2018	9.0
2019	12.0
2020	15.0
2021	18.0
2022	21.0.

3 (B) CALENDAR YEAR 2023 AND THERE-
 4 AFTER.—Subject to subparagraph (C), for the
 5 purposes of paragraph (1), the applicable vol-
 6 ume for calendar year 2023 and each calendar
 7 year thereafter shall be determined by the
 8 President, in coordination with the Secretary of
 9 Energy, the Secretary of Agriculture, and the
 10 Administrator of the Environmental Protection
 11 Agency, based on a review of the implementa-
 12 tion of the program during calendar years 2007
 13 through 2022, including a review of—

14 (i) the impact of renewable fuels on
 15 the energy security of the United States;

16 (ii) the expected annual rate of future
 17 production of renewable fuels, including
 18 advanced biofuels;

19 (iii) the impact of renewable fuels on
 20 the infrastructure of the United States, in-

1 cluding deliverability of materials, goods,
2 and products other than renewable fuel,
3 and the sufficiency of infrastructure to de-
4 liver renewable fuel; and

5 (iv) the impact of the use of renewable
6 fuels on other factors, including job cre-
7 ation, the price and supply of agricultural
8 commodities, rural economic development,
9 and the environment.

10 (C) MINIMUM APPLICABLE VOLUME.—Sub-
11 ject to subparagraph (D), for the purpose of
12 paragraph (1), the applicable volume for cal-
13 endar year 2023 and each calendar year there-
14 after shall be equal to the product obtained by
15 multiplying—

16 (i) the number of gallons of gasoline
17 that the President estimates will be sold or
18 introduced into commerce in the calendar
19 year; and

20 (ii) the ratio that—

21 (I) 36,000,000,000 gallons of re-
22 newable fuel; bears to

23 (II) the number of gallons of gas-
24 oline sold or introduced into com-
25 merce in calendar year 2022.

1 (D) MINIMUM PERCENTAGE OF ADVANCED
2 BIOFUEL.—For the purpose of paragraph (1)
3 and subparagraph (C), at least 60 percent of
4 the minimum applicable volume for calendar
5 year 2023 and each calendar year thereafter
6 shall be advanced biofuel.

7 (b) APPLICABLE PERCENTAGES.—

8 (1) PROVISION OF ESTIMATE OF VOLUMES OF
9 GASOLINE SALES.—Not later than October 31 of
10 each of calendar years 2008 through 2021, the Ad-
11 ministrator of the Energy Information Administra-
12 tion shall provide to the President an estimate, with
13 respect to the following calendar year, of the vol-
14 umes of gasoline projected to be sold or introduced
15 into commerce in the United States.

16 (2) DETERMINATION OF APPLICABLE PERCENT-
17 AGES.—

18 (A) IN GENERAL.—Not later than Novem-
19 ber 30 of each of calendar years 2008 through
20 2022, based on the estimate provided under
21 paragraph (1), the President shall determine
22 and publish in the Federal Register, with re-
23 spect to the following calendar year, the renew-
24 able fuel obligation that ensures that the re-
25 quirements of subsection (a) are met.

1 (B) REQUIRED ELEMENTS.—The renew-
2 able fuel obligation determined for a calendar
3 year under subparagraph (A) shall—

4 (i) be applicable to refineries, blend-
5 ers, and importers, as appropriate;

6 (ii) be expressed in terms of a volume
7 percentage of gasoline sold or introduced
8 into commerce in the United States; and

9 (iii) subject to paragraph (3)(A), con-
10 sist of a single applicable percentage that
11 applies to all categories of persons speci-
12 fied in clause (i).

13 (3) ADJUSTMENTS.—In determining the appli-
14 cable percentage for a calendar year, the President
15 shall make adjustments—

16 (A) to prevent the imposition of redundant
17 obligations on any person specified in para-
18 graph (2)(B)(i); and

19 (B) to account for the use of renewable
20 fuel during the previous calendar year by small
21 refineries that are exempt under subsection (g).

22 (c) VOLUME CONVERSION FACTORS FOR RENEW-
23 ABLE FUELS BASED ON ENERGY CONTENT OR REQUIRE-
24 MENTS.—

1 (1) IN GENERAL.—For the purpose of sub-
2 section (a), the President shall assign values to spe-
3 cific types of advanced biofuels for the purpose of
4 satisfying the fuel volume requirements of subsection
5 (a)(2) in accordance with this subsection.

6 (2) ENERGY CONTENT RELATIVE TO ETH-
7 ANOL.—For advanced biofuel, 1 gallon of the ad-
8 vanced biofuel shall be considered to be the equiva-
9 lent of 1 gallon of renewable fuel multiplied by the
10 ratio that—

11 (A) the number of British thermal units of
12 energy produced by the combustion of 1 gallon
13 of the advanced biofuel (as measured under
14 conditions determined by the Secretary); bears
15 to

16 (B) the number of British thermal units of
17 energy produced by the combustion of 1 gallon
18 of pure ethanol (as measured under conditions
19 determined by the Secretary to be comparable
20 to conditions described in subparagraph (A)).

21 (3) TRANSITIONAL ENERGY-RELATED CONVER-
22 SION FACTORS FOR CELLULOSIC BIOMASS ETH-
23 ANOL.—For any of calendar years 2008 through
24 2015, 1 gallon of cellulosic biomass ethanol shall be

1 considered to be the equivalent of 2.5 gallons of re-
2 newable fuel.

3 (d) CREDIT PROGRAM.—

4 (1) IN GENERAL.—The President, in consulta-
5 tion with the Secretary and the Administrator of the
6 Environmental Protection Agency, shall implement a
7 credit program to manage the renewable fuel re-
8 quirement of this section in a manner consistent
9 with the credit program established by the amend-
10 ment made by section 1501(a)(2) of the Energy Pol-
11 icy Act of 2005 (Public Law 109–58; 119 Stat.
12 1067).

13 (2) MARKET TRANSPARENCY.—In carrying out
14 the credit program under this subsection, the Presi-
15 dent shall facilitate price transparency in markets
16 for the sale and trade of credits, with due regard for
17 the public interest, the integrity of those markets,
18 fair competition, and the protection of consumers
19 and agricultural producers.

20 (e) SEASONAL VARIATIONS IN RENEWABLE FUEL
21 USE.—

22 (1) STUDY.—For each of calendar years 2008
23 through 2022, the Administrator of the Energy In-
24 formation Administration shall conduct a study of
25 renewable fuel blending to determine whether there

1 are excessive seasonal variations in the use of renew-
2 able fuel.

3 (2) REGULATION OF EXCESSIVE SEASONAL
4 VARIATIONS.—If, for any calendar year, the Admin-
5 istrator of the Energy Information Administration,
6 based on the study under paragraph (1), makes the
7 determinations specified in paragraph (3), the Presi-
8 dent shall promulgate regulations to ensure that 25
9 percent or more of the quantity of renewable fuel
10 necessary to meet the requirements of subsection (a)
11 is used during each of the 2 periods specified in
12 paragraph (4) of each subsequent calendar year.

13 (3) DETERMINATIONS.—The determinations re-
14 ferred to in paragraph (2) are that—

15 (A) less than 25 percent of the quantity of
16 renewable fuel necessary to meet the require-
17 ments of subsection (a) has been used during 1
18 of the 2 periods specified in paragraph (4) of
19 the calendar year;

20 (B) a pattern of excessive seasonal vari-
21 ation described in subparagraph (A) will con-
22 tinue in subsequent calendar years; and

23 (C) promulgating regulations or other re-
24 quirements to impose a 25 percent or more sea-

1 sonal use of renewable fuels will not signifi-
2 cantly—

3 (i) increase the price of motor fuels to
4 the consumer; or

5 (ii) prevent or interfere with the at-
6 tainment of national ambient air quality
7 standards.

8 (4) PERIODS.—The 2 periods referred to in this
9 subsection are—

10 (A) April through September; and

11 (B) January through March and October
12 through December.

13 (f) WAIVERS.—

14 (1) IN GENERAL.—The President, in consulta-
15 tion with the Secretary of Energy, the Secretary of
16 Agriculture, and the Administrator of the Environ-
17 mental Protection Agency, may waive the require-
18 ments of subsection (a) in whole or in part on peti-
19 tion by one or more States by reducing the national
20 quantity of renewable fuel required under subsection
21 (a), based on a determination by the President
22 (after public notice and opportunity for comment),
23 that—

24 (A) implementation of the requirement
25 would severely harm the economy or environ-

1 ment of a State, a region, or the United States;
2 or

3 (B) extreme and unusual circumstances
4 exist that prevent distribution of an adequate
5 supply of domestically-produced renewable fuel
6 to consumers in the United States.

7 (2) PETITIONS FOR WAIVERS.—The President,
8 in consultation with the Secretary of Energy, the
9 Secretary of Agriculture, and the Administrator of
10 the Environmental Protection Agency, shall approve
11 or disapprove a State petition for a waiver of the re-
12 quirements of subsection (a) within 90 days after
13 the date on which the petition is received by the
14 President.

15 (3) TERMINATION OF WAIVERS.—A waiver
16 granted under paragraph (1) shall terminate after 1
17 year, but may be renewed by the President after
18 consultation with the Secretary of Energy, the Sec-
19 retary of Agriculture, and the Administrator of the
20 Environmental Protection Agency.

21 (4) REPORT TO CONGRESS.—If the Secretary
22 makes a determination under paragraph (1)(B) that
23 railroad transportation of domestically-produced re-
24 newable fuel is inadequate, based on either the serv-
25 ice provided by, or the price of, the railroad trans-

1 portation, the President shall submit to Congress a
2 report that describes—

3 (A) the actions the Federal Government is
4 taking, or will take, to address the inadequacy,
5 including a description of the specific powers of
6 the applicable Federal agencies; and

7 (B) if the President finds that there are
8 inadequate Federal powers to address the rail-
9 road service or pricing inadequacies, rec-
10 ommendations for legislation to provide appro-
11 priate powers to Federal agencies to address
12 the inadequacies.

13 (g) SMALL REFINERIES.—

14 (1) TEMPORARY EXEMPTION.—

15 (A) IN GENERAL.—The requirements of
16 subsection (a) shall not apply to—

17 (i) small refineries (other than a small
18 refinery described in clause (ii)) until cal-
19 endar year 2013; and

20 (ii) small refineries owned by a small
21 business refiner (as defined in section
22 45H(c) of the Internal Revenue Code of
23 1986) until calendar year 2015.

24 (B) EXTENSION OF EXEMPTION.—

1 (i) STUDY BY SECRETARY.—Not later
2 than December 31, 2008, the Secretary
3 shall submit to the President and Congress
4 a report describing the results of a study
5 to determine whether compliance with the
6 requirements of subsection (a) would im-
7 pose a disproportionate economic hardship
8 on small refineries.

9 (ii) EXTENSION OF EXEMPTION.—In
10 the case of a small refinery that the Sec-
11 retary determines under clause (i) would
12 be subject to a disproportionate economic
13 hardship if required to comply with sub-
14 section (a), the President shall extend the
15 exemption under subparagraph (A) for the
16 small refinery for a period of not less than
17 2 additional years.

18 (2) PETITIONS BASED ON DISPROPORTIONATE
19 ECONOMIC HARDSHIP.—

20 (A) EXTENSION OF EXEMPTION.—A small
21 refinery may at any time petition the President
22 for an extension of the exemption under para-
23 graph (1) for the reason of disproportionate
24 economic hardship.

1 (B) EVALUATION OF PETITIONS.—In eval-
2 uating a petition under subparagraph (A), the
3 President, in consultation with the Secretary,
4 shall consider the findings of the study under
5 paragraph (1)(B) and other economic factors.

6 (C) DEADLINE FOR ACTION ON PETI-
7 TIONS.—The President shall act on any petition
8 submitted by a small refinery for a hardship ex-
9 emption not later than 90 days after the date
10 of receipt of the petition.

11 (3) OPT-IN FOR SMALL REFINERIES.—A small
12 refinery shall be subject to the requirements of sub-
13 section (a) if the small refinery notifies the Presi-
14 dent that the small refinery waives the exemption
15 under paragraph (1).

16 (h) PENALTIES AND ENFORCEMENT.—

17 (1) CIVIL PENALTIES.—

18 (A) IN GENERAL.—Any person that vio-
19 lates a regulation promulgated under subsection
20 (a), or that fails to furnish any information re-
21 quired under such a regulation, shall be liable
22 to the United States for a civil penalty of not
23 more than the total of—

24 (i) \$25,000 for each day of the viola-
25 tion; and

1 (ii) the amount of economic benefit or
2 savings received by the person resulting
3 from the violation, as determined by the
4 President.

5 (B) COLLECTION.—Civil penalties under
6 subparagraph (A) shall be assessed by, and col-
7 lected in a civil action brought by, the Secretary
8 or such other officer of the United States as is
9 designated by the President.

10 (2) INJUNCTIVE AUTHORITY.—

11 (A) IN GENERAL.—The district courts of
12 the United States shall have jurisdiction to—

13 (i) restrain a violation of a regulation
14 promulgated under subsection (a);

15 (ii) award other appropriate relief;

16 and

17 (iii) compel the furnishing of informa-
18 tion required under the regulation.

19 (B) ACTIONS.—An action to restrain such
20 violations and compel such actions shall be
21 brought by and in the name of the United
22 States.

23 (C) SUBPOENAS.—In the action, a sub-
24 poena for a witness who is required to attend

1 a district court in any district may apply in any
2 other district.

3 (i) VOLUNTARY LABELING PROGRAM.—

4 (1) IN GENERAL.—The President shall establish
5 criteria for a system of voluntary labeling of renew-
6 able fuels based on life cycle greenhouse gas emis-
7 sions.

8 (2) CONSUMER EDUCATION.—The President
9 shall ensure that the labeling system under this sub-
10 section provides useful information to consumers
11 making fuel purchases.

12 (3) FLEXIBILITY.—In carrying out this sub-
13 section, the President may establish more than 1
14 label, as appropriate.

15 (j) EFFECTIVE DATE.—Except as otherwise specifi-
16 cally provided in this section, this section takes effect on
17 January 1, 2008.

18 **SEC. 112. PRODUCTION OF RENEWABLE FUEL USING RE-**

19 **NEWABLE ENERGY.**

20 (a) DEFINITIONS.—In this section:

21 (1) FACILITY.—The term “facility” means a fa-
22 cility used for the production of renewable fuel.

23 (2) RENEWABLE ENERGY.—

24 (A) IN GENERAL.—The term “renewable
25 energy” has the meaning given the term in sec-

1 tion 203(b) of the Energy Policy Act of 2005
2 (42 U.S.C. 15852(b)).

3 (B) INCLUSION.—The term “renewable en-
4 ergy” includes biogas produced through the
5 conversion of organic matter from renewable
6 biomass.

7 (b) ADDITIONAL CREDIT.—

8 (1) IN GENERAL.—The President shall provide
9 a credit under the program established under section
10 111(d) to the owner of a facility that uses renewable
11 energy to displace more than 90 percent of the fossil
12 fuel normally used in the production of renewable
13 fuel.

14 (2) CREDIT AMOUNT.—The President may pro-
15 vide the credit in a quantity that is not more than
16 the equivalent of 1.5 gallons of renewable fuel for
17 each gallon of renewable fuel produced in a facility
18 described in paragraph (1).

19 **Subtitle B—Renewable Fuels**
20 **Infrastructure**

21 **SEC. 121. INFRASTRUCTURE PILOT PROGRAM FOR RENEW-**
22 **ABLE FUELS.**

23 (a) IN GENERAL.—The Secretary, in consultation
24 with the Secretary of Transportation and the Adminis-
25 trator of the Environmental Protection Agency, shall es-

1 establish a competitive grant pilot program (referred to in
2 this section as the “pilot program”), to be administered
3 through the Vehicle Technology Deployment Program of
4 the Department of Energy, to provide not more than 10
5 geographically-dispersed project grants to State govern-
6 ments, Indian tribal governments, local governments, met-
7 ropolitan transportation authorities, or partnerships of
8 those entities to carry out 1 or more projects for the pur-
9 poses described in subsection (b).

10 (b) GRANT PURPOSES.—A grant under this section
11 shall be used for the establishment of refueling infrastruc-
12 ture corridors, as designated by the Secretary, for gasoline
13 blends that contain not less than 11 percent, and not more
14 than 85 percent, renewable fuel or diesel fuel that contains
15 at least 10 percent renewable fuel, including—

16 (1) installation of infrastructure and equipment
17 necessary to ensure adequate distribution of renew-
18 able fuels within the corridor;

19 (2) installation of infrastructure and equipment
20 necessary to directly support vehicles powered by re-
21 newable fuels; and

22 (3) operation and maintenance of infrastructure
23 and equipment installed as part of a project funded
24 by the grant.

25 (c) APPLICATIONS.—

1 (1) REQUIREMENTS.—

2 (A) IN GENERAL.—Subject to subpara-
3 graph (B), not later than 90 days after the date
4 of enactment of this Act, the Secretary shall
5 issue requirements for use in applying for
6 grants under the pilot program.

7 (B) MINIMUM REQUIREMENTS.—At a min-
8 imum, the Secretary shall require that an appli-
9 cation for a grant under this section—

10 (i) be submitted by—

11 (I) the head of a State, tribal, or
12 local government or a metropolitan
13 transportation authority, or any com-
14 bination of those entities; and

15 (II) a registered participant in
16 the Vehicle Technology Deployment
17 Program of the Department of En-
18 ergy; and

19 (ii) include—

20 (I) a description of the project
21 proposed in the application, including
22 the ways in which the project meets
23 the requirements of this section;

24 (II) an estimate of the degree of
25 use of the project, including the esti-

1 mated size of fleet of vehicles operated
2 with renewable fuel available within
3 the geographic region of the corridor,
4 measured as a total quantity and a
5 percentage;

6 (III) an estimate of the potential
7 petroleum displaced as a result of the
8 project (measured as a total quantity
9 and a percentage), and a plan to col-
10 lect and disseminate petroleum dis-
11 placement and other relevant data re-
12 lating to the project to be funded
13 under the grant, over the expected life
14 of the project;

15 (IV) a description of the means
16 by which the project will be sustain-
17 able without Federal assistance after
18 the completion of the term of the
19 grant;

20 (V) a complete description of the
21 costs of the project, including acquisi-
22 tion, construction, operation, and
23 maintenance costs over the expected
24 life of the project; and

1 (VI) a description of which costs
2 of the project will be supported by
3 Federal assistance under this sub-
4 section.

5 (2) PARTNERS.—An applicant under paragraph
6 (1) may carry out a project under the pilot program
7 in partnership with public and private entities.

8 (d) SELECTION CRITERIA.—In evaluating applica-
9 tions under the pilot program, the Secretary shall—

10 (1) consider the experience of each applicant
11 with previous, similar projects; and

12 (2) give priority consideration to applications
13 that—

14 (A) are most likely to maximize displace-
15 ment of petroleum consumption, measured as a
16 total quantity and a percentage;

17 (B) are best able to incorporate existing
18 infrastructure while maximizing, to the extent
19 practicable, the use of advanced biofuels;

20 (C) demonstrate the greatest commitment
21 on the part of the applicant to ensure funding
22 for the proposed project and the greatest likeli-
23 hood that the project will be maintained or ex-
24 panded after Federal assistance under this sub-
25 section is completed;

1 (D) represent a partnership of public and
2 private entities; and

3 (E) exceed the minimum requirements of
4 subsection (c)(1)(B).

5 (e) PILOT PROJECT REQUIREMENTS.—

6 (1) MAXIMUM AMOUNT.—The Secretary shall
7 provide not more than \$20,000,000 in Federal as-
8 sistance under the pilot program to any applicant.

9 (2) COST SHARING.—The non-Federal share of
10 the cost of any activity relating to renewable fuel in-
11 frastructure development carried out using funds
12 from a grant under this section shall be not less
13 than 20 percent.

14 (3) MAXIMUM PERIOD OF GRANTS.—The Sec-
15 retary shall not provide funds to any applicant under
16 the pilot program for more than 2 years.

17 (4) DEPLOYMENT AND DISTRIBUTION.—The
18 Secretary shall seek, to the maximum extent prac-
19 ticable, to ensure a broad geographic distribution of
20 project sites funded by grants under this section.

21 (5) TRANSFER OF INFORMATION AND KNOWL-
22 EDGE.—The Secretary shall establish mechanisms to
23 ensure that the information and knowledge gained
24 by participants in the pilot program are transferred
25 among the pilot program participants and to other

1 interested parties, including other applicants that
2 submitted applications.

3 (f) SCHEDULE.—

4 (1) INITIAL GRANTS.—

5 (A) IN GENERAL.—Not later than 90 days
6 after the date of enactment of this Act, the Sec-
7 retary shall publish in the Federal Register,
8 Commerce Business Daily, and such other pub-
9 lications as the Secretary considers to be appro-
10 priate, a notice and request for applications to
11 carry out projects under the pilot program.

12 (B) DEADLINE.—An application described
13 in subparagraph (A) shall be submitted to the
14 Secretary by not later than 180 days after the
15 date of publication of the notice under that sub-
16 paragraph.

17 (C) INITIAL SELECTION.—Not later than
18 90 days after the date by which applications for
19 grants are due under subparagraph (B), the
20 Secretary shall select by competitive, peer-re-
21 viewed proposal up to 5 applications for
22 projects to be awarded a grant under the pilot
23 program.

24 (2) ADDITIONAL GRANTS.—

1 (A) IN GENERAL.—Not later than 2 years
2 after the date of enactment of this Act, the Sec-
3 retary shall publish in the Federal Register,
4 Commerce Business Daily, and such other pub-
5 lications as the Secretary considers to be appro-
6 priate, a notice and request for additional appli-
7 cations to carry out projects under the pilot
8 program that incorporate the information and
9 knowledge obtained through the implementation
10 of the first round of projects authorized under
11 the pilot program.

12 (B) DEADLINE.—An application described
13 in subparagraph (A) shall be submitted to the
14 Secretary by not later than 180 days after the
15 date of publication of the notice under that sub-
16 paragraph.

17 (C) INITIAL SELECTION.—Not later than
18 90 days after the date by which applications for
19 grants are due under subparagraph (B), the
20 Secretary shall select by competitive, peer-re-
21 viewed proposal such additional applications for
22 projects to be awarded a grant under the pilot
23 program as the Secretary determines to be ap-
24 propriate.

25 (g) REPORTS TO CONGRESS.—

1 (1) INITIAL REPORT.—Not later than 60 days
2 after the date on which grants are awarded under
3 this section, the Secretary shall submit to Congress
4 a report containing—

5 (A) an identification of the grant recipients
6 and a description of the projects to be funded
7 under the pilot program;

8 (B) an identification of other applicants
9 that submitted applications for the pilot pro-
10 gram but to which funding was not provided;
11 and

12 (C) a description of the mechanisms used
13 by the Secretary to ensure that the information
14 and knowledge gained by participants in the
15 pilot program are transferred among the pilot
16 program participants and to other interested
17 parties, including other applicants that sub-
18 mitted applications.

19 (2) EVALUATION.—Not later than 2 years after
20 the date of enactment of this Act, and annually
21 thereafter until the termination of the pilot program,
22 the Secretary shall submit to Congress a report con-
23 taining an evaluation of the effectiveness of the pilot
24 program, including an assessment of the petroleum
25 displacement and benefits to the environment de-

1 rived from the projects included in the pilot pro-
2 gram.

3 (h) AUTHORIZATION OF APPROPRIATIONS.—There is
4 authorized to be appropriated to the Secretary to carry
5 out this section \$200,000,000, to remain available until
6 expended.

7 **SEC. 122. BIOENERGY RESEARCH AND DEVELOPMENT.**

8 Section 931(c) of the Energy Policy Act of 2005 (42
9 U.S.C. 16231(c)) is amended—

10 (1) in paragraph (2), by striking
11 “\$251,000,000” and inserting “\$377,000,000”; and

12 (2) in paragraph (3), by striking
13 “\$274,000,000” and inserting “\$398,000,000”.

14 **SEC. 123. BIORESEARCH CENTERS FOR SYSTEMS BIOLOGY**
15 **PROGRAM.**

16 Section 977(a)(1) of the Energy Policy Act of 2005
17 (42 U.S.C. 16317(a)(1)) is amended by inserting before
18 the period at the end the following: “, including the estab-
19 lishment of at least 11 bioresearch centers of varying
20 sizes, as appropriate, that focus on biofuels, of which at
21 least 2 centers shall be located in each of the 4 Petroleum
22 Administration for Defense Districts with no subdistricts
23 and 1 center shall be located in each of the subdistricts
24 of the Petroleum Administration for Defense District with
25 subdistricts”.

1 **SEC. 124. LOAN GUARANTEES FOR RENEWABLE FUEL FA-**
2 **CILITIES.**

3 (a) IN GENERAL.—Section 1703 of the Energy Policy
4 Act of 2005 (42 U.S.C. 16513) is amended by adding at
5 the end the following:

6 “(f) RENEWABLE FUEL FACILITIES.—

7 “(1) IN GENERAL.—The Secretary may make
8 guarantees under this title for projects that produce
9 advanced biofuel (as defined in section 102 of the
10 Biofuels for Energy Security and Transportation
11 Act of 2007).

12 “(2) REQUIREMENTS.—A project under this
13 subsection shall employ new or significantly im-
14 proved technologies for the production of renewable
15 fuels as compared to commercial technologies in
16 service in the United States at the time that the
17 guarantee is issued.

18 “(3) ISSUANCE OF FIRST LOAN GUARANTEES.—
19 The requirement of section 20320(b) of division B
20 of the Continuing Appropriations Resolution, 2007
21 (Public Law 109–289, Public Law 110–5), relating
22 to the issuance of final regulations, shall not apply
23 to the first 6 guarantees issued under this sub-
24 section.

25 “(4) PROJECT DESIGN.—A project for which a
26 guarantee is made under this subsection shall have

1 a project design that has been validated through the
2 operation of a continuous process pilot facility with
3 an annual output of at least 50,000 gallons of eth-
4 anol or the energy equivalent volume of other ad-
5 vanced biofuels.

6 “(5) MAXIMUM GUARANTEED PRINCIPAL.—The
7 total principal amount of a loan guaranteed under
8 this subsection may not exceed \$250,000,000 for a
9 single facility.

10 “(6) AMOUNT OF GUARANTEE.—The Secretary
11 shall guarantee 100 percent of the principal and in-
12 terest due on 1 or more loans made for a facility
13 that is the subject of the guarantee under paragraph
14 (3).

15 “(7) DEADLINE.—The Secretary shall approve
16 or disapprove an application for a guarantee under
17 this subsection not later than 90 days after the date
18 of receipt of the application.

19 “(8) REPORT.—Not later than 30 days after
20 approving or disapproving an application under
21 paragraph (7), the Secretary shall submit to Con-
22 gress a report on the approval or disapproval (in-
23 cluding the reasons for the action).”.

24 (b) IMPROVEMENTS TO UNDERLYING LOAN GUAR-
25 ANTEE AUTHORITY.—

1 (1) DEFINITION OF COMMERCIAL TECH-
2 NOLOGY.—Section 1701(1) of the Energy Policy Act
3 of 2005 (42 U.S.C. 16511(1)) is amended by strik-
4 ing subparagraph (B) and inserting the following:

5 “(B) EXCLUSION.—The term ‘commercial
6 technology’ does not include a technology if the
7 sole use of the technology is in connection
8 with—

9 “(i) a demonstration plant; or

10 “(ii) a project for which the Secretary
11 approved a loan guarantee.”.

12 (2) SPECIFIC APPROPRIATION OR CONTRIBU-
13 TION.—Section 1702 of the Energy Policy Act of
14 2005 (42 U.S.C. 16512) is amended by striking sub-
15 section (b) and inserting the following:

16 “(b) SPECIFIC APPROPRIATION OR CONTRIBU-
17 TION.—

18 “(1) IN GENERAL.—No guarantee shall be
19 made unless—

20 “(A) an appropriation for the cost has
21 been made; or

22 “(B) the Secretary has received from the
23 borrower a payment in full for the cost of the
24 obligation and deposited the payment into the
25 Treasury.

1 “(2) LIMITATION.—The source of payments re-
2 ceived from a borrower under paragraph (1)(B) shall
3 not be a loan or other debt obligation that is made
4 or guaranteed by the Federal Government.

5 “(3) RELATION TO OTHER LAWS.—Section
6 504(b) of the Federal Credit Reform Act of 1990 (2
7 U.S.C. 661c(b)) shall not apply to a loan or loan
8 guarantee made in accordance with paragraph
9 (1)(B).”.

10 (3) AMOUNT.—Section 1702 of the Energy Pol-
11 icy Act of 2005 (42 U.S.C. 16512) is amended by
12 striking subsection (c) and inserting the following:

13 “(c) AMOUNT.—

14 “(1) IN GENERAL.—Subject to paragraph (2),
15 the Secretary shall guarantee up to 100 percent of
16 the principal and interest due on 1 or more loans for
17 a facility that are the subject of the guarantee.

18 “(2) LIMITATION.—The total amount of loans
19 guaranteed for a facility by the Secretary shall not
20 exceed 80 percent of the total cost of the facility, as
21 estimated at the time at which the guarantee is
22 issued.”.

23 (4) SUBROGATION.—Section 1702(g)(2) of the
24 Energy Policy Act of 2005 (42 U.S.C. 16512(g)(2))
25 is amended—

1 (A) by striking subparagraph (B); and

2 (B) by redesignating subparagraph (C) as
3 subparagraph (B).

4 (5) FEES.—Section 1702(h) of the Energy Pol-
5 icy Act of 2005 (42 U.S.C. 16512(h)) is amended by
6 striking paragraph (2) and inserting the following:

7 “(2) AVAILABILITY.—Fees collected under this
8 subsection shall—

9 “(A) be deposited by the Secretary into a
10 special fund in the Treasury to be known as the
11 ‘Incentives For Innovative Technologies Fund’;
12 and

13 “(B) remain available to the Secretary for
14 expenditure, without further appropriation or
15 fiscal year limitation, for administrative ex-
16 penses incurred in carrying out this title.”.

17 **SEC. 125. GRANTS FOR RENEWABLE FUEL PRODUCTION RE-**
18 **SEARCH AND DEVELOPMENT IN CERTAIN**
19 **STATES.**

20 (a) IN GENERAL.—The Secretary shall provide
21 grants to eligible entities to conduct research into, and de-
22 velop and implement, renewable fuel production tech-
23 nologies in States with low rates of ethanol production,
24 including low rates of production of cellulosic biomass eth-
25 anol, as determined by the Secretary.

1 (b) ELIGIBILITY.—To be eligible to receive a grant
2 under the section, an entity shall—

3 (1)(A) be an institution of higher education (as
4 defined in section 2 of the Energy Policy Act of
5 2005 (42 U.S.C. 15801)) located in a State de-
6 scribed in subsection (a);

7 (B) be an institution—

8 (i) referred to in section 532 of the Equity
9 in Educational Land-Grant Status Act of 1994
10 (Public Law 103–382; 7 U.S.C. 301 note);

11 (ii) that is eligible for a grant under the
12 Tribally Controlled College or University Assist-
13 ance Act of 1978 (25 U.S.C. 1801 et seq.), in-
14 cluding Diné College; or

15 (iii) that is eligible for a grant under the
16 Navajo Community College Act (25 U.S.C.
17 640a et seq.); or

18 (C) be a consortium of such institutions of
19 higher education, industry, State agencies, Indian
20 tribal agencies, or local government agencies located
21 in the State; and

22 (2) have proven experience and capabilities with
23 relevant technologies.

1 (c) AUTHORIZATION OF APPROPRIATIONS.—There is
2 authorized to be appropriated to carry out this section
3 \$25,000,000 for each of fiscal years 2008 through 2010.

4 **SEC. 126. GRANTS FOR INFRASTRUCTURE FOR TRANSPOR-**
5 **TATION OF BIOMASS TO LOCAL BIOREFIN-**
6 **ERIES.**

7 (a) IN GENERAL.—The Secretary shall conduct a
8 program under which the Secretary shall provide grants
9 to Indian tribal and local governments and other eligible
10 entities (as determined by the Secretary) (referred to in
11 this section as “eligible entities”) to promote the develop-
12 ment of infrastructure to support the separation, produc-
13 tion, processing, and transportation of biomass to local
14 biorefineries.

15 (b) PHASES.—The Secretary shall conduct the pro-
16 gram in the following phases:

17 (1) DEVELOPMENT.—In the first phase of the
18 program, the Secretary shall make grants to eligible
19 entities to assist the eligible entities in the develop-
20 ment of local projects to promote the development of
21 infrastructure to support the separation, production,
22 processing, and transportation of biomass to local
23 biorefineries.

24 (2) IMPLEMENTATION.—In the second phase of
25 the program, the Secretary shall make competitive

1 grants to eligible entities to implement projects de-
2 veloped under paragraph (1).

3 (c) AUTHORIZATION OF APPROPRIATIONS.—There
4 are authorized to be appropriated such sums as are nec-
5 essary to carry out this section.

6 **SEC. 127. BIOREFINERY INFORMATION CENTER.**

7 (a) IN GENERAL.—The Secretary, in cooperation
8 with the Secretary of Agriculture, shall establish a bio-
9 refinery information center to make available to interested
10 parties information on—

- 11 (1) renewable fuel resources, including informa-
12 tion on programs and incentives for renewable fuels;
- 13 (2) renewable fuel producers;
- 14 (3) renewable fuel users; and
- 15 (4) potential renewable fuel users.

16 (b) ADMINISTRATION.—In administering the bio-
17 refinery information center, the Secretary shall—

- 18 (1) continually update information provided by
19 the center;
- 20 (2) make information available to interested
21 parties on the process for establishing a biorefinery;
22 and
- 23 (3) make information and assistance provided
24 by the center available through a toll-free telephone
25 number and website.

1 (c) AUTHORIZATION OF APPROPRIATIONS.—There
2 are authorized to be appropriated such sums as are nec-
3 essary to carry out this section.

4 **SEC. 128. ALTERNATIVE FUEL DATABASE AND MATERIALS.**

5 The Secretary and the Director of the National Insti-
6 tute of Standards and Technology shall jointly establish
7 and make available to the public—

8 (1) a database that describes the physical prop-
9 erties of different types of alternative fuel; and

10 (2) standard reference materials for different
11 types of alternative fuel.

12 **SEC. 129. FUEL TANK CAP LABELING REQUIREMENT.**

13 Section 406(a) of the Energy Policy Act of 1992 (42
14 U.S.C. 13232(a)) is amended—

15 (1) by striking “The Federal Trade Commis-
16 sion” and inserting the following:

17 “(1) IN GENERAL.—The Federal Trade Com-
18 mission”; and

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

20 “(2) FUEL TANK CAP LABELING REQUIRE-
21 MENT.—Beginning with model year 2010, the fuel
22 tank cap of each alternative fueled vehicle manufac-
23 tured for sale in the United States shall be clearly
24 labeled to inform consumers that such vehicle can
25 operate on alternative fuel.”.

1 **SEC. 130. BIODIESEL.**

2 (a) **IN GENERAL.**—Not later than 180 days after the
3 date of enactment of this Act, the Secretary shall submit
4 to Congress a report on any research and development
5 challenges inherent in increasing to 5 percent the propor-
6 tion of diesel fuel sold in the United States that is bio-
7 diesel (as defined in section 757 of the Energy Policy Act
8 of 2005 (42 U.S.C. 16105)).

9 (b) **REGULATIONS.**—The President shall promulgate
10 regulations providing for the uniform labeling of biodiesel
11 blends that are certified to meet applicable standards pub-
12 lished by the American Society for Testing and Materials.

13 (c) **NATIONAL BIODIESEL FUEL QUALITY STAND-**
14 **ARD.**—

15 (1) **QUALITY REGULATIONS.**—Within 180 days
16 following the date of enactment of this Act, the
17 President shall promulgate regulations to ensure
18 that only biodiesel that is tested and certified to
19 comply with the American Society for Testing and
20 Materials (ASTM) 6751 standard is introduced into
21 interstate commerce.

22 (2) **ENFORCEMENT.**—The President shall en-
23 sure that all biodiesel entering interstate commerce
24 meets the requirements of paragraph (1).

25 (3) **FUNDING.**—There are authorized to be ap-
26 propriated to the President to carry out this section:

1 (A) \$3,000,000 for fiscal year 2008.

2 (B) \$3,000,000 for fiscal year 2009.

3 (C) \$3,000,000 for fiscal year 2010.

4 **Subtitle C—Studies**

5 **SEC. 141. STUDY OF ADVANCED BIOFUELS TECHNOLOGIES.**

6 (a) IN GENERAL.—Not later than October 1, 2012,
7 the Secretary shall offer to enter into a contract with the
8 National Academy of Sciences under which the Academy
9 shall conduct a study of technologies relating to the pro-
10 duction, transportation, and distribution of advanced
11 biofuels.

12 (b) SCOPE.—In conducting the study, the Academy
13 shall—

14 (1) include an assessment of the maturity of
15 advanced biofuels technologies;

16 (2) consider whether the rate of development of
17 those technologies will be sufficient to meet the ad-
18 vanced biofuel standards required under section 111;

19 (3) consider the effectiveness of the research
20 and development programs and activities of the De-
21 partment of Energy relating to advanced biofuel
22 technologies; and

23 (4) make policy recommendations to accelerate
24 the development of those technologies to commercial
25 viability, as appropriate.

1 (c) REPORT.—Not later than November 30, 2014,
2 the Secretary shall submit to the Committee on Energy
3 and Natural Resources of the Senate and the Committee
4 on Energy and Commerce of the House of Representatives
5 a report describing the results of the study conducted
6 under this section.

7 **SEC. 142. STUDY OF INCREASED CONSUMPTION OF ETH-**
8 **ANOL-BLENDED GASOLINE WITH HIGHER**
9 **LEVELS OF ETHANOL.**

10 (a) IN GENERAL.—The Secretary, in cooperation
11 with the Secretary of Agriculture, the Administrator of the
12 Environmental Protection Agency, and the Secretary of
13 Transportation, and after providing notice and an oppor-
14 tunity for public comment, shall conduct a study of the
15 feasibility of increasing consumption in the United States
16 of ethanol-blended gasoline with levels of ethanol that are
17 not less than 10 percent and not more than 40 percent.

18 (b) STUDY.—The study under subsection (a) shall in-
19 clude—

20 (1) a review of production and infrastructure
21 constraints on increasing consumption of ethanol;

22 (2) an evaluation of the economic, market, and
23 energy-related impacts of State and regional dif-
24 ferences in ethanol blends;

1 (3) an evaluation of the economic, market, and
2 energy-related impacts on gasoline retailers and con-
3 sumers of separate and distinctly labeled fuel stor-
4 age facilities and dispensers;

5 (4) an evaluation of the environmental impacts
6 of mid-level ethanol blends on evaporative and ex-
7 haust emissions from on-road, off-road, and marine
8 engines, recreational boats, vehicles, and equipment;

9 (5) an evaluation of the impacts of mid-level
10 ethanol blends on the operation, durability, and per-
11 formance of on-road, off-road, and marine engines,
12 recreational boats, vehicles, and equipment; and

13 (6) an evaluation of the safety impacts of mid-
14 level ethanol blends on consumers that own and op-
15 erate off-road and marine engines, recreational
16 boats, vehicles, or equipment.

17 (c) REPORT.—Not later than 1 year after the date
18 of enactment of this Act, the Secretary shall submit to
19 Congress a report describing the results of the study con-
20 ducted under this section.

21 **SEC. 143. PIPELINE FEASIBILITY STUDY.**

22 (a) IN GENERAL.—The Secretary, in coordination
23 with the Secretary of Agriculture and the Secretary of
24 Transportation, shall conduct a study of the feasibility of
25 the construction of dedicated ethanol pipelines.

1 (b) FACTORS.—In conducting the study, the Sec-
2 retary shall consider—

3 (1) the quantity of ethanol production that
4 would make dedicated pipelines economically viable;

5 (2) existing or potential barriers to dedicated
6 ethanol pipelines, including technical, siting, financ-
7 ing, and regulatory barriers;

8 (3) market risk (including throughput risk) and
9 means of mitigating the risk;

10 (4) regulatory, financing, and siting options
11 that would mitigate risk in those areas and help en-
12 sure the construction of 1 or more dedicated ethanol
13 pipelines;

14 (5) financial incentives that may be necessary
15 for the construction of dedicated ethanol pipelines,
16 including the return on equity that sponsors of the
17 initial dedicated ethanol pipelines will require to in-
18 vest in the pipelines;

19 (6) technical factors that may compromise the
20 safe transportation of ethanol in pipelines, identi-
21 fying remedial and preventative measures to ensure
22 pipeline integrity; and

23 (7) such other factors as the Secretary con-
24 siders appropriate.

1 (c) REPORT.—Not later than 15 months after the
2 date of enactment of this Act, the Secretary shall submit
3 to Congress a report describing the results of the study
4 conducted under this section.

5 **SEC. 144. STUDY OF OPTIMIZATION OF FLEXIBLE FUELED**
6 **VEHICLES TO USE E-85 FUEL.**

7 (a) IN GENERAL.—The Secretary shall conduct a
8 study of methods of increasing the fuel efficiency of flexi-
9 ble fueled vehicles by optimizing flexible fueled vehicles to
10 operate using E-85 fuel.

11 (b) REPORT.—Not later than 180 days after the date
12 of enactment of this Act, the Secretary shall submit to
13 the Committee on Energy and Natural Resources of the
14 Senate and the Committee on Natural Resources of the
15 House of Representatives a report that describes the re-
16 sults of the study, including any recommendations of the
17 Secretary.

18 **SEC. 145. STUDY OF CREDITS FOR USE OF RENEWABLE**
19 **ELECTRICITY IN ELECTRIC VEHICLES.**

20 (a) DEFINITION OF ELECTRIC VEHICLE.—In this
21 section, the term “electric vehicle” means an electric
22 motor vehicle (as defined in section 601 of the Energy Pol-
23 icy Act of 1992 (42 U.S.C. 13271)) for which the re-
24 chargeable storage battery—

1 (1) receives a charge directly from a source of
2 electric current that is external to the vehicle; and

3 (2) provides a minimum of 80 percent of the
4 motive power of the vehicle.

5 (b) STUDY.—The Secretary shall conduct a study on
6 the feasibility of issuing credits under the program estab-
7 lished under section 111(d) to electric vehicles powered by
8 electricity produced from renewable energy sources.

9 (c) REPORT.—Not later than 18 months after the
10 date of enactment of this Act, the Secretary shall submit
11 to the Committee on Energy and Natural Resources of
12 the Senate and the Committee on Energy and Commerce
13 of the House of Representatives a report that describes
14 the results of the study, including a description of—

15 (1) existing programs and studies on the use of
16 renewable electricity as a means of powering electric
17 vehicles; and

18 (2) alternatives for—

19 (A) designing a pilot program to determine
20 the feasibility of using renewable electricity to
21 power electric vehicles as an adjunct to a re-
22 newable fuels mandate;

23 (B) allowing the use, under the pilot pro-
24 gram designed under subparagraph (A), of elec-

1 tricity generated from nuclear energy as an ad-
2 ditional source of supply;

3 (C) identifying the source of electricity
4 used to power electric vehicles; and

5 (D) equating specific quantities of elec-
6 tricity to quantities of renewable fuel under sec-
7 tion 111(d).

8 **SEC. 146. STUDY OF ENGINE DURABILITY ASSOCIATED**
9 **WITH THE USE OF BIODIESEL.**

10 (a) IN GENERAL.—Not later than 30 days after the
11 date of enactment of this Act, the Secretary shall initiate
12 a study on the effects of the use of biodiesel on engine
13 durability.

14 (b) COMPONENTS.—The study under this section
15 shall include—

16 (1) an assessment of whether the use of bio-
17 diesel in conventional diesel engines lessens engine
18 durability; and

19 (2) an assessment of the effects referred to in
20 subsection (a) with respect to biodiesel blends at
21 varying concentrations, including—

22 (A) B5;

23 (B) B10;

24 (C) B20; and

25 (D) B30.

1 **SEC. 147. STUDY OF INCENTIVES FOR RENEWABLE FUELS.**

2 (a) STUDY.—The President shall conduct a study of
3 the renewable fuels industry and markets in the United
4 States, including—

5 (1) the costs to produce conventional and ad-
6 vanced biofuels;

7 (2) the factors affecting the future market
8 prices for those biofuels, including world oil prices;
9 and

10 (3) the financial incentives necessary to en-
11 hance, to the maximum extent practicable, the
12 biofuels industry of the United States to reduce the
13 dependence of the United States on foreign oil dur-
14 ing calendar years 2011 through 2030.

15 (b) GOALS.—The study shall include an analysis of
16 the options for financial incentives and the advantage and
17 disadvantages of each option.

18 (c) REPORT.—Not later than 1 year after the date
19 of enactment of this Act, the President shall submit to
20 Congress a report that describes the results of the study.

21 **SEC. 148. STUDY OF STREAMLINED LIFECYCLE ANALYSIS**
22 **TOOLS FOR THE EVALUATION OF RENEW-**
23 **ABLE CARBON CONTENT OF BIOFUELS.**

24 (a) IN GENERAL.—The Secretary, in consultation
25 with the Secretary of Agriculture and the Administrator

1 of the Environmental Protection Agency, shall conduct a
2 study of—

3 (1) published methods for evaluating the
4 lifecycle fossil and renewable carbon content of fuels,
5 including conventional and advanced biofuels; and

6 (2) methods for performing simplified, stream-
7 lined lifecycle analyses of the fossil and renewable
8 carbon content of biofuels.

9 (b) REPORT.—Not later than 1 year after the date
10 of enactment of this Act, the Secretary shall submit to
11 the Committee on Energy and Natural Resources of the
12 Senate and the Committee on Energy and Commerce of
13 the House of Representatives a report that describes the
14 results of the study under subsection (a), including rec-
15 ommendations for a method for performing a simplified,
16 streamlined lifecycle analysis of the fossil and renewable
17 carbon content of biofuels that includes—

18 (1) carbon inputs to feedstock production; and

19 (2) carbon inputs to the biofuel production
20 process, including the carbon associated with elec-
21 trical and thermal energy inputs.

22 **SEC. 149. STUDY OF THE ADEQUACY OF RAILROAD TRANS-**
23 **PORTATION OF DOMESTICALLY-PRODUCED**
24 **RENEWABLE FUEL.**

25 (a) STUDY.—

1 (1) IN GENERAL.—The Secretary, in consulta-
2 tion with the Secretary of Transportation, shall con-
3 duct a study of the adequacy of railroad transpor-
4 tation of domestically-produced renewable fuel.

5 (2) COMPONENTS.—In conducting the study
6 under paragraph (1), the Secretary shall consider—

7 (A) the adequacy of, and appropriate loca-
8 tion for, tracks that have sufficient capacity,
9 and are in the appropriate condition, to move
10 the necessary quantities of domestically-pro-
11 duced renewable fuel within the timeframes re-
12 quired by section 111;

13 (B) the adequacy of the supply of railroad
14 tank cars, locomotives, and rail crews to move
15 the necessary quantities of domestically-pro-
16 duced renewable fuel in a timely fashion;

17 (C)(i) the projected costs of moving the do-
18 mestically-produced renewable fuel using rail-
19 road transportation; and

20 (ii) the impact of the projected costs on
21 the marketability of the domestically-produced
22 renewable fuel;

23 (D) whether there is adequate railroad
24 competition to ensure—

1 (i) a fair price for the railroad trans-
2 portation of domestically-produced renew-
3 able fuel; and

4 (ii) acceptable levels of service for rail-
5 road transportation of domestically-pro-
6 duced renewable fuel;

7 (E) any rail infrastructure capital costs
8 that the railroads indicate should be paid by the
9 producers or distributors of domestically-pro-
10 duced renewable fuel;

11 (F) whether Federal agencies have ade-
12 quate legal authority to ensure a fair and rea-
13 sonable transportation price and acceptable lev-
14 els of service in cases in which the domestically-
15 produced renewable fuel source does not have
16 access to competitive rail service;

17 (G) whether Federal agencies have ade-
18 quate legal authority to address railroad service
19 problems that may be resulting in inadequate
20 supplies of domestically-produced renewable fuel
21 in any area of the United States; and

22 (H) any recommendations for any addi-
23 tional legal authorities for Federal agencies to
24 ensure the reliable railroad transportation of

1 adequate supplies of domestically-produced re-
2 newable fuel at reasonable prices.

3 (b) REPORT.—Not later than 180 days after the date
4 of enactment of this Act, the Secretary shall submit to
5 the Committee on Energy and Natural Resources of the
6 Senate and the Committee on Energy and Commerce of
7 the House of Representatives a report that describes the
8 results of the study conducted under subsection (a).

9 **SEC. 150. STUDY OF EFFECTS OF ETHANOL-BLENDED GASO-**
10 **LINE ON OFF ROAD VEHICLES.**

11 (a) STUDY.—

12 (1) IN GENERAL.—The Secretary, in consulta-
13 tion with the Secretary of Transportation and the
14 Administrator of the Environmental Protection
15 Agency, shall conduct a study to determine the ef-
16 fects of ethanol-blended gasoline on off-road vehicles
17 and recreational boats.

18 (2) EVALUATION.—The study shall include an
19 evaluation of the operational, safety, durability, and
20 environmental impacts of ethanol-blended gasoline
21 on off-road and marine engines, recreational boats,
22 and related equipment.

23 (b) REPORT.—Not later than 1 year after the date
24 of enactment of this Act, the Secretary shall submit to
25 Congress a report describing the results of the study.

1 **TITLE II—ENERGY EFFICIENCY**
2 **PROMOTION**

3 **SEC. 201. SHORT TITLE.**

4 This title may be cited as the “Energy Efficiency
5 Promotion Act of 2007”.

6 **Subtitle A—Promoting Advanced**
7 **Lighting Technologies**

8 **SEC. 211. ACCELERATED PROCUREMENT OF ENERGY EFFI-**
9 **CIENT LIGHTING.**

10 Section 553 of the National Energy Conservation
11 Policy Act (42 U.S.C. 8259b) is amended by adding the
12 following:

13 “(f) ACCELERATED PROCUREMENT OF ENERGY EF-
14 FICIENT LIGHTING.—

15 “(1) IN GENERAL.—Not later than October 1,
16 2013, in accordance with guidelines issued by the
17 Secretary, all general purpose lighting in Federal
18 buildings shall be Energy Star products or products
19 designated under the Federal Energy Management
20 Program.

21 “(2) GUIDELINES.—

22 “(A) IN GENERAL.—Not later than 1 year
23 after the date of enactment of this subsection,
24 the Secretary shall issue guidelines to carry out
25 this subsection.

1 “(B) REPLACEMENT COSTS.—The guide-
 2 lines shall take into consideration the costs of
 3 replacing all general service lighting and the re-
 4 duced cost of operation and maintenance ex-
 5 pected to result from such replacement.”.

6 **SEC. 212. INCANDESCENT REFLECTOR LAMP EFFICIENCY**
 7 **STANDARDS.**

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

10 (1) in paragraph (30)(C)(ii)—

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

13 (i) by striking “or similar bulb shapes
 14 (excluding ER or BR)” and inserting “ER,
 15 BR, BPAR, or similar bulb shapes”; and

16 (ii) by striking “2.75” and inserting
 17 “2.25”; and

18 (B) by striking “is either—” and all that
 19 follows through subclause (II) and inserting
 20 “has a rated wattage that is 40 watts or high-
 21 er”; and

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

23 “(52) BPAR INCANDESCENT REFLECTOR
 24 LAMP.—The term ‘BPAR incandescent reflector

1 lamp' means a reflector lamp as shown in figure
2 C78.21–278 on page 32 of ANSI C78.21–2003.

3 “(53) BR INCANDESCENT REFLECTOR LAMP;
4 BR30; BR40.—

5 “(A) BR INCANDESCENT REFLECTOR
6 LAMP.—The term ‘BR incandescent reflector
7 lamp’ means a reflector lamp that has—

8 “(i) a bulged section below the major
9 diameter of the bulb and above the approx-
10 imate baseline of the bulb, as shown in fig-
11 ure 1 (RB) on page 7 of ANSI C79.1–
12 1994, incorporated by reference in section
13 430.22 of title 10, Code of Federal Regula-
14 tions (as in effect on the date of enactment
15 of this paragraph); and

16 “(ii) a finished size and shape shown
17 in ANSI C78.21–1989, including the ref-
18 erenced reflective characteristics in part 7
19 of ANSI C78.21–1989, incorporated by
20 reference in section 430.22 of title 10,
21 Code of Federal Regulations (as in effect
22 on the date of enactment of this para-
23 graph).

1 “(B) BR30.—The term ‘BR30’ means a
2 BR incandescent reflector lamp with a diameter
3 of 30/8ths of an inch.

4 “(C) BR40.—The term ‘BR40’ means a
5 BR incandescent reflector lamp with a diameter
6 of 40/8ths of an inch.

7 “(54) ER INCANDESCENT REFLECTOR LAMP;
8 ER30; ER40.—

9 “(A) ER INCANDESCENT REFLECTOR
10 LAMP.—The term ‘ER incandescent reflector
11 lamp’ means a reflector lamp that has—

12 “(i) an elliptical section below the
13 major diameter of the bulb and above the
14 approximate baseline of the bulb, as shown
15 in figure 1 (RE) on page 7 of ANSI
16 C79.1–1994, incorporated by reference in
17 section 430.22 of title 10, Code of Federal
18 Regulations (as in effect on the date of en-
19 actment of this paragraph); and

20 “(ii) a finished size and shape shown
21 in ANSI C78.21–1989, incorporated by
22 reference in section 430.22 of title 10,
23 Code of Federal Regulations (as in effect
24 on the date of enactment of this para-
25 graph).

1 “(B) ER30.—The term ‘ER30’ means an
2 ER incandescent reflector lamp with a diameter
3 of 30/8ths of an inch.

4 “(C) ER40.—The term ‘ER40’ means an
5 ER incandescent reflector lamp with a diameter
6 of 40/8ths of an inch.

7 “(55) R20 INCANDESCENT REFLECTOR
8 LAMP.—The term ‘R20 incandescent reflector lamp’
9 means a reflector lamp that has a face diameter of
10 approximately 2.5 inches, as shown in figure 1(R)
11 on page 7 of ANSI C79.1–1994.”.

12 (b) STANDARDS FOR FLUORESCENT LAMPS AND IN-
13 CANDESCENT REFLECTOR LAMPS.—Section 325(i) of the
14 Energy Policy and Conservation Act (42 U.S.C. 6925(i))
15 is amended by striking paragraph (1) and inserting the
16 following:

17 “(1) STANDARDS.—

18 “(A) DEFINITION OF EFFECTIVE DATE.—

19 In this paragraph (other than subparagraph
20 (D)), the term ‘effective date’ means, with re-
21 spect to each type of lamp specified in a table
22 contained in subparagraph (B), the last day of
23 the period of months corresponding to that type
24 of lamp (as specified in the table) that follows
25 October 24, 1992.

1 “(B) MINIMUM STANDARDS.—Each of the
 2 following general service fluorescent lamps and
 3 incandescent reflector lamps manufactured
 4 after the effective date specified in the tables
 5 contained in this paragraph shall meet or ex-
 6 ceed the following lamp efficacy and CRI stand-
 7 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

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

11 “(i) Lamps rated at 50 watts or less
 12 that are ER30, BR30, BR40, or ER40
 13 lamps.

1 “(ii) Lamps rated at 65 watts that
2 are BR30, BR40, or ER40 lamps.

3 “(iii) R20 incandescent reflector
4 lamps rated 45 watts or less.

5 “(D) EFFECTIVE DATES.—

6 “(i) ER, BR, AND BPAR LAMPS.—The
7 standards specified in subparagraph (B)
8 shall apply with respect to ER incandes-
9 cent reflector lamps, BR incandescent re-
10 flector lamps, BPAR incandescent reflector
11 lamps, and similar bulb shapes on and
12 after January 1, 2008.

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

20 **SEC. 213. BRIGHT TOMORROW LIGHTING PRIZES.**

21 (a) ESTABLISHMENT.—Not later than 1 year after
22 the date of enactment of this Act, as part of the program
23 carried out under section 1008 of the Energy Policy Act
24 of 2005 (42 U.S.C. 16396), the Secretary shall establish

1 and award Bright Tomorrow Lighting Prizes for solid
2 state lighting in accordance with this section.

3 (b) PRIZE SPECIFICATIONS.—

4 (1) 60-WATT INCANDESCENT REPLACEMENT
5 LAMP PRIZE.—The Secretary shall award a 60-Watt
6 Incandescent Replacement Lamp Prize to an entrant
7 that produces a solid-state light package simulta-
8 neously capable of—

9 (A) producing a luminous flux greater than
10 900 lumens;

11 (B) consuming less than or equal to 10
12 watts;

13 (C) having an efficiency greater than 90
14 lumens per watt;

15 (D) having a color rendering index greater
16 than 90;

17 (E) having a correlated color temperature
18 of not less than 2,750, and not more than
19 3,000, degrees Kelvin;

20 (F) having 70 percent of the lumen value
21 under subparagraph (A) exceeding 25,000
22 hours under typical conditions expected in resi-
23 dential use;

1 (G) having a light distribution pattern
2 similar to a soft 60-watt incandescent A19
3 bulb;

4 (H) having a size and shape that fits with-
5 in the maximum dimensions of an A19 bulb in
6 accordance with American National Standards
7 Institute standard C78.20–2003, figure
8 C78.20–211;

9 (I) using a single contact medium screw
10 socket; and

11 (J) mass production for a competitive sales
12 commercial market satisfied by the submission
13 of 10,000 such units equal to or exceeding the
14 criteria described in subparagraphs (A) through
15 (I).

16 (2) PAR TYPE 38 HALOGEN REPLACEMENT
17 LAMP PRIZE.—The Secretary shall award a
18 Parabolic Aluminized Reflector Type 38 Halogen
19 Replacement Lamp Prize (referred to in this section
20 as the “PAR Type 38 Halogen Replacement Lamp
21 Prize”) to an entrant that produces a solid-state-
22 light package simultaneously capable of—

23 (A) producing a luminous flux greater than
24 or equal to 1,350 lumens;

1 (B) consuming less than or equal to 11
2 watts;

3 (C) having an efficiency greater than 123
4 lumens per watt;

5 (D) having a color rendering index greater
6 than or equal to 90;

7 (E) having a correlated color coordinate
8 temperature of not less than 2,750, and not
9 more than 3,000, degrees Kelvin;

10 (F) having 70 percent of the lumen value
11 under subparagraph (A) exceeding 25,000
12 hours under typical conditions expected in resi-
13 dential use;

14 (G) having a light distribution pattern
15 similar to a PAR 38 halogen lamp;

16 (H) having a size and shape that fits with-
17 in the maximum dimensions of a PAR 38 halo-
18 gen lamp in accordance with American National
19 Standards Institute standard C78-21-2003,
20 figure C78.21-238;

21 (I) using a single contact medium screw
22 socket; and

23 (J) mass production for a competitive sales
24 commercial market satisfied by the submission
25 of 10,000 such units equal to or exceeding the

1 criteria described in subparagraphs (A) through
2 (I).

3 (3) TWENTY-FIRST CENTURY LAMP PRIZE.—

4 The Secretary shall award a Twenty-First Century
5 Lamp Prize to an entrant that produces a solid-
6 state-light-light capable of—

7 (A) producing a light output greater than
8 1,200 lumens;

9 (B) having an efficiency greater than 150
10 lumens per watt;

11 (C) having a color rendering index greater
12 than 90;

13 (D) having a color coordinate temperature
14 between 2,800 and 3,000 degrees Kelvin; and

15 (E) having a lifetime exceeding 25,000
16 hours.

17 (c) PRIVATE FUNDS.—The Secretary may accept and
18 use funding from private sources as part of the prizes
19 awarded under this section.

20 (d) TECHNICAL REVIEW.—The Secretary shall estab-
21 lish a technical review committee composed of non-Federal
22 officers to review entrant data submitted under this sec-
23 tion to determine whether the data meets the prize speci-
24 fications described in subsection (b).

1 (e) THIRD PARTY ADMINISTRATION.—The Secretary
2 may competitively select a third party to administer
3 awards under this section.

4 (f) AWARD AMOUNTS.—Subject to the availability of
5 funds to carry out this section, the amount of—

6 (1) the 60-Watt Incandescent Replacement
7 Lamp Prize described in subsection (b)(1) shall be
8 \$10,000,000;

9 (2) the PAR Type 38 Halogen Replacement
10 Lamp Prize described in subsection (b)(2) shall be
11 \$5,000,000; and

12 (3) the Twenty-First Century Lamp Prize de-
13 scribed in subsection (b)(3) shall be \$5,000,000.

14 (g) FEDERAL PROCUREMENT OF SOLID-STATE-
15 LIGHTS.—

16 (1) 60-WATT INCANDESCENT REPLACEMENT.—
17 Subject to paragraph (3), as soon as practicable
18 after the successful award of the 60-Watt Incandes-
19 cent Replacement Lamp Prize under subsection
20 (b)(1), the Secretary (in consultation with the Ad-
21 ministrator of General Services) shall develop gov-
22 ernmentwide Federal purchase guidelines with a goal
23 of replacing the use of 60-watt incandescent lamps
24 in Federal Government buildings with a solid-state-
25 light package described in subsection (b)(1) by not

1 later than the date that is 5 years after the date the
2 award is made.

3 (2) PAR 38 HALOGEN REPLACEMENT LAMP RE-
4 PLACEMENT.—Subject to paragraph (3), as soon as
5 practicable after the successful award of the PAR
6 Type 38 Halogen Replacement Lamp Prize under
7 subsection (b)(2), the Secretary (in consultation with
8 the Administrator of General Services) shall develop
9 governmentwide Federal purchase guidelines with
10 the goal of replacing the use of PAR 38 halogen
11 lamps in Federal Government buildings with a solid-
12 state-light package described in subsection (b)(2) by
13 not later than the date that is 5 years after the date
14 the award is made.

15 (3) WAIVERS.—

16 (A) IN GENERAL.—The Secretary or the
17 Administrator of General Services may waive
18 the application of paragraph (1) or (2) if the
19 Secretary or Administrator determines that the
20 return on investment from the purchase of a
21 solid-state-light package described in paragraph
22 (1) or (2) of subsection (b), respectively, is cost
23 prohibitive.

24 (B) REPORT OF WAIVER.—If the Secretary
25 or Administrator waives the application of para-

1 graph (1) or (2), the Secretary or Adminis-
2 trator, respectively, shall submit to Congress an
3 annual report that describes the waiver and
4 provides a detailed justification for the waiver.

5 (h) BRIGHT LIGHT TOMORROW AWARD FUND.—

6 (1) ESTABLISHMENT.—There is established in
7 the United States Treasury a Bright Light Tomor-
8 row permanent fund without fiscal year limitation to
9 award prizes under paragraphs (1), (2), and (3) of
10 subsection (b).

11 (2) SOURCES OF FUNDING.—The fund estab-
12 lished under paragraph (1) shall accept—

13 (A) fiscal year appropriations; and

14 (B) private contributions authorized under
15 subsection (c).

16 (i) AUTHORIZATION OF APPROPRIATIONS.—There
17 are authorized to be appropriated such sums as are nec-
18 essary to carry out this section.

19 **SEC. 214. SENSE OF SENATE CONCERNING EFFICIENT**
20 **LIGHTING STANDARDS.**

21 (a) FINDINGS.—The Senate finds that—

22 (1) there are approximately 4,000,000,000
23 screw-based sockets in the United States that con-
24 tain traditional, energy-inefficient, incandescent light
25 bulbs;

1 (2) incandescent light bulbs are based on tech-
2 nology that is more than 125 years old;

3 (3) there are radically more efficient lighting al-
4 ternatives in the market, with the promise of even
5 more choices over the next several years;

6 (4) national policy can support a rapid substi-
7 tution of new, energy-efficient light bulbs for the less
8 efficient products in widespread use; and,

9 (5) transforming the United States market to
10 use of more efficient lighting technologies can—

11 (A) reduce electric costs in the United
12 States by more than \$18,000,000,000 annually;

13 (B) save the equivalent electricity that is
14 produced by 80 base load coal-fired power
15 plants; and

16 (C) reduce fossil fuel related emissions by
17 approximately 158,000,000 tons each year.

18 (b) SENSE OF THE SENATE.—It is the sense of the
19 Senate that the Senate should—

20 (1) pass a set of mandatory, technology-neutral
21 standards to establish firm energy efficiency per-
22 formance targets for lighting products;

23 (2) ensure that the standards become effective
24 within the next 10 years; and

25 (3) in developing the standards—

1 (A) establish the efficiency requirements to
 2 ensure that replacement lamps will provide con-
 3 sumers with the same quantity of light while
 4 using significantly less energy;

5 (B) ensure that consumers will continue to
 6 have multiple product choices, including energy-
 7 saving halogen, incandescent, compact fluores-
 8 cent, and LED light bulbs; and

9 (C) work with industry and key stake-
 10 holders on measures that can assist consumers
 11 and businesses in making the important transi-
 12 tion to more efficient lighting.

13 **SEC. 215. RENEWABLE ENERGY CONSTRUCTION GRANTS.**

14 (a) DEFINITIONS.—In this section:

15 (1) ALASKA SMALL HYDROELECTRIC POWER.—
 16 The term “Alaska small hydroelectric power” means
 17 power that—

18 (A) is generated—

19 (i) in the State of Alaska;

20 (ii) without the use of a dam or im-
 21 poundment of water; and

22 (iii) through the use of—

23 (I) a lake tap (but not a perched
 24 alpine lake); or

1 (II) a run-of-river screened at the
2 point of diversion; and

3 (B) has a nameplate capacity rating of a
4 wattage that is not more than 15 megawatts.

5 (2) ELIGIBLE APPLICANT.—The term “eligible
6 applicant” means any—

7 (A) governmental entity;

8 (B) private utility;

9 (C) public utility;

10 (D) municipal utility;

11 (E) cooperative utility;

12 (F) Indian tribes; and

13 (G) Regional Corporation (as defined in
14 section 3 of the Alaska Native Claims Settle-
15 ment Act (43 U.S.C. 1602)).

16 (3) OCEAN ENERGY.—

17 (A) INCLUSIONS.—The term “ocean en-
18 ergy” includes current, wave, and tidal energy.

19 (B) EXCLUSION.—The term “ocean en-
20 ergy” excludes thermal energy.

21 (4) RENEWABLE ENERGY PROJECT.—The term
22 “renewable energy project” means a project—

23 (A) for the commercial generation of elec-
24 tricity; and

25 (B) that generates electricity from—

- 1 (i) solar, wind, or geothermal energy
2 or ocean energy;
- 3 (ii) biomass (as defined in section
4 203(b) of the Energy Policy Act of 2005
5 (42 U.S.C. 15852(b)));
- 6 (iii) landfill gas; or
- 7 (iv) Alaska small hydroelectric power.

8 (b) RENEWABLE ENERGY CONSTRUCTION
9 GRANTS.—

10 (1) IN GENERAL.—The Secretary shall use
11 amounts appropriated under this section to make
12 grants for use in carrying out renewable energy
13 projects.

14 (2) CRITERIA.—Not later than 180 days after
15 the date of enactment of this Act, the Secretary
16 shall set forth criteria for use in awarding grants
17 under this section.

18 (3) APPLICATION.—To receive a grant from the
19 Secretary under paragraph (1), an eligible applicant
20 shall submit to the Secretary an application at such
21 time, in such manner, and containing such informa-
22 tion as the Secretary may require, including a writ-
23 ten assurance that—

24 (A) all laborers and mechanics employed
25 by contractors or subcontractors during con-

1 construction, alteration, or repair that is financed,
2 in whole or in part, by a grant under this sec-
3 tion shall be paid wages at rates not less than
4 those prevailing on similar construction in the
5 locality, as determined by the Secretary of
6 Labor in accordance with sections 3141–3144,
7 3146, and 3147 of title 40, United States Code;
8 and

9 (B) the Secretary of Labor shall, with re-
10 spect to the labor standards described in this
11 paragraph, have the authority and functions set
12 forth in Reorganization Plan Numbered 14 of
13 1950 (5 U.S.C. App.) and section 3145 of title
14 40, United States Code.

15 (4) NON-FEDERAL SHARE.—Each eligible appli-
16 cant that receives a grant under this subsection shall
17 contribute to the total cost of the renewable energy
18 project constructed by the eligible applicant an
19 amount not less than 50 percent of the total cost of
20 the project.

21 (c) AUTHORIZATION OF APPROPRIATIONS.—There
22 are authorized to be appropriated to the Fund such sums
23 as are necessary to carry out this section.

1 **Subtitle B—Expediting New**
2 **Energy Efficiency Standards**

3 **SEC. 221. DEFINITION OF ENERGY CONSERVATION STAND-**
4 **ARD.**

5 Section 321 of the Energy Policy and Conservation
6 Act (42 U.S.C. 6291) is amended by striking paragraph
7 (6) and inserting the following:

8 “(6) ENERGY CONSERVATION STANDARD.—

9 “(A) IN GENERAL.—The term ‘energy con-
10 servation standard’ means 1 or more perform-
11 ance standards that prescribe a minimum level
12 of energy efficiency or a maximum quantity of
13 energy use and, in the case of a showerhead,
14 faucet, water closet, urinal, clothes washer, and
15 dishwasher, water use, for a covered product,
16 determined in accordance with test procedures
17 prescribed under section 323.

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

20 “(i) 1 or more design requirements, as
21 part of a consensus agreement under sec-
22 tion 325(hh); and

23 “(ii) any other requirements that the
24 Secretary may prescribe under subsections
25 (o) and (r) of section 325.

1 “(C) EXCLUSION.—The term ‘energy con-
2 servation standard’ does not include a perform-
3 ance standard for a component of a finished
4 covered product.”.

5 **SEC. 222. REGIONAL EFFICIENCY STANDARDS FOR HEAT-**
6 **ING AND COOLING PRODUCTS.**

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

9 (1) by redesignating subsections (e), (f), and
10 (g) as subsections (f), (g), and (h), respectively; and

11 (2) by inserting after subsection (d) the fol-
12 lowing:

13 “(e) REGIONAL EFFICIENCY STANDARDS FOR HEAT-
14 ING AND COOLING PRODUCTS.—

15 “(1) IN GENERAL.—

16 “(A) DETERMINATION.—The Secretary
17 may determine, after notice and comment, that
18 more stringent Federal energy conservation
19 standards are appropriate for furnaces, boilers,
20 or central air conditioning equipment than ap-
21 plicable Federal energy conservation standards.

22 “(B) FINDING.—The Secretary may deter-
23 mine that more stringent standards are appro-
24 priate for up to 2 different regions only after
25 finding that the regional standards—

1 “(i) would contribute to energy sav-
2 ings that are substantially greater than
3 that of a single national energy standard;
4 and

5 “(ii) are economically justified.

6 “(C) REGIONS.—On making a determina-
7 tion described in subparagraph (B), the Sec-
8 retary shall establish the regions so that the
9 more stringent standards would achieve the
10 maximum level of energy savings that is techno-
11 logically feasible and economically justified.

12 “(D) FACTORS.—In determining the ap-
13 propriateness of 1 or more regional standards
14 for furnaces, boilers, and central and commer-
15 cial air conditioning equipment, the Secretary
16 shall consider all of the factors described in
17 paragraphs (1) through (4) of section 325(o).

18 “(2) STATE PETITION.—After a determination
19 made by the Secretary under paragraph (1), a State
20 may petition the Secretary requesting a rule that a
21 State regulation that establishes a standard for fur-
22 naces, boilers, or central air conditioners become ef-
23 fective at a level determined by the Secretary to be
24 appropriate for the region that includes the State.

1 “(3) RULE.—Subject to paragraphs (4) through
2 (7), the Secretary may issue the rule during the pe-
3 riod described in paragraph (4) and after consider-
4 ation of the petition and the comments of interested
5 persons.

6 “(4) PROCEDURE.—

7 “(A) NOTICE.—The Secretary shall pro-
8 vide notice of any petition filed under para-
9 graph (2) and afford interested persons a rea-
10 sonable opportunity to make written comments,
11 including rebuttal comments, on the petition.

12 “(B) DECISION.—Except as provided in
13 subparagraph (C), during the 180-day period
14 beginning on the date on which the petition is
15 filed, the Secretary shall issue the requested
16 rule or deny the petition.

17 “(C) EXTENSION.—The Secretary may
18 publish in the Federal Register a notice—

19 “(i) extending the period to a speci-
20 fied date, but not longer than 1 year after
21 the date on which the petition is filed; and

22 “(ii) describing the reasons for the
23 delay.

24 “(D) DENIALS.—If the Secretary denies a
25 petition under this subsection, the Secretary

1 shall publish in the Federal Register notice of,
2 and the reasons for, the denial.

3 “(5) FINDING OF SIGNIFICANT BURDEN ON
4 MANUFACTURING, MARKETING, DISTRIBUTION, SALE,
5 OR SERVICING OF COVERED PRODUCT ON NATIONAL
6 BASIS.—

7 “(A) IN GENERAL.—The Secretary may
8 not issue a rule under this subsection if the
9 Secretary finds (and publishes the finding) that
10 interested persons have established, by a pre-
11 ponderance of the evidence, that the State regu-
12 lation will significantly burden manufacturing,
13 marketing, distribution, sale, or servicing of a
14 covered product on a national basis.

15 “(B) FACTORS.—In determining whether
16 to make a finding described in subparagraph
17 (A), the Secretary shall evaluate all relevant
18 factors, including—

19 “(i) the extent to which the State reg-
20 ulation will increase manufacturing or dis-
21 tribution costs of manufacturers, distribu-
22 tors, and others;

23 “(ii) the extent to which the State
24 regulation will disadvantage smaller manu-
25 facturers, distributors, or dealers or lessen

1 competition in the sale of the covered prod-
2 uct in the State; and

3 “(iii) the extent to which the State
4 regulation would cause a burden to manu-
5 facturers to redesign and produce the cov-
6 ered product type (or class), taking into
7 consideration the extent to which the regu-
8 lation would result in a reduction—

9 “(I) in the current models, or in
10 the projected availability of models,
11 that could be shipped on the effective
12 date of the regulation to the State
13 and within the United States; or

14 “(II) in the current or projected
15 sales volume of the covered product
16 type (or class) in the State and the
17 United States.

18 “(6) APPLICATION.—No State regulation shall
19 become effective under this subsection with respect
20 to any covered product manufactured before the date
21 specified in the determination made by the Secretary
22 under paragraph (1).

23 “(7) PETITION TO WITHDRAW FEDERAL RULE
24 FOLLOWING AMENDMENT OF FEDERAL STAND-
25 ARD.—

1 “(A) IN GENERAL.—If a State has issued
2 a rule under paragraph (3) with respect to a
3 covered product and subsequently a Federal en-
4 ergy conservation standard concerning the prod-
5 uct is amended pursuant to section 325, any
6 person subject to the State regulation may file
7 a petition with the Secretary requesting the
8 Secretary to withdraw the rule issued under
9 paragraph (3) with respect to the product in
10 the State.

11 “(B) BURDEN OF PROOF.—The Secretary
12 shall consider the petition in accordance with
13 paragraph (5) and the burden shall be on the
14 petitioner to show by a preponderance of the
15 evidence that the rule received by the State
16 under paragraph (3) should be withdrawn as a
17 result of the amendment to the Federal stand-
18 ard.

19 “(C) WITHDRAWAL.—If the Secretary de-
20 termines that the petitioner has shown that the
21 rule issued by the Secretary under paragraph
22 (3) should be withdrawn in accordance with
23 subparagraph (B), the Secretary shall withdraw
24 the rule.”.

25 (b) CONFORMING AMENDMENTS.—

1 (1) Section 327 of the Energy Policy and Con-
2 servation Act (42 U.S.C. 6297) is amended—

3 (A) in subsection (b)—

4 (i) in paragraph (2), by striking “sub-
5 section (e)” and inserting “subsection (f)”;

6 and

7 (ii) in paragraph (3)—

8 (I) by striking “subsection
9 (f)(1)” and inserting “subsection
10 (g)(1)”; and

11 (II) by striking “subsection
12 (f)(2)” and inserting “subsection
13 (g)(2)”; and

14 (B) in subsection (c)(3), by striking “sub-
15 section (f)(3)” and inserting “subsection
16 (g)(3)”.

17 (2) Section 345(b)(2) of the Energy Policy and
18 Conservation Act (42 U.S.C. 6316(b)(2)) is amend-
19 ed by adding at the end the following:

20 “(E) RELATIONSHIP TO CERTAIN STATE
21 REGULATIONS.—Notwithstanding subparagraph
22 (A), a standard prescribed or established under
23 section 342(a) with respect to the equipment
24 specified in subparagraphs (B), (C), (D), (H),
25 (I), and (J) of section 340 shall not supersede

1 a State regulation that is effective under the
2 terms, conditions, criteria, procedures, and
3 other requirements of section 327(e).”.

4 **SEC. 223. FURNACE FAN RULEMAKING.**

5 Section 325(f)(3) of the Energy Policy and Conserva-
6 tion Act (42 U.S.C. 6295(f)(3)) is amended by adding at
7 the end the following:

8 “(E) FINAL RULE.—

9 “(i) IN GENERAL.—The Secretary
10 shall publish a final rule to carry out this
11 subsection not later than December 31,
12 2014.

13 “(ii) CRITERIA.—The standards shall
14 meet the criteria established under sub-
15 section (o).”.

16 **SEC. 224. EXPEDITED RULEMAKINGS.**

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

20 “(hh) EXPEDITED RULEMAKING FOR CONSENSUS
21 STANDARDS.—

22 “(1) IN GENERAL.—The Secretary shall con-
23 duct an expedited rulemaking based on an energy
24 conservation standard or test procedure rec-
25 ommended by interested persons, if—

1 “(A) the interested persons (demonstrating
2 significant and broad support from manufactur-
3 ers of a covered product, States, utilities, and
4 environmental, energy efficiency, and consumer
5 advocates) submit a joint comment or petition
6 recommending a consensus energy conservation
7 standard or test procedure; and

8 “(B) the Secretary determines that the
9 joint comment or petition includes evidence that
10 (assuming no other evidence were considered)
11 provides an adequate basis for determining that
12 the proposed consensus energy conservation
13 standard or test procedure proposed in the joint
14 comment or petition complies with the provi-
15 sions and criteria of this Act (including sub-
16 section (o)) that apply to the type or class of
17 covered products covered by the joint comment
18 or petition.

19 “(2) PROCEDURE.—

20 “(A) IN GENERAL.—Notwithstanding sub-
21 section (p) or section 336(a), if the Secretary
22 receives a joint comment or petition that meets
23 the criteria described in paragraph (1), the Sec-
24 retary shall conduct an expedited rulemaking
25 with respect to the standard or test procedure

1 proposed in the joint comment or petition in ac-
2 cordance with this paragraph.

3 “(B) ADVANCED NOTICE OF PROPOSED
4 RULEMAKING.—If no advanced notice of pro-
5 posed rulemaking has been issued under sub-
6 section (p)(1) with respect to the rulemaking
7 covered by the joint comment or petition, the
8 requirements of subsection (p) with respect to
9 the issuance of an advanced notice of proposed
10 rulemaking shall not apply.

11 “(C) PUBLICATION OF DETERMINATION.—
12 Not later than 60 days after receipt of a joint
13 comment or petition described in paragraph
14 (1)(A), the Secretary shall publish a description
15 of a determination as to whether the proposed
16 standard or test procedure covered by the joint
17 comment or petition meets the criteria de-
18 scribed in paragraph (1).

19 “(D) PROPOSED RULE.—

20 “(i) PUBLICATION.—If the Secretary
21 determines that the proposed consensus
22 standard or test procedure covered by the
23 joint comment or petition meets the cri-
24 teria described in paragraph (1), not later
25 than 30 days after the determination, the

1 Secretary shall publish a proposed rule
2 proposing the consensus standard or test
3 procedure covered by the joint comment or
4 petition.

5 “(ii) PUBLIC COMMENT PERIOD.—
6 Notwithstanding paragraphs (2) and (3) of
7 subsection (p), the public comment period
8 for the proposed rule shall be the 30-day
9 period beginning on the date of the publi-
10 cation of the proposed rule in the Federal
11 Register.

12 “(iii) PUBLIC HEARING.—Notwith-
13 standing section 336(a), the Secretary may
14 waive the holding of a public hearing with
15 respect to the proposed rule.

16 “(E) FINAL RULE.—Notwithstanding sub-
17 section (p)(4), the Secretary—

18 “(i) may publish a final rule at any
19 time after the 60-day period beginning on
20 the date of publication of the proposed rule
21 in the Federal Register; and

22 “(ii) shall publish a final rule not
23 later than 120 days after the date of publi-
24 cation of the proposed rule in the Federal
25 Register.”.

1 **SEC. 225. PERIODIC REVIEWS.**

2 (a) TEST PROCEDURES.—Section 323(b)(1) of the
3 Energy Policy and Conservation Act (42 U.S.C.
4 6293(b)(1)) is amended by striking “(1)” and all that fol-
5 lows through the end of the paragraph and inserting the
6 following:

7 “(1) TEST PROCEDURES.—

8 “(A) AMENDMENT.—At least once every 7
9 years, the Secretary shall review test procedures
10 for all covered products and—

11 “(i) amend test procedures with re-
12 spect to any covered product, if the Sec-
13 retary determines that amended test proce-
14 dures would more accurately or fully com-
15 ply with the requirements of paragraph
16 (3); or

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

20 (b) ENERGY CONSERVATION STANDARDS.—Section
21 325 of the Energy Policy and Conservation Act (42 U.S.C.
22 6295) is amended by striking subsection (m) and inserting
23 the following:

24 “(m) FURTHER RULEMAKING.—

25 “(1) IN GENERAL.—After issuance of the last
26 final rules required for a product under this part,

1 the Secretary shall, not later than 5 years after the
2 date of issuance of a final rule establishing or
3 amending a standard or determining not to amend
4 a standard, publish a final rule to determine whether
5 standards for the product should be amended based
6 on the criteria described in subsection (n)(2).

7 “(2) ANALYSIS.—Prior to publication of the de-
8 termination, the Secretary shall publish a notice of
9 availability describing the analysis of the Depart-
10 ment and provide opportunity for written comment.

11 “(3) FINAL RULE.—Not later than 3 years
12 after a positive determination under paragraph (1),
13 the Secretary shall publish a final rule amending the
14 standard for the product.

15 “(4) APPLICATION OF AMENDMENT.—An
16 amendment prescribed under this subsection shall
17 apply to a product manufactured after a date that
18 is 5 years after—

19 “(A) the effective date of the previous
20 amendment made pursuant to this part; or

21 “(B) if the previous final rule published
22 under this part did not amend the standard, the
23 earliest date by which a previous amendment
24 could have been in effect, except that in no case
25 may an amended standard apply to products

1 manufactured within 3 years after publication
2 of the final rule establishing a standard.”.

3 (c) STANDARDS.—Section 342(a) of the Energy Pol-
4 icy and Conservation Act (42 U.S.C. 6313(a)) is amended
5 by striking paragraph (6) and inserting the following:

6 “(6) AMENDED ENERGY EFFICIENCY STAND-
7 ARDS.—

8 “(A) ANALYSIS OF POTENTIAL ENERGY
9 SAVINGS.—If ASHRAE/IES Standard 90.1 is
10 amended with respect to any small commercial
11 package air conditioning and heating equip-
12 ment, large commercial package air condi-
13 tioning and heating equipment, packaged ter-
14 minal central and commercial air conditioners,
15 packaged terminal heat pumps, warm-air fur-
16 naces, packaged boilers, storage water heaters,
17 instantaneous water heaters, or unfired hot
18 water storage tanks, not later than 180 days
19 after the amendment of the standard, the Sec-
20 retary shall publish in the Federal Register for
21 public comment an analysis of the energy sav-
22 ings potential of amended energy efficiency
23 standards.

24 “(B) AMENDED UNIFORM NATIONAL
25 STANDARD FOR PRODUCTS.—

1 “(i) IN GENERAL.—Except as pro-
2 vided in clause (ii), not later than 18
3 months after the date of publication of the
4 amendment to the ASHRAE/IES Standard
5 90.1 for a product described in subpara-
6 graph (A), the Secretary shall establish an
7 amended uniform national standard for the
8 product at the minimum level for the appli-
9 cable effective date specified in the amend-
10 ed ASHRAE/IES Standard 90.1.

11 “(ii) MORE STRINGENT STANDARD.—
12 Clause (i) shall not apply if the Secretary
13 determines, by rule published in the Fed-
14 eral Register, and supported by clear and
15 convincing evidence, that adoption of a
16 uniform national standard more stringent
17 than the amended ASHRAE/IES Standard
18 90.1 for the product would result in sig-
19 nificant additional conservation of energy
20 and is technologically feasible and economi-
21 cally justified.

22 “(C) RULE.—If the Secretary makes a de-
23 termination described in subparagraph (B)(ii)
24 for a product described in subparagraph (A),
25 not later than 30 months after the date of pub-

1 lication of the amendment to the ASHRAE/IES
2 Standard 90.1 for the product, the Secretary
3 shall issue the rule establishing the amended
4 standard.

5 “(D) AMENDMENT OF STANDARDS.—

6 “(i) IN GENERAL.—After issuance of
7 the most recent final rule for a product
8 under this subsection, not later than 5
9 years after the date of issuance of a final
10 rule establishing or amending a standard
11 or determining not to amend a standard,
12 the Secretary shall publish a final rule to
13 determine whether standards for the prod-
14 uct should be amended based on the cri-
15 teria described in subparagraph (A).

16 “(ii) ANALYSIS.—Prior to publication
17 of the determination, the Secretary shall
18 publish a notice of availability describing
19 the analysis of the Department and pro-
20 vide opportunity for written comment.

21 “(iii) FINAL RULE.—Not later than 3
22 years after a positive determination under
23 clause (i), the Secretary shall publish a
24 final rule amending the standard for the
25 product.”.

1 (d) TEST PROCEDURES.—Section 343(a) of the En-
 2 ergy Policy and Conservation Act (42 U.S.C. 6313(a)) is
 3 amended by striking “(a)” and all that follows through
 4 the end of paragraph (1) and inserting the following:

5 “(a) PRESCRIPTION BY SECRETARY; REQUIRE-
 6 MENTS.—

7 “(1) TEST PROCEDURES.—

8 “(A) AMENDMENT.—At least once every 7
 9 years, the Secretary shall conduct an evaluation
 10 of each class of covered equipment and—

11 “(i) if the Secretary determines that
 12 amended test procedures would more accu-
 13 rately or fully comply with the require-
 14 ments of paragraphs (2) and (3), shall pre-
 15 scribe test procedures for the class in ac-
 16 cordance with this section; or

17 “(ii) shall publish notice in the Fed-
 18 eral Register of any determination not to
 19 amend a test procedure.”.

20 (e) EFFECTIVE DATE.—The amendments made by
 21 subsections (b) and (c) take effect on January 1, 2012.

22 **SEC. 226. ENERGY EFFICIENCY LABELING FOR CONSUMER**
 23 **PRODUCTS.**

24 (a) IN GENERAL.—Not later than 2 years after the
 25 date of enactment of this Act or not later than 18 months

1 after test procedures have been developed for a consumer
2 electronics product category described in subsection (b),
3 whichever is later, the Federal Trade Commission, in con-
4 sultation with the Secretary and the Administrator of the
5 Environmental Protection Agency shall promulgate regu-
6 lations, in accordance with the Energy Star program and
7 in a manner that minimizes, to the maximum extent prac-
8 ticable, duplication with respect to the requirements of
9 that program and other national and international energy
10 labeling programs, to add the consumer electronics prod-
11 uct categories described in subsection (b) to the Energy
12 Guide labeling program of the Commission.

13 (b) CONSUMER ELECTRONICS PRODUCT CAT-
14 EGORIES.—The consumer electronics product categories
15 referred to in subsection (a) are the following:

- 16 (1) Televisions.
- 17 (2) Personal computers.
- 18 (3) Cable or satellite set-top boxes.
- 19 (4) Stand-alone digital video recorder boxes.
- 20 (5) Computer monitors.

21 (c) LABEL PLACEMENT.—The regulations shall in-
22 clude specific requirements for each product on the place-
23 ment of Energy Guide labels.

24 (d) DEADLINE FOR LABELING.—Not later than 1
25 year after the date of promulgation of regulations under

1 subsection (a), the Commission shall require labeling elec-
2 tronic products described in subsection (b) in accordance
3 with this section (including the regulations).

4 (e) **AUTHORITY TO INCLUDE ADDITIONAL PRODUCT**
5 **CATEGORIES.**—The Commission may add additional prod-
6 uct categories to the Energy Guide labeling program if
7 the product categories include products, as determined by
8 the Commission—

9 (1) that have an annual energy use in excess of
10 100 kilowatt hours per year; and

11 (2) for which there is a significant difference in
12 energy use between the most and least efficient
13 products.

14 **SEC. 227. RESIDENTIAL BOILER EFFICIENCY STANDARDS.**

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

17 (1) by redesignating paragraph (3) as para-
18 graph (4); and

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

21 “(3) **BOILERS.**—

22 “(A) **IN GENERAL.**—Subject to subpara-
23 graphs (B) and (C), boilers manufactured on or
24 after September 1, 2012, shall meet the fol-
25 lowing 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
Electric Hot Water	None	Automatic Means for Adjusting Temperature
Electric Steam	None	None

1 “(B) PILOTS.—The manufacturer shall not
2 equip gas hot water or steam boilers with con-
3 stant-burning pilot lights.

4 “(C) AUTOMATIC MEANS FOR ADJUSTING
5 WATER TEMPERATURE.—

6 “(i) IN GENERAL.—The manufacturer
7 shall equip each gas, oil, and electric hot
8 water boiler (other than a boiler equipped
9 with tankless domestic water heating coils)
10 with an automatic means for adjusting the
11 temperature of the water supplied by the
12 boiler to ensure that an incremental
13 change in inferred heat load produces a
14 corresponding incremental change in the
15 temperature of water supplied.

16 “(ii) CERTAIN BOILERS.—For a boiler
17 that fires at 1 input rate, the requirements

1 of this subparagraph may be satisfied by
2 providing an automatic means that allows
3 the burner or heating element to fire only
4 when the means has determined that the
5 inferred heat load cannot be met by the re-
6 sidual heat of the water in the system.

7 “(iii) NO INFERRED HEAT LOAD.—
8 When there is no inferred heat load with
9 respect to a hot water boiler, the automatic
10 means described in clauses (i) and (ii)
11 shall limit the temperature of the water in
12 the boiler to not more than 140 degrees
13 Fahrenheit.

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

18 **SEC. 228. TECHNICAL CORRECTIONS.**

19 (a) DEFINITION OF FLUORESCENT LAMP.—Section
20 321(30)(B)(viii) of the Energy Policy and Conservation
21 Act (42 U.S.C. 6291(30)(B)(viii)) is amended by striking
22 “82” and inserting “87”.

23 (b) STANDARDS FOR COMMERCIAL PACKAGE AIR
24 CONDITIONING AND HEATING EQUIPMENT.—Section
25 342(a)(1) of the Energy Policy and Conservation Act (42

1 U.S.C. 6313(a)(1)) is amended in the matter preceding
2 subparagraph (A) by striking “but before January 1,
3 2010,”.

4 (c) MERCURY VAPOR LAMP BALLASTS.—

5 (1) DEFINITIONS.—Section 321 of the Energy
6 Policy and Conservation Act (42 U.S.C. 6291) (as
7 amended by section 212(a)(2)) is amended—

8 (A) in paragraph (46)(A)—

9 (i) in clause (i), by striking “bulb”
10 and inserting “the arc tube”; and

11 (ii) in clause (ii), by striking “has a
12 bulb” and inserting “wall loading is”;

13 (B) in paragraph (47)(A), by striking “op-
14 erating at a partial” and inserting “typically
15 operating at a partial vapor”;

16 (C) in paragraph (48), by inserting “in-
17 tended for general illumination” after “lamps”;
18 and

19 (D) by adding at the end the following:

20 “(56) The term ‘specialty application mercury
21 vapor lamp ballast’ means a mercury vapor lamp
22 ballast that—

23 “(A) is designed and marketed for medical
24 use, optical comparators, quality inspection, in-
25 dustrial processing, or scientific use, including

1 fluorescent microscopy, ultraviolet curing, and
 2 the manufacture of microchips, liquid crystal
 3 displays, and printed circuit boards; and

4 “(B) in the case of a specialty application
 5 mercury vapor lamp ballast, is labeled as a spe-
 6 cialty application mercury vapor lamp ballast.”.

7 (2) STANDARD SETTING AUTHORITY.—Section
 8 325(ee) of the Energy Policy and Conservation Act
 9 (42 U.S.C. 6295(ee)) is amended by inserting
 10 “(other than specialty application mercury vapor
 11 lamp ballasts)” after “ballasts”.

12 **SEC. 229. ELECTRIC MOTOR EFFICIENCY STANDARDS.**

13 (a) DEFINITIONS.—Section 340(13) of the Energy
 14 Policy and Conservation Act (42 U.S.C. 6311(13)) is
 15 amended by striking subparagraph (A) and inserting the
 16 following:

17 “(A)(i) The term ‘electric motor’ means—

18 “(I) a general purpose electric motor—
 19 subtype I; and

20 “(II) a general purpose electric motor—
 21 subtype II.

22 “(ii) The term ‘general purpose electric
 23 motor—subtype I’ means any motor that is consid-
 24 ered a general purpose motor under section 431.12

1 of title 10, Code of Federal Regulations (or suc-
 2 cessor regulations).

3 “(iii) The term ‘general purpose electric
 4 motor—subtype II’ means a motor that, in addition
 5 to the design elements for a general purpose electric
 6 motor—subtype I, incorporates the design elements
 7 (as established in National Electrical Manufacturers
 8 Association MG–1 (2006)) for any of the following:

9 “(I) A U–Frame Motor.

10 “(II) A Design C Motor.

11 “(III) A close-coupled pump motor.

12 “(IV) A footless motor.

13 “(V) A vertical solid shaft normal thrust
 14 (tested in a horizontal configuration).

15 “(VI) An 8-pole motor.

16 “(VII) A poly-phase motor with voltage of
 17 not more than 600 volts (other than 230 or 460
 18 volts).”.

19 (b) STANDARDS.—Section 342(b) of the Energy Pol-
 20 icy and Conservation Act (42 U.S.C. 6313(13)) is amend-
 21 ed by striking paragraph (1) and inserting the following:

22 “(1) STANDARDS.—

23 “(A) GENERAL PURPOSE ELECTRIC MO-
 24 TORS—SUBTYPE I.—

1 “(i) IN GENERAL.—Except as other-
2 wise provided in this subparagraph, a gen-
3 eral purpose electric motor—subtype I
4 with a power rating of not less than 1, and
5 not more than 200, horsepower manufac-
6 tured (alone or as a component of another
7 piece of equipment) after the 3-year period
8 beginning on the date of enactment of this
9 subparagraph, shall have a nominal full
10 load efficiency established in Table 12–12
11 of National Electrical Manufacturers Asso-
12 ciation (referred to in this paragraph as
13 ‘NEMA’) MG–1 (2006).

14 “(ii) FIRE PUMP MOTORS.—A fire
15 pump motor shall have a nominal full load
16 efficiency established in Table 12–11 of
17 NEMA MG–1 (2006).

18 “(B) GENERAL PURPOSE ELECTRIC MO-
19 TORS—SUBTYPE II.—A general purpose electric
20 motor—subtype II with a power rating of not
21 less than 1, and not more than 200, horsepower
22 manufactured (alone or as a component of an-
23 other piece of equipment) after the 3-year pe-
24 riod beginning on the date of enactment of this
25 subparagraph, shall have a nominal full load ef-

1 efficiency established in Table 12–11 of NEMA
2 MG–1 (2006).

3 “(C) DESIGN B, GENERAL PURPOSE ELEC-
4 TRIC MOTORS.—A NEMA Design B, general
5 purpose electric motor with a power rating of
6 not less than 201, and not more than 500,
7 horsepower manufactured (alone or as a compo-
8 nent of another piece of equipment) after the 3-
9 year period beginning on the date of the enact-
10 ment of this subparagraph shall have a nominal
11 full load efficiency established in Table 12–11
12 of NEMA MG–1 (2006).”.

13 (c) EFFECTIVE DATE.—The amendments made by
14 this section take effect on the date that is 3 years after
15 the date of enactment of this Act.

16 **SEC. 230. ENERGY STANDARDS FOR HOME APPLIANCES.**

17 (a) DEFINITION OF ENERGY CONSERVATION STAND-
18 ARD.—Section 321(6)(A) of the Energy Policy and Con-
19 servation Act (42 U.S.C. 6291(6)(A)) is amended by strik-
20 ing “or, in the case of” and inserting “and, in the case
21 of residential clothes washers, residential dishwashers,”.

22 (b) REFRIGERATORS, REFRIGERATOR-FREEZERS,
23 AND FREEZERS.—Section 325(b) of the Energy Policy
24 and Conservation Act (42 U.S.C. 6295(b)) is amended by
25 adding at the end the following:

1 “(4) REFRIGERATORS, REFRIGERATOR-FREEZ-
2 ERS, AND FREEZERS MANUFACTURED ON OR AFTER
3 JANUARY 1, 2014.—Not later than December 31,
4 2010, the Secretary shall publish a final rule deter-
5 mining whether to amend the standards in effect for
6 refrigerators, refrigerator-freezers, and freezers
7 manufactured on or after January 1, 2014, and in-
8 cluding any amended standards.”.

9 (c) RESIDENTIAL CLOTHES WASHERS AND DISH-
10 WASHERS.—Section 325(g)(4) of the Energy Policy and
11 Conservation Act (42 U.S.C. 6295(g)(4)) is amended by
12 adding at the end the following:

13 “(D) CLOTHES WASHERS.—

14 “(i) CLOTHES WASHERS MANUFAC-
15 TURED ON OR AFTER JANUARY 1, 2011.—

16 A residential clothes washer manufactured
17 on or after January 1, 2011, shall have—

18 “(I) a modified energy factor of
19 at least 1.26; and

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

22 “(ii) CLOTHES WASHERS MANUFAC-
23 TURED ON OR AFTER JANUARY 1, 2012.—

24 Not later than January 1, 2012, the Sec-
25 retary shall publish a final rule deter-

1 mining whether to amend the standards in
2 effect for residential clothes washers manu-
3 factured on or after January 1, 2012, and
4 including any amended standards.

5 “(E) DISHWASHERS.—

6 “(i) DISHWASHERS MANUFACTURED
7 ON OR AFTER JANUARY 1, 2010.—A dish-
8 washer manufactured on or after January
9 1, 2010, shall use not more than—

10 “(I) in the case of a standard-
11 size dishwasher, 355 kWh per year or
12 6.5 gallons of water per cycle; and

13 “(II) in the case of a compact-
14 size dishwasher, 260 kWh per year or
15 4.5 gallons of water per cycle.

16 “(ii) DISHWASHERS MANUFACTURED
17 ON OR AFTER JANUARY 1, 2018.—Not later
18 than January 1, 2015, the Secretary shall
19 publish a final rule determining whether to
20 amend the standards for dishwashers man-
21 ufactured on or after January 1, 2018,
22 and including any amended standards.”.

23 (d) DEHUMIDIFIERS.—Section 325(cc) of the Energy
24 Policy and Conservation Act (42 U.S.C. 6295(cc)) is
25 amended—

1 (1) in paragraph (1), by inserting “and before
 2 October 1, 2012,” after “2007,”; and

3 (2) by striking paragraph (2) and inserting the
 4 following:

5 “(2) DEHUMIDIFIERS MANUFACTURED ON OR
 6 AFTER OCTOBER 1, 2012.—Dehumidifiers manufac-
 7 tured on or after October 1, 2012, shall have an En-
 8 ergy Factor that meets or exceeds the following val-
 9 ues:

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.”

10 (e) ENERGY STAR PROGRAM.—Section 324A(d)(2) of
 11 the Energy Policy and Conservation Act (42 U.S.C.
 12 6294a(d)(2)) is amended by striking “2010” and inserting
 13 “2009”.

14 **SEC. 231. IMPROVED ENERGY EFFICIENCY FOR APPLI-**
 15 **ANCES AND BUILDINGS IN COLD CLIMATES.**

16 (a) RESEARCH.—Section 911(a)(2) of the Energy
 17 Policy Act of 2005 (42 U.S.C. 16191(a)(2)) is amended—

18 (1) in subparagraph (C), by striking “and” at
 19 the end;

20 (2) in subparagraph (D), by striking the period
 21 at the end and inserting “; and”; and

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

2 “(E) technologies to improve the energy ef-
3 ficiency of appliances and mechanical systems
4 for buildings in cold climates, including com-
5 bined heat and power units and increased use
6 of renewable resources, including fuel.”.

7 (b) REBATES.—Section 124 of the Energy Policy Act
8 of 2005 (42 U.S.C. 15821) is amended—

9 (1) in subsection (b)(1), by inserting “, or prod-
10 ucts with improved energy efficiency in cold cli-
11 mates,” after “residential Energy Star products”;
12 and

13 (2) in subsection (e), by inserting “or product
14 with improved energy efficiency in a cold climate”
15 after “residential Energy Star product” each place
16 it appears.

17 **SEC. 232. DEPLOYMENT OF NEW TECHNOLOGIES FOR**
18 **HIGH-EFFICIENCY CONSUMER PRODUCTS.**

19 (a) DEFINITIONS.—In this section:

20 (1) ENERGY SAVINGS.—The term “energy sav-
21 ings” means megawatt-hours of electricity or million
22 British thermal units of natural gas saved by a
23 product, in comparison to projected energy consump-
24 tion under the energy efficiency standard applicable
25 to the product.

1 (2) HIGH-EFFICIENCY CONSUMER PRODUCT.—

2 The term “high-efficiency consumer product” means
3 a product that exceeds the energy efficiency of com-
4 parable products available in the market by a per-
5 centage determined by the Secretary to be an appro-
6 priate benchmark for the consumer product category
7 competing for an award under this section.

8 (b) FINANCIAL INCENTIVES PROGRAM.—Effective
9 beginning October 1, 2007, the Secretary shall competi-
10 tively award financial incentives under this section for the
11 manufacture of high-efficiency consumer products.

12 (c) REQUIREMENTS.—

13 (1) IN GENERAL.—The Secretary shall make
14 awards under this section to manufacturers of high-
15 efficiency consumer products, based on the bid of
16 each manufacturer in terms of dollars per megawatt-
17 hour or million British thermal units saved.

18 (2) ACCEPTANCE OF BIDS.—In making awards
19 under this section, the Secretary shall—

20 (A) solicit bids for reverse auction from
21 appropriate manufacturers, as determined by
22 the Secretary; and

23 (B) award financial incentives to the man-
24 ufacturers that submit the lowest bids that

1 meet the requirements established by the Sec-
2 retary.

3 (d) FORMS OF AWARDS.—An award for a high-effi-
4 ciency consumer product under this section shall be in the
5 form of a lump sum payment in an amount equal to the
6 product obtained by multiplying—

7 (1) the amount of the bid by the manufacturer
8 of the high-efficiency consumer product; and

9 (2) the energy savings during the projected use-
10 ful life of the high-efficiency consumer product, not
11 to exceed 10 years, as determined under regulations
12 issued by the Secretary.

13 **SEC. 233. INDUSTRIAL EFFICIENCY PROGRAM.**

14 (a) DEFINITIONS.—In this section:

15 (1) ELIGIBLE ENTITY.—The term eligible entity
16 means—

17 (A) an institution of higher education
18 under contract or in partnership with a non-
19 profit or for-profit private entity acting on be-
20 half of an industrial or commercial sector or
21 subsector;

22 (B) a nonprofit or for-profit private entity
23 acting on behalf on an industrial or commercial
24 sector or subsector; or

1 (C) a consortia of entities acting on behalf
2 of an industrial or commercial sector or sub-
3 sector.

4 (2) ENERGY-INTENSIVE COMMERCIAL APPLICA-
5 TIONS.—The term “energy-intensive commercial ap-
6 plications” means processes and facilities that use
7 significant quantities of energy as part of the pri-
8 mary economic activities of the processes and facili-
9 ties, including—

10 (A) information technology data centers;

11 (B) product manufacturing; and

12 (C) food processing.

13 (3) FEEDSTOCK.—The term “feedstock” means
14 the raw material supplied for use in manufacturing,
15 chemical, and biological processes.

16 (4) MATERIALS MANUFACTURERS.—The term
17 “materials manufacturers” means the energy-inten-
18 sive primary manufacturing industries, including the
19 aluminum, chemicals, forest and paper products,
20 glass, metal casting, and steel industries.

21 (5) PARTNERSHIP.—The term “partnership”
22 means an energy efficiency and utilization partner-
23 ship established under subsection (e)(1)(A).

1 (6) PROGRAM.—The term “program” means
2 the industrial efficiency program established under
3 subsection (b).

4 (b) ESTABLISHMENT OF PROGRAM.—The Secretary
5 shall establish a program under which the Secretary, in
6 cooperation with materials manufacturers, companies en-
7 gaged in energy-intensive commercial applications, and
8 national industry trade associations representing the man-
9 ufactures and companies, shall support, develop, and pro-
10 mote the use of new materials manufacturing and indus-
11 trial and commercial processes, technologies, and tech-
12 niques to optimize energy efficiency and the economic
13 competitiveness of the United States.

14 (c) PARTNERSHIPS.—

15 (1) IN GENERAL.—As part of the program, the
16 Secretary shall—

17 (A) establish energy efficiency and utiliza-
18 tion partnerships between the Secretary and eli-
19 gible entities to conduct research on, develop,
20 and demonstrate new processes, technologies,
21 and operating practices and techniques to sig-
22 nificantly improve energy efficiency and utiliza-
23 tion by materials manufacturers and in energy-
24 intensive commercial applications, including the
25 conduct of activities to—

1 (i) increase the energy efficiency of in-
2 dustrial and commercial processes and fa-
3 cilities in energy-intensive commercial ap-
4 plication sectors;

5 (ii) research, develop, and dem-
6 onstrate advanced technologies capable of
7 energy intensity reductions and increased
8 environmental performance in energy-in-
9 tensive commercial application sectors; and

10 (iii) promote the use of the processes,
11 technologies, and techniques described in
12 clauses (i) and (ii); and

13 (B) pay the Federal share of the cost of
14 any eligible partnership activities for which a
15 proposal has been submitted and approved in
16 accordance with paragraph (3)(B).

17 (2) ELIGIBLE ACTIVITIES.—Partnership activi-
18 ties eligible for financial assistance under this sub-
19 section include—

20 (A) feedstock and recycling research, devel-
21 opment, and demonstration activities to identify
22 and promote—

23 (i) opportunities for meeting manufac-
24 turing feedstock requirements with more

- 1 energy efficient and flexible sources of
2 feedstock or energy supply;
- 3 (ii) strategies to develop and deploy
4 technologies that improve the quality and
5 quantity of feedstocks recovered from pro-
6 cess and waste streams; and
- 7 (iii) other methods using recycling,
8 reuse, and improved industrial materials;
- 9 (B) industrial and commercial energy effi-
10 ciency and sustainability assessments to—
- 11 (i) assist individual industrial and
12 commercial sectors in developing tools,
13 techniques, and methodologies to assess—
- 14 (I) the unique processes and fa-
15 cilities of the sectors;
- 16 (II) the energy utilization re-
17 quirements of the sectors; and
- 18 (III) the application of new, more
19 energy efficient technologies; and
- 20 (ii) conduct energy savings assess-
21 ments;
- 22 (C) the incorporation of technologies and
23 innovations that would significantly improve the
24 energy efficiency and utilization of energy-inten-
25 sive commercial applications; and

1 (D) any other activities that the Secretary
2 determines to be appropriate.

3 (3) PROPOSALS.—

4 (A) IN GENERAL.—To be eligible for finan-
5 cial assistance under this subsection, a partner-
6 ship shall submit to the Secretary a proposal
7 that describes the proposed research, develop-
8 ment, or demonstration activity to be conducted
9 by the partnership.

10 (B) REVIEW.—After reviewing the sci-
11 entific, technical, and commercial merit of a
12 proposals submitted under subparagraph (A),
13 the Secretary shall approve or disapprove the
14 proposal.

15 (C) COMPETITIVE AWARDS.—The provision
16 of financial assistance under this subsection
17 shall be on a competitive basis.

18 (4) COST-SHARING REQUIREMENT.—In carrying
19 out this section, the Secretary shall require cost
20 sharing in accordance with section 988 of the En-
21 ergy Policy Act of 2005 (42 U.S.C. 16352).

22 (d) AUTHORIZATION OF APPROPRIATIONS.—

23 (1) IN GENERAL.—There are authorized to be
24 appropriated to the Secretary to carry out this sec-
25 tion—

- 1 (A) \$184,000,000 for fiscal year 2008;
2 (B) \$190,000,000 for fiscal year 2009;
3 (C) \$196,000,000 for fiscal year 2010;
4 (D) \$202,000,000 for fiscal year 2011;
5 (E) \$208,000,000 for fiscal year 2012; and
6 (F) such sums as are necessary for fiscal
7 year 2013 and each fiscal year thereafter.

8 (2) PARTNERSHIP ACTIVITIES.—Of the
9 amounts made available under paragraph (1), not
10 less than 50 percent shall be used to pay the Fed-
11 eral share of partnership activities under subsection
12 (c).

13 **Subtitle C—Promoting High Effi-**
14 **ciency Vehicles, Advanced Bat-**
15 **teries, and Energy Storage**

16 **SEC. 241. LIGHTWEIGHT MATERIALS RESEARCH AND DE-**
17 **VELOPMENT.**

18 (a) IN GENERAL.—As soon as practicable after the
19 date of enactment of this Act, the Secretary shall establish
20 a research and development program to determine ways
21 in which—

- 22 (1) the weight of vehicles may be reduced to im-
23 prove fuel efficiency without compromising pas-
24 senger safety; and

1 (2) the cost of lightweight materials (such as
2 steel alloys, fiberglass, and carbon composites) re-
3 quired for the construction of lighter-weight vehicles
4 may be reduced.

5 (b) AUTHORIZATION OF APPROPRIATIONS.—There is
6 authorized to be appropriated to carry out this section
7 \$60,000,000 for each of fiscal years 2007 through 2012.

8 **SEC. 242. LOAN GUARANTEES FOR FUEL-EFFICIENT AUTO-**
9 **MOBILE PARTS MANUFACTURERS.**

10 (a) IN GENERAL.—Section 712(a) of the Energy Pol-
11 icy Act of 2005 (42 U.S.C. 16062(a)) is amended in the
12 second sentence by striking “grants to automobile manu-
13 facturers” and inserting “grants and loan guarantees
14 under section 1703 to automobile manufacturers and sup-
15 pliers”.

16 (b) CONFORMING AMENDMENT.—Section 1703(b) of
17 the Energy Policy Act of 2005 (42 U.S.C. 16513(b)) is
18 amended by striking paragraph (8) and inserting the fol-
19 lowing:

20 “(8) Production facilities for the manufacture
21 of fuel efficient vehicles or parts of those vehicles,
22 including electric drive transportation technology
23 and advanced diesel vehicles.”.

1 **SEC. 243. ADVANCED TECHNOLOGY VEHICLES MANUFAC-**
2 **TURING INCENTIVE PROGRAM.**

3 (a) DEFINITIONS.—In this section:

4 (1) ADJUSTED AVERAGE FUEL ECONOMY.—The
5 term “adjusted average fuel economy” means the av-
6 erage fuel economy of a manufacturer for all light
7 duty vehicles produced by the manufacturer, ad-
8 justed such that the fuel economy of each vehicle
9 that qualifies for an award shall be considered to be
10 equal to the average fuel economy for vehicles of a
11 similar footprint for model year 2005.

12 (2) ADVANCED TECHNOLOGY VEHICLE.—The
13 term “advanced technology vehicle” means a light
14 duty vehicle that meets—

15 (A) the Bin 5 Tier II emission standard
16 established in regulations issued by the Admin-
17 istrator of the Environmental Protection Agen-
18 cy under section 202(i) of the Clean Air Act
19 (42 U.S.C. 7521(i)), or a lower-numbered Bin
20 emission standard;

21 (B) any new emission standard for fine
22 particulate matter prescribed by the Adminis-
23 trator under that Act (42 U.S.C. 7401 et seq.);
24 and

25 (C) at least 125 percent of the average
26 base year combined fuel economy, calculated on

1 an energy-equivalent basis, for vehicles of a
2 substantially similar footprint.

3 (3) COMBINED FUEL ECONOMY.—The term
4 “combined fuel economy” means—

5 (A) the combined city/highway miles per
6 gallon values, as reported in accordance with
7 section 32908 of title 49, United States Code;
8 and

9 (B) in the case of an electric drive vehicle
10 with the ability to recharge from an off-board
11 source, the reported mileage, as determined in
12 a manner consistent with the Society of Auto-
13 motive Engineers recommended practice for
14 that configuration or a similar practice rec-
15 ommended by the Secretary, using a petroleum
16 equivalence factor for the off-board electricity
17 (as defined in section 474 of title 10, Code of
18 Federal Regulations).

19 (4) ENGINEERING INTEGRATION COSTS.—The
20 term “engineering integration costs” includes the
21 cost of engineering tasks relating to—

22 (A) incorporating qualifying components
23 into the design of advanced technology vehicles;
24 and

1 (B) designing new tooling and equipment
2 for production facilities that produce qualifying
3 components or advanced technology vehicles.

4 (5) QUALIFYING COMPONENTS.—The term
5 “qualifying components” means components that the
6 Secretary determines to be—

7 (A) specially designed for advanced tech-
8 nology vehicles; and

9 (B) installed for the purpose of meeting
10 the performance requirements of advanced tech-
11 nology vehicles.

12 (b) ADVANCED VEHICLES MANUFACTURING FACIL-
13 ITY.—The Secretary shall provide facility funding awards
14 under this section to automobile manufacturers and com-
15 ponent suppliers to pay not more than 30 percent of the
16 cost of—

17 (1) reequipping, expanding, or establishing a
18 manufacturing facility in the United States to
19 produce—

20 (A) qualifying advanced technology vehi-
21 cles; or

22 (B) qualifying components; and

23 (2) engineering integration performed in the
24 United States of qualifying vehicles and qualifying
25 components.

1 (c) PERIOD OF AVAILABILITY.—An award under sub-
2 section (b) shall apply to—

3 (1) facilities and equipment placed in service
4 before December 30, 2017; and

5 (2) engineering integration costs incurred dur-
6 ing the period beginning on the date of enactment
7 of this Act and ending on December 30, 2017.

8 (d) IMPROVEMENT.—The Secretary shall issue regu-
9 lations that require that, in order for an automobile manu-
10 facturer to be eligible for an award under this section dur-
11 ing a particular year, the adjusted average fuel economy
12 of the manufacturer for light duty vehicles produced by
13 the manufacturer during the most recent year for which
14 data are available shall be not less than the average fuel
15 economy for all light duty vehicles of the manufacturer
16 for model year 2005.

17 **SEC. 244. ENERGY STORAGE COMPETITIVENESS.**

18 (a) SHORT TITLE.—This section may be cited as the
19 “United States Energy Storage Competitiveness Act of
20 2007”.

21 (b) ENERGY STORAGE SYSTEMS FOR MOTOR TRANS-
22 PORTATION AND ELECTRICITY TRANSMISSION AND DIS-
23 TRIBUTION.—

24 (1) DEFINITIONS.—In this subsection:

1 (A) COUNCIL.—The term “Council” means
2 the Energy Storage Advisory Council estab-
3 lished under paragraph (3).

4 (B) COMPRESSED AIR ENERGY STOR-
5 AGE.—The term “compressed air energy stor-
6 age” means, in the case of an electricity grid
7 application, the storage of energy through the
8 compression of air.

9 (C) DEPARTMENT.—The term “Depart-
10 ment” means the Department of Energy.

11 (D) FLYWHEEL.—The term “flywheel”
12 means, in the case of an electricity grid applica-
13 tion, a device used to store rotational kinetic
14 energy.

15 (E) ULTRACAPACITOR.—The term
16 “ultracapacitor” means an energy storage de-
17 vice that has a power density comparable to
18 conventional capacitors but capable of exceeding
19 the energy density of conventional capacitors by
20 several orders of magnitude.

21 (2) PROGRAM.—The Secretary shall carry out a
22 research, development, and demonstration program
23 to support the ability of the United States to remain
24 globally competitive in energy storage systems for

1 motor transportation and electricity transmission
2 and distribution.

3 (3) ENERGY STORAGE ADVISORY COUNCIL.—

4 (A) ESTABLISHMENT.—Not later than 90
5 days after the date of enactment of this Act,
6 the Secretary shall establish an Energy Storage
7 Advisory Council.

8 (B) COMPOSITION.—

9 (i) IN GENERAL.—Subject to clause
10 (ii), the Council shall consist of not less
11 than 15 individuals appointed by the Sec-
12 retary, based on recommendations of the
13 National Academy of Sciences.

14 (ii) ENERGY STORAGE INDUSTRY.—

15 The Council shall consist primarily of rep-
16 resentatives of the energy storage industry
17 of the United States.

18 (iii) CHAIRPERSON.—The Secretary
19 shall select a Chairperson for the Council
20 from among the members appointed under
21 clause (i)

22 (C) MEETINGS.—

23 (i) IN GENERAL.—The Council shall
24 meet not less than once a year.

1 (ii) FEDERAL ADVISORY COMMITTEE
2 ACT.—The Federal Advisory Committee
3 Act (5 U.S.C. App. 2) shall apply to a
4 meeting of the Council.

5 (D) PLANS.—No later than 1 year after
6 the date of enactment of this Act, in conjunc-
7 tion with the Secretary, the Council shall de-
8 velop 5-year plans for integrating basic and ap-
9 plied research so that the United States retains
10 a globally competitive domestic energy storage
11 industry for motor transportation and elec-
12 tricity transmission and distribution.

13 (E) REVIEW.—The Council shall—

14 (i) assess the performance of the De-
15 partment in meeting the goals of the plans
16 developed under subparagraph (D); and

17 (ii) make specific recommendations to
18 the Secretary on programs or activities
19 that should be established or terminated to
20 meet those goals.

21 (4) BASIC RESEARCH PROGRAM.—

22 (A) BASIC RESEARCH.—The Secretary
23 shall conduct a basic research program on en-
24 ergy storage systems to support motor trans-

1 portation and electricity transmission and dis-
2 tribution, including—

3 (i) materials design;

4 (ii) materials synthesis and character-
5 ization;

6 (iii) electrolytes, including bioelectro-
7 lytes;

8 (iv) surface and interface dynamics;

9 and

10 (v) modeling and simulation.

11 (B) NANOSCIENCE CENTERS.—The Sec-
12 retary shall ensure that the nanoscience centers
13 of the Department—

14 (i) support research in the areas de-
15 scribed in subparagraph (A), as part of the
16 mission of the centers; and

17 (ii) coordinate activities of the centers
18 with activities of the Council.

19 (5) APPLIED RESEARCH PROGRAM.—The Sec-
20 retary shall conduct an applied research program on
21 energy storage systems to support motor transpor-
22 tation and electricity transmission and distribution
23 technologies, including—

24 (A) ultracapacitors;

25 (B) flywheels;

- 1 (C) batteries;
- 2 (D) compressed air energy systems;
- 3 (E) power conditioning electronics; and
- 4 (F) manufacturing technologies for energy
- 5 storage systems.

6 (6) ENERGY STORAGE RESEARCH CENTERS.—

7 (A) IN GENERAL.—The Secretary shall es-

8 tablish, through competitive bids, 4 energy stor-

9 age research centers to translate basic research

10 into applied technologies to advance the capa-

11 bility of the United States to maintain a glob-

12 ally competitive posture in energy storage sys-

13 tems for motor transportation and electricity

14 transmission and distribution.

15 (B) PROGRAM MANAGEMENT.—The centers

16 shall be jointly managed by the Under Sec-

17 retary for Science and the Under Secretary of

18 Energy of the Department.

19 (C) PARTICIPATION AGREEMENTS.—As a

20 condition of participating in a center, a partici-

21 pant shall enter into a participation agreement

22 with the center that requires that activities con-

23 ducted by the participant for the center pro-

24 mote the goal of enabling the United States to

1 compete successfully in global energy storage
2 markets.

3 (D) PLANS.—A center shall conduct activi-
4 ties that promote the achievement of the goals
5 of the plans of the Council under paragraph
6 (3)(D).

7 (E) COST SHARING.—In carrying out this
8 paragraph, the Secretary shall require cost-
9 sharing in accordance with section 988 of the
10 Energy Policy Act of 2005 (42 U.S.C. 16352).

11 (F) NATIONAL LABORATORIES.—A na-
12 tional laboratory (as defined in section 2 of the
13 Energy Policy Act of 2005 (42 U.S.C. 15801))
14 may participate in a center established under
15 this paragraph, including a cooperative research
16 and development agreement (as defined in sec-
17 tion 12(d) of the Stevenson-Wydler Technology
18 Innovation Act of 1980 (15 U.S.C. 3710a(d))).

19 (G) INTELLECTUAL PROPERTY.—A partici-
20 pant shall be provided appropriate intellectual
21 property rights commensurate with the nature
22 of the participation agreement of the partici-
23 pant.

24 (7) REVIEW BY NATIONAL ACADEMY OF
25 SCIENCES.—Not later than 5 years after the date of

1 enactment of this Act, the Secretary shall offer to
2 enter into an arrangement with the National Acad-
3 emy of Sciences to assess the performance of the
4 Department in making the United States globally
5 competitive in energy storage systems for motor
6 transportation and electricity transmission and dis-
7 tribution.

8 (8) AUTHORIZATION OF APPROPRIATIONS.—

9 There are authorized to be appropriated to carry
10 out—

11 (A) the basic research program under
12 paragraph (4) \$50,000,000 for each of fiscal
13 years 2008 through 2017;

14 (B) the applied research program under
15 paragraph (5) \$80,000,000 for each of fiscal
16 years 2008 through 2017; and;

17 (C) the energy storage research center pro-
18 gram under paragraph (6) \$100,000,000 for
19 each of fiscal years 2008 through 2017.

20 **SEC. 245. ADVANCED TRANSPORTATION TECHNOLOGY**
21 **PROGRAM.**

22 (a) ELECTRIC DRIVE VEHICLE DEMONSTRATION
23 PROGRAM.—

1 (1) DEFINITION OF ELECTRIC DRIVE VEHI-
2 CLE.—In this subsection, the term “electric drive ve-
3 hicle” means a precommercial vehicle that—

4 (A) draws motive power from a battery
5 with at least 4 kilowatt-hours of electricity;

6 (B) can be recharged from an external
7 source of electricity for motive power; and

8 (C) is a light-, medium-, or heavy-duty
9 onroad or nonroad vehicle.

10 (2) PROGRAM.—The Secretary shall establish a
11 competitive program to provide grants for dem-
12 onstrations of electric drive vehicles.

13 (3) ELIGIBILITY.—A State government, local
14 government, metropolitan transportation authority,
15 air pollution control district, private entity, and non-
16 profit entity shall be eligible to receive a grant under
17 this subsection.

18 (4) PRIORITY.—In making grants under this
19 subsection, the Secretary shall give priority to pro-
20 posals that—

21 (A) are likely to contribute to the commer-
22 cialization and production of electric drive vehi-
23 cles in the United States; and

24 (B) reduce petroleum usage.

1 (5) SCOPE OF DEMONSTRATIONS.—The Sec-
2 retary shall ensure, to the extent practicable, that
3 the program established under this subsection in-
4 cludes a variety of applications, manufacturers, and
5 end-uses.

6 (6) REPORTING.—The Secretary shall require a
7 grant recipient under this subsection to submit to
8 the Secretary, on an annual basis, data relating to
9 vehicle, performance, life cycle costs, and emissions
10 of vehicles demonstrated under the grant, including
11 emissions of greenhouse gases.

12 (7) COST SHARING.—Section 988 of the Energy
13 Policy Act of 2005 (42 U.S.C. 16352) shall apply to
14 a grant made under this subsection.

15 (8) AUTHORIZATIONS OF APPROPRIATIONS.—
16 There are authorized to be appropriated to carry out
17 this subsection \$60,000,000 for each of fiscal years
18 2008 through 2012, of which not less than
19 \$20,000,000 shall be available each fiscal year only
20 to make grants local and municipal governments.

21 (b) NEAR-TERM OIL SAVING TRANSPORTATION DE-
22 PLOYMENT PROGRAM.—

23 (1) DEFINITION OF QUALIFIED TRANSPOR-
24 TATION PROJECT.—In this subsection, the term
25 “qualified transportation project” means—

1 (A) a project that simultaneously reduces
2 emissions of criteria pollutants, greenhouse gas
3 emissions, and petroleum usage by at least 40
4 percent as compared to commercially available,
5 petroleum-based technologies used in nonroad
6 vehicles; and

7 (B) an electrification project involving
8 onroad commercial trucks, rail transportation,
9 or ships, and any associated infrastructure (in-
10 cluding any panel upgrades, battery chargers,
11 trenching, and alternative fuel infrastructure).

12 (2) PROGRAM.—Not later than 1 year after the
13 date of enactment of this Act, the Secretary, in con-
14 sultation with the Secretary of Transportation, shall
15 establish a program to provide grants to eligible en-
16 tities for the conduct of qualified transportation
17 projects.

18 (3) PRIORITY.—In providing grants under this
19 subsection, the Secretary shall give priority to large-
20 scale projects and large-scale aggregators of
21 projects.

22 (4) COST SHARING.—Section 988 of the Energy
23 Policy Act of 2005 (42 U.S.C. 16352) shall apply to
24 a grant made under this subsection.

1 (5) AUTHORIZATION OF APPROPRIATIONS.—
2 There are authorized to carry this subsection
3 \$90,000,000 for each of fiscal years 2008 through
4 2013.

5 **Subtitle D—Setting Energy**
6 **Efficiency Goals**

7 **SEC. 251. NATIONAL GOALS FOR ENERGY SAVINGS IN**
8 **TRANSPORTATION.**

9 (a) GOALS.—The goals of the United States are to
10 reduce gasoline usage in the United States from the levels
11 projected under subsection (b) by—

- 12 (1) 20 percent by calendar year 2017;
13 (2) 35 percent by calendar year 2025; and
14 (3) 45 percent by calendar year 2030.

15 (b) MEASUREMENT.—For purposes of subsection (a),
16 reduction in gasoline usage shall be measured from the
17 estimates for each year in subsection (a) contained in the
18 reference case in the report of the Energy Information Ad-
19 ministration entitled “Annual Energy Outlook 2007”.

20 (c) STRATEGIC PLAN.—

21 (1) IN GENERAL.—Not later than 1 year after
22 the date of enactment of this Act, the Secretary, in
23 cooperation with the Administrator of the Environ-
24 mental Protection Agency and the heads of other ap-
25 propriate Federal agencies, shall develop a strategic

1 plan to achieve the national goals for reduction in
2 gasoline usage established under subsection (a).

3 (2) PUBLIC INPUT AND COMMENT.—The Sec-
4 retary shall develop the plan in a manner that pro-
5 vides appropriate opportunities for public comment.

6 (d) PLAN CONTENTS.—The strategic plan shall—

7 (1) establish future regulatory, funding, and
8 policy priorities to ensure compliance with the na-
9 tional goals;

10 (2) include energy savings estimates for each
11 sector; and

12 (3) include data collection methodologies and
13 compilations used to establish baseline and energy
14 savings data.

15 (e) PLAN UPDATES.—

16 (1) IN GENERAL.—The Secretary shall—

17 (A) update the strategic plan biennially;

18 and

19 (B) include the updated strategic plan in
20 the national energy policy plan required by sec-
21 tion 801 of the Department of Energy Organi-
22 zation Act (42 U.S.C. 7321).

23 (2) CONTENTS.—In updating the plan, the Sec-
24 retary shall—

1 (A) report on progress made toward imple-
 2 menting efficiency policies to achieve the na-
 3 tional goals established under subsection (a);
 4 and

5 (B) to the maximum extent practicable,
 6 verify energy savings resulting from the poli-
 7 cies.

8 (f) REPORT TO CONGRESS AND PUBLIC.—The Sec-
 9 retary shall submit to Congress, and make available to the
 10 public, the initial strategic plan developed under sub-
 11 section (c) and each updated plan.

12 **SEC. 252. NATIONAL ENERGY EFFICIENCY IMPROVEMENT**
 13 **GOALS.**

14 (a) GOALS.—The goals of the United States are—

15 (1) to achieve an improvement in the overall en-
 16 ergy productivity of the United States (measured in
 17 gross domestic product per unit of energy input) of
 18 at least 2.5 percent per year by the year 2012; and

19 (2) to maintain that annual rate of improve-
 20 ment each year through 2030.

21 (b) STRATEGIC PLAN.—

22 (1) IN GENERAL.—Not later than 1 year after
 23 the date of enactment of this Act, the Secretary, in
 24 cooperation with the Administrator of the Environ-
 25 mental Protection Agency and the heads of other ap-

1 appropriate Federal agencies, shall develop a strategic
2 plan to achieve the national goals for improvement
3 in energy productivity established under subsection
4 (a).

5 (2) PUBLIC INPUT AND COMMENT.—The Sec-
6 retary shall develop the plan in a manner that pro-
7 vides appropriate opportunities for public input and
8 comment.

9 (c) PLAN CONTENTS.—The strategic plan shall—

10 (1) establish future regulatory, funding, and
11 policy priorities to ensure compliance with the na-
12 tional goals;

13 (2) include energy savings estimates for each
14 sector; and

15 (3) include data collection methodologies and
16 compilations used to establish baseline and energy
17 savings data.

18 (d) PLAN UPDATES.—

19 (1) IN GENERAL.—The Secretary shall—

20 (A) update the strategic plan biennially;

21 and

22 (B) include the updated strategic plan in
23 the national energy policy plan required by sec-
24 tion 801 of the Department of Energy Organi-
25 zation Act (42 U.S.C. 7321).

1 (2) CONTENTS.—In updating the plan, the Sec-
2 retary shall—

3 (A) report on progress made toward imple-
4 menting efficiency policies to achieve the na-
5 tional goals established under subsection (a);
6 and

7 (B) verify, to the maximum extent prac-
8 ticable, energy savings resulting from the poli-
9 cies.

10 (e) REPORT TO CONGRESS AND PUBLIC.—The Sec-
11 retary shall submit to Congress, and make available to the
12 public, the initial strategic plan developed under sub-
13 section (b) and each updated plan.

14 **SEC. 253. NATIONAL MEDIA CAMPAIGN.**

15 (a) IN GENERAL.—The Secretary, acting through the
16 Assistant Secretary for Energy Efficiency and Renewable
17 Energy (referred to in this section as the “Secretary”),
18 shall develop and conduct a national media campaign—

19 (1) to increase energy efficiency throughout the
20 economy of the United States over the next decade;

21 (2) to promote the national security benefits as-
22 sociated with increased energy efficiency; and

23 (3) to decrease oil consumption in the United
24 States over the next decade.

1 (b) CONTRACT WITH ENTITY.—The Secretary shall
2 carry out subsection (a) directly or through—

3 (1) competitively bid contracts with 1 or more
4 nationally recognized media firms for the develop-
5 ment and distribution of monthly television, radio,
6 and newspaper public service announcements; or

7 (2) collective agreements with 1 or more nation-
8 ally recognized institutes, businesses, or nonprofit
9 organizations for the funding, development, and dis-
10 tribution of monthly television, radio, and newspaper
11 public service announcements.

12 (c) USE OF FUNDS.—

13 (1) IN GENERAL.—Amounts made available to
14 carry out this section shall be used for the following:

15 (A) ADVERTISING COSTS.—

16 (i) The purchase of media time and
17 space.

18 (ii) Creative and talent costs.

19 (iii) Testing and evaluation of adver-
20 tising.

21 (iv) Evaluation of the effectiveness of
22 the media campaign.

23 (B) ADMINISTRATIVE COSTS.—Operational
24 and management expenses.

1 (2) LIMITATIONS.—In carrying out this section,
2 the Secretary shall allocate not less than 85 percent
3 of funds made available under subsection (e) for
4 each fiscal year for the advertising functions speci-
5 fied under paragraph (1)(A).

6 (d) REPORTS.—The Secretary shall annually submit
7 to Congress a report that describes—

8 (1) the strategy of the national media campaign
9 and whether specific objectives of the campaign were
10 accomplished, including—

11 (A) determinations concerning the rate of
12 change of energy consumption, in both absolute
13 and per capita terms; and

14 (B) an evaluation that enables consider-
15 ation whether the media campaign contributed
16 to reduction of energy consumption;

17 (2) steps taken to ensure that the national
18 media campaign operates in an effective and effi-
19 cient manner consistent with the overall strategy
20 and focus of the campaign;

21 (3) plans to purchase advertising time and
22 space;

23 (4) policies and practices implemented to ensure
24 that Federal funds are used responsibly to purchase

1 advertising time and space and eliminate the poten-
2 tial for waste, fraud, and abuse; and

3 (5) all contracts or cooperative agreements en-
4 tered into with a corporation, partnership, or indi-
5 vidual working on behalf of the national media cam-
6 paign.

7 (e) AUTHORIZATION OF APPROPRIATIONS.—

8 (1) IN GENERAL.—There is authorized to be
9 appropriated to carry out this section \$5,000,000 for
10 each of fiscal years 2008 through 2012.

11 (2) DECREASED OIL CONSUMPTION.—The Sec-
12 retary shall use not less than 50 percent of the
13 amount that is made available under this section for
14 each fiscal year to develop and conduct a national
15 media campaign to decrease oil consumption in the
16 United States over the next decade.

17 **SEC. 254. MODERNIZATION OF ELECTRICITY GRID SYSTEM.**

18 (a) STATEMENT OF POLICY.—It is the policy of the
19 United States that developing and deploying advanced
20 technology to modernize and increase the efficiency of the
21 electricity grid system of the United States is essential to
22 maintain a reliable and secure electricity transmission and
23 distribution infrastructure that can meet future demand
24 growth.

1 (b) PROGRAMS.—The Secretary, the Federal Energy
2 Regulatory Commission, and other Federal agencies, as
3 appropriate, shall carry out programs to support the use,
4 development, and demonstration of advanced transmission
5 and distribution technologies, including real-time moni-
6 toring and analytical software—

7 (1) to maximize the capacity and efficiency of
8 electricity networks;

9 (2) to enhance grid reliability;

10 (3) to reduce line losses;

11 (4) to facilitate the transition to real-time elec-
12 tricity pricing;

13 (5) to allow grid incorporation of more onsite
14 renewable energy generators;

15 (6) to enable electricity to displace a portion of
16 the petroleum used to power the national transpor-
17 tation system of the United States; and

18 (7) to enable broad deployment of distributed
19 generation and demand side management tech-
20 nology.

1 **Subtitle E—Promoting Federal**
2 **Leadership in Energy Efficiency**
3 **and Renewable Energy**

4 **SEC. 261. FEDERAL FLEET CONSERVATION REQUIRE-**
5 **MENTS.**

6 (a) FEDERAL FLEET CONSERVATION REQUIRE-
7 MENTS.—

8 (1) IN GENERAL.—Part J of title III of the En-
9 ergy Policy and Conservation Act (42 U.S.C. 6374
10 et seq.) is amended by adding at the end the fol-
11 lowing:

12 **“SEC. 400FF. FEDERAL FLEET CONSERVATION REQUIRE-**
13 **MENTS.**

14 **“(a) MANDATORY REDUCTION IN PETROLEUM CON-**
15 **SUMPTION.—**

16 **“(1) IN GENERAL.—**The Secretary shall issue
17 regulations (including provisions for waivers from
18 the requirements of this section) for Federal fleets
19 subject to section 400AA requiring that not later
20 than October 1, 2015, each Federal agency achieve
21 at least a 20 percent reduction in petroleum con-
22 sumption, and that each Federal agency increase al-
23 ternative fuel consumption by 10 percent annually,
24 as calculated from the baseline established by the
25 Secretary for fiscal year 2005.

1 “(2) PLAN.—

2 “(A) REQUIREMENT.—The regulations
3 shall require each Federal agency to develop a
4 plan to meet the required petroleum reduction
5 levels and the alternative fuel consumption in-
6 creases.

7 “(B) MEASURES.—The plan may allow an
8 agency to meet the required petroleum reduc-
9 tion level through—

10 “(i) the use of alternative fuels;

11 “(ii) the acquisition of vehicles with
12 higher fuel economy, including hybrid vehi-
13 cles, neighborhood electric vehicles, electric
14 vehicles, and plug-in hybrid vehicles if the
15 vehicles are commercially available;

16 “(iii) the substitution of cars for light
17 trucks;

18 “(iv) an increase in vehicle load fac-
19 tors;

20 “(v) a decrease in vehicle miles trav-
21 eled;

22 “(vi) a decrease in fleet size; and

23 “(vii) other measures.

24 “(b) FEDERAL EMPLOYEE INCENTIVE PROGRAMS
25 FOR REDUCING PETROLEUM CONSUMPTION.—

1 “(1) IN GENERAL.—Each Federal agency shall
2 actively promote incentive programs that encourage
3 Federal employees and contractors to reduce petro-
4 leum usage through the use of practices such as—

5 “(A) telecommuting;

6 “(B) public transit;

7 “(C) carpooling; and

8 “(D) bicycling.

9 “(2) MONITORING AND SUPPORT FOR INCEN-
10 TIVE PROGRAMS.—The Administrator of General
11 Services, the Director of the Office of Personnel
12 Management, and the Secretary of Energy shall
13 monitor and provide appropriate support to agency
14 programs described in paragraph (1).

15 “(3) RECOGNITION.—The Secretary may estab-
16 lish a program under which the Secretary recognizes
17 private sector employers and State and local govern-
18 ments for outstanding programs to reduce petroleum
19 usage through practices described in paragraph (1).

20 “(c) REPLACEMENT TIRES.—

21 “(1) IN GENERAL.—Except as provided in para-
22 graph (2), the regulations issued under subsection
23 (a)(1) shall include a requirement that, to the max-
24 imum extent practicable, each Federal agency pur-

1 chase energy-efficient replacement tires for the re-
2 spective fleet vehicles of the agency.

3 “(2) EXCEPTIONS.—This section does not apply
4 to—

5 “(A) law enforcement motor vehicles;

6 “(B) emergency motor vehicles; or

7 “(C) motor vehicles acquired and used for
8 military purposes that the Secretary of Defense
9 has certified to the Secretary must be exempt
10 for national security reasons.

11 “(d) ANNUAL REPORTS ON COMPLIANCE.—The Sec-
12 retary shall submit to Congress an annual report that
13 summarizes actions taken by Federal agencies to comply
14 with this section.”.

15 (2) TABLE OF CONTENTS AMENDMENT.—The
16 table of contents of the Energy Policy and Conserva-
17 tion Act (42 U.S.C. prec. 6201) is amended by add-
18 ing at the end of the items relating to part J of title
19 III the following:

“Sec. 400FF. Federal fleet conservation requirements.”.

20 (b) AUTHORIZATION OF APPROPRIATIONS.—There is
21 authorized to be appropriated to carry out the amendment
22 made by this section \$10,000,000 for the period of fiscal
23 years 2008 through 2013.

1 **SEC. 262. FEDERAL REQUIREMENT TO PURCHASE ELEC-**
2 **TRICITY GENERATED BY RENEWABLE EN-**
3 **ERGY.**

4 Section 203 of the Energy Policy Act of 2005 (42
5 U.S.C. 15852) is amended—

6 (1) by striking subsection (a) and inserting the
7 following:

8 “(a) REQUIREMENT.—

9 “(1) IN GENERAL.—The President, acting
10 through the Secretary, shall require that, to the ex-
11 tent economically feasible and technically prac-
12 ticable, of the total quantity of domestic electric en-
13 ergy the Federal Government consumes during any
14 fiscal year, the following percentages shall be renew-
15 able energy from facilities placed in service after
16 January 1, 1999:

17 “(A) Not less than 10 percent in fiscal
18 year 2010.

19 “(B) Not less than 15 percent in fiscal
20 year 2015.

21 “(2) CAPITOL COMPLEX.—The Architect of the
22 Capitol, in consultation with the Secretary, shall en-
23 sure that, of the total quantity of electric energy the
24 Capitol complex consumes during any fiscal year, the
25 percentages prescribed in paragraph (1) shall be re-
26 newable energy.

1 “(3) WAIVER AUTHORITY.—The President may
2 reduce or waive the requirement under paragraph
3 (1) on a fiscal-year basis if the President determines
4 that complying with paragraph (1) for a fiscal year
5 would result in—

6 “(A) a negative impact on military training
7 or readiness activities conducted by the Depart-
8 ment of Defense;

9 “(B) a negative impact on domestic pre-
10 paredness activities conducted by the Depart-
11 ment of Homeland Security; or

12 “(C) a requirement that a Federal agency
13 provide emergency response services in the
14 event of a natural disaster or terrorist attack.”;
15 and

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

17 “(e) CONTRACTS FOR RENEWABLE ENERGY FROM
18 PUBLIC UTILITY SERVICES.—Notwithstanding section
19 501(b)(1)(B) of title 40, United States Code, a contract
20 for renewable energy from a public utility service may be
21 made for a period of not more than 50 years.”.

22 **SEC. 263. ENERGY SAVINGS PERFORMANCE CONTRACTS.**

23 (a) RETENTION OF SAVINGS.—Section 546(c) of the
24 National Energy Conservation Policy Act (42 U.S.C.
25 8256(c)) is amended by striking paragraph (5).

1 (b) SUNSET AND REPORTING REQUIREMENTS.—Sec-
2 tion 801 of the National Energy Conservation Policy Act
3 (42 U.S.C. 8287) is amended by striking subsection (c).

4 (c) DEFINITION OF ENERGY SAVINGS.—Section
5 804(2) of the National Energy Conservation Policy Act
6 (42 U.S.C. 8287c(2)) is amended—

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

10 (2) by striking “means a reduction” and insert-
11 ing “means—

12 “(A) a reduction”;

13 (3) by striking the period at the end and insert-
14 ing a semicolon; and

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

16 “(B) the increased efficient use of an exist-
17 ing energy source by cogeneration or heat re-
18 covery, and installation of renewable energy sys-
19 tems;

20 “(C) if otherwise authorized by Federal or
21 State law (including regulations), the sale or
22 transfer of electrical or thermal energy gen-
23 erated on-site from renewable energy sources or
24 cogeneration, 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 (d) NOTIFICATION.—

5 (1) AUTHORITY TO ENTER INTO CONTRACTS.—

6 Section 801(a)(2)(D) of the National Energy Con-
7 servation Policy Act (42 U.S.C. 8287(a)(2)(D)) is
8 amended—

9 (A) in clause (ii), by inserting “and” after
10 the semicolon at the end;

11 (B) by striking clause (iii); and

12 (C) by redesignating clause (iv) as clause
13 (iii).

14 (2) REPORTS.—Section 548(a)(2) of the Na-
15 tional Energy Conservation Policy Act (42 U.S.C.
16 8258(a)(2)) is amended by inserting “and any ter-
17 mination penalty exposure” after “the energy and
18 cost savings that have resulted from such con-
19 tracts”.

20 (3) CONFORMING AMENDMENT.—Section 2913
21 of title 10, United States Code, is amended by strik-
22 ing subsection (e).

23 (e) ENERGY AND COST SAVINGS IN NONBUILDING
24 APPLICATIONS.—

25 (1) DEFINITIONS.—In this subsection:

1 (A) NONBUILDING APPLICATION.—The
2 term “nonbuilding application” means—

3 (i) any class of vehicles, devices, or
4 equipment that is transportable under the
5 power of the applicable vehicle, device, or
6 equipment by land, sea, or air and that
7 consumes energy from any fuel source for
8 the purpose of—

9 (I) that transportation; or

10 (II) maintaining a controlled en-
11 vironment within the vehicle, device,
12 or equipment; and

13 (ii) any federally-owned equipment
14 used to generate electricity or transport
15 water.

16 (B) SECONDARY SAVINGS.—

17 (i) IN GENERAL.—The term “sec-
18 ondary savings” means additional energy
19 or cost savings that are a direct con-
20 sequence of the energy savings that result
21 from the energy efficiency improvements
22 that were financed and implemented pur-
23 suant to an energy savings performance
24 contract.

1 (ii) INCLUSIONS.—The term “sec-
2 ondary savings” includes—

3 (I) energy and cost savings that
4 result from a reduction in the need
5 for fuel delivery and logistical support;

6 (II) personnel cost savings and
7 environmental benefits; and

8 (III) in the case of electric gen-
9 eration equipment, the benefits of in-
10 creased efficiency in the production of
11 electricity, including revenues received
12 by the Federal Government from the
13 sale of electricity so produced.

14 (2) STUDY.—

15 (A) IN GENERAL.—As soon as practicable
16 after the date of enactment of this Act, the Sec-
17 retary and the Secretary of Defense shall joint-
18 ly conduct, and submit to Congress and the
19 President a report of, a study of the potential
20 for the use of energy savings performance con-
21 tracts to reduce energy consumption and pro-
22 vide energy and cost savings in nonbuilding ap-
23 plications.

24 (B) REQUIREMENTS.—The study under
25 this subsection shall include—

1 (i) an estimate of the potential energy
2 and cost savings to the Federal Govern-
3 ment, including secondary savings and
4 benefits, from increased efficiency in non-
5 building applications;

6 (ii) an assessment of the feasibility of
7 extending the use of energy savings per-
8 formance contracts to nonbuilding applica-
9 tions, including an identification of any
10 regulatory or statutory barriers to such
11 use; and

12 (iii) such recommendations as the
13 Secretary and Secretary of Defense deter-
14 mine to be appropriate.

15 **SEC. 264. ENERGY MANAGEMENT REQUIREMENTS FOR**
16 **FEDERAL BUILDINGS.**

17 Section 543(a)(1) of the National Energy Conserva-
18 tion Policy Act (42 U.S.C. 8253(a)(1)) is amended by
19 striking the table and inserting the following:

“Fiscal Year	Percentage reduction
2006	2
2007	4
2008	9
2009	12
2010	15
2011	18
2012	21
2013	24
2014	27
2015	30.”.

1 **SEC. 265. COMBINED HEAT AND POWER AND DISTRICT EN-**
2 **ERGY INSTALLATIONS AT FEDERAL SITES.**

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

6 “(f) COMBINED HEAT AND POWER AND DISTRICT
7 ENERGY INSTALLATIONS AT FEDERAL SITES.—

8 “(1) IN GENERAL.—Not later than 18 months
9 after the date of enactment of this subsection, the
10 Secretary, in consultation with the Administrator of
11 General Services and the Secretary of Defense, shall
12 identify Federal sites that could achieve significant
13 cost-effective energy savings through the use of com-
14 bined heat and power or district energy installations.

15 “(2) INFORMATION AND TECHNICAL ASSIST-
16 ANCE.—The Secretary shall provide agencies with
17 information and technical assistance that will enable
18 the agencies to take advantage of the energy savings
19 described in paragraph (1).

20 “(3) ENERGY PERFORMANCE REQUIRE-
21 MENTS.—Any energy savings from the installations
22 described in paragraph (1) may be applied to meet
23 the energy performance requirements for an agency
24 under subsection (a)(1).”.

1 **SEC. 266. FEDERAL BUILDING ENERGY EFFICIENCY PER-**
2 **FORMANCE STANDARDS.**

3 Section 305(a)(3)(A) of the Energy Conservation and
4 Production Act (42 U.S.C. 6834(a)(3)(A)) is amended—

5 (1) in the matter preceding clause (i), by strik-
6 ing “this paragraph” and by inserting “the Energy
7 Efficiency Promotion Act of 2007”; and

8 (2) in clause (i)—

9 (A) in subclause (I), by striking “and” at
10 the end;

11 (B) by redesignating subclause (II) as sub-
12 clause (III); and

13 (C) by inserting after subclause (I) the fol-
14 lowing:

15 “(II) the buildings be designed, to the ex-
16 tent economically feasible and technically prac-
17 ticable, so that the fossil fuel-generated energy
18 consumption of the buildings is reduced, as
19 compared with the fossil fuel-generated energy
20 consumption by a similar Federal building in
21 fiscal year 2003 (as measured by Commercial
22 Buildings Energy Consumption Survey or Resi-
23 dential Energy Consumption Survey data from
24 the Energy Information Agency), by the per-
25 centage specified in the following table:

“Fiscal Year	Percentage Reduction
2007	50
2010	60
2015	70
2020	80
2025	90
2030	100;

1 and”.

2 **SEC. 267. APPLICATION OF INTERNATIONAL ENERGY CON-**
 3 **SERVATION CODE TO PUBLIC AND ASSISTED**
 4 **HOUSING.**

5 Section 109 of the Cranston-Gonzalez National Af-
 6 fordable Housing Act (42 U.S.C. 12709) is amended—

7 (1) in subsection (a)(1)(C), by striking, “,
 8 where such standards are determined to be cost ef-
 9 fective by the Secretary of Housing and Urban De-
 10 velopment”;

11 (2) in subsection (a)(2)—

12 (A) by striking “the Council of American
 13 Building Officials Model Energy Code, 1992”
 14 and inserting “2006 International Energy Con-
 15 servation Code”; and

16 (B) by striking “, and, with respect to re-
 17 habilitation and new construction of public and
 18 assisted housing funded by HOPE VI revital-
 19 ization grants under section 24 of the United
 20 States Housing Act of 1937 (42 U.S.C. 1437v),
 21 the 2003 International Energy Conservation
 22 Code”;

1 (3) in subsection (b)—

2 (A) in the heading, by striking “MODEL
3 ENERGY CODE.—” and inserting “INTER-
4 NATIONAL ENERGY CONSERVATION CODE.—”;

5 (B) after “all new construction” in the
6 first sentence insert “and rehabilitation”; and

7 (C) by striking “, and, with respect to re-
8 habilitation and new construction of public and
9 assisted housing funded by HOPE VI revital-
10 ization grants under section 24 of the United
11 States Housing Act of 1937 (42 U.S.C. 1437v),
12 the 2003 International Energy Conservation
13 Code”;

14 (4) in subsection (c)—

15 (A) in the heading, by striking “MODEL
16 ENERGY CODE AND”; and

17 (B) by striking “, or, with respect to reha-
18 bilitation and new construction of public and
19 assisted housing funded by HOPE VI revital-
20 ization grants under section 24 of the United
21 States Housing Act of 1937 (42 U.S.C. 1437v),
22 the 2003 International Energy Conservation
23 Code”;

24 (5) by adding at the end the following:

1 “(d) FAILURE TO AMEND THE STANDARDS.—If the
 2 Secretaries have not, within 1 year after the requirements
 3 of the 2006 IECC or the ASHRAE Standard 90.1–2004
 4 are revised, amended the standards or made a determina-
 5 tion under subsection (c) of this section, and if the Sec-
 6 retary of Energy has made a determination under section
 7 304 of the Energy Conservation and Production Act (42
 8 U.S.C. 6833) that the revised code or standard would im-
 9 prove energy efficiency, all new construction and rehabili-
 10 tation of housing specified in subsection (a) shall meet the
 11 requirements of the revised code or standard.”;

12 (6) by striking “CABO Model Energy Code,
 13 1992” each place it appears and inserting “the 2006
 14 IECC”; and

15 (7) by striking “1989” each place it appears
 16 and inserting “2004”.

17 **SEC. 268. ENERGY EFFICIENT COMMERCIAL BUILDINGS**
 18 **INITIATIVE.**

19 (a) DEFINITIONS.—In this section:

20 (1) CONSORTIUM.—The term “consortium”
 21 means a working group that is comprised of—

22 (A) individuals representing—

23 (i) 1 or more businesses engaged in—

24 (I) commercial building develop-
 25 ment;

- 1 (II) construction; or
2 (III) real estate;
3 (ii) financial institutions;
4 (iii) academic or research institutions;
5 (iv) State or utility energy efficiency
6 programs;
7 (v) nongovernmental energy efficiency
8 organizations; and
9 (vi) the Federal Government;
10 (B) 1 or more building designers; and
11 (C) 1 or more individuals who own or oper-
12 ate 1 or more buildings.

13 (2) ENERGY EFFICIENT COMMERCIAL BUILD-
14 ING.—The term “energy efficient commercial build-
15 ing” means a commercial building that is designed,
16 constructed, and operated—

- 17 (A) to require a greatly reduced quantity
18 of energy;
19 (B) to meet, on an annual basis, the bal-
20 ance of energy needs of the commercial building
21 from renewable sources of energy; and
22 (C) to be economically viable.

23 (3) INITIATIVE.—The term “initiative” means
24 the Energy Efficient Commercial Buildings Initia-
25 tive.

1 (b) INITIATIVE.—

2 (1) IN GENERAL.—The Secretary shall enter
3 into an agreement with the consortium to develop
4 and carry out the initiative—

5 (A) to reduce the quantity of energy con-
6 sumed by commercial buildings located in the
7 United States; and

8 (B) to achieve the development of energy
9 efficient commercial buildings in the United
10 States.

11 (2) GOAL OF INITIATIVE.—The goal of the ini-
12 tiative shall be to develop technologies and practices
13 and implement policies that lead to energy efficient
14 commercial buildings for—

15 (A) any commercial building newly con-
16 structed in the United States by 2030;

17 (B) 50 percent of the commercial building
18 stock of the United States by 2040; and

19 (C) all commercial buildings in the United
20 States by 2050.

21 (3) COMPONENTS.—In carrying out the initia-
22 tive, the Secretary, in collaboration with the consor-
23 tium, may—

24 (A) conduct research and development on
25 building design, materials, equipment and con-

1 trols, operation and other practices, integration,
2 energy use measurement and benchmarking,
3 and policies;

4 (B) conduct demonstration projects to
5 evaluate replicable approaches to achieving en-
6 ergy efficient commercial buildings for a variety
7 of building types in a variety of climate zones;

8 (C) conduct deployment activities to dis-
9 seminate information on, and encourage wide-
10 spread adoption of, technologies, practices, and
11 policies to achieve energy efficient commercial
12 buildings; and

13 (D) conduct any other activity necessary to
14 achieve any goal of the initiative, as determined
15 by the Secretary, in collaboration with the con-
16 sortium.

17 (c) AUTHORIZATION OF APPROPRIATIONS.—

18 (1) IN GENERAL.—There are authorized to be
19 appropriated such sums as are necessary to carry
20 out this section.

21 (2) ADDITIONAL FUNDING.—In addition to
22 amounts authorized to be appropriated under para-
23 graph (1), the Secretary may allocate funds from
24 other appropriations to the initiative without chang-

1 ing the purpose for which the funds are appro-
 2 priated.

3 **Subtitle F—Assisting State and**
 4 **Local Governments in Energy**
 5 **Efficiency**

6 **SEC. 271. WEATHERIZATION ASSISTANCE FOR LOW-INCOME**
 7 **PERSONS.**

8 Section 422 of the Energy Conservation and Produc-
 9 tion Act (42 U.S.C. 6872) is amended by striking
 10 “\$700,000,000 for fiscal year 2008” and inserting
 11 “\$750,000,000 for each of fiscal years 2008 through
 12 2012”.

13 **SEC. 272. STATE ENERGY CONSERVATION PLANS.**

14 Section 365(f) of the Energy Policy and Conservation
 15 Act (42 U.S.C. 6325(f)) is amended by striking “fiscal
 16 year 2008” and inserting “each of fiscal years 2008
 17 through 2012”.

18 **SEC. 273. UTILITY ENERGY EFFICIENCY PROGRAMS.**

19 (a) **ELECTRIC UTILITIES.**—Section 111(d) of the
 20 Public Utility Regulatory Policies Act of 1978 (16 U.S.C.
 21 2621(d)) is amended by adding at the end the following:

22 “(16) **INTEGRATED RESOURCE PLANNING.**—

23 Each electric utility shall—

24 “(A) integrate energy efficiency resources
 25 into utility, State, and regional plans; and

1 “(B) adopt policies establishing cost-effective energy efficiency as a priority resource.

2
3 “(17) RATE DESIGN MODIFICATIONS TO PROMOTE ENERGY EFFICIENCY INVESTMENTS.—

4
5 “(A) IN GENERAL.—The rates allowed to be charged by any electric utility shall—

6 “(i) align utility incentives with the delivery of cost-effective energy efficiency; and

7
8 “(ii) promote energy efficiency investments.

9
10 “(B) POLICY OPTIONS.—In complying with subparagraph (A), each State regulatory authority and each nonregulated utility shall consider—

11
12 “(i) removing the throughput incentive and other regulatory and management disincentives to energy efficiency;

13
14 “(ii) providing utility incentives for the successful management of energy efficiency programs;

15
16 “(iii) including the impact on adoption of energy efficiency as 1 of the goals of retail rate design, recognizing that energy ef-

1 efficiency must be balanced with other objec-
2 tives;

3 “(iv) adopting rate designs that en-
4 courage energy efficiency for each cus-
5 tomer class; and

6 “(v) allowing timely recovery of en-
7 ergy efficiency-related costs.”.

8 (b) NATURAL GAS UTILITIES.—Section 303(b) of the
9 Public Utility Regulatory Policies Act of 1978 (16 U.S.C.
10 3203(b)) is amended by adding at the end the following:

11 “(5) ENERGY EFFICIENCY.—Each natural gas
12 utility shall—

13 “(A) integrate energy efficiency resources
14 into the plans and planning processes of the
15 natural gas utility; and

16 “(B) adopt policies that establish energy
17 efficiency as a priority resource in the plans
18 and planning processes of the natural gas util-
19 ity.

20 “(6) RATE DESIGN MODIFICATIONS TO PRO-
21 MOTE ENERGY EFFICIENCY INVESTMENTS.—

22 “(A) IN GENERAL.—The rates allowed to
23 be charged by a natural gas utility shall align
24 utility incentives with the deployment of cost-ef-
25 fective energy efficiency.

1 “(B) POLICY OPTIONS.—In complying with
2 subparagraph (A), each State regulatory au-
3 thority and each nonregulated utility shall con-
4 sider—

5 “(i) separating fixed-cost revenue re-
6 covery from the volume of transportation
7 or sales service provided to the customer;

8 “(ii) providing to utilities incentives
9 for the successful management of energy
10 efficiency programs, such as allowing utili-
11 ties to retain a portion of the cost-reducing
12 benefits accruing from the programs;

13 “(iii) promoting the impact on adop-
14 tion of energy efficiency as 1 of the goals
15 of retail rate design, recognizing that en-
16 ergy efficiency must be balanced with other
17 objectives; and

18 “(iv) adopting rate designs that en-
19 courage energy efficiency for each cus-
20 tomer class.”.

21 **SEC. 274. ENERGY EFFICIENCY AND DEMAND RESPONSE**
22 **PROGRAM ASSISTANCE.**

23 The Secretary shall provide technical assistance re-
24 garding the design and implementation of the energy effi-
25 ciency and demand response programs established under

1 this title, and the amendments made by this title, to State
 2 energy offices, public utility regulatory commissions, and
 3 nonregulated utilities through the appropriate national
 4 laboratories of the Department of Energy.

5 **SEC. 275. ENERGY AND ENVIRONMENTAL BLOCK GRANT.**

6 Title I of the Housing and Community Development
 7 Act of 1974 (42 U.S.C. 5301 et seq.) is amended by add-
 8 ing at the end the following:

9 **“SEC. 123. ENERGY AND ENVIRONMENTAL BLOCK GRANT.**

10 “(a) DEFINITIONS.—In this section

11 “(1) ELIGIBLE ENTITY.—The term ‘eligible en-
 12 tity’ means—

13 “(A) a State;

14 “(B) an eligible unit of local government
 15 within a State; and

16 “(C) an Indian tribe.

17 “(2) ELIGIBLE UNIT OF LOCAL GOVERN-
 18 MENT.—The term ‘eligible unit of local government’
 19 means—

20 “(A) a city with a population—

21 “(i) of at least 35,000; or

22 “(ii) that causes the city to be 1 of
 23 the top 10 most populous cities of the
 24 State in which the city is located; and

25 “(B) a county with a population—

1 “(i) of at least 200,000; or

2 “(ii) that causes the county to be 1 of
3 the top 10 most populous counties of the
4 State in which the county is located.

5 “(3) SECRETARY.—The term ‘Secretary’ means
6 the Secretary of Energy.

7 “(4) STATE.—The term ‘State’ means—

8 “(A) a State;

9 “(B) the District of Columbia;

10 “(C) the Commonwealth of Puerto Rico;

11 and

12 “(D) any other territory or possession of
13 the United States.

14 “(b) PURPOSE.—The purpose of this section is to as-
15 sist State and local governments in implementing strate-
16 gies—

17 “(1) to reduce fossil fuel emissions created as
18 a result of activities within the boundaries of the
19 States or units of local government;

20 “(2) to reduce the total energy use of the
21 States and units of local government; and

22 “(3) to improve energy efficiency in the trans-
23 portation sector, building sector, and any other ap-
24 propriate sectors.

25 “(c) PROGRAM.—

1 “(1) IN GENERAL.—The Secretary shall provide
2 to eligible entities block grants to carry out eligible
3 activities (as specified under paragraph (2)) relating
4 to the implementation of environmentally beneficial
5 energy strategies.

6 “(2) ELIGIBLE ACTIVITIES.—The Secretary, in
7 consultation with the Administrator of the Environ-
8 mental Protection Agency, the Secretary of Trans-
9 portation, and the Secretary of Housing and Urban
10 Development, shall establish a list of activities that
11 are eligible for assistance under the grant program.

12 “(3) ALLOCATION TO STATES AND ELIGIBLE
13 UNITS OF LOCAL GOVERNMENT.—

14 “(A) IN GENERAL.—Of the amounts made
15 available to provide grants under this sub-
16 section, the Secretary shall allocate—

17 “(i) 70 percent to eligible units of
18 local government; and

19 “(ii) 30 percent to States.

20 “(B) DISTRIBUTION TO ELIGIBLE UNITS
21 OF LOCAL GOVERNMENT.—

22 “(i) IN GENERAL.—The Secretary
23 shall establish a formula for the distribu-
24 tion of amounts under subparagraph (A)(i)
25 to eligible units of local government, taking

1 into account any factors that the Secretary
2 determines to be appropriate, including the
3 residential and daytime population of the
4 eligible units of local government.

5 “(ii) CRITERIA.—Amounts shall be
6 distributed to eligible units of local govern-
7 ment under clause (i) only if the eligible
8 units of local government meet the criteria
9 for distribution established by the Sec-
10 retary for units of local government.

11 “(C) DISTRIBUTION TO STATES.—

12 “(i) IN GENERAL.—Of the amounts
13 provided to States under subparagraph
14 (A)(ii), the Secretary shall distribute—

15 “(I) at least 1.25 percent to each
16 State; and

17 “(II) the remainder among the
18 States, based on a formula, to be de-
19 termined by the Secretary, that takes
20 into account the population of the
21 States and any other criteria that the
22 Secretary determines to be appro-
23 priate.

24 “(ii) CRITERIA.—Amounts shall be
25 distributed to States under clause (i) only

1 if the States meet the criteria for distribu-
2 tion established by the Secretary for
3 States.

4 “(iii) LIMITATION ON USE OF STATE
5 FUNDS.—At least 40 percent of the
6 amounts distributed to States under this
7 subparagraph shall be used by the States
8 for the conduct of eligible activities in non-
9 entitlement areas in the States, in accord-
10 ance with any criteria established by the
11 Secretary.

12 “(4) REPORT.—Not later than 2 years after the
13 date on which an eligible entity first receives a grant
14 under this section, and every 2 years thereafter, the
15 eligible entity shall submit to the Secretary a report
16 that describes any eligible activities carried out using
17 assistance provided under this subsection.

18 “(5) AUTHORIZATION OF APPROPRIATIONS.—
19 There are authorized to be appropriated such sums
20 as are necessary to carry out this subsection for
21 each of fiscal years 2008 through 2012.

22 “(d) ENVIRONMENTALLY BENEFICIAL ENERGY
23 STRATEGIES SUPPLEMENTAL GRANT PROGRAM.—

24 “(1) IN GENERAL.—The Secretary shall provide
25 to each eligible entity that meets the applicable cri-

1 teria under subparagraph (B)(ii) or (C)(ii) of sub-
2 section (c)(3) a supplemental grant to pay the Fed-
3 eral share of the total costs of carrying out an activ-
4 ity relating to the implementation of an environ-
5 mentally beneficial energy strategy.

6 “(2) REQUIREMENTS.—To be eligible for a
7 grant under paragraph (1), an eligible entity shall—

8 “(A) demonstrate to the satisfaction of the
9 Secretary that the eligible entity meets the ap-
10 plicable criteria under subparagraph (B)(ii) or
11 (C)(ii) of subsection (c)(3); and

12 “(B) submit to the Secretary for approval
13 a plan that describes the activities to be funded
14 by the grant.

15 “(3) COST-SHARING REQUIREMENT.—

16 “(A) FEDERAL SHARE.—The Federal
17 share of the cost of carrying out any activities
18 under this subsection shall be 75 percent.

19 “(B) NON-FEDERAL SHARE.—

20 “(i) FORM.—Not more than 50 per-
21 cent of the non-Federal share may be in
22 the form of in-kind contributions.

23 “(ii) LIMITATION.—Amounts provided
24 to an eligible entity under subsection (c)

1 shall not be used toward the non-Federal
2 share.

3 “(4) MAINTENANCE OF EFFORT.—An eligible
4 entity shall provide assurances to the Secretary that
5 funds provided to the eligible entity under this sub-
6 section will be used only to supplement, not to sup-
7 plant, the amount of Federal, State, and local funds
8 otherwise expended by the eligible entity for eligible
9 activities under this subsection.

10 “(5) AUTHORIZATION OF APPROPRIATIONS.—
11 There are authorized to be appropriated such sums
12 as are necessary to carry out this subsection for
13 each of fiscal years 2008 through 2012.

14 “(e) GRANTS TO OTHER STATES AND COMMU-
15 NITIES.—

16 “(1) IN GENERAL.—Of the total amount of
17 funds that are made available each fiscal year to
18 carry out this section, the Secretary shall use 2 per-
19 cent of the amount to make competitive grants
20 under this section to States and units of local gov-
21 ernment that are not eligible entities or to consortia
22 of such units of local government.

23 “(2) APPLICATIONS.—To be eligible for a grant
24 under this subsection, a State, unit of local govern-
25 ment, or consortia described in paragraph (1) shall

1 apply to the Secretary for a grant to carry out an
 2 activity that would otherwise be eligible for a grant
 3 under subsection (c) or (d).

4 “(3) PRIORITY.—In awarding grants under this
 5 subsection, the Secretary shall give priority to—

6 “(A) States with populations of less than
 7 2,000,000; and

8 “(B) projects that would result in signifi-
 9 cant energy efficiency improvements, reductions
 10 in fossil fuel use, or capital improvements.”.

11 **SEC. 276. ENERGY SUSTAINABILITY AND EFFICIENCY**
 12 **GRANTS FOR INSTITUTIONS OF HIGHER EDU-**
 13 **CATION.**

14 Part G of title III of the Energy Policy and Conserva-
 15 tion Act is amended by inserting after section 399 (42
 16 U.S.C. 371h) the following:

17 **“SEC. 399A. ENERGY SUSTAINABILITY AND EFFICIENCY**
 18 **GRANTS FOR INSTITUTIONS OF HIGHER EDU-**
 19 **CATION.**

20 “(a) DEFINITIONS.—In this section:

21 “(1) ENERGY SUSTAINABILITY.—The term ‘en-
 22 ergy sustainability’ includes using a renewable en-
 23 ergy resource and a highly efficient technology for
 24 electricity generation, transportation, heating, or
 25 cooling.

1 “(2) INSTITUTION OF HIGHER EDUCATION.—

2 The term ‘institution of higher education’ has the
3 meaning given the term in section 2 of the Energy
4 Policy Act of 2005 (42 U.S.C. 15801).

5 “(b) GRANTS FOR ENERGY EFFICIENCY IMPROVE-
6 MENT.—

7 “(1) IN GENERAL.—The Secretary shall award
8 not more than 100 grants to institutions of higher
9 education to carry out projects to improve energy ef-
10 ficiency on the grounds and facilities of the institu-
11 tion of higher education, including not less than 1
12 grant to an institution of higher education in each
13 State.

14 “(2) CONDITION.—As a condition of receiving a
15 grant under this subsection, an institution of higher
16 education shall agree to—

17 “(A) implement a public awareness cam-
18 paign concerning the project in the community
19 in which the institution of higher education is
20 located; and

21 “(B) submit to the Secretary, and make
22 available to the public, reports on any efficiency
23 improvements, energy cost savings, and environ-
24 mental benefits achieved as part of a project
25 carried out under paragraph (1).

1 “(c) GRANTS FOR INNOVATION IN ENERGY SUSTAIN-
2 ABILITY.—

3 “(1) IN GENERAL.—The Secretary shall award
4 not more than 250 grants to institutions of higher
5 education to engage in innovative energy sustain-
6 ability projects, including not less than 2 grants to
7 institutions of higher education in each State.

8 “(2) INNOVATION PROJECTS.—An innovation
9 project carried out with a grant under this sub-
10 section shall—

11 “(A) involve—

12 “(i) an innovative technology that is
13 not yet commercially available; or

14 “(ii) available technology in an inno-
15 vative application that maximizes energy
16 efficiency and sustainability;

17 “(B) have the greatest potential for testing
18 or demonstrating new technologies or processes;
19 and

20 “(C) ensure active student participation in
21 the project, including the planning, implementa-
22 tion, evaluation, and other phases of the
23 project.

24 “(3) CONDITION.—As a condition of receiving a
25 grant under this subsection, an institution of higher

1 education shall agree to submit to the Secretary,
2 and make available to the public, reports that de-
3 scribe the results of the projects carried out under
4 paragraph (1).

5 “(d) AWARDING OF GRANTS.—

6 “(1) APPLICATION.—An institution of higher
7 education that seeks to receive a grant under this
8 section may submit to the Secretary an application
9 for the grant at such time, in such form, and con-
10 taining such information as the Secretary may pre-
11 scribe.

12 “(2) SELECTION.—The Secretary shall estab-
13 lish a committee to assist in the selection of grant
14 recipients under this section.

15 “(e) ALLOCATION TO INSTITUTIONS OF HIGHER
16 EDUCATION WITH SMALL ENDOWMENTS.—Of the
17 amount of grants provided for a fiscal year under this sec-
18 tion, the Secretary shall provide not less 50 percent of the
19 amount to institutions of higher education that have an
20 endowment of not more than \$100,000,000, with 50 per-
21 cent of the allocation set aside for institutions of higher
22 education that have an endowment of not more than
23 \$50,000,000.

24 “(f) GRANT AMOUNTS.—The maximum amount of
25 grants for a project under this section shall not exceed—

1 “(1) in the case of grants for energy efficiency
2 improvement under subsection (b), \$1,000,000; or

3 “(2) in the case of grants for innovation in en-
4 ergy sustainability under subsection (c), \$500,000.

5 “(g) AUTHORIZATION OF APPROPRIATIONS.—There
6 are authorized to be appropriated such sums as are nec-
7 essary to carry out this section for each of fiscal years
8 2008 through 2012.”.

9 **SEC. 277. WORKFORCE TRAINING.**

10 Section 1101 of the Energy Policy Act of 2005 (42
11 U.S.C. 16411) is amended—

12 (1) by redesignating subsection (d) as sub-
13 section (e); and

14 (2) by inserting after subsection (c) the fol-
15 lowing:

16 “(d) WORKFORCE TRAINING.—

17 “(1) IN GENERAL.—The Secretary, in coopera-
18 tion with the Secretary of Labor, shall promulgate
19 regulations to implement a program to provide work-
20 force training to meet the high demand for workers
21 skilled in the energy efficiency and renewable energy
22 industries.

23 “(2) CONSULTATION.—In carrying out this sub-
24 section, the Secretary shall consult with representa-
25 tives of the energy efficiency and renewable energy

1 industries concerning skills that are needed in those
2 industries.”.

3 **SEC. 278. ASSISTANCE TO STATES TO REDUCE SCHOOL BUS**
4 **IDLING.**

5 (a) STATEMENT OF POLICY.—Congress encourages
6 each local educational agency (as defined in section
7 9101(26) of the Elementary and Secondary Education Act
8 of 1965 (20 U.S.C. 7801(26))) that receives Federal funds
9 under the Elementary and Secondary Education Act of
10 1965 (20 U.S.C. 6301 et seq.) to develop a policy to re-
11 duce the incidence of school bus idling at schools while
12 picking up and unloading students.

13 (b) AUTHORIZATION OF APPROPRIATIONS.—There
14 are authorized to be appropriated to the Secretary, work-
15 ing in coordination with the Secretary of Education,
16 \$5,000,000 for each of fiscal years 2007 through 2012
17 for use in educating States and local education agencies
18 about—

- 19 (1) benefits of reducing school bus idling; and
20 (2) ways in which school bus idling may be re-
21 duced.

1 **TITLE III—CARBON CAPTURE**
2 **AND STORAGE RESEARCH,**
3 **DEVELOPMENT, AND DEM-**
4 **ONSTRATION**

5 **SEC. 301. SHORT TITLE.**

6 This title may be cited as the “Carbon Capture and
7 Sequestration Act of 2007”.

8 **SEC. 302. CARBON CAPTURE AND STORAGE RESEARCH, DE-**
9 **VELOPMENT, AND DEMONSTRATION PRO-**
10 **GRAM.**

11 Section 963 of the Energy Policy Act of 2005 (42
12 U.S.C. 16293) is amended—

13 (1) in the section heading, by striking “**RE-**
14 **SEARCH AND DEVELOPMENT**” and inserting
15 “**AND STORAGE RESEARCH, DEVELOPMENT,**
16 **AND DEMONSTRATION**”;

17 (2) in subsection (a)—

18 (A) by striking “research and develop-
19 ment” and inserting “and storage research, de-
20 velopment, and demonstration”; and

21 (B) by striking “capture technologies on
22 combustion-based systems” and inserting “cap-
23 ture and storage technologies related to energy
24 systems”;

25 (3) in subsection (b)—

1 (A) in paragraph (3), by striking “and” at
2 the end;

3 (B) in paragraph (4), by striking the pe-
4 riod at the end and inserting “; and”; and

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

6 “(5) to expedite and carry out large-scale test-
7 ing of carbon sequestration systems in a range of ge-
8 ological formations that will provide information on
9 the cost and feasibility of deployment of sequestra-
10 tion technologies.”; and

11 (4) by striking subsection (e) and inserting the
12 following:

13 “(c) PROGRAMMATIC ACTIVITIES.—

14 “(1) ENERGY RESEARCH AND DEVELOPMENT
15 UNDERLYING CARBON CAPTURE AND STORAGE
16 TECHNOLOGIES AND CARBON USE ACTIVITIES.—

17 “(A) IN GENERAL.—The Secretary shall
18 carry out fundamental science and engineering
19 research (including laboratory-scale experi-
20 ments, numeric modeling, and simulations) to
21 develop and document the performance of new
22 approaches to capture and store, recycle, or
23 reuse carbon dioxide.

24 “(B) PROGRAM INTEGRATION.—The Sec-
25 retary shall ensure that fundamental research

1 carried out under this paragraph is appro-
2 priately applied to energy technology develop-
3 ment activities, the field testing of carbon se-
4 questration, and carbon use activities, includ-
5 ing—

6 “(i) development of new or improved
7 technologies for the capture of carbon diox-
8 ide;

9 “(ii) development of new or improved
10 technologies that reduce the cost and in-
11 crease the efficacy of the compression of
12 carbon dioxide required for the storage of
13 carbon dioxide;

14 “(iii) modeling and simulation of geo-
15 logical sequestration field demonstrations;

16 “(iv) quantitative assessment of risks
17 relating to specific field sites for testing of
18 sequestration technologies; and

19 “(v) research and development of new
20 and improved technologies for carbon use,
21 including recycling and reuse of carbon di-
22 oxide.

23 “(2) CARBON CAPTURE DEMONSTRATION
24 PROJECT.—

1 “(A) IN GENERAL.—The Secretary shall
2 carry out a demonstration of large-scale carbon
3 dioxide capture from an appropriate gasification
4 facility selected by the Secretary.

5 “(B) LINK TO STORAGE ACTIVITIES.—The
6 Secretary may require the use of carbon dioxide
7 from the project carried out under subpara-
8 graph (A) in a field testing validation activity
9 under this section.

10 “(3) FIELD VALIDATION TESTING ACTIVI-
11 TIES.—

12 “(A) IN GENERAL.—The Secretary shall
13 promote, to the maximum extent practicable,
14 regional carbon sequestration partnerships to
15 conduct geologic sequestration tests involving
16 carbon dioxide injection and monitoring, mitiga-
17 tion, and verification operations in a variety of
18 candidate geological settings, including—

19 “(i) operating oil and gas fields;

20 “(ii) depleted oil and gas fields;

21 “(iii) unmineable coal seams;

22 “(iv) deep saline formations;

23 “(v) deep geological systems that may
24 be used as engineered reservoirs to extract
25 economical quantities of heat from geo-

1 thermal resources of low permeability or
2 porosity; and

3 “(vi) deep geologic systems containing
4 basalt formations.

5 “(B) OBJECTIVES.—The objectives of tests
6 conducted under this paragraph shall be—

7 “(i) to develop and validate geo-
8 physical tools, analysis, and modeling to
9 monitor, predict, and verify carbon dioxide
10 containment;

11 “(ii) to validate modeling of geological
12 formations;

13 “(iii) to refine storage capacity esti-
14 mated for particular geological formations;

15 “(iv) to determine the fate of carbon
16 dioxide concurrent with and following in-
17 jection into geological formations;

18 “(v) to develop and implement best
19 practices for operations relating to, and
20 monitoring of, injection and storage of car-
21 bon dioxide in geologic formations;

22 “(vi) to assess and ensure the safety
23 of operations related to geological storage
24 of carbon dioxide; and

1 “(vii) to allow the Secretary to pro-
2 mulgate policies, procedures, requirements,
3 and guidance to ensure that the objectives
4 of this subparagraph are met in large-scale
5 testing and deployment activities for car-
6 bon capture and storage that are funded
7 by the Department of Energy.

8 “(4) LARGE-SCALE TESTING AND DEPLOY-
9 MENT.—

10 “(A) IN GENERAL.—The Secretary shall
11 conduct not less than 7 initial large-volume se-
12 questration tests for geological containment of
13 carbon dioxide (at least 1 of which shall be
14 international in scope) to validate information
15 on the cost and feasibility of commercial deploy-
16 ment of technologies for geological containment
17 of carbon dioxide.

18 “(B) DIVERSITY OF FORMATIONS TO BE
19 STUDIED.—In selecting formations for study
20 under this paragraph, the Secretary shall con-
21 sider a variety of geological formations across
22 the United States, and require characterization
23 and modeling of candidate formations, as deter-
24 mined by the Secretary.

1 “(5) PREFERENCE IN PROJECT SELECTION
2 FROM MERITORIOUS PROPOSALS.—In making com-
3 petitive awards under this subsection, subject to the
4 requirements of section 989, the Secretary shall give
5 preference to proposals from partnerships among in-
6 dustrial, academic, and government entities.

7 “(6) COST SHARING.—Activities under this sub-
8 section shall be considered research and development
9 activities that are subject to the cost-sharing re-
10 quirements of section 988(b).

11 “(7) PROGRAM REVIEW AND REPORT.—During
12 fiscal year 2011, the Secretary shall—

13 “(A) conduct a review of programmatic ac-
14 tivities carried out under this subsection; and

15 “(B) make recommendations with respect
16 to continuation of the activities.

17 “(d) AUTHORIZATION OF APPROPRIATIONS.—There
18 are authorized to be appropriated to carry out this sec-
19 tion—

20 “(1) \$150,000,000 for fiscal year 2008;

21 “(2) \$200,000,000 for fiscal year 2009;

22 “(3) \$200,000,000 for fiscal year 2010;

23 “(4) \$180,000,000 for fiscal year 2011; and

24 “(5) \$165,000,000 for fiscal year 2012.”.

1 **SEC. 303. CARBON DIOXIDE STORAGE CAPACITY ASSESS-**
2 **MENT.**

3 (a) DEFINITIONS.—In this section

4 (1) ASSESSMENT.—The term “assessment”
5 means the national assessment of capacity for car-
6 bon dioxide completed under subsection (f).

7 (2) CAPACITY.—The term “capacity” means the
8 portion of a storage formation that can retain car-
9 bon dioxide in accordance with the requirements (in-
10 cluding physical, geological, and economic require-
11 ments) established under the methodology developed
12 under subsection (b).

13 (3) ENGINEERED HAZARD.—The term “engi-
14 neered hazard” includes the location and completion
15 history of any well that could affect potential stor-
16 age.

17 (4) RISK.—The term “risk” includes any risk
18 posed by geomechanical, geochemical,
19 hydrogeological, structural, and engineered hazards.

20 (5) SECRETARY.—The term “Secretary” means
21 the Secretary of the Interior, acting through the Di-
22 rector of the United States Geological Survey.

23 (6) STORAGE FORMATION.—The term “storage
24 formation” means a deep saline formation,
25 unmineable coal seam, or oil or gas reservoir that is

1 capable of accommodating a volume of industrial
2 carbon dioxide.

3 (b) METHODOLOGY.—Not later than 1 year after the
4 date of enactment of this Act, the Secretary shall develop
5 a methodology for conducting an assessment under sub-
6 section (f), taking into consideration—

7 (1) the geographical extent of all potential stor-
8 age formations in all States;

9 (2) the capacity of the potential storage forma-
10 tions;

11 (3) the injectivity of the potential storage for-
12 mations;

13 (4) an estimate of potential volumes of oil and
14 gas recoverable by injection and storage of industrial
15 carbon dioxide in potential storage formations;

16 (5) the risk associated with the potential stor-
17 age formations; and

18 (6) the Carbon Sequestration Atlas of the
19 United States and Canada that was completed by
20 the Department of Energy in April 2006.

21 (c) COORDINATION.—

22 (1) FEDERAL COORDINATION.—

23 (A) CONSULTATION.—The Secretary shall
24 consult with the Secretary of Energy and the
25 Administrator of the Environmental Protection

1 Agency on issues of data sharing, format, devel-
2 opment of the methodology, and content of the
3 assessment required under this title to ensure
4 the maximum usefulness and success of the as-
5 sessment.

6 (B) COOPERATION.—The Secretary of En-
7 ergy and the Administrator shall cooperate with
8 the Secretary to ensure, to the maximum extent
9 practicable, the usefulness and success of the
10 assessment.

11 (2) STATE COORDINATION.—The Secretary
12 shall consult with State geological surveys and other
13 relevant entities to ensure, to the maximum extent
14 practicable, the usefulness and success of the assess-
15 ment.

16 (d) EXTERNAL REVIEW AND PUBLICATION.—On
17 completion of the methodology under subsection (b), the
18 Secretary shall—

19 (1) publish the methodology and solicit com-
20 ments from the public and the heads of affected
21 Federal and State agencies;

22 (2) establish a panel of individuals with exper-
23 tise in the matters described in paragraphs (1)
24 through (5) of subsection (b) composed, as appro-
25 priate, of representatives of Federal agencies, insti-

1 tutions of higher education, nongovernmental organi-
2 zations, State organizations, industry, and inter-
3 national geoscience organizations to review the
4 methodology and comments received under para-
5 graph (1); and

6 (3) on completion of the review under para-
7 graph (2), publish in the Federal Register the re-
8 vised final methodology.

9 (e) PERIODIC UPDATES.—The methodology devel-
10 oped under this section shall be updated periodically (in-
11 cluding at least once every 5 years) to incorporate new
12 data as the data becomes available.

13 (f) NATIONAL ASSESSMENT.—

14 (1) IN GENERAL.—Not later than 2 years after
15 the date of publication of the methodology under
16 subsection (d)(1), the Secretary, in consultation with
17 the Secretary of Energy and State geological sur-
18 veys, shall complete a national assessment of capac-
19 ity for carbon dioxide in accordance with the meth-
20 odology.

21 (2) GEOLOGICAL VERIFICATION.—As part of
22 the assessment under this subsection, the Secretary
23 shall carry out a drilling program to supplement the
24 geological data relevant to determining storage ca-

1 capacity of carbon dioxide in geological storage forma-
2 tions, including—

3 (A) well log data;

4 (B) core data; and

5 (C) fluid sample data.

6 (3) PARTNERSHIP WITH OTHER DRILLING PRO-
7 GRAMS.—As part of the drilling program under
8 paragraph (2), the Secretary shall enter, as appro-
9 priate, into partnerships with other entities to collect
10 and integrate data from other drilling programs rel-
11 evant to the storage of carbon dioxide in geologic
12 formations.

13 (4) INCORPORATION INTO NATCARB.—

14 (A) IN GENERAL.—On completion of the
15 assessment, the Secretary of Energy shall incor-
16 porate the results of the assessment using the
17 NatCarb database, to the maximum extent
18 practicable.

19 (B) RANKING.—The database shall include
20 the data necessary to rank potential storage
21 sites for capacity and risk, across the United
22 States, within each State, by formation, and
23 within each basin.

24 (5) REPORT.—Not later than 180 days after
25 the date on which the assessment is completed, the

1 Secretary shall submit to the Committee on Energy
2 and Natural Resources of the Senate and the Com-
3 mittee on Science and Technology of the House of
4 Representatives a report describing the findings
5 under the assessment.

6 (6) PERIODIC UPDATES.—The national assess-
7 ment developed under this section shall be updated
8 periodically (including at least once every 5 years) to
9 support public and private sector decisionmaking.

10 (g) AUTHORIZATION OF APPROPRIATIONS.—There is
11 authorized to be appropriated to carry out this section
12 \$30,000,000 for the period of fiscal years 2008 through
13 2012.

14 **SEC. 304. CARBON CAPTURE AND STORAGE INITIATIVE.**

15 (a) INDUSTRIAL SOURCES OF CARBON DIOXIDE DE-
16 FINED.—In this section, the term “industrial sources of
17 carbon dioxide” means one or more facilities to—

- 18 (1) generate electric energy from fossil fuels;
- 19 (2) refine petroleum;
- 20 (3) manufacture iron or steel;
- 21 (4) manufacture cement or cement clinker;
- 22 (5) manufacture commodity chemicals (includ-
23 ing from coal gasification); or
- 24 (6) manufacture transportation fuels from coal.

25 (b) PROGRAM ESTABLISHMENT.—

1 (1) IN GENERAL.—The Secretary shall carry
2 out a program to demonstrate technologies for the
3 large-scale capture of carbon dioxide from industrial
4 sources of carbon dioxide.

5 (2) SCOPE OF AWARD.—An award under this
6 section shall be only for the portion of the project
7 that carries out the large-scale capture (including
8 purification and compression) of carbon dioxide, as
9 well as the cost of transportation and injection of
10 carbon dioxide.

11 (3) QUALIFICATIONS FOR AWARD.—To be eligi-
12 ble for an award under this section, a project pro-
13 posal must include the following:

14 (A) CAPACITY.—The capture of not less
15 than eighty-five percent of the produced carbon
16 dioxide at the facility, and not less than
17 500,000 short tons of carbon dioxide per year.

18 (B) STORAGE AGREEMENT.—A binding
19 agreement for the storage of all of the captured
20 carbon dioxide in—

21 (i) a field testing validation activity
22 under section 963 of the Energy Policy Act
23 of 2005, as amended by this Act; or

24 (ii) other geological storage projects
25 approved by the Secretary.

1 (C) PURITY LEVEL.—A purity level of at
2 least 95 percent for the captured carbon dioxide
3 delivered for storage.

4 (D) COMMITMENT TO CONTINUED OPER-
5 ATION OF SUCCESSFUL UNIT.—If the project
6 successfully demonstrates capture and storage
7 of carbon dioxide, a commitment to continued
8 capture and storage of carbon dioxide after the
9 conclusion of the demonstration.

10 (4) COST-SHARING.—The cost-sharing require-
11 ments of section 988 of the Energy Policy Act of
12 2005 shall apply to this section.

13 (c) AUTHORIZATION OF APPROPRIATIONS.—There is
14 authorized to be appropriated to the Secretary to carry
15 out this section \$100,000,000 per year for fiscal years
16 2009 through 2013.

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110TH CONGRESS
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S. 1321

[Report No. 110-65]

A BILL

To enhance the energy security of the United States by promoting biofuels, energy efficiency, and carbon capture and storage, and for other purposes.

MAY 7, 2007

Read twice and placed on the calendar