Amendment in the Nature of a Substitute

to H.R. 3221

Offered by Mr. Barton of Texas

Strike all after the enacting clause and insert the following:

1 SECTION 1. SHORT TITLE.

2 This Act may be cited as the “American Made Energy and Good Jobs Act”

TITLE I—ENERGY AND COMMERCE

Subtitle A—Energy Efficiency

SEC. 1000. SHORT TITLE.

This subtitle may be cited as the “Energy Efficiency Improvement Act of 2007”.

PART 1—APPLIANCE EFFICIENCY

SEC. 1001. ENERGY STANDARDS FOR HOME APPLIANCES.

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

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

“(2) Dehumidifiers manufactured on or after October 1, 2012, shall have an Energy Factor that meets or exceeds the following values:
(2) Residential clotheswashers and residential dishwashers.—Section 325(g) (42 U.S.C. 6295(g)) is amended by adding at the end the following new paragraphs:

“(9) A top-loading or front-loading standard-size residential clotheswasher manufactured on or after January 1, 2011, shall have—

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

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

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

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

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

“(B) for compact size dishwashers not exceed 260 kwh/year and 4.5 gallons per cycle.
“(12) No later than January 1, 2015, the Secretary shall publish a final rule determining whether to amend the standards for dishwashers manufactured on or after January 1, 2018. Such rule shall contain such amendment, if any.”.

(3) **Energy Conservation Standard.**—Section 321(6)(A) (42 U.S.C. 6291(6)(A)) is amended by striking “or, in the case of” and inserting “and, in the case of residential clotheswashers, residential dishwashers,”.

(4) **Refrigerators and Freezers.**—Section 325(b) (42 U.S.C. 6295(b)) is amended by adding at the end the following new paragraph:

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

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

SEC. 1002. ELECTRIC MOTOR EFFICIENCY STANDARDS.

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

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

(2) by striking the text of subparagraph (A) and inserting the following: “The term ‘general purpose electric motor (subtype I)’ means any motor that meets the definition of ‘General Purpose’ as established in the final rule issued by the Department of Energy for ‘Energy Efficiency Program for Certain Commercial and Industrial Equipment: Test Procedures, Labeling, and Certification Requirements for Electric Motors’ (10 CFR 431), as in effect on the date of enactment of the Energy Efficiency Improvement Act of 2007.

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

“(i) U-Frame Motors.

“(ii) Design C Motors.

“(iii) Close-coupled pump motors.

“(iv) Footless motors.
“(v) Vertical solid shaft normal thrust motor (as tested in a horizontal configuration).

“(vi) 8-pole motors (~900 rpm).

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

(b) STANDARDS.—Section 342(b)(1) of the Energy Policy and Conservation Act (42 U.S.C. 6313(b)(1)) is amended—

(1) by inserting “(A)” before “Except for definite”;
(2) by inserting “and through the end of the 36-month period beginning on the date of enactment of the Energy Efficiency Improvement Act of 2007” after “beginning on such date”; and
(3) by adding at the end the following:

“(B) Each general purpose electric motor (subtype I), except as provided in subparagraph (C), with a power rating of 1 horsepower or greater, but not greater than 200 horsepower, manufactured (alone or as a component of another piece of equipment) after the 36-month period beginning on the date of enactment of the Energy Efficiency Improvement Act of 2007, shall have a nominal full load efficiency not less than as defined in NEMA MG-1 (2006) Table 12-12.

“(C) Each fire pump motor manufactured (alone or as a component of another piece of equipment) after the
36-month period beginning on the date of enactment of the Energy Efficiency Improvement Act of 2007, shall have nominal full load efficiency not less than as defined in NEMA MG-1 (2006) Table 12-11.

“(D) Each general purpose electric motor (subtype II) with a power rating of 1 horsepower or greater, but not greater than 200 horsepower, manufactured (alone or as a component of another piece of equipment) after the 36-month period beginning on the date of enactment of the Energy Efficiency Improvement Act of 2007, shall have a nominal full load efficiency not less than as defined in NEMA MG-1 (2006) Table 12-11.

“(E) Each NEMA Design B, general purpose electric motor with a power rating of more than 200 horsepower, but not greater than 500 horsepower, manufactured (alone or as a component of another piece of equipment) after the 36-month period beginning on the date of enactment of the Energy Efficiency Improvement Act of 2007, shall have a nominal full load efficiency not less than as defined in NEMA MG-1 (2006) Table 12-11.”.

SEC. 1003. RESIDENTIAL BOILERS.

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

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

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

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

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

“(3) BOILERS.—

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

<table>
<thead>
<tr>
<th>Boiler Type</th>
<th>Minimum Annual Fuel Utilization Efficiency</th>
<th>Design Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas Hot Water</td>
<td>82%</td>
<td>No Constant Burning Pilot, Automatic Means for Adjusting Water Temperature</td>
</tr>
<tr>
<td>Gas Steam</td>
<td>80%</td>
<td>No Constant Burning Pilot</td>
</tr>
<tr>
<td>Oil Hot Water</td>
<td>84%</td>
<td>Automatic Means for Adjusting Temperature</td>
</tr>
<tr>
<td>Oil Steam</td>
<td>82%</td>
<td>None</td>
</tr>
<tr>
<td>Electric Hot Water</td>
<td>None</td>
<td>Automatic Means for Adjusting Temperature</td>
</tr>
<tr>
<td>Electric Steam</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

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

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

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

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

“(C) EXCEPTION.—Boilers that are manufactured to operate without any need for electricity, any electric connection, any electric gauges, electric pumps, electric wires, or electric devices of any sort, shall not be required to meet the requirements of this section.”.

**SEC. 1004. WALK-IN COOLERS AND WALK-IN FREEZERS.**

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

(1) in paragraph (1)—

(A) by redesignating subparagraphs (G) through (K) as subparagraphs (H) through (L), respectively; and

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

“(G) Walk-in coolers and walk-in freezers.”;

(2) by redesignating paragraphs (20) and (21) as paragraphs (21) and (22), respectively; and

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

“(20) The terms ‘walk-in cooler’ and ‘walk-in freezer’ mean an enclosed space refrigerated to tem-
temperatures, respectively, above and at or below 32 degrees Fahrenheit that can be walked into, and has a total chilled storage area of less than 3000 square feet. These terms exclude products designed and marketed exclusively for medical, scientific, or research purposes.”.

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

“(f) WALK-IN COOLERS AND WALK-IN FREEZERS.—

(1) Each walk-in cooler or walk-in freezer manufactured on or after January 1, 2009, shall meet the following specifications:

“(A) Have automatic door closers that firmly close all reach-in doors. Have automatic door closers that firmly close all walk-in doors that have been closed to within one inch of full closure. This requirement does not apply to doors wider than 3 feet 9 inches or taller than 7 feet.

“(B) All walk-in freezers shall have strip doors, spring hinged doors, or other method of minimizing infiltration when doors are open.

“(C) Contain wall, ceiling, and door insulation of at least R-25 for coolers and R-32 for freezers.
Door insulation requirements do not apply to glazed portions of doors, nor to structural members.

“(D) Contain floor insulation of at least R-28 for freezers.

“(E) For evaporator fan motors of under one horsepower and less than 460 volts, use either—

“(i) electronically commutated motors (brushless direct current motors); or

“(ii) three-phase motors.

The portion of the requirement for electronically commutated motors takes effect January 1, 2009, unless, prior to this date, the Secretary determines that such motors are only available from one manufacturer. The Secretary may also allow other types of motors if the Secretary determines that, on average, these other motors use no more energy in evaporator fan applications than electronically commutated motors. The Secretary shall establish this maximum energy consumption level no later than January 1, 2010.

“(F) For condenser fan motors of under one horsepower, use either—

“(i) electronically commutated motors;

“(ii) permanent split capacitor-type motors; or
“(iii) three-phase motors.

“(G) For all interior lights, use light sources with an efficacy of 40 lumens per watt or more, including ballast losses (if any). Light sources with an efficacy of 40 lumens per watt or less, including ballast losses (if any), may be used in conjunction with a timer or device that turns off the lights within 15 minutes of when the walk-in is not occupied.

“(2) Each walk-in cooler or walk-in freezer with transparent reach-in doors manufactured on or after January 1, 2009, shall also meet the following specifications:

“(A) Transparent reach-in doors and windows in walk-in doors for walk-in freezers shall be of triple-pane glass with either heat-reflective treated glass or gas fill.

“(B) Transparent reach-in doors for walk-in coolers and windows in walk-in doors shall be either—

“(i) double-pane glass with heat-reflective treated glass and gas fill; or

“(ii) triple pane glass with either heat-reflective treated glass or gas fill.

“(C) If the appliance has an antisweat heater without anti-sweat heat controls, then the appliance shall have a total door rail, glass, and frame heater
power draw of no more than 7.1 watts per square foot of door opening (freezers) and 3.0 watts per square foot of door opening (coolers).

“(D) If the appliance has an antisweat heater with antisweat heat controls, and the total door rail, glass, and frame heater power draw is more than 7.1 watts per square foot of door opening (freezers) and 3.0 watts per square foot of door opening (coolers), then the antisweat heat controls shall reduce the energy use of the antisweat heater in an amount corresponding to the relative humidity in the air outside the door or to the condensation on the inner glass pane.

“(3) Not later than January 1, 2012, the Secretary shall publish performance-based standards for walk-in coolers and walk-in freezers that achieve the maximum improvement in energy which the Secretary determines is technologically feasible and economically justified. Such standards shall apply to products manufactured three years after the final rule is published unless the Secretary determines, by rule, that three years is inadequate, in which case the Secretary may set an effective date for products manufactured no greater than five years after the date of publication of a final rule for these products.
“(4) Not later than January 1, 2020, the Secretary shall publish a final rule to determine if the standards established under paragraph (3) should be amended. The rule shall provide that such standards shall apply to products manufactured three years after the final rule is published unless the Secretary determines, by rule, that three years is inadequate, in which case the Secretary may set an effective date for products manufactured no greater than five years after the date of publication of a final rule for these products.”.

(c) Test Procedures.—Section 343(a) of the Energy Policy and Conservation Act (42 U.S.C. 6314(a)) is amended by adding at the end the following:

“(9) For walk-in coolers and walk-in freezers:

“(A) R value is defined as 1/K factor multiplied by the thickness of the panel. K factor shall be based on ASTM test procedure C518-2004. For calculating R value for freezers, the K factor of the foam at 20F (average foam temperature) shall be used. For calculating R value for coolers the K factor of the foam at 55F (average foam temperature) shall be used.

“(B) Not later than January 1, 2010, the Secretary shall establish a test procedure to measure
the energy-use of walk-in coolers and walk-in freezers. Such test procedure may be based on computer modeling, if the computer model or models have been verified using the results of laboratory tests on a significant sample of walk-in coolers and walk-in freezers.”.

(d) LABELING.—Section 344(e) of the Energy Policy and Conservation Act (42 U.S.C. 6315(e)) is amended by inserting “walk-in coolers and walk-in freezers,” after “commercial clothes washers,” each place it appears.

(e) ADMINISTRATION, PENALTIES, ENFORCEMENT, AND PREEMPTION.—Section 345 of the Energy Policy and Conservation Act (42 U.S.C. 6316), is amended—

(1) by striking “subparagraphs (B), (C), (D), (E), and (F)” and inserting “subparagraphs (B), (C), (D), (E), (F), and (G)” each place it appears.

(2) adding at the end the following:

“(h)(1)(A)(i) Except as provided in clause (ii) and paragraphs (2) and (3), section 327 shall apply to walk-in coolers and walk-in freezers for which standards have been established under paragraphs (1) and (2) of section 342(f) to the same extent and in the same manner as the section applies under part A on the date of enactment of this subsection.
“(ii) Any State standard issued before the date of enactment of this subsection shall not be preempted until the standards established under paragraphs (1) and (2) of section 342(f) take effect.

“(B) In applying section 327 to the equipment under subparagraph (A), paragraphs (1), (2), and (3) of subsection (a) shall apply.

“(2)(A) If the Secretary does not issue a final rule for a specific type of walk-in coolers and walk-in freezers within the time frame specified in 342(f)(3) or (4), subsections (b) and (e) of section 327 shall no longer apply to the specific type of walk-in coolers and walk-in freezers for the period beginning on the day after the scheduled date for a final rule and ending on the date on which the Secretary publishes a final rule covering the specific type of walk-in coolers and walk-in freezers.

“(B) Any State standard issued before the publication of the final rule shall not be preempted until the standards established in the final rule take effect.

“(3) Any standard issued in the State of California, before January 1, 2011, under Title 20 of the California Code of Regulations, which refers to walk-in coolers and walk-in freezers, for which standards have been established under paragraphs (1) and (2) of section 342(f),
shall not be preempted until the standards established under paragraph (3) of section 342(f) take effect.”.

SEC. 1005. STUDY ON CREATING A REGIONAL STANDARDS PROGRAM FOR HEATING AND COOLING PRODUCTS.

(a) STUDY REQUIRED.—The Secretary of Energy shall convene a study group including a representative from the Office of Management and Budget; a representative from the National Institute of Standards and Technology; representatives of nongovernmental advocacy organizations; representatives of product manufacturers, distributors, and installers; representatives of the gas and electric utility industries; and such other individuals as the Secretary may designate. The group shall evaluate the potential benefits and consequences of allowing the Secretary to prescribe regional standards for heating and cooling products.

(b) REPORT REQUIRED.—Not later than 12 months after the date of enactment of this Act, the Secretary shall submit a report regarding the findings of the study group to the Committee on Energy and Commerce in the House of Representatives and the Committee on Energy and Natural Resources of the Senate.
SEC. 1006. PROCEDURE FOR PRESCRIBING NEW OR AMENDED STANDARDS.

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

(1) by striking paragraph (1); and
(2) by redesignating paragraphs (2) through (4) as paragraphs (1) through (3), respectively.

SEC. 1007. EXPEDITING APPLIANCE STANDARDS RULEMAKINGS.

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

“(5) If manufacturers of any type (or class) of covered products or covered equipment, States, and efficiency advocates, or persons determined by the Secretary to fully represent such parties, submit to the Secretary a joint recommendation of an energy or water conservation standard and the Secretary determines that the recommended standard complies with subsection (o) or section 342(a)(6)(B), as applicable, to that type (or class) of covered products or covered equipment to which the standard would apply, the Secretary may then issue a direct final rule including the standard recommended. If the Secretary determines that a direct final rule cannot be issued based on such a submitted joint rec-
ommendation, the Secretary shall publish a determination with an explanation as to why the joint recommendation does not comply with this paragraph. For purposes of this paragraph, the term ‘direct final rule’ means a final rule published the same day with a parallel notice of proposed rulemaking that proposes a new or amended energy or water conservation standard that is identical to the standard set forth in the final rule. There shall be a 110-day period for public comment with respect to the direct final rule. Not later than 10 days after the expiration of such 110-day period, the Secretary shall publish a notice responding to comments received with respect to the direct final rule. The Secretary shall withdraw a direct final rule promulgated pursuant to this paragraph within 120 days after publication in the Federal Register if the Secretary receives, with respect to the direct final rule, one or more adverse public comments or any alternate joint recommendation and, based on the rulemaking record, the Secretary determines that such adverse comments or alternate joint recommendation may provide a reasonable basis for withdrawing the direct final rule under subsection (o), section 342(a)(6)(B), or any applicable law. In such a case, the Secretary
shall then proceed with the parallel notice of proposed rulemaking, and shall identify in a notice published in the Federal Register the reasons for the withdrawal of the direct final rule. A direct final rule that is withdrawn in accordance with this paragraph shall not be considered final for purposes of subsection (o)(1) of this section. No person shall be found in violation of this part for noncompliance with a direct final rule that is withdrawn under this paragraph, if that person has complied with the applicable standard in effect under this part immediately prior to issuance of that direct final rule.”.

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

SEC. 1008. CORRECTION OF LARGE AIR CONDITIONER RULE ISSUANCE CONSTRAINT.

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

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

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

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

(1) in each of paragraphs (1) and (2), by inserting after “heating equipment” in the first sentence “, including single package vertical air conditioners and single package vertical heat pumps,”;
(2) in paragraph (1), by striking “but before January 1, 2010,”;

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

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

(5) in paragraph (7)—

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

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

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

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

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

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

(6) by adding the following new paragraphs at the end:
“(10) Single package vertical air conditioners and single package vertical heat pumps manufactured on or after January 1, 2010, shall meet the following standards:

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

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

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

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

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

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

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

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

“(11) Not later than 36 months after the date of enactment of this paragraph, the Secretary shall review the most recently published ASHRAE/IES Standard 90.1 with respect to single package vertical air conditioners and single package vertical heat pumps according to the procedures established in paragraph (6).”.
SEC. 1009. IMPROVING SCHEDULE FOR STANDARDS UPDATING AND CLARIFYING STATE AUTHORITY.

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

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

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

“(B) a notice of proposed rulemaking including new proposed standards based on the criteria in subsection (o) and the procedures in subsection (p).

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

“(2) Not later than 2 years after a notice is issued under paragraph (1)(B), the Secretary shall publish a final rule amending the standard for the product. Not later than 3 years after a determination under paragraph (1)(A), the Secretary shall make a new determination and publication under paragraph (1)(A) or (B).
“(3) An amendment prescribed under this subsection shall apply to products manufactured after a date which is 3 years after publication of the final rule establishing a standard, except that a manufacturer shall not be required to apply new standards to a product with respect to which other new standards have been required within the prior 6 years.

“(4) The Secretary shall promptly submit to the Committee on Energy and Commerce of the House of Representatives and the Committee on Energy and Natural Resources of the Senate—

“(A) a progress report every 180 days on compliance with this section, including a specific plan to remedy any failures to comply with deadlines for action set forth in this section; and

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

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

(1) by redesignating subparagraph (C) as subparagraph (D); and
(2) by amending the remainder of the paragraph to read as follows:

“(6)(A) If ASHRAE/IES Standard 90.1 is amended with respect to any small, large, or very large commercial package air conditioning and heating equipment, packaged terminal air conditioners, packaged terminal heat pumps, warm-air furnaces, packaged boilers, storage water heaters, instantaneous water heaters, or unfired hot water storage tanks, the Secretary shall within 6 months publish in the Federal Register for public comment an analysis of the energy savings potential of the amended energy efficiency standards. The Secretary shall establish an amended uniform national standard for that product at the minimum level for each effective date specified in the amended ASHRAE/IES Standard 90.1 within 18 months of the ASHRAE amendment’s publication, unless the Secretary determines, by rule published in the Federal Register, and supported by clear and convincing evidence, that adoption of a uniform national standard more stringent than such amended ASHRAE/IES Standard 90.1 for such product would result in significant additional conservation of energy and is technologically feasible and economically justified.
“(B) If the Secretary issues a rule containing such a determination, the rule shall establish such amended standard, and shall be issued within 30 months of the ASHRAE amendment’s publication.

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

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

“(II) a notice of proposed rulemaking including new proposed standards based on the criteria and procedures in subparagraph (B).

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

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

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

“(iv) The Secretary shall promptly submit to the House Committee on Energy and Commerce and to the Senate Committee on Energy and Natural Resources a progress report every 180 days on compliance with this paragraph, including a specific plan to remedy any failures to comply with deadlines for action set forth in this paragraph.”.

SEC. 1010. UPDATING APPLIANCE TEST PROCEDURES.

(a) CONSUMER APPLIANCES.—Section 323(b)(1)(A) of the Energy Policy and Conservation Act (42 U.S.C. 6923(b)(1)(A)) is amended by striking “The Secretary may” and all that follows through “paragraph (3)” and inserting “At least every 7 years the Secretary shall review test procedures for all covered products and shall—
“(i) amend test procedures with respect to any covered product if the Secretary determines that amended test procedures would more accurately or fully comply with the requirements of paragraph (3); or

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

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

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

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

SEC. 1011. TECHNICAL CORRECTIONS.

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

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

(1) in subsection (v)—

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

(B) by striking paragraph (1); and

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

(2) in subsection (ff)—

(A) in paragraph (1)(A)—

(i) by striking clause (iii);

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

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

(B) in paragraph (4)(C)—

(i) in the matter preceding clause (i), by striking “subparagraph (B)” and inserting “subparagraph (A)”;
(ii) by striking clause (ii) and inserting the following:

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

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

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

PART 2—LIGHTING EFFICIENCY

SEC. 1021. ENERGY EFFICIENCY STANDARDS FOR GENERAL SERVICE INCANDESCENT LAMPS.

(a) Amendments.—Section 321(30) of the Energy Policy and Conservation Act (42 U.S.C. 6291(30)), is amended as follows:

(1) Delete subsection 30(D) in its entirety, and

insert in its place:

“(D) The term ‘general service incandescent lamp’ means a standard incandescent or halogen type lamp that: is intended for general service applications; has a medium screw base; has a wattage rating no less than 25 watts and no greater than 150 watts; has a voltage range at least partially within 110 and 130 volts; has
an A-15, A-19, A-21, A-23, A-25, PS-25, PS-30, BT-14.5, BT-15, CP-19, TB-19, CA-22, or equivalent shape as defined in ANSI C78.20-2003; and has a bulb finish of the frosted, clear, soft white, or modified (enhanced) spectrum type. The following incandescent lamps are not general service incandescent lamps:

“(i) appliance,
“(ii) black light,
“(iii) bug,
“(iv) colored,
“(v) infrared,
“(vi) left-hand thread,
“(vii) marine,
“(viii) marine signal service,
“(ix) mine service,
“(x) plant light,
“(xi) reflector,
“(xii) rough service,
“(xiii) shatter resistant,
“(xiv) sign service,
“(xv) silver bowl,
“(xvi) showcase,
“(xvii) three-way,
“(xviii) traffic signal, and
“(xix) vibration service or vibration resistant.”.

(2) Insert after paragraph 30(S) (42 U.S.C. 6291(30)(S)) the following new subparagraph:

“(T) The terms ‘modified spectrum’ or ‘enhanced spectrum’ lamp, as related to incandescent lamps, means an incandescent lamp that is not a colored incandescent lamp, and when operated at its rated voltage and wattage:

“(i) has a color point with (x,y) chromaticity coordinates on the Commission Internationale de l’Eclairage (C.I.E.) 1931 chromaticity diagram that lies below the black-body locus; and

“(ii) has a color point with (x,y) chromaticity coordinates on the C.I.E. 1931 chromaticity diagram that lies at least 4 MacAdam steps distant from the color point of a clear lamp with the same filament and bulb shape, operated at the same rated voltage and wattage. The MacAdam steps are defined as referenced in IESNA LM16.

“(U) The terms ‘vibration service lamp’ or ‘vibration resistant lamp’ means a lamp with
filament configurations similar to but not limited to C-5, C-7A, or C-9, as listed in Figure 6-12 of the 9th Edition of the IESNA Lighting Handbook. The lamp is designated and marketed specifically for vibration service or vibration resistant applications, has a maximum wattage of 60 watts, and is sold at retail in packages of 4 lamps or less. The designation shall be on the lamp packaging, and marketing materials shall identify the lamp as being vibration resistant or vibration service.

“(V) The term ‘rough service lamp’ means a lamp that has a minimum of 5 supports with filament configurations similar to but not limited to C7A, C11, C17, and C22 as listed in Figure 6-12 of the 9th edition of the IESNA Lighting handbook, where lead wires are not counted as supports. The lamp is designated and marketed specifically for ‘rough service’ applications. The designation shall appear on the lamp packaging, and marketing materials shall identify the lamp as being for rough service.

“(W) The term ‘three-way lamp’ means an incandescent lamp that employs two filaments, operated separately and in combination, to pro-
vide three light levels. The designation shall be on the lamp packaging, and marketing materials shall identify the lamp as being a three-way lamp.

“(X) The term ‘appliance lamp’ means any lamp specifically designed to operate in a household appliance with a maximum wattage of 40 watts and sold at retail. Examples of appliance lamps include oven lamps, refrigerator lamps, and vacuum cleaner lamps. Appliance lamps sold at retail shall be designated and marketed for the intended application. The designation shall be on the lamp packaging, and marketing materials shall identify the lamp as being an appliance lamp.

“(Y) The term ‘shatter-resistant lamp’, ‘shatter-proof lamp’, or ‘shatter-protected’ means a lamp with a coating or equivalent technology compliant with NSF/ANSI 51, designed to contain glass in the event the glass envelope of the lamp is broken and provides effective containment over the life of the lamp. The lamp is designed and marketed specifically for applications where it is necessary to contain glass in the event the glass envelope of the lamp is bro-
ken. The designation shall be on the lamp packaging, and marketing material shall identify the lamp as being shatter-resistant, shatter-proof or shatter-protected.”.

(3) Section 322(a)(14) of the Energy Policy and Conservation Act (42 U.S.C. 6292(a)(14), is amended by inserting after “general service fluorescent lamps’” the following: “general service incandescent lamps,”.

(4) Section 325(i) of the Energy Policy and Conservation Act (42 U.S.C. 6295(i)), is amended as follows:

(A) Insert in the heading of subsection (i) after “GENERAL SERVICE FLUORESCENT LAMPS” the following: “GENERAL SERVICE INCANDESCENT LAMPS,”.

(B) Insert in subsection (i), paragraph (1)(A) (42 U.S.C. 6295(i)(1)(A)) after “general service fluorescent lamps” the following: “general service incandescent lamps,”.

(C) Insert in subsection (i), paragraph (1)(A) (42 U.S.C. 6295(i)(1)(A)) after “lamp efficacy” the following: “new maximum wattage,”.
(D) Insert in subsection (i), paragraph (1)(A) (42 U.S.C. 6295(i)(1)(A)) after the table titled “incandescent reflector lamp” the following table titled “general service incandescent lamps”: 
### Clear, Inside Frost, and Soft White General Service Incandescent Lamps

<table>
<thead>
<tr>
<th>Common Wattage</th>
<th>Lumen Range</th>
<th>New Maximum Wattage</th>
<th>Effective Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>1490-2600</td>
<td>72</td>
<td>July 1, 2012</td>
</tr>
<tr>
<td>75</td>
<td>1010-1489</td>
<td>53</td>
<td>January 1, 2014</td>
</tr>
<tr>
<td>60</td>
<td>730-1009</td>
<td>43</td>
<td>January 1, 2015</td>
</tr>
<tr>
<td>40</td>
<td>310-729</td>
<td>29</td>
<td>January 1, 2018</td>
</tr>
</tbody>
</table>

### Modified Spectrum General Service Incandescent Lamps

<table>
<thead>
<tr>
<th>Common Wattage</th>
<th>Lumen Range</th>
<th>New Maximum Wattage</th>
<th>Effective Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>1118-1950</td>
<td>72</td>
<td>July 1, 2012</td>
</tr>
<tr>
<td>75</td>
<td>758-1117</td>
<td>53</td>
<td>January 1, 2014</td>
</tr>
<tr>
<td>60</td>
<td>548-757</td>
<td>43</td>
<td>January 1, 2015</td>
</tr>
<tr>
<td>40</td>
<td>232-547</td>
<td>29</td>
<td>January 1, 2018</td>
</tr>
</tbody>
</table>
“All lamps intended for general service (general illumination) applications (whether incandescent or not), with a medium screw base, and with a voltage range at least partially within 110 and 130 volts, and with no external bulb or with a bulb of the frosted, clear, soft white, or modified spectrum types, and manufactured or imported after June 30, 2012 shall have a minimum rated life of 1000 hours and must have a color rendering index (CRI) greater than or equal to 80 for frosted, clear, and soft white lamps, or greater than or equal to 75 for modified spectrum lamps.”.

(F) Amend paragraph (1)(B) (42 U.S.C. 6295(i)(1)(B)) to read as follows: “Unless a date is specified in the tables set forth in subparagraph (A), the term ‘effective date’ means the last day of the month set forth in the table which follows October 24, 1992.”.

(G) Amend paragraph (5) (42 U.S.C. 6295(5)) by deleting the term “general service incandescent lamps”.

(H) Amend paragraphs (6) and (7) (42 U.S.C. 6295(i)(6) and (7)) as follows:
(i) Redesignate paragraph (6) as (7) and paragraph (7) as (8), respectively.

(ii) Insert a new paragraph (6) to read as follows:

“(6)(A) Not later than January 1, 2015, the Secretary shall initiate a rulemaking procedure to determine if standards in effect for general service incandescent lamps should be amended to reflect lumen ranges with more stringent maximum wattages than those set forth in subparagraph (1)(A). This rulemaking shall not be limited to incandescent lamp technologies. The Secretary will also determine whether the exemptions for certain incandescent lamps should be maintained or discontinued. The Secretary may also give consideration to the feasibility of obtaining an efficacy of up 60 lumens per watt in determining whether the standards should be amended. In the event the Secretary determines that the standards in effect for general service incandescent lamps should be amended, the Secretary shall publish a final rule not later than January 1, 2017 with an effective date no earlier than three years from the date the final rule is published. The Secretary shall also consider phased-in effective dates after considering the impact of any amendment on
manufacturers, retiring and re-purposing existing
equipment, the cost impact of stranded investments,
labor contracts, impact on workers, the cost of raw
materials, and the time needed to work with retailers
and lighting designers to revise sales and marketing
strategies.

“(B) Not later than January 1, 2020, the Sec-
retary shall initiate another rulemaking procedure to
determine if standards in effect for general service
incandescent lamps should be amended to reflect
lumen ranges with more stringent maximum watt-
ages than those set forth in subparagraph (1)(A).
This rulemaking shall not be limited to incandescent
lamp technologies. The Secretary will also determine
whether the exemptions for certain incandescent
lamps should be maintained or discontinued. The
Secretary may also give consideration to the feasi-
ability of obtaining an efficacy of up 60 lumens per
watt in determining whether the standards should be
amended. In the event the Secretary determines that
the standards in effect for general service incandes-
cent lamps should be amended, the Secretary shall
publish a final rule not later than January 1, 2022
with an effective date no earlier than three years
from the date a final rule is published. The Sec-
retary may also consider phased-in effective dates after considering the impact of any amendment on manufacturers, retiring and re-purposing existing equipment, the cost impact of stranded investments, labor contracts, impact on workers, the cost of raw materials, and the time needed to work with retailers and lighting designers to revise sales and marketing strategies.”.

(I) Amend section 325(l) of the Energy Policy and Conservation Act (42 U.S.C. 6295(l)), by adding at the end a new paragraph (4) as follows:

“(4) The Secretary shall prescribe an energy efficiency standard for rough service, vibration service, three-way A-line lamps, 150 watt A-line lamps, and shatter-resistant lamps, only under the following circumstances:

“(A) Within 60 days following the date of enactment of the Energy Efficiency Improvement Act of 2007, the Secretary, in consultation with the National Electrical Manufacturers Association, shall collect annual United States unit sales for the calendar years 1990-2006 for each of these four types of lamps to determine their historical growth rate and construct a
model for each type of lamp based on coincident economic indicators that closely matches the historical annual growth rate of these lamps to provide a neutral comparison benchmark to model future unit sales after calendar year 2006.

“(B) Beginning in calendar year 2010 and for each calendar year through 2025, the Secretary, in consultation with the National Electrical Manufacturers Association, shall collect actual United States unit sales data for these five types of lamps and calculate a rolling 3-year average sales rate for each type of lamp.

“(C) The first year that the reported 3-year average shows actual unit sales of rough service lamps achieving levels at least 100 percent higher than modeled unit sales for that same year, then the Secretary is directed to issue a finding that the index has been exceeded. The Secretary is directed to issue that finding within 90 days of the end of the previous calendar year, and within 12 months from the end of the previous calendar year for which the Secretary issues that finding, the Secretary shall complete an accelerated rulemaking to es-
establish an energy conservation standard for rough service lamps. If the Secretary fails to complete an accelerated rulemaking within 12 months as required, the Secretary shall require a shatter proof coating or equivalent compliant with NSF/ANSI 51, designed to contain glass in the event the glass envelop of the lamp is broken and provides effective containment over the life of the lamp, on rough service lamps, which can only sold at retail in packages of one lamp, effective one year from the end of the rulemaking period.

“(D) The first year that the reported 3-year average shows actual unit sales of vibration service lamps achieving levels at least 100 percent higher than modeled unit sales for that same year, then the Secretary is directed to issue a finding that the index has been exceeded. The Secretary is directed to issue that finding within 90 days of the end of the previous calendar year, and within 12 months from the end of the previous calendar year for which the Secretary issues that finding, the Secretary shall complete an accelerated rulemaking to establish an energy conservation standard for vi-
bration service lamps. If the Secretary fails to complete an accelerated rulemaking within 12 months as required, the Secretary shall impose a maximum 40W cap upon vibration service lamps, effective one year from the end of the rulemaking period.

“(E) The first year that the reported 3-year average shows actual unit sales of three-way lamps achieving levels at least 100 percent higher than modeled unit sales for that same year, then the Secretary is directed to issue a finding that the index has been exceeded. The Secretary is directed to issue that finding within 90 days of the end of the previous calendar year, and within 12 months from the end of the previous calendar year for which the Secretary issues that finding, the Secretary shall complete an accelerated rulemaking to establish an energy conservation standard for three-way lamps. If the Secretary fails to complete an accelerated rulemaking within 12 months as required, the Secretary shall impose a requirement that each filament in the lamp meet the new maximum wattage requirements for the respective lumen
range set forth in paragraph (1)(A), effective one year from the end of the rulemaking period.

“(F) The first year that the reported 3-year average shows actual unit sales of 150 watt A-line lamps for the lumen range of 2601-3300 lumens (or for modified spectrum lumen range of 1951-2475 lumens) achieving levels at least 100 percent higher than modeled unit sales for that same year, then the Secretary is directed to issue a finding that the index has been exceeded. The Secretary is directed to issue that finding within 90 days of the end of the previous calendar year, and within 12 months from the end of the previous calendar year for which the Secretary issues that finding, the Secretary shall complete an accelerated rulemaking to establish an energy conservation standard for 150 watt A-line lamps. If the Secretary fails to complete an accelerated rulemaking within 12 months as required, the Secretary shall impose a maximum 95 watt cap upon these products for the lumen range of 2601-3300 lumens, which must be sold in packages of one lamp. For modified spectrum lamps, a 95 watt cap applies for products in the
lumen range of 1951-2475 lumens, which must be sold in packages of one lamp.

“(G) The first year that the reported 3-year average shows actual unit sales of shatter resistant lamps achieving levels at least 100 percent higher than modeled unit sales for that same year, then the Secretary is directed to issue a finding that the index has been exceeded. The Secretary is directed to issue that finding within 90 days of the end of the previous calendar year, and within 12 months from the end of the previous calendar year for which the Secretary issues that finding, the Secretary shall complete an accelerated rulemaking to establish an energy conservation standard for shatter resistant lamps. If the Secretary fails to complete an accelerated rulemaking within 12 months as required, the Secretary shall require shatter resistant lamps sold at retail in only packages of one lamp, effective one year from the end of the rulemaking period.

“(H) If the Secretary issues a final rule prior to 2025 establishing an energy conservation standard for any of the five types of lamps for which data collection is required by this
subsection, the requirement of this subsection
to collect and model data for that type of lamp
shall terminate, except in the case where the
Secretary imposes a requirement established by
the provisions of this subsection as a result of
a failure to complete an accelerated rulemaking
within 12 months, in which case the data collec-
tion and modeling shall continue for another
two years after the effective date of that re-

(b) Consumer Education and Lamp Labeling.—

(1) Section 324(a)(2)(C) of the Energy Policy
and Conservation Act is amended by adding at the
end the following new clauses:

“(iii) Within 180 days of the date of enactment of
this section, the Commission shall initiate a rulemaking
to consider the effectiveness of current lamp labeling for
power levels (watts), light output (lumens), and lamp life-
time, and to consider alternative labeling approaches that
will help consumers to understand new high-efficiency
lamp products and to base their purchase decisions on the
most appropriate lamp product that meets their require-
ments for lighting level, light quality, lamp lifetime, and
total lifecycle cost. The Commission shall complete this
rulemaking within two years of enactment of this section,
and shall consider re-opening the rulemaking within 180 days prior to the effective dates of the standards for general service incandescent lamps established in section 325(i)(1)(A) (42 U.S.C. 6295(i)(1)(A)), if it determines that further labeling changes are needed to help consumers understand lamp alternatives.

“(iv) The Secretary, in cooperation with the Administrator of the Environmental Protection Agency, the Secretary of Commerce, the Federal Trade Commission, lighting and retail industry associations, energy efficiency organizations, and any other entities that the Secretary determines to be appropriate, shall—

“(I) conduct an annual assessment of the market for general service lamps and compact fluorescent lamps to identify trends in the market shares of lamp types, efficiencies, and light output levels purchased by residential and non-residential consumers, and to better understand the degree to which consumer decision-making is based on lamp power levels (watts), light output (lumens), lamp lifetime, and other factors including but not limited to the information required on FTC-mandated labels;
“(II) provide the results of this market assessment to the FTC for consideration in the rule-making described in subsection (a); and

“(III) carry out, in cooperation with industry trade associations, lighting industry members, utilities, and other interested parties a proactive national program of consumer awareness, information, and education that broadly utilizes the media and other effective communication techniques over an extended period of time to help consumers understand the lamp labels and make energy-efficient lighting choices that meet their needs.”.

(2) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out the amendments made by this section $10,000,000 for each of the fiscal years 2008 through 2012, to remain available until expended.

(c) ENFORCEMENT.—Section 334 of the Energy Policy and Conservation Act (42 U.S.C. 6304) is amended in the second sentence by inserting after “shall be brought by the Secretary” the following: “; and any such action to restrain any person from distributing in commerce a general service incandescent lamp that does not comply with the applicable standard established under section
325(i) of this title may also be brought by an attorney
general of a State in the name of the State.’’.

(d) OTHER PROVISIONS.—Section 327(b) of the En-
ergy Policy and Conservation Act (42 U.S.C. 6297(b)) is
amended by inserting before the semicolon at the end of
paragraph (1) ‘‘, or in the case of any portion of any regu-
lation that establishes requirements for general service in-
candescent lamps, was adopted by the California Energy
Commission or by the State of Nevada before July 27,
2007, or in the case of any portion of any regulation that
incorporates the specific lumen ranges and new maximum
wattages established in section 325(i)(1)(A) for (i) general
service incandescent lamps in the lumen range 1490-2600
lumens and establishes an effective date no earlier than
July 1, 2012, or (ii) general service incandescent lamps
in the lumen ranges 1010-1489 lumens, 730-1009 lumens,
and 310-729 lumens and establishes an effective date no
earlier than 1 year prior to the effective date established
for such lamps in section 325(i)(1)(A), adopted by the
California Energy Commission no later than two years
prior to the effective date established for such lamps in
section 325(i)(1)(A)”.

(e) PROHIBITED ACTS.—Section 332(a) of the En-
ergy Policy and Conservation Act (42 U.S.C. 6302(a)) is
amended—
(1) in paragraph (5), by striking “; and” and
inserting a semicolon; and

(2) by adding at the end the following new
paragraph:

“(6) for any manufacturer, distributor, retailer,
or private labeler to distribute in commerce an
adapter designed to allow a lamp that does not have
a medium screw base, with a voltage range at least
partially within 110 and 130 volts, to be installed
into a fixture or lampholder with a medium screw
base socket.”.

SEC. 1022. INCANDESCENT REFLECTOR LAMPS.

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

(1) in paragraph (30)(C)(ii)—

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

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

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

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

(2) by adding at the end the following:

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

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

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

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

“(B) The term ‘BR30’ refers to a BR incandescent reflector lamp with a diameter of 30/8ths of an inch and the term ‘BR40’ refers to a BR incandescent reflector lamp with a diameter of 40/8ths of an inch.
“(54)(A) The term ‘ER incandescent reflector lamp’ means a reflector lamp that has—

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

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

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

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

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

“(1) STANDARDS.—

“(A) DEFINITION OF EFFECTIVE DATE.—
In this paragraph, except as specified in subparagraphs (C) and (D), the term ‘effective date’ means, with respect to each type of lamp specified in a table contained in subparagraph (B), the last day of the period of months corresponding to that type of lamp, as specified in the table, that follows the date of enactment of the Energy Efficiency Improvement Act of 2007.

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

<table>
<thead>
<tr>
<th>Lamp Type</th>
<th>Nominal Lamp Wattage</th>
<th>Minimum CRI</th>
<th>Minimum Average Lamp Efficacy (LPW)</th>
<th>Effective Date (Period of Months)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-foot medium bi-pin</td>
<td>&gt;35 W</td>
<td>69</td>
<td>75.0</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>≤35 W</td>
<td>45</td>
<td>75.0</td>
<td>36</td>
</tr>
<tr>
<td>2-foot U-shaped</td>
<td>&gt;35 W</td>
<td>69</td>
<td>68.0</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>≤35 W</td>
<td>45</td>
<td>64.0</td>
<td>36</td>
</tr>
<tr>
<td>8-foot slimline</td>
<td>65 W</td>
<td>69</td>
<td>80.0</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>≤65 W</td>
<td>45</td>
<td>80.0</td>
<td>18</td>
</tr>
</tbody>
</table>
“FLUORESCENT LAMPS—Continued

<table>
<thead>
<tr>
<th>Lamp Type</th>
<th>Nominal Lamp Wattage</th>
<th>Minimum CRI</th>
<th>Minimum Average Lamp Efficacy (LPW)</th>
<th>Effective Date (Period of Months)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8-foot high output</td>
<td>&gt;100 W</td>
<td>69</td>
<td>80.0</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>≤100 W</td>
<td>45</td>
<td>80.0</td>
<td>18</td>
</tr>
</tbody>
</table>

“INCANDESCENT REFLECTOR LAMPS

<table>
<thead>
<tr>
<th>Nominal Lamp Wattage</th>
<th>Minimum Average Lamp Efficacy (LPW)</th>
<th>Effective Date (Period of Months)</th>
</tr>
</thead>
<tbody>
<tr>
<td>40–50</td>
<td>10.5</td>
<td>36</td>
</tr>
<tr>
<td>51–66</td>
<td>11.0</td>
<td>36</td>
</tr>
<tr>
<td>67–85</td>
<td>12.5</td>
<td>36</td>
</tr>
<tr>
<td>86–115</td>
<td>14.0</td>
<td>36</td>
</tr>
<tr>
<td>116–155</td>
<td>14.5</td>
<td>36</td>
</tr>
<tr>
<td>156–205</td>
<td>15.0</td>
<td>36</td>
</tr>
</tbody>
</table>

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

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

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

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

“(D) EFFECTIVE DATES.—

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

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

SEC. 1023. METAL HALIDE LAMP FIXTURES.

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

“(57) The term ‘ballast’ means a device used with an electric discharge lamp to obtain necessary circuit conditions (voltage, current, and waveform) for starting and operating.

“(58) The term ‘metal halide lamp’ means a high intensity discharge lamp in which the major portion of the light is produced by radiation of metal halides and their products of dissociation, possibly in combination with metallic vapors.
“(59) The term ‘metal halide lamp fixture’ means a light fixture for general lighting application designed to be operated with a metal halide lamp and a ballast for a metal halide lamp.

“(60) The term ‘metal halide ballast’ means a ballast used to start and operate metal halide lamps.

“(61) The term ‘pulse-start metal halide ballast’ means an electronic or electromagnetic ballast that starts a pulse start metal halide lamp with high voltage pulses. Lamps are started by first providing a high voltage pulse for ionization of the gas to produce a glow discharge. To complete the starting process, power is provided by the ballast to sustain the discharge through the glow-to-arc transition.

“(62) The term ‘probe-start metal halide ballast’ means a ballast that starts a probe start metal halide lamp which contains a third starting electrode (probe) in the arc tube. This ballast does not generally contain an igniter and instead starts lamps with high ballast open circuit voltage.

“(63) The term ‘electronic ballast’ means a device that uses semiconductors as the primary means to control lamp starting and operation.
“(64) The term ‘general lighting application’ means lighting that provides an interior or exterior area with overall illumination.

“(65) The term ‘ballast efficiency’ for a high intensity discharge fixture means the efficiency of a lamp and ballast combination, expressed as a percentage, and calculated by Efficiency = Pout/Pin, as measured. Pout is the measured operating lamp wattage, and Pin is the measured operating input wattage. The lamp, and the capacitor when it is provided, is to constitute a nominal system in accordance with the ANSI Standard C78.43-2004. Pin and Pout are to be measured after lamps have been stabilized according to Section 4.4 of ANSI Standard C82.6-2005 using a wattmeter with accuracy specified in Section 4.5 of ANSI Standard C82.6-2005 for ballasts with a frequency of 60 Hz, and shall have a basic accuracy of ± 0.5 percent at the higher of—

“(A) three times the output operating frequency of the ballast; or

“(B) 2 kHz for ballast with a frequency greater than 60 Hz.
The Secretary may, by rule, modify this definition if he determines that such modification is necessary or appropriate to carry out the purposes of this Act.”.

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

(1) by redesignating paragraph (19) as paragraph (20); and

(2) by inserting after paragraph (18) the following:

“(19) Metal halide lamp fixtures.”.

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

“(17) Test procedures for metal halide lamp ballasts shall be based on American National Standards Institute Standard C82.6-2005, entitled ‘Ballasts for High Intensity Discharge Lamps—Method of Measurement’.”.

d) LABELING.—Section 324(a)(2) of the Energy Policy and Conservation Act (42 U.S.C. 6294(a)(2)) is amended—

(1) by redesignating subparagraphs (C) through (G) as subparagraphs (D) through (H), respectively;

and

(2) by inserting after subparagraph (B) the following:
“(C) The Commission shall prescribe labeling rules under this section applicable to the covered product specified in paragraph (19) of section 322(a) and to which standards are applicable under section 325. Such rules shall provide that the labeling of any metal halide lamp fixture manufactured on or after the later of January 1, 2009, or nine months after enactment of this subparagraph, will indicate conspicuously, in a manner prescribed by the Commission under subsection (b) by July 1, 2008, a capital letter ‘E’ printed within a circle on the packaging of the fixture, and on the ballast contained in such fixture.”.

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

(1) by redesignating subsection (gg) as subsection (hh);

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

“(gg) METAL HALIDE LAMP FIXTURES.—

“(1)(A) Metal halide lamp fixtures designed to be operated with lamps rated greater than or equal to 150 watts but less than or equal to 500 watts shall contain—

“(i) a pulse-start metal halide ballast with a minimum ballast efficiency of 88 percent;
“(ii) a magnetic probe-start ballast with a minimum ballast efficiency of 94 percent; or

“(iii) a non-pulse-start electronic ballast with a minimum ballast efficiency of 92 percent for wattages greater than 250 watts and a minimum ballast efficiency of 90 percent for wattages less than or equal to 250 watts.

“(B) The standards in subparagraph (A) do not apply to fixtures with regulated lag ballasts, fixtures that use electronic ballasts that operate at 480 volts, or fixtures that meet all of the following criteria:

“(i) Rated only for 150 watt lamps.

“(ii) Rated for use in wet locations as specified by the National Electrical Code 2002, Section 410.4(A).

“(iii) Contain a ballast that is rated to operate at ambient air temperatures above 50°C as specified by UL 1029-2001.

“(C) The standard in subparagraph (A) shall apply to metal halide lamp fixtures manufactured on or after the later of January 1, 2009, or 9 months after the date of enactment of this subsection.

“(2) Not later than January 1, 2012, the Secretary shall publish a final rule to determine whether the standards established under paragraph (1)
should be amended. Such final rule shall contain the amended standards, if any, and shall apply to products manufactured after January 1, 2015.

“(3) Not later than January 1, 2019, the Secretary shall publish a final rule to determine whether the standards then in effect should be amended. Such final rule shall contain the amended standards, if any, and shall apply to products manufactured after January 1, 2022.

“(4) Notwithstanding any other provision of law, any standard established pursuant to this subsection may contain both design and performance requirements.”; and

(3) in subsection (hh), as so redesignated by paragraph (1) of this subsection, by striking“(ff)” both places it appears and inserting“(gg)”.

(f) Effect on other Law.—Section 327(c) of the Energy Policy and Conservation Act (42 U.S.C. 6297(c)) is amended—

(1) by striking the period at the end of paragraph (8)(B) and inserting “; and”;

(2) by adding at the end the following:

“(9) is a regulation concerning metal halide lamp fixtures adopted by the California Energy Commission on or before January 1, 2011. If the
Secretary fails to issue a final rule within 6 months
after the deadlines for rulemakings in section
325(gg) then, notwithstanding any other provision of
this section, preemption does not apply to a regula-
tion concerning metal halide lamp fixtures adopted
by the California Energy Commission on or before
July 1, 2015, if the Secretary misses the deadline
specified in paragraph (2) of section 325(gg), or on
or before July 11, 2022, if the Secretary misses the
deadline specified in paragraph (3) of section
325(gg).”.

SEC. 1024. USE OF ENERGY EFFICIENT LIGHTING FIXTURES
AND BULBS.

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

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

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

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

“(a) Construction and alteration of public
buildings.—Each public building constructed or signifi-
cantly altered by the Administrator of General Services
shall be equipped, to the maximum extent feasible as
determined by the Administrator, with lighting fixtures and
bulbs that are energy efficient.

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

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

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

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

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

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

“(5) such other factors as the Administrator
determines appropriate.
“(d) **ENERGY STAR.**—A lighting fixture or bulb shall be treated as being energy efficient for purposes of this section if—

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

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

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

“(e) **SIGNIFICANT ALTERATIONS.**—A public building shall be treated as being significantly altered for purposes of subsection (a) if the alteration is subject to congressional approval under section 3307.
“(f) EFFECTIVE DATE.—The requirements of subsections (a) and (b) shall take effect one year after the date of enactment of this subsection.”.

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

“3313. Use of energy efficient lighting fixtures and bulbs.
“3315. Report to Congress.
“3316. Certain authority not affected.”.

SEC. 1025. PROTECTING CHILDREN AND SENSITIVE PERSONS FROM MERCURY.

Notwithstanding any requirements to increase energy efficient lighting in public buildings, no school, hospital, nursing home, or daycare center can be compelled to install or utilize such energy efficient lighting technology if that energy efficient lighting technology contains mercury.

PART 3—RESIDENTIAL WEATHERIZATION

SEC. 1031. BASELINE BUILDING DESIGNS.

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

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

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

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

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

SEC. 1032. REAUTHORIZATION OF WEATHERIZATION ASSISTANCE PROGRAM.

(a) Amendment.—Section 422 of the Energy Conservation and Production Act (42 U.S.C. 6872) is amended by striking “$500,000,000 for fiscal year 2006, $600,000,000 for fiscal year 2007, and $700,000,000 for fiscal year 2008” and inserting “$600,000,000 for fiscal year 2007, and $750,000,000 for each of fiscal years 2008, 2009, 2010, 2011, and 2012. From those sums, the Secretary is authorized to initiate an Alternative Delivery System Pilot Project to examine options for decreasing en-
ergy consumption associated with heating and cooling while increasing household participation by focusing on key energy saving components. Alternative Delivery System Pilot Projects should be undertaken in both hot and cold urban areas”.

(b) SUSTAINABLE ENERGY RESOURCES FOR CONSUMERS GRANTS.—(1) The Secretary of Energy may make funding available to local Weatherization agencies from amounts authorized under the amendment made by subsection (a) to expand the weatherization assistance program for residential buildings to include materials, benefits, and renewable and domestic energy technologies not currently covered by the program, provided that the State Weatherization grantee has certified that the applicant has the capacity to carry out the proposed activities and that the grantee will include the project in its financial oversight of the Weatherization Assistance program.

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

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

(B) the potential for replication of successful results;
(C) the impact on the health and safety and energy costs of those served; and

(D) the extent of partnerships with other public and private entities that contribute to the resources and implementation of the program, including financial partnerships.

(3) Funding for such projects may equal up to two percent of funding in any fiscal year, provided that no funding is utilized for Sustainable Energy Resources for Consumers grants in any fiscal year in which Weatherization appropriations are less than $275,000,000.

PART 4—COMMERCIAL AND FEDERAL BUILDING EFFICIENCY

SEC. 1041. DEFINITIONS.

In this part:

(1) Federal facility.—

(A) In general.—The term “Federal facility” means any building or facility the intended use of which requires the building or facility to be—

(i) accessible to the public; and

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

(B) Exclusions.—The term “Federal facility” does not include a privately-owned resi-
dential or commercial structure that is not leased by the Federal Government.

(2) **HIGH-PERFORMANCE GREEN BUILDING.**—The term “high-performance green building” means a building that, during its life-cycle—

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

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

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

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

(E) increases reuse and recycling opportunities;

(F) integrates systems in the building;

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

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

(i) improvements in worker productivity;

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

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

(3) LIFE-CYCLE.—The term “life-cycle”, with respect to a high-performance green building, means all stages of the useful life of the building (including components, equipment, systems, and controls of the building) beginning at conception of a green building project and continuing through site selection, design, construction, landscaping, commissioning, operation, maintenance, renovation, deconstruction or demolition, removal, and recycling of the green building.

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

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

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

(B) is expressed—

(i) in present value terms, in the case of a study period equivalent to the longest useful life of the building, determined by taking into consideration the typical life of such a building in the area in which the building is to be located; or

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

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

(7) **SECRETARY.**—The term “Secretary” means the Secretary of Energy.

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

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

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

(C) be economically viable to construct and operate, through a combination of ultra energy-efficient building materials and equipment, effective control systems, and onsite power generation from renewable or other energy sources;

and

**SEC. 1042. HIGH-PERFORMANCE GREEN BUILDINGS.**

(a) **POLICY.**—It shall be the policy of the United States that all Federal buildings shall be high-performance green buildings, to the extent that it is cost-justified. The Secretary shall provide technical assistance to other departments and agencies to achieve this policy.
(b) REPORT.—Not later than 2 years after the date of enactment of this Act, and biennially thereafter, the Secretary shall submit to Congress a report that—

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

(A) the extent to which the programs are being carried out; and

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

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

(3) includes, for the 2-year period covered by the report, recommendations to address each of the matters, and a plan for implementation of each recommendation, described in paragraph (1) of this subsection.

SEC. 1043. ZERO-NET-ENERGY COMMERCIAL BUILDINGS GOAL.

(a) GOAL.—The Secretary, in collaboration with stakeholders, shall study, refine, and adopt a national goal
to reduce commercial building energy use and achieve zero-net-energy commercial buildings. Unless the Secretary concludes that such targets are unachievable or unrealistic or not cost effective, the goal shall include the objective that all new commercial buildings constructed after the beginning of 2025 are zero-net-energy commercial buildings.

(b) Federal Compliance With Goal.—The Secretary shall further identify and adopt a strategy of development and widespread deployment of technologies, practices, and policies leading to zero-net-energy performance for all Federal buildings in accordance with the adopted goal.

SEC. 1044. PUBLIC OUTREACH.

The Secretary shall carry out public outreach to inform individuals and entities of the information and services available Government-wide by—

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

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

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

(i) the Federal Government;

(ii) State and local governments;

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

(iv) international organizations;

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

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

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

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

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

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

(8) coordinating activities of common interest;

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

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

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

(ii) natural day lighting;

(iii) ventilation choices and tech-
nologies;

(iv) heating, cooling, and system con-
trol choices and technologies;

(v) moisture control and mold;

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

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

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

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

(ii) to perform life-cycle assessments;

(10) assisting the budget and life-cycle costing functions;

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

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

SEC. 1045. INCENTIVES.

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

(1) the provision of recognition awards; and

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

SEC. 1046. FEDERAL PROCUREMENT.

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

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

(A) to employ integrated design principles;

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

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

(D) to protect and conserve water;
(E) to enhance indoor environmental quality; and
(F) to reduce environmental impacts of materials and waste flows; and
(2) to direct Federal procurement executives involved in leasing buildings, to give preference to the lease of facilities that—
(A) are energy-efficient; and
(B) to the maximum extent practicable, have applied contemporary high-performance and sustainable design principles during construction or renovation.

(b) GUIDANCE.—Not later than 90 days after the date of promulgation of the revised regulations under subsection (a), the Director of the Office of Procurement Policy shall issue guidance to all Federal procurement executives providing direction and instructions to renegotiate the design of proposed facilities, renovations for existing facilities, and leased facilities to incorporate improvements that are consistent with this section.

SEC. 1047. USE OF ENERGY AND WATER EFFICIENCY MEASURES IN FEDERAL BUILDINGS.

(a) IMPLEMENTATION OF IDENTIFIED ENERGY AND WATER EFFICIENCY MEASURES.—
(1) In general.—Not later than 1 year after the date of enactment of this Act, and every 3 years thereafter, each Federal agency shall complete a comprehensive energy and water evaluation. Not later than 2 years after the date of enactment of this Act, and every 3 years thereafter, each Federal agency—

(A) shall fully implement each energy and water-saving measure that the Federal agency identified in the evaluation conducted under subsection (a) that has a 15-year simple payback period; and

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

(2) Payback period.—

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

(B) Quotient.—The quotient for a measure shall be obtained by dividing—
(i) the estimated initial implementation cost of the measure (other than financing costs); by
(ii) the annual cost savings from the measure.

(3) COST SAVINGS.—For the purpose of paragraph (2), cost savings shall include net savings in estimated—
(A) energy and water costs;
(B) operations, maintenance, repair, replacement, and other direct costs; and
(C) external environmental, health, security, and other costs based on a cost adder, as determined in accordance with the guidelines issued by the Secretary under subsection (c).

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

(b) FOLLOW-UP ON IMPLEMENTED MEASURES.—For each measure implemented under subsection (a), each Federal agency shall carry out—
(1) commissioning;
(2) operations, maintenance, and repair; and
(3) measurement and verification of energy and water savings.

(c) GUIDELINES.—

(1) IN GENERAL.—The Secretary shall issue guidelines and necessary criteria that each Federal agency shall follow for implementation of subsections (a) and (b) not later than 180 days after the date of enactment of this Act.

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

(d) WEB-BASED CERTIFICATION.—

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

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

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

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

(A) the covered buildings and other facilities;

(B) the status of evaluations;

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

(D) the status of implementing the measures;

(E) the measured savings; and

(F) the persistence of savings.

(3) AVAILABILITY.—

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

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

(1) In general.—Each Federal agency shall enter energy use data for each building and other facility of the Federal agency into a building energy use benchmarking system, such as the Energy Star Portfolio Manager.

(2) System and guidance.—Not later than 1 year after the date of enactment of this Act, the Secretary shall—

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

(B) issue guidance for use of the system.

(f) Federal Agency Scorecards.—

(1) In general.—The Secretary shall issue quarterly scorecards for energy management activities carried out by each Federal agency that includes—

(A) summaries of the status of—

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

(ii) implementation of identified energy and water measures under subsection (a); and
(iii) follow-up on implemented measures under subsection (b); and

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

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

(g) Funding Options.—

(1) In general.—To carry out subsections (a) and (b), a Federal agency may use any combination of—

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

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

(2) Combined funding for same measure.—A Federal agency may use any combination of appropriated funds and private financing described in paragraph (1) to carry out the same measure under this section, with proportional allocation for any energy and water savings.
(3) **Lack of Appropriated Funds.**—Since measures may be carried out using private financing described in paragraph (1), a lack of available appropriations shall not be considered a sufficient reason for the failure of a Federal agency to comply with subsections (a) and (b).

(h) **Use of Highly Energy Efficient Commercial Water Heating Equipment in Federal Buildings.**—

(1) Chapter 33 of title 40 of the United States Code, as amended by this Act, is further amended by designating sections 3314, 3315, and 3316 as sections 3315, 3316, and 3317, respectively and inserting after section 3313 the following:

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§ 3314. Use of highly energy efficient commercial water heating equipment in Federal buildings

“(a) **Construction and Alteration of Public Buildings.**—Each public building constructed or altered by the Administrator of General Services equipped with commercial water heating equipment shall be equipped, to the maximum extent feasible as determined by the Administrator, with commercial water heating equipment that are highly energy efficient.
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(b) MAINTENANCE.—Each commercial water heater replaced by the Administrator in the normal course of maintenance or deemed by the Administrator to be currently replaceable in order to find substantial energy savings, shall be replaced, to the maximum extent feasible as determined by the Administrator, with a commercial water heater that is highly energy efficient.

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

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

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

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

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

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

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

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

(3) The table of contents for such chapter 33
is amended by redesignating the items relating to
sections 3314, 3315, and 3316 as 3315, 3316, and
3317, respectively and inserting after section 3313
the following new item:

“3314. Use of highly energy efficient commercial water heating equipment in
Federal buildings.”.

SEC. 1048. DEMONSTRATION PROJECT.

The Secretary shall develop guidelines and best prac-
tices to implement Federal high-performance green build-

SEC. 1049. ENERGY EFFICIENCY FOR DATA CENTER BUILD-

(a) In General.—(1) Not later than 90 days after
the date of enactment of this Act, the Secretary of Energy
and Administrator of the Environmental Protection Agen-
cy shall jointly, after consulting with information tech-
nology industry and other interested parties, initiate a vol-
untary national information program for those types of
data centers and data center equipment and facilities that
are widely used and for which there is a potential for sig-
significant data center energy savings as a result of such program.

(2) Such program shall—

(A) consistent with the objectives of paragraph (1), determine the type of data center and data center equipment and facilities to be covered under such program; and

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

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

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

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

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

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

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

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

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

(D) not later than 1 year after the date of enactment of this Act, and thereafter on an ongoing basis, transmit the information described in subparagraph (B) to the Secretary and the Administrator.
(3) Such program shall be developed and coordinated by the data center efficiency organization described in subsection (b) according to commonly accepted procedures for the development of specifications, measurements, and benchmarks.

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

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

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

(3) follow commonly accepted procedures for the development of specifications and accredited standards development processes;
(4) have a mission to develop and promote energy efficiency for data centers and information technology; and

(5) have the primary responsibility to oversee the development and publishing of the information, measurements, and benchmarks described in subsection (a) and transmission of such information to the Secretary and the Administrator for their adoption under subsection (c).

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

(d) MONITORING.—The Secretary and the Administrator shall jointly monitor and evaluate the efforts to develop the program described in subsection (a) and, not later than 3 years after the date of enactment of this Act, shall make a determination as to whether such program is consistent with the objectives of subsection (a).
(c) ALTERNATIVE SYSTEM.—If the Secretary and the Administrator make a determination under subsection (d) that a voluntary national information program for data centers consistent with the objectives of subsection (a) has not been developed, the Secretary and the Administrator shall jointly, after consultation with the National Institute of Standards and Technology, develop, not later than 2 years after such determination, and implement the program under subsection (a).

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

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

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

(A) a free-standing structure; or

(B) a facility within a larger structure, that utilizes environmental control equipment to maintain the proper conditions for the operation of electronic equipment.
(2) The term “data center operator” means any person or government entity that builds or operates a data center or purchases data center services, equipment, and facilities.

SEC. 1050. AUTHORIZATION OF APPROPRIATIONS.

(a) IN GENERAL.—In addition to amounts authorized under subsection (b), there are authorized to be appropriated to carry out this part—

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

(2) $20,000,000 for each of the fiscal years 2009 through 2014,
to remain available until expended.

(b) ENERGY EFFICIENCY FOR DATA CENTER BUILDINGS.—There are authorized to be appropriated to each of the Secretary and the Administrator for carrying out section 1049 $250,000 for each of the fiscal years 2008 through 2012.

PART 5—INDUSTRIAL ENERGY EFFICIENCY

SEC. 1061. INDUSTRIAL ENERGY EFFICIENCY.

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

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

“Congress finds that—

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

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

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

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

"SEC. 372. DEFINITIONS.

“For purposes of this Part:

“(1) The term ‘Secretary’ means the Secretary of Energy, in consultation with the Federal Energy Regulatory Commission.

“(2) The term ‘waste energy’ means__

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

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

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

“(D) such other forms of waste energy as the Secretary may identify.

“(3) The term ‘recoverable waste energy’ means waste energy from which electricity or useful thermal energy may be recovered through modification of existing facilities or addition of new facilities.

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

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

“(6) The term ‘combined heat and power system’ means a facility—

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

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

“(7) The terms ‘electric utility’, ‘State regulated electric utility’, ‘nonregulated electric utility’ and other terms used in this Part have the same meanings as when such terms are used in title I of the Public Utility Regulatory Policies Act of 1978 (relating to retail regulatory policies for electric utilities).
“SEC. 373. SURVEY AND REGISTRY.

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

“(b) Criteria.—The Secretary shall, within 120 days after the enactment of this section, develop and publish proposed criteria subject to notice and comment, and within 270 days of enactment, establish final criteria, to identify and designate those sources and sites in the inventory under subsection (a) where recoverable waste energy projects or combined heat and power system projects may have economic feasibility with a payback of invested costs within 5 years or less from the date of first full project operation (including incentives offered under this Part). Such criteria will include standards that insure that projects proposed for inclusion in the Registry are not developed for the primary purpose of making sales of excess electric power under the regulatory treatment provided under this Part.

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

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

“(2) The Secretary shall register and include on the Registry all sites meeting the criteria of subsection (b). The Secretary shall calculate the total amounts of potentially recoverable waste energy from sources at such sites, nationally and by State, and shall make such totals public, together with information on the air pollutant and greenhouse gas emissions savings that might be achieved with recovery of the waste energy from all sources and sites listed in the Registry.
“(3) The Secretary shall notify owners or operators of Recoverable Waste-Energy Sources and sites listed in the Registry prior to publishing the listing. The owner or operator of sources at such sites may elect to have detailed quantitative information concerning that site not made public by notifying the Secretary of that election. Information concerning that site shall be included in State totals unless there are fewer than 3 sites in the State.

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

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

“(A) was developed for the primary purpose of making sales of excess electric power under the regulatory treatment provided under this Part; or
“(B) does not capture at least 60 percent of the total energy value of the fuels used (on a lower-heat-
ing-value basis) in the form of useful thermal en-
ergy, electricity, mechanical energy, chemical output,
or some combination of them.

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

“(f) NEW FACILITIES.—As a new energy-consuming industrial facility is developed after the enactment of this Part, to the extent it may constitute a site with recover-
able waste energy that may qualify for the Registry, the Secretary may elect to include it in the Registry at the request of its owner or operator or developer on a condi-
tional basis, removing the site if its development ceases or it if fails to qualify for listing under this Part.

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

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

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

“SEC. 374. ADDITIONAL INCENTIVES FOR RECOVERY, UTILIZATION AND PREVENTION OF INDUSTRIAL WASTE ENERGY.

“(a) CONSIDERATION OF STANDARD.—Not later than 180 days after the receipt by a State regulatory authority (with respect to each electric utility for which it has ratemaking authority), or nonregulated electric utility, of a request from a project sponsor or owner or operator, the State regulatory authority or nonregulated electric
utility shall provide public notice and conduct a hearing respecting the standard established by subsection (b) and, on the basis of such hearing, shall consider and make a determination whether or not it is appropriate to implement such standard to carry out the purposes of this Part. For purposes of any such determination and any review of such determination in any court the purposes of this section supplement otherwise applicable State law. Nothing in this Part prohibits any State regulatory authority or nonregulated electric utility from making any determination that it is not appropriate to adopt any such standard, pursuant to its authority under otherwise applicable State law.

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

“(c) OPTIONS.—The options referred to in subsection (b) are as follows:
“(1) Sale of net excess power to utility.—The electric utility shall purchase the net excess power from the owner or operator of the eligible waste-energy recovery project during the operation of the project under a contract entered into for that purpose.

“(2) Transport by utility for direct sale to third party.—The electric utility shall transmit the net excess power on behalf of the project owner or operator to up to three separate locations on that utility’s system for direct sale by that owner or operator to third parties at such locations.

“(3) Transport over private transmission lines.—The State and the electric utility shall permit, and shall waive or modify such laws as would otherwise prohibit, the construction and operation of private electric wires constructed, owned and operated by the project owner or operator, to transport such power to up to 3 purchasers within a 3-mile radius of the project, allowing such wires to utilize or cross public rights-of-way, without subjecting the project to regulation as a public utility, and according such wires the same treatment for safety, zoning, land-use and other legal privileges as apply or would apply to the utility’s own wires, except that —
“(A) there shall be no grant of any power of eminent domain to take or cross private property for such wires, and

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

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

“(d) RATE CONDITIONS AND CRITERIA.—

“(1) IN GENERAL.—The options described in paragraphs (1) and (2) in subsection (c) shall be offered under purchase and transport rate conditions reflecting the rate components defined under paragraph (2) of this subsection as applicable under the circumstances described in paragraph (3) of this subsection.

“(2) RATE COMPONENTS.—For purposes of this section:
“(A) PER UNIT DISTRIBUTION COSTS.—

The term ‘per unit distribution costs’ means the utility’s depreciated book-value distribution system costs divided by the previous year’s volume of utility electricity sales or transmission at the distribution level in kilowatt hours.

“(B) PER UNIT DISTRIBUTION MARGIN.—

The term ‘per unit distribution margin’ means:

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

“(ii) In the case of an nonregulated utility, a per unit contribution to net revenues determined by dividing the amount of any net revenue payment or contribution to the nonregulated utility’s owners or subscribers in the prior year by the utility’s gross revenues for the prior year to obtain a percentage (but not less than 10 percent) and multiplying that percentage by the per unit distribution costs.
“(C) Per unit transmission costs.—
The term ‘per unit transmission costs’ means the total cost of those transmission services purchased or provided by a utility on a per-kilowatt-hour basis as included in that utility’s retail rate.

“(3) Applicable rates.—

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

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

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

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

“(e) Procedural Requirements for Consideration and Determination.—(1) The consideration referred to in subsection (b) shall be made after public notice and hearing. The determination referred to in subsection (b) shall be—

“(A) in writing,

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

“(C) available to the public.

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

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

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

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

“(B) decline to implement any such standard.

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

“SEC. 375. CLEAN ENERGY APPLICATION CENTERS.

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

“(b) FINDINGS.—The Congress finds the Department of Energy’s Regional Combined Heat and Power (CHP) Application Centers program has produced significant energy savings and climate change benefits and will continue to do so through the deployment of clean energy technologies such as Combined Heat and Power (CHP), recycled waste energy and biomass energy systems, in the industrial and commercial energy markets.

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

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

“(e) GRANTS.—

“(1) IN GENERAL.—The Secretary of Energy shall make grants to universities, research centers, and other appropriate institutions to assure the continued operations and effectiveness of 8 Regional Clean Energy Application Centers in each of the following regions (as designated for such purposes as of the date of the enactment of this section):
“(A) Gulf Coast.

“(B) Intermountain.

“(C) Mid-Atlantic.

“(D) Midwest.

“(E) Northeast.

“(F) Northwest.

“(G) Pacific.

“(H) Southeast.

“(2) Establishment of Goals and Compliance.—In making grants under this section, the Secretary shall ensure that sufficient goals are established and met by each Center throughout the program duration concerning outreach and technology deployment.

“(f) Activities.—Each Clean Energy Application Center shall operate a program to encourage deployment of clean energy technologies through education and outreach to building and industrial professionals, and to other individuals and organizations with an interest in efficient energy use. In addition, the Centers shall provide project specific support to building and industrial professionals through assessments and advisory activities. Funds made available under this section may be used for the following activities:
“(1) Developing and distributing informational materials on clean energy technologies, including continuation of the eight existing Web sites.

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

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

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

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

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

“(7) Assisting companies and organizations with performance evaluations of any clean energy technology implemented.

“(g) DURATION.—A grant awarded under this section shall be for a period of 5 years. Each grant shall be evaluated annually for its continuation based on its activities and results.
“(h) AUTHORIZATION.—There is authorized to be ap-
propriated for purposes of this section the sum of
$10,000,000 for each of fiscal years 2008, 2009, 2010,
2011, and 2012.”.

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

“Sec. 371. Survey of waste industrial energy recovery and potential use.
Sec. 372. Definitions.
Sec. 373. Survey and registry.
Sec. 374. Additional incentives for recovery, utilization and prevention of in-
dustrial waste energy.
Sec. 375. Clean Energy Application Centers.”.

PART 6—ENERGY EFFICIENCY OF PUBLIC
INSTITUTIONS

SEC. 1071. DEFINITIONS.

For purposes of this part—

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

(2) the term “institutional entities” means local
governments, public school districts, municipal utili-
ties, State governments, Federal agencies, and other
entities established by local, State, or Federal agen-
cies to meet public purposes, and public or private
colleges, universities, airports, and hospitals;

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

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

(5) the term “thermal energy” means heating or cooling energy in the form of hot water or steam (heating energy) or chilled water (cooling energy).

SEC. 1072. TECHNICAL ASSISTANCE PROGRAM.

(a) Establishment.—The Secretary of Energy shall, with funds appropriated for this purpose, implement a program of information dissemination and technical assistance to institutional entities to assist them in identifying, evaluating, designing, and implementing sustainable energy infrastructure.

(b) Information Dissemination.—The Secretary shall develop and disseminate information and assessment tools addressing—

(1) identification of opportunities for sustainable energy infrastructure;

(2) technical and economic characteristics of sustainable energy infrastructure;
(3) utility interconnection, and negotiation of power and fuel contracts;
(4) financing alternatives;
(5) permitting and siting issues;
(6) case studies of successful sustainable energy infrastructure systems; and
(7) computer software for assessment, design, and operation and maintenance of sustainable energy infrastructure systems.

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

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

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

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

(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section $15,000,000 for fiscal year 2008, $15,000,000 for fiscal year 2009, and $15,000,000 for fiscal year 2010.
SEC. 1073. REVOLVING FUND.

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

(b) Eligible Costs.—A loan provided from the SIRF shall be for no more than 70 percent of the total capital costs of a project, and shall not exceed $15,000,000. Such loans shall be for constructing sustainable energy infrastructure, including—

(1) plant facilities used for producing thermal energy, electricity, or both;
(2) facilities for storing thermal energy;
(3) facilities for distribution of thermal energy;
and
(4) costs for converting buildings to use thermal energy from sustainable energy sources.

(c) Qualifications.—Loans from the SIRF may be made to institutional entities for projects meeting the qualifications and conditions established by the Secretary, including the following minimum qualifications:
(1) The project shall be technically and economically feasible as determined by a detailed feasibility analysis performed or corroborated by an independent consultant.

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

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

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

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

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

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

(4) Principal shall be repaid on a schedule established
at the time the loan is made. Such payments shall begin
not later than 3 years after the initial date of operation
of the system.

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

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

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

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

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

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

(1) maximize energy efficiency;

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

(3) use renewable energy resources;

(4) maximize oil displacement; and

(5) benefit economically-depressed areas.

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

(i) PROGRAM REVIEW.—Every two years the Secretary shall report to the Congress on the status and progress of the SIRF.
(j) Authorization of Appropriations.—There are authorized to be appropriated to carry out this section $250,000,000 for fiscal year 2008 and $500,000,000 for each of the fiscal years 2009 through 2012.

SEC. 1074. REAUTHORIZATION OF STATE ENERGY PROGRAMS.

Section 365(f) of the Energy Policy and Conservation Act (42 U.S.C. 6325(f)) is amended by striking “$100,000,000 for each of the fiscal years 2006 and 2007 and $125,000,000 for fiscal year 2008” and inserting “$125,000,000 for each of the fiscal years 2007, 2008, 2009, 2010, 2011, and 2012”.

PART 7—ENERGY SAVINGS PERFORMANCE CONTRACTING

SEC. 1081. DEFINITION OF ENERGY SAVINGS.

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

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

(2) by striking “means a reduction” and inserting “means—

“(A) a reduction”;

(3) by striking the period at the end and inserting a semicolon; and
(4) by adding at the end the following:

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

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

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

SEC. 1082. FINANCING FLEXIBILITY.

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

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

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

“(ii) provide all or part of the financing necessary to carry out the contract.”.
SEC. 1083. AUTHORITY TO ENTER INTO CONTRACTS; REPORTS.

(a) Authority to Enter Into Contracts.—Section 801(a)(2)(D) of the National Energy Conservation Policy Act (42 U.S.C. 8287(a)(2)(D)) is amended—

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

(2) by striking clause (iii); and

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

(b) Reports.—Section 548(a)(2) of the National Energy Conservation Policy Act (42 U.S.C. 8258(a)(2)) is amended by inserting “and any termination penalty exposure” after “the energy and cost savings that have resulted from such contracts”.

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

SEC. 1084. PERMANENT REAUTHORIZATION.

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

SEC. 1085. TRAINING FEDERAL CONTRACTING OFFICERS TO NEGOTIATE ENERGY EFFICIENCY CONTRACTS.

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

(1) negotiate energy savings performance contracts;

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

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

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

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

(1) the Department of Defense;

(2) the Department of Veterans Affairs;

(3) the Department of Energy;

(4) the General Services Administration;

(5) the Department of Housing and Urban Development;

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

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

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

SEC. 1086. PROMOTING LONG-TERM ENERGY SAVINGS PER-
FORMANCE CONTRACTS AND VERIFYING SAV-
INGS.

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

(1) in subparagraph (D), by inserting “begin-
ning on the date of the delivery order” after “25
years”; and

(2) by adding at the end the following:

“(F) PROMOTION OF CONTRACTS.—In car-
rying out this section, a Federal agency shall
not—

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

“(ii) limit the total amount of obliga-
tions under energy savings performance
contracts or other private financing of en-
ergy savings measures.

“(G) MEASUREMENT AND VERIFICATION
REQUIREMENTS FOR PRIVATE FINANCING.—
“(i) In general.—The evaluations and savings measurement and verification required under paragraphs (1) and (3) of section 543(f) shall be used by a Federal agency to meet the requirements for—

“(I) in the case of energy savings performance contracts, the need for energy audits, calculation of energy savings, and any other evaluation of costs and savings needed to implement the guarantee of savings under this section; and

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

“(ii) Modification of existing contracts.—Not later than 180 days after the date of enactment of this subparagraph, each Federal agency shall, to the maximum extent practicable, modify any indefinite delivery and indefinite quantity energy savings performance contracts, and other indefinite delivery and indefinite quantity contracts using private financing,
to conform to the amendments made by subtitle G of title I of the Energy Efficiency Improvement Act of 2007.”.

Subtitle B—Smart Grid and Demand Response

CHAPTER 1—SMART GRID

SEC. 1101. STATEMENT OF POLICY ON MODERNIZATION OF ELECTRICITY GRID.

(a) SMART GRID CHARACTERISTICS.—It is the policy of the United States to support the modernization of the Nation’s electricity transmission and distribution system to incorporate digital information and controls technology and to share real-time pricing information with electricity customers to achieve each of the following, which together characterize a smart grid:

(1) Increased reliability, security and efficiency of the electric grid.

(2) Dynamic optimization of grid operations and resources, with full cyber-security.

(3) Deployment and integration of distributed resources and generation.

(4) Development and incorporation of demand response demand-side resources, and energy efficiency resources.
(5) Deployment of “smart” technologies for metering, communications concerning grid operations and status, and distribution automation.

(6) Integration of “smart” appliances and consumer devices.

(7) Deployment and integration of renewable energy resources, both to the grid and on the customer side of the electric meter.

(8) Deployment and integration of advanced electricity storage and peak-sharing technologies, including plug-in electric and hybrid electric vehicles, and thermal-storage air conditioning.

(9) Provision to consumers of new information and control options.

(10) Continual environmental improvement in electricity production and distribution.

(11) Enhanced capacity and efficiency of electricity networks, reduction of line losses, and maintenance of power quality.

(b) SUPPORT.—The Secretary of Energy and the Federal Energy Regulatory Commission and other Federal agencies as appropriate shall undertake programs to support the development and demonstration of Smart Grid technologies and standards to maximize the achievement of these goals.
(c) Barriers.—It is further the policy of the United States that no State, State agency, or local government or instrumentality thereof should prohibit, or erect unreasonable barriers to, the deployment of smart grid technologies on an electric utility’s distribution facilities, or unreasonably limit the services that may be provided using such technologies.

(d) Information.—It is further the policy of the United States that electricity purchasers are entitled to receive information about the varying value of electricity at different times and places, and that States shall not prohibit nor erect unreasonable barriers to the provision of such information flows to end users.

SEC. 1102. GRID ASSESSMENT AND REPORT.

(a) In General.—The Secretary of Energy, in consultation with the Federal Energy Regulatory Commission shall undertake, and update on a biannual basis, an assessment of the progress toward modernizing the electric system from generation to ultimate electricity consumption, including implementation of “smart grid” technologies. The Secretary of Energy, in consultation with the Federal Energy Regulatory Commission shall prepare this assessment with input from stakeholders including but not limited to electric utilities, other Federal offices, States, companies involved in developing related tech-
ologies, the National Electric Reliability Organization recognized by the Federal Energy Regulatory Commission, electricity customers, and persons with special related expertise. The assessment shall include each of the following:

(1) An updated inventory of existing smart grid systems.

(2) A description of the condition of existing grid infrastructure and procedures for determining the need for new infrastructure;

(3) A description of any plans of States, utilities, or others to introduce smart grid systems and technologies.

(4) An assessment of constraints to deployment of smart grid technology and most important opportunities for doing so, including the readiness or lack thereof of enabling technologies.

(5) An assessment of remaining potential benefits resulting from introduction of smart grid systems, including benefits related to demand-side efficiencies, improved reliability, improved security, reduced prices, and improved integration of renewable resources.

(6) Recommendations for legislative or regulatory changes to remove barriers to and create in-
centives for smart grid system implementation and to meet the policy goals of this part.

(7) An estimate of the potential costs required for modernization of the electricity grid, with specificity relative to geographic areas and components of the grid, together with an assessment of whether the necessary funds would be available to meet such costs, and the sources of such funds.

(8) An assessment of ancillary benefits to other economic sectors or activities beyond the electricity sector, such as potential broadband service over power lines.

(9) An assessment of technologies, activities or opportunities in energy end use devices, customer premises, buildings, and power generation and storage devices that could accelerate or expand the impact and effectiveness of smart grid advances.

(10) An assessment of potential risks to personal privacy, corporate confidentiality, and grid security from the spread of smart grid technologies, and if so what additional measures and policies are needed to assure privacy and information protection for electric customers and grid partners, and cybersecurity protection for extended grid systems.
(11) An assessment of the readiness of market forces to drive further implementation and evolution of “smart grid” technologies in the absence of government leadership.

(12) Recommendations to the Congress and other Federal officers on actions they should take to assist.

The Secretary of Energy, in consultation with the Federal Energy Regulatory Commission may request electric utilities to provide information relating to deployment and planned deployment of smart grid systems and technologies. At the request of the utility, the Secretary of Energy, in consultation with the Federal Energy Regulatory Commission shall maintain the confidentiality of utility-specific or specific security-related information. The Secretary of Energy, in consultation with the Federal Energy Regulatory Commission shall provide opportunities for input and comment by interested persons, including representatives of electricity consumers, Smart Grid technology service providers, the electric utility industry, and State and local government.

(b) State and Regional Assessment and Report.—States or groups of States are encouraged to participate in the development of State or region-specific components of the assessment and report under subsection
(a) Such State-specific components may address the assessment and reporting criteria above but also may include but not be limited to any of the following:

1. Assessment of types of security threats to electricity delivery.

2. Energy assurance and response plans to address security threats.

3. Plans for introduction of smart grid systems and technologies over 3, 5, and 10 year planning horizons.

The Secretary of Energy, in consultation with the Federal Energy Regulatory Commission may make grants to States that begin development of a State or Regional Plan within 180 days after the enactment of this Act to offset up to one-half of the costs required to develop such plans.

(c) Interoperability Protocols and Model Standards for Information Management.—

1. In general.—The Secretary of Energy, in consultation with the Federal Energy Regulatory Commission shall work with Smart Grid stakeholders to lead towards the earliest feasible development of flexible, uniform, and consensus protocols or model standards for information management among and interoperability of smart grid devices and systems. Such protocols and model standards shall
allow such devices to communicate and function over multiple technologies, including wireless, cable, satellite, broadband-over-power line, and telephone. Such protocols and model standards should align policy, business, and technology approaches in a way that enables all electric resources, including demand side resources, to contribute to an efficient, reliable electricity network, on an automated basis, as appropriate.

(2) Scope of protocols and model standards.—The protocols and model standards shall accommodate centralized and distributed generation, transmission and distribution resources, including advanced technologies to improve the efficiency and reliability of the electric power transmission and distributions system, renewable generation, energy storage, energy efficiency, and demand response and enabling devices and systems.

(3) Establishment of working group.—Not later than 90 days after the date of enactment of this Act the Secretary of Energy, in consultation with the Federal Energy Regulatory Commission shall establish a working group comprised of electric industry experts to assist in developing the protocols and model standards described in this subsection
and guide the Federal participation in that process. Members appointed to the working group shall represent the various sectors of the electricity industry, including sectors relating to the generation, transmission, distribution and end-user.

(4) Development of Protocols and Model Standards.—In developing the protocols and model standards, the working group shall consult with expert groups such as the Gridwise Architecture Council, the Institute of Electrical and Electronics Engineers, other electric industry groups, customer and manufacturer groups, and any appropriate Federal and State agencies. The proposed protocols and model standards shall be made available in the public domain, except to the extent they may allow or create threats to grid reliability and security.

(5) Proposal for Protocols and Model Standards.—

(A) In General.—Not later than 1 year after the date of enactment of this Act, the working group shall submit to the Secretary of Energy, in consultation with the Federal Energy Regulatory Commission recommendations concerning development of proposed protocols and model standards and recommendations for
Federal support in the implementation of such protocols and model standards.

(B) Review by the Secretary of Energy, in consultation with the Federal Energy Regulatory Commission.—On receipt of the recommendations under subparagraph (A), the Secretary of Energy, in consultation with the Federal Energy Regulatory Commission shall take such action as necessary to encourage the adoption of the protocols and model standards and their implementation.

(C) Publication of protocols and model standards.—The Secretary of Energy, in consultation with the Federal Energy Regulatory Commission shall publish, not later than 3 years after the date of the enactment of this Act, and every two years thereafter, a report on the status of interoperability of smart grid technologies, and the availability of protocols and model standards to allow such interoperability.

(d) Authorization of Appropriations.—There are authorized to be appropriated to carry out the purposes of this section the sum of $25,000,000 for each of the fiscal years 2008 through 2012, and such sums as may be necessary thereafter through fiscal year 2018.
SEC. 1103. FEDERAL MATCHING FUND FOR SMART GRID INVESTMENT COSTS.

(a) MATCHING FUND.—The Secretary of Energy shall establish a Smart Grid Investment Matching Grant Program to provide reimbursement of one-fourth of qualifying Smart Grid investments.

(b) QUALIFYING INVESTMENTS.—Qualifying Smart Grid investments may include any of the following made on or after the date of enactment of this Act:

(1) In the case of appliances covered for purposes of establishing energy conservation standards under part B of title III of the Energy Policy and Conservation Act of 1975 (42 U.S.C. 6291 and following), the documented expenditures incurred by a manufacturer of such appliances associated with purchasing or designing, creating the ability to manufacture, and manufacturing and installing for one calendar year, internal devices that allow the appliance to engage in Smart Grid functions.

(2) In the case of specialized electricity-using equipment, including motors and drivers, installed in industrial or commercial applications, the documented expenditures incurred by its owner or its manufacturer of installing devices or modifying that equipment to engage in Smart Grid functions.
(3) In the case of transmission and distribution equipment fitted with monitoring and communications devices to enable smart grid functions, the documented expenditures incurred by the electric utility to purchase and install such monitoring and communications devices.

(4) In the case of metering devices, sensors, control devices, and other devices integrated with and attached to an electric utility system that are capable of engaging in Smart Grid functions, the documented expenditures incurred by the electric utility and its customers to purchase and install such devices.

(5) In the case of software that enables devices or computers to engage in Smart Grid functions, the documented purchase costs of the software.

(6) In the case of entities that operate or coordinate operations of regional electric grids, the documented expenditures for purchasing and installing such equipment that allows Smart Grid functions to operate and be combined or coordinated among multiple electric utilities and between that region and other regions.

(7) In the case of persons or entities other than electric utilities owning and operating a distributed
electricity generator, the documented expenditures of enabling that generator to be monitored, controlled, or otherwise integrated into grid operations and electricity flows on the grid utilizing Smart Grid functions.

(8) In the case of electric or hybrid-electric vehicles, the documented expenses for devices that allow the vehicle to engage in Smart Grid functions.

(9) The documented expenditures related to purchasing and implementing Smart Grid functions in such other cases as the Secretary of Energy shall identify. In making such grants, the Secretary shall seek to reward innovation and early adaptation, even if success is not complete, rather than deployment of proven and commercially viable technologies.

(e) INVESTMENTS NOT INCLUDED.—Qualifying Smart Grid investments do not include any of the following:

(1) Expenditures for electricity generation, transmission, or distribution infrastructure or equipment not directly related to enabling Smart Grid functions.

(2) After the effective date of a standard under paragraph (21) of section 111(d) of the Public Utility Regulatory Policies Act of 1978 (relating to
Smart Grid information), an investment that is not in compliance with such standard.

(3) After the development and publication by the Secretary of Energy, in consultation with the Federal Energy Regulatory Commission of protocols and model standards for interoperability of smart grid devices and technologies, an investment that fails to incorporate any of such protocols or model standards.

(4) Expenditures for physical interconnection of generators or other devices to the grid except those that are directly related to enabling Smart Grid functions.

(5) Expenditures for ongoing salaries, benefits, or personnel costs not incurred in the initial installation, training, or start up of smart grid functions.

(6) Expenditures for travel, lodging, meals or other personal costs.

(7) Ongoing or routine operation, billing, customer relations, security, and maintenance expenditures.

(8) Such other expenditures that the Secretary of Energy determines not to be Qualifying Smart Grid Investments by reason of the lack of the ability
to perform smart grid functions or lack of direct relationship to smart grid functions.

(d) **SMART GRID FUNCTIONS.**—The term “smart grid functions” means any of the following:

1. The ability to develop, store, send and receive digital information concerning electricity use, costs, prices, time of use, nature of use, storage, or other information relevant to device, grid, or utility operations, to or from or by means of the electric utility system, through one or a combination of devices and technologies.

2. The ability to develop, store, send and receive digital information concerning electricity use, costs, prices, time or use, nature of use, storage, or other information relevant to device, grid, or utility operations to or from a computer or other control device.

3. The ability to measure or monitor electricity use as a function of time of day, power quality characteristics such as voltage level, current, cycles per second, or source or type of generation and to store, synthesize or report that information by digital means.

4. The ability to sense and localize disruptions or changes in power flows on the grid and commu-
nicate such information instantaneously and automatic for purposes of enabling automatic protective responses to sustain reliability and security of grid operations.

(5) The ability to detect, prevent, communicate with regard to, respond to, or recover from system security threats, including cyber-security threats and terrorism, using digital information, media, and devices.

(6) The ability of any appliance or machine to respond to such signals, measurements, or communications automatically or in a manner programmed by its owner or operator without independent human intervention.

(7) The ability to use digital information to operate functionalities on the electric utility grid that were previously electro-mechanical or manual.

(8) The ability to use digital controls to manage and modify electricity demand, enable congestion management, assist in voltage control, provide operating reserves, and provide frequency regulation.

(9) Such other functions as the Secretary of Energy may identify as being necessary or useful to the operation of a Smart Grid.

(e) OFFICE.—The Secretary of Energy shall—
(1) establish an Office to administer the Smart Grid Investment Grant Program, assuring that expert resources from the Office of Energy Distribution and Electricity Reliability, and the Office of Energy Efficiency and Renewable Energy are fully available to advise on its administration and actions;

(2) appoint a Senior Executive Service officer to direct the Office, together with such personnel as are required to administer the Smart Grid Investment Grant program;

(3) establish and publish in the Federal Register, within 180 days after the enactment of this Act procedures by which applicants who have made qualifying Smart Grid investments can seek and obtain reimbursement of one-fourth of their documented expenditures;

(4) establish procedures to assure that there is no duplication or multiple reimbursement for the same investment or costs, that the reimbursement goes to the party making the actual expenditures for Qualifying Smart Grid Investments, and that the grants made have significant effect in encouraging and facilitating the development of a smart grid.;
(5) maintain public records of reimbursements made, recipients, and qualifying Smart Grid investments which have received reimbursements;

(6) establish procedures to provide, in cases deemed by the Secretary to be warranted, advance payment of moneys up to the full amount of the projected eventual reimbursement, to creditworthy applicants whose ability to make Qualifying Smart Grid Investments may be hindered by lack of initial capital, in lieu of any later reimbursement for which that applicant qualifies, and subject to full return of the advance payment in the event that the Qualifying Smart Grid investment is not made;

(7) establish procedures to provide, in the event appropriated moneys in any year are insufficient to provide reimbursements for qualifying Smart Grid investments, that such reimbursement would be made in the next fiscal year or whenever funds are again sufficient, with the condition that the insufficiency of funds to reimburse Qualifying Smart Grid Investments from moneys appropriated for that purpose does not create a Federal obligation to that applicant; and
(8) have and exercise the discretion to deny grants for investments that do not qualify in the reasonable judgement of the Secretary.

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

(1) $10,000,000 for each of fiscal years 2008 through 2012 to provide for administration of the Smart Grid Investment Matching Fund; and

(2) $250,000,000 for fiscal year 2008 and $500,000,000 for each of fiscal years 2009 through 2012 to provide reimbursements of one-fourth of Qualifying Smart Grid Investments.

SEC. 1104. SMART GRID INFORMATION REQUIREMENTS.

(a) FINDINGS.—Congress finds that Smart Grid technologies will require, for their optimum use by electricity consumers, that such consumers have access to information on prices, use, and other factors in possession of their utilities or electricity suppliers, in order to assist the customers in optimizing their electricity use and limiting the associated environmental impacts.

(b) DEVELOPMENT OF RULES.—The Federal Energy Regulatory Commission shall develop and declare a standard for the collection, presentation and delivery of information to electricity purchasers.
(c) Application of Smart Grid Information Standard to Federal Entities and Wholesale Markets.—Within 60 days of the declaration of the standard under subsection (b), the Federal Energy Regulatory Commission shall propose a rule under which all public utilities, with respect to federally jurisdictional sales for resale of electricity in interstate commerce, and all approved regional transmission organizations subject to its jurisdiction, will implement those elements of the Smart Grid information standard developed pursuant to this section that the Commission determines to be relevant and to add value for purchasers of wholesale power or those utilizing interstate transmission. The Tennessee Valley Authority, Bonneville Power Administration, and Federal power administrations shall, within 90 days of the adoption of a final rule by the Commission, adopt it for their own sales or transmission of electricity.

SEC. 1105. STATE CONSIDERATION OF INCENTIVES FOR SMART GRID.

(a) Consideration of Additional Standards.—Section 111(d) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2621(d)) is amended by adding at the end:

“(18) Utility investment in smart grid investments.—Each electric utility shall prior to un-
dertaking investments in non-advanced grid tech-
nologies demonstrate that alternative investments in
advanced grid technologies have been considered, in-
cluding from a standpoint of cost-effectiveness,
where such cost-effectiveness considers costs and
benefits on a life-cycle basis.

“(19) Utility cost of smart grid investments.—Each electric utility shall be permitted
to—

“(A) recover from ratepayers the capital
and operating expenditures and other costs of
the utility for qualified smart grid system, in-
cluding a reasonable rate of return on the cap-
ital expenditures of the utility for a qualified
smart grid system, and

“(B) recover in a timely manner the re-
main ing book-value costs of equipment rendered
obsolete by the deployment of a qualified smart
grid system, based on the remaining depreciable
life of the obsolete equipment.

“(20) Rate design modifications to pro-
mote energy efficiency investments.—

“(A) In general.—The rates allowed to
be charged by any electric utility shall—
“(i) align utility incentives with the delivery of cost-effective energy efficiency; and

“(ii) promote energy efficiency investments.

“(B) POLICY OPTIONS.—In complying with subparagraph (A), each State regulatory authority and each nonregulated utility shall consider—

“(i) removing the throughput incentive and other regulatory and management disincentives to energy efficiency;

“(ii) providing utility incentives for the successful management of energy efficiency programs;

“(iii) including the impact on adoption of energy efficiency as 1 of the goals of retail rate design, recognizing that energy efficiency must be balanced with other objectives;

“(iv) adopting rate designs that encourage energy efficiency for each customer class; and

“(v) allowing timely recovery of energy efficiency-related costs.
“(21) SMART GRID INFORMATION.—

“(A) STANDARD.—All electricity purchasers shall be provided direct access, both in written and electronic machine-readable form, to information from their electricity provider as provided in subparagraph (B).

“(B) INFORMATION.—Information provided under this section shall conform to the standardized rules issued by the Federal Energy Regulatory Commission under section 1106(b) of the American Made Energy and Good Jobs Act and shall include:

“(i) PRICES.—Purchasers and other interested persons shall be provided with information on:

“(I) Time-based electricity prices in the wholesale electricity market;

and

“(II) Time-based electricity retail prices or rates that are available to the purchasers.

“(ii) USAGE.—Purchasers shall be provided with the number of electricity units, expressed in kwh, purchased by them
“(iii) INTERVALS AND PROJECTIONS.—Updates of information on prices and usage shall be offered on not less than a daily basis, shall include hourly price and use information, where available, and shall include a day-ahead projection of such price information to the extent available.

“(iv) SOURCES.—Purchasers and other interested person shall be provided with written information on the sources of the power provided by the utility, to the extent it can be determined, by type of generation, including greenhouse gas emissions and criteria pollutants associated each type of generation, for intervals during which such information is available on a cost-effective basis, but not less than monthly.

“(C) ACCESS.—Purchasers shall be able to access their own information at any time through the internet and on other means of communication elected by that utility for Smart Grid applications. Other interested persons shall be able to access information not specific to any purchaser through the Internet. Infor-
(b) **Reconsideration of Certain Standards.**—

Section 112 of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2622) is amended by adding the following at the end thereof:

“(g) **Reconsideration of Prior Time-of-Day and Communication Standards.**—Not later than 1 year after the enactment of this subsection, each State regulatory authority (with respect to each electric utility for which it has ratemaking authority) and each nonregulated utility shall commence a reconsideration under section 111, or set a hearing date for reconsideration, with respect to the standards established by paragraphs (3) and (14) of section 111(d) to take into account Smart Grid technologies. Not later than 2 years after the date of the enactment of this subsection, each State regulatory authority (with respect to each electric utility for which it has ratemaking authority), and each nonregulated electric utility, shall complete the reconsideration, and shall make the determination, referred to in section 111 with respect to the standards established by paragraphs (3) and (14) of section 111(d).”.

(c) **Compliance.**—
(1) TIME LIMITATIONS.—Section 112(b) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2622(b)) is amended by adding the following at the end thereof:

“(6)(A) Not later than 1 year after the enactment of this paragraph, but not less than 3 years after the conclusion of any prior review of such standards, each State regulatory authority (with respect to each electric utility for which it has ratemaking authority) and each nonregulated utility shall commence the consideration referred to in section 111, or set a hearing date for consideration, with respect to the standards established by paragraphs (18) through (20) of section 111(d). Not later than 6 months after the promulgation of rules by the Federal Energy Regulatory Commission under section 1106(b) of the American Made Energy and Good Jobs Act, each State regulatory authority (with respect to each electric utility for which it has ratemaking authority) and each nonregulated utility shall commence the consideration referred to in section 111, or set a hearing date for consideration, with respect to the standard established by paragraph (21) of section 111(d).
“(B) Not later than 2 years after the date of
the enactment of this paragraph, but not less
than 4 years after the conclusion of any prior review
of such standard, each State regulatory authority
(with respect to each electric utility for which it has
ratemaking authority), and each nonregulated elec-
tric utility, shall complete the consideration, and
shall make the determination, referred to in section
111 with respect to each standard established by
paragraphs (18) through (20) of section 111(d). Not
later than 18 months after the promulgation of rules
by the Federal Energy Regulatory Commission
under section 1106(b) of the American Made Energy
and Good Jobs Act each State regulatory authority
(with respect to each electric utility for which it has
ratemaking authority), and each nonregulated elec-
tric utility, shall complete the consideration, and
shall make the determination, referred to in section
111 with respect to each standard established by
paragraph (21) of section 111(d).”.

(2) FAILURE TO COMPLY.—Section 112(c) of
such Act is amended by adding the following at the
end: “In the case of the standards established by
paragraphs (18) through (21) of section 111(d), the
reference contained in this subsection to the date of
enactment of this Act shall be deemed to be a refer-
ence to the date of enactment of such para-
graphs.”

(3) PRIOR STATE ACTIONS.—Section 112(d) of
such Act is amended by inserting “and paragraphs
(18) through (20)” before “of such 111(d)”.

SEC. 1106. DOE STUDY OF SECURITY ATTRIBUTES OF
SMART GRID SYSTEMS.

(a) DOE STUDY.—The Secretary of Energy shall,
within 6 months after the he completes the first biennial
assessment and report under section 1102 of the American
Made Energy and Good Jobs Act, submit a report to Con-
gress that provides a quantitative assessment and deter-
mination of the existing and potential impacts of the de-
ployment of Smart Grid systems on improving the security
of the Nation’s electricity infrastructure and operating ca-
pability. The report shall include but not be limited to spe-
cific recommendations on each of the following:

(1) How smart grid systems can help in making
the Nation’s electricity system less vulnerable to dis-
rupions due to intentional acts against the system.

(2) How smart grid systems can help in restor-
ing the integrity of the Nation’s electricity system
subsequent to disruptions.
(3) How smart grid systems can facilitate emergency communications and control of the Nation’s electricity system during times of localized or nationwide emergency.

(b) Consultation.—The Secretary shall consult with other Federal agencies in the development of the report under this section, including but not limited to the Secretary of Homeland Security, the Federal Energy Regulatory Commission and the Electric Reliability Organization certified by the Commission under section 215(c) of the Federal Power Act (16 U.S.C. 824 o) as added by section 1211 of the Energy Policy Act of 2005 (P.L. 109-58; 119 Stat.941)

(c) Funding.—The Secretary shall fund demonstration projects for the purpose of demonstrating the findings of the report under this section. Not more than $10,000,000 are authorized to be appropriated for such projects.

CHAPTER 2—DEMAND RESPONSE

SEC. 1111. ELECTRICITY SECTOR DEMAND RESPONSE.

(a) Amendment of NECPA.—Title V of the National Energy Conservation Policy Act (42 U.S.C. 8201 and following) is amended by adding the following new part at the end thereof:
“PART 5—PEAK DEMAND REDUCTION

“SEC. 571. DEFINITIONS.

“(a) SECRETARY.—As used in this part, the term ‘Secretary’ means the Secretary of Energy.

“(b) FEDERAL AGENCY.—As used in this part, the term ‘Federal agency’ has the same meaning as provided by section 551 of this Act.

“SEC. 572. FEDERAL ELECTRICITY PEAK DEMAND REDUCTION STANDARD.

“(a) 2008 AGENCY ANNUAL ENERGY PLAN.—Each Federal agency shall prepare, and include in its annual report under section 548(a) of this Act, each of the following:

“(1) A determination of the agency’s aggregate electricity demand during the system peak hours for the utilities providing electricity service to its facilities during 2006 and 2007.

“(2) A forecast for each year through 2018 of the projected growth in such peak demand in light of projected growth of facilities, staff, activities, electric intensity of activities, and other relevant factors.

“(b) FEDERAL ELECTRICITY PEAK DEMAND REDUCTION STANDARD.—

“(1) IN GENERAL.—Except as provided in paragraph (2), for calendar year 2009 and each calendar year thereafter, each Federal agency shall reduce its
aggregate peak electricity demand or make such amounts of electricity demand available in the form of demand response, by the percentage amount specified in the Federal Electricity Peak Demand Reduction Standard set forth in the following table:

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Reduction of Peak Demand Forecast</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>2 percent of the peak demand forecast for calendar year 2009</td>
</tr>
<tr>
<td>2010</td>
<td>4 percent of the peak demand forecast for calendar year 2010</td>
</tr>
<tr>
<td>2011</td>
<td>6 percent of the peak demand forecast for calendar year 2011</td>
</tr>
<tr>
<td>2012</td>
<td>8 percent of the peak demand forecast for calendar year 2012</td>
</tr>
<tr>
<td>2013</td>
<td>10 percent of the peak demand forecast for calendar year 2013</td>
</tr>
<tr>
<td>2014</td>
<td>12 percent of the peak demand forecast for calendar year 2014</td>
</tr>
<tr>
<td>2015</td>
<td>14 percent of the peak demand forecast for calendar year 2015</td>
</tr>
<tr>
<td>2016</td>
<td>16 percent of the peak demand forecast for calendar year 2016</td>
</tr>
<tr>
<td>2017</td>
<td>18 percent of the peak demand forecast for calendar year 2017</td>
</tr>
<tr>
<td>2018 and each calendar year thereafter.</td>
<td>20 percent of the peak demand forecast for the applicable calendar year</td>
</tr>
</tbody>
</table>

In the table above, the term ‘forecast’ refers to the forecast set forth in the 2008 report under section 548(a) of this Act as updated in accordance with subsection in (c)(1)(C).

“(2) EXCEPTION.—The standard under this subsection shall not apply to any activity of a Federal agency relating to defense or national security if compliance with the standard would have an adverse mission impact on the activity, as determined
by the Secretary of Defense or the Secretary of Homeland Security.

“(c) IMPLEMENTATION OF STANDARD.—

“(1) IN GENERAL.—Not later than January 1, 2010, and each calendar year thereafter, each Federal agency shall include in the annual energy plan of the Federal agency each of the following:

“(A) An assessment of whether the Federal agency was in compliance with the standard under subsection (b) for the preceding year.

“(B) A description of—

“(i) the method by which the Federal agency proposes to comply with the standard for the following calendar year; and

“(ii) the factors relied on by the head of the Federal agency in determining whether to participate in demand response programs offered by an electric utility or others during the preceding calendar year; and

“(iii) if the Federal agency did not participate in a demand response program offered by each utility providing electric service to facilities of the agency during the preceding calendar year, an expla-
nation for the decision by the head of the Federal agency to not participate.

“(C) An update of the agency’s prior forecast for the remaining years in the period until 2018.

“(2) AVAILABILITY TO PUBLIC.—Not later than January 1, 2010, and each calendar year thereafter, the head of each Federal agency shall make available to the public a description of each provision included in the annual energy plan of the Federal agency described in subparagraphs (A) through (C) of paragraph (1).

“(d) MODIFICATIONS TO FEDERAL ENERGY MANAGEMENT PROGRAM.—The Secretary shall make any modification to the Federal Energy Management Program of the Department of Energy that the Secretary determines to be necessary to—

“(1) incorporate the standard established under subsection (b) into the Federal Energy Management Program; or

“(2) assist any Federal agency to comply with the standard established under subsection (b) through any appropriate means, including conducting 1 or more demonstration projects at Federal facilities.
“(e) ANNUAL REPORT.—Not later than March 1, 2010, and annually thereafter, the Secretary shall submit to Congress a report that evaluates the success of agencies in meeting the standard established under subsection (b) and the success of the Federal Energy Management Program in assisting agencies with meeting the standard, and the costs and benefits of such participation.

“SEC. 573. NATIONAL ACTION PLAN FOR DEMAND RESPONSE.

“(a) NATIONAL ASSESSMENT AND REPORT.—The Secretary of Energy, in consultation with the Federal Energy Regulatory Commission shall conduct a National Assessment of Demand Response. The Commission shall, within 18 months of the date on which the full Commission first meets, submit a Report to Congress that includes each of the following:

“(1) Estimation of nationwide demand response potential in 5 and 10 year horizons, including data on a State-by-State basis, and a methodology for updates of such estimates on an annual basis.

“(2) Estimation of how much of this potential can be achieved within 5 and 10 years after the enactment of this Act accompanied by specific policy recommendations that if implemented can achieve the estimated potential. Such recommendations shall
include options for funding and/or incentives for the
development of demand response resources. The
Commission shall seek to take advantage of pre-
existing research and ongoing work, and shall as-
sume that there is no duplication of effort. The
Commission shall further note any barriers to de-
mand response programs that are flexible, non-dis-
criminatory, and fairly compensatory for the services
and benefits made available and shall provide rec-
ommendations for overcoming such barriers.

“(b) NATIONAL ACTION PLAN ON DEMAND RE-
SPONSE.—The Secretary of Energy, in consultation with
the Federal Energy Regulatory Commission shall further
develop and implement a National Action Plan on Demand
Response. Such Plan shall be completed within one year
after the completion of the National Assessment of De-
mand Response, and shall meet each of the following ob-
jectives:

“(1) Provision of adequate technical assistance
to States to allow them to maximize the amount of
demand response resources that can be developed
and deployed.

“(2) Implementation of a national communica-
tions program that includes broad-based customer
education and support.
“(3) Development and dissemination of tools, information and other support mechanisms for use by customers, states, utilities and demand response providers.

“(c) AUTHORIZATION.—There are authorized to be appropriated to carry out this section not more than $10,000,000 for each of the fiscal years 2008 and 2009 and $20,000,000 for each of the fiscal years 2010 through 2020.

“SEC. 574. REPORT ON ENVIRONMENTAL ATTRIBUTES AND IMPACTS OF DEMAND RESPONSE AND SMART GRID SYSTEMS.

“(a) REPORT.—The Administrator of the Environmental Protection Agency shall solicit public input and, within 6 months after completion of the National Assessment of Demand Response required by section 573, submit a report to Congress that addresses each of the following:

“(1) A quantitative assessment and determination of the existing and potential impacts of demand response and ‘smart grid’ systems on air emissions and air quality, including but not limited to carbon dioxide, oxides of nitrogen and oxides of sulfur.

“(2) An assessment and determination of the existing and potential impacts of demand response
and ‘smart grid’ systems on environmental parameters other than emissions and air quality, including but not limited to:

“(A) Land use.

“(B) Water use.

“(C) Use of renewable energy.

“(D) Effect on energy sources other than electricity.

“(3) A detailed plan for how Energy Efficiency and Clean Energy programs administered by the Agency, including the Energy Star Program, will incorporate and encourage end-use efficiency, demand response and ‘smart grid’ systems and technologies, including but not limited to each of the following:

“(A) Requirements that appliances and other equipment are capable of manually and automatically receiving and acting upon pricing and control information and or instructions provided by the customer, a load serving entity or a third-party designated by the customer.

“(B) Requirements for time-based valuation of kilowatt hour reductions in planning and evaluation of energy efficiency programs.

“(C) Education and communication, including to state energy officials and state regu-
lators, that build awareness of demand response
and smart grid systems and technologies and
their existing and potential relationship to such
Agency programs.

“(b) FUNDING.—There are authorized to be appro-
priated to carry out this section for fiscal year 2010, to
remain available until expended.”.

(b) TABLE OF CONTENTS.—The table of contents for
such Act is amended by adding the following after the
items relating to part 4 of title V:

“PART 5—PEAK DEMAND REDUCTION

“Sec. 571. Definitions.
“Sec. 572. Federal Electricity Peak Demand Reduction Standard.
“Sec. 573. National action plan for demand response.
“Sec. 574. Study of environmental attributes and impacts of demand response
and smart grid systems.”.

Subtitle C—Loan Guarantee
Improvement

SEC. 1201. AMOUNT OF LOANS GUARANTEED.

Section 1702(c) of the Energy Policy Act of 2005 (42
U.S.C. 16512(e)) is amended to read as follows:

“(c) AMOUNT.—

“(1) PERCENTAGE OF PROJECT COST.—A guar-
antee by the Secretary shall not exceed an amount
equal to 80 percent of the project cost of the facility
that is the subject of the guarantee, as estimated at
the time at which the guarantee is issued, and shall
be no less than the minimum amount determined by
the Secretary to be likely to attract nonguaranteed investment adequate to capitalize the project.

“(2) Percentage of Loan.—Subject to paragraph (1), the Secretary may guarantee up to 100 percent of any loan or other debt obligation of the borrower to fund an eligible project.”

**SEC. 1202. EXCLUSION OF CATEGORIES.**

Section 1704 of the Energy Policy Act of 2005 (42 U.S.C. 16514) is amended by adding at the end the following new subsection:

“(c) Exclusion of Categories.—No appropriation authorized pursuant to this section may exclude any category of eligible project described in section 1703.”

### Subtitle D—Fuels and Transportation

#### PART 1—FUELS AND TRANSPORTATION

**SEC. 1301. ALTERNATIVE FUELS PROGRAM.**

(a) In General.—Section 211 of the Clean Air Act (42 U.S.C. 4575) is amended by adding the following new subsection at the end thereof:

“(t) Alternative Fuel Program.—

“(1) Definitions.—In this section

“(A) Alternative Fuel.—

“(i) In General.—The term ‘alternative fuel’ means the portion of any
motor vehicle or nonroad fuel, as measured by volume, that consists of—

“(I) renewable fuel;

“(II) methanol, denatured ethanol, butanol, and other alcohols;

“(III) natural gas, including liquid fuels domestically produced from natural gas;

“(IV) liquefied petroleum gas;

“(V) hydrogen;

“(VI) qualifying coal-derived liquid fuel;

“(VII) fuels (not including a fuel that consists of alcohol) derived from biological materials (including biodiesel);

“(VIII) electricity provided from the electric power transmission and distribution system; and

“(IX) any other fuel that the Administrator determines, by rule, is not derived from crude oil and would yield energy security benefits or environmental benefits.
“(ii) QUALIFYING COAL-DERIVED LIQUID FUEL.—The term ‘qualifying coal-derived liquid fuel’ means liquid fuel produced by a project that—

“(I) converts coal to one or more liquid or gaseous transportation fuels;

“(II) demonstrates the capture, and sequestration or disposal or use of, the carbon dioxide produced in the conversion process; and

“(III) on the basis of a carbon dioxide sequestration plan prepared by the applicant, is certified by the Administrator, in consultation with the Secretary of Energy, as producing fuel with life cycle carbon dioxide emissions at or below the average life cycle carbon dioxide emissions for the same type of fuel produced at traditional petroleum based facilities with similar annual capacities.

“(iii) BLENDING COMPONENTS.—The term ‘alternative fuel’ includes any portion of a blending component that is derived from an alternative fuel.
“(B) Nonroad Fuel.—The term ‘nonroad fuel’ means fuel that is used, intended for use, or made available for use as a fuel in a nonroad engine or a nonroad vehicle.

“(C) Obligated Party.—The term ‘obligated party’ means any refiner, blender, or importer of motor vehicle, or nonroad, gasoline or diesel fuel, that is designated an obligated party under regulations issued by the Administrator for purposes of this subsection.

“(D) Other Terms.—The terms used in this subsection have the same meaning as when used in subsection (o).

“(2) Alternative Fuel Regulations.—

“(A) Standard.—Not later than 2 years after the date of enactment of this subsection, and from time to time thereafter, the Administrator shall promulgate regulations to ensure that motor vehicle and nonroad fuel sold or introduced into commerce in the United States, on an annual average basis, contains the applicable volume of alternative fuel determined in accordance with this subsection.
“(B) PROVISIONS OF REGULATIONS.—Regardless of the date of promulgation, the regulations promulgated under subparagraph (A) shall:

“(i) shall contain compliance provisions applicable to refiners, blenders, distributors, and importers, as appropriate, to ensure that the requirements of this paragraph are met; but

“(ii) shall not—

“(I) restrict geographic areas in which alternative fuel may be used; or

“(II) impose any per-gallon obligation for the use of alternative fuel.

“(3) APPLICABLE VOLUME.—For the purpose of the regulations under this subsection, the applicable volume (in billions of gallons) shall be determined under this paragraph.

“(A) CALENDAR YEARS 2013 THROUGH 2025.—The applicable volume (in billions of gallons) for the calendar years 2013 through 2025 shall be as provided in the following table:

<table>
<thead>
<tr>
<th>calendar year</th>
<th>applicable volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>14</td>
</tr>
<tr>
<td>2014</td>
<td>15</td>
</tr>
<tr>
<td>2015</td>
<td>16</td>
</tr>
<tr>
<td>2016</td>
<td>17</td>
</tr>
<tr>
<td>2017</td>
<td>18</td>
</tr>
<tr>
<td>2018</td>
<td>19</td>
</tr>
</tbody>
</table>
calendar year | applicable volume
---|---
2019 | 20
2020 | 21
2021 | 23
2022 | 26
2023 | 29
2024 | 32
2025 | 35

“(B) Calendar year 2026 and thereafter.—Except as otherwise provided in this paragraph, the applicable volume for calendar year 2026 and each calendar year thereafter shall be determined by rule by the Administrator, in coordination with the Secretary of Agriculture and the Secretary of Energy, based on a review of the implementation of the program under this subsection during calendar years 2020 through 2025, including a review of each of the following:

“(i) The impact of the use of alternative fuels on the energy security of the United States.

“(ii) The impact of the use of alternative fuels on public health and the environment, including air and water quality.

“(iii) The expected annual rate of future production of alternative fuels.
“(iv) The impact of alternative fuels on the infrastructure of the United States, including the deliverability of materials, goods, and products other than alternative fuels, and the sufficiency of the infrastructure to deliver alternative fuel.

“(v) The impact of the use of alternative fuels on job creation, the price and supply of agricultural commodities, and rural economic development.

“(C) Minimum Applicable Volume for Calendar Year 2026 and Thereafter.—For the purpose of subparagraph (B), the minimum applicable volume for calendar year 2026 and each calendar year thereafter shall be equal to the product obtained by multiplying the number obtained under clause (i) by the ratio obtained under clause (ii).

“(i) The number of gallons of motor vehicle and nonroad fuel that the Administrator estimates will be sold or introduced into commerce in the calendar year.

“(ii) The ratio that—

“(I) 35,000,000,000 gallons of alternative fuel bears to
“(II) the number of gallons of motor vehicle and nonroad fuel sold or introduced into commerce in calendar year 2025.

“(4) ALTERNATIVE FUEL PERCENTAGES.—

“(A) Provision of estimate of volumes of motor vehicle and nonroad fuel sales.—Not later than October 31, 2012, and annually thereafter, the Administrator of the Energy Information Administration shall provide to the Administrator of the Environmental Protection Agency an estimate, with respect to the following calendar year, of the volumes of motor vehicle and nonroad fuel projected to be sold or introduced into commerce in the United States during the following calendar year.

“(B) Determination of percentages.—Not later than November 30 of each calendar year after 2012, based on the estimate provided under subparagraph (A), the Administrator shall determine and publish in the Federal Register, with respect to the following calendar year, the percentage of the projected volume of motor vehicle and nonroad fuel that must be alternative fuel in order to ensure that
the applicable volume requirements of paragraph (3) are met.

“(C) REQUIRED ELEMENTS.—The alternative fuel obligation determined for a calendar year under subparagraph (B) shall—

“(i) be applicable to refiners, blenders, and importers of motor vehicle and nonroad gasoline and diesel fuel, as appropriate;

“(ii) be expressed in terms of a volume percentage of motor vehicle and nonroad fuel sold or introduced into commerce in the United States; and

“(iii) subject to clause (i), consist of a single applicable percentage that applies to all categories of persons specified in clause (i).

“(D) ADJUSTMENTS.—In determining the alternative fuel percentage for a calendar year, the Administrator shall make adjustments to prevent the imposition of redundant obligations on any obligated party.

“(5) COMPLIANCE VALUES.—

“(A) TABLE.—The Administrator shall assign a compliance value for each alternative fuel
in accordance with the following table to be used as a multiplier to determine the extent to which each gallon or other specified unit of the alternative fuel will satisfy the alternative fuel volume obligation under this subsection:

<table>
<thead>
<tr>
<th>“Fuel type”</th>
<th>Compli-</th>
<th>Compli-</th>
<th>Compli-</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ance Val-</td>
<td>ance Val-</td>
<td>ance Val-</td>
</tr>
<tr>
<td></td>
<td>ues, Years</td>
<td>ues, Years</td>
<td>ues, Years</td>
</tr>
<tr>
<td></td>
<td>2013-2015</td>
<td>2016-2020</td>
<td>After 2020</td>
</tr>
<tr>
<td>Ethanol (non-Cellulosic)</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Ethanol (Cellulosic)</td>
<td>2.5</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Biodiesel</td>
<td>1.4</td>
<td>1.4</td>
<td>1.4</td>
</tr>
<tr>
<td>Gas-to-Liquid Diesel Fuel</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>Coal-to-Liquid Diesel Fuel</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>Compressed Natural Gas (78 standard cubic feet)</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Liquefied Natural Gas</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Liquefied Petroleum Gas</td>
<td>1.1</td>
<td>1.1</td>
<td>1.1</td>
</tr>
<tr>
<td>Electricity (6.4 kilowatt-hours)</td>
<td>2.5</td>
<td>2.5</td>
<td>1.0</td>
</tr>
<tr>
<td>Gaseous Hydrogen (132 standard cubic feet)</td>
<td>2.5</td>
<td>2.5</td>
<td>1.0</td>
</tr>
<tr>
<td>Liquid Hydrogen</td>
<td>2.3</td>
<td>2.3</td>
<td>0.8</td>
</tr>
<tr>
<td>Methanol</td>
<td>0.8</td>
<td>0.8</td>
<td>0.8</td>
</tr>
<tr>
<td>Butanol</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
</tr>
<tr>
<td>Bio-Butanol</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
</tr>
</tbody>
</table>

All values are expressed in terms of gallons unless otherwise specified.
“(B) Authority of the Administrator.—

“(i) In general.—In accordance with the requirements described in clause (ii), the Administrator may by rule—

“(I) add fuel types to the table contained in subparagraph (A);

“(II) revise any fuel type or compliance value referred to in the table contained in subparagraph (A); and

“(III) assign each new or revised category or subcategory of an alternative fuel type an appropriate compliance value.

“(ii) Calculation of compliance values.—When the Administrator assigns or revises the compliance value for an alternative fuel type, the Administrator shall establish that compliance value equal to the ratio of the energy content of the alternative fuel to the energy content of ethanol. No compliance value for the years 2013 through 2020 may be revised by the Administrator under this subparagraph for electricity, gaseous hydrogen, or liquid hy-
hydrogen or for the years 2013 through 2015 for cellulosic ethanol.

“(6) COMPLIANCE WITH STANDARD; USE OF IDENTIFICATION NUMBERS.—

“(A) GENERATION AND ASSIGNMENT.—

Regulations promulgated under this subsection shall provide that the producer or importer of any alternative fuel shall generate and assign to each batch or other quantifiable unit (as determined by the Administrator) a unique identification number (except as provided in subparagraph (B)).

“(B) ELECTRICITY.—The regulations of the Administrator under this subsection shall establish a process for generating and assigning identification numbers for the amount of electricity from the electric power transmission and distribution system expected to be used as a motor vehicle or nonroad fuel. For vehicles manufactured prior to 2020 or such later time as the Administrator finds that the producers of the electricity used as a motor vehicle or nonroad vehicle fuel can be determined, the regulations shall provide that the identification numbers for electricity shall be assigned to the
manufacturer or importer of motor vehicles or
nonroad vehicles fueled by electricity from the
electric power transmission and distribution
system.

“(C) BASIS.—The identification numbers
referred to in this paragraph shall be based on
the volume of the alternative fuel and the com-
pliance values established under paragraph (5).

“(D) COMPLIANCE WITH THE STAND-
ARD.—Obligated parties shall demonstrate com-
pliance with the standard under this subsection
by surrendering identification numbers in an
appropriate quantity to the Administrator.

“(E) DURATION.—An identification num-
ber generated under this subsection shall be
valid to show compliance for the 12 months as
of the date of generation. The Administrator
shall interpret this subparagraph the same way
as section 211(o)(5)(C) of this Act is inter-
preted.

“(F) TRADING.—Identification numbers
may be held by any individual or entity and
transferred by any individual or entity to any
other individual or entity.
“(G) Inability to Generate or Purchase.—The regulations promulgated under this paragraph shall include provisions allowing any obligated party that is unable to generate or purchase sufficient identification numbers to meet the standard under paragraph (2) to carry forward an alternative fuel deficit on condition that the obligated party in the calendar year following the year in which the deficit is created—

“(i) achieves compliance with the standard under paragraph (2); and

“(ii) generates or purchases additional alternative fuel identification numbers to offset the alternative fuel deficit of the previous year.

“(H) Property.—An identification number generated under this subsection does not constitute a property right. Nothing in this subsection or in any other provision of law shall be construed to limit the authority of the United States to terminate or limit such an identification number.

“(I) Identification Numbers From RFS Program.—To demonstrate compliance for the
year 2013, the Administrator shall permit the use of identification numbers generated and assigned under the regulations under subsection (o) to the same extent that subsection (o) would have allowed their use in 2013. Deficits under subsection (o) for the year 2012 may be carried forward to the year 2013 if the requirements of subsection (o)(5)(D) of this section and subparagraph (G) of this paragraph are met.

“(7) Waivers.—

“(A) IN GENERAL.—Based on a petition by a State, an obligated party, or on the Administrator’s own motion, the Administrator, in consultation with the Secretary of Agriculture and the Secretary of Energy, may waive the requirements of paragraph (2) in whole or in part by reducing the national quantity of alternative fuel required under paragraph (3) if the Administrator, after public notice and opportunity for comment, determines that—

“(i) implementation of the requirements would severely harm the economy or environment of a State, a region, or the United States; or
“(ii) there is an inadequate domestic supply.

“(B) PETITIONS.—The Administrator shall approve or disapprove a petition for a waiver within 90 days after the date on which the petition is received by the Administrator.

“(C) TERMINATION OF WAIVERS.—A waiver granted under subparagraph (A) shall terminate after 1 year, but may be renewed by the Administrator after consultation with the Secretary of Agriculture and the Secretary of Energy.”.

(b) PENALTIES AND ENFORCEMENT.—Section 211(d) of the Clean Air Act (42 U.S.C.7545(d)) is amended as follows:

(1) In paragraph (1)

(A) in the first sentence, by striking “or (o)” each place it appears and inserting “(o), or (u)”; and

(B) in the second sentence, by striking “or (o)” and inserting “(o), or (u)”; and

(2) in the first sentence of paragraph (2), by striking “and (o)” each place it appears and inserting “(o), and (u)”.

(c) RENEWABLE FUEL PROGRAM.—
(1) TERMINATION.—Subparagraph (B) of section 211(o)(2) of the Clean Air Act (42 U.S.C. 4575(o)(2)(B)) is amended by striking all after clause (i).

(2) 2009 THROUGH 2012 REQUIREMENTS.—The items relating to the years 2009 through 2012 in the table in clause (i) of such subparagraph (B) are amended as follows:

(A) Strike “6.1” and insert “10”.
(B) Strike “6.8” and insert “11”.
(C) Strike “7.4” and insert “12”.
(D) Strike “7.5” and insert “13”.

SEC. 1302. REFINERY PERMIT STREAMLINING.

(a) DEFINITIONS.—For purposes of this section—

(1) the term “Administrator” means the Administrator of the Environmental Protection Agency;

(2) the term “applicant” means a person who is seeking a Federal refinery authorization;

(3) the term “biomass” has the meaning given that term in section 932(a)(1) of the Energy Policy Act of 2005;

(4) the term “Federal refinery authorization”—

(A) means any authorization required under Federal law, whether administered by a Federal or State administrative agency or offi-
special, with respect to siting, construction, expansion, or operation of a refinery; and

(B) includes any permits, licenses, special use authorizations, certifications, opinions, or other approvals required under Federal law with respect to siting, construction, expansion, or operation of a refinery;

(5) the term “Indian lands” means lands held in trust for the benefit of an Indian tribe or individual or held by an Indian tribe or individual subject to a restriction by the United States against alienation;

(6) the term “Indian tribe” has the meaning given the term in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450b);

(7) the term “refinery” means—

(A) a facility designed and operated to receive, load, unload, store, transport, process, and refine crude oil or oil originally derived from crude oil by any chemical or physical process, including distillation, fluid catalytic cracking, hydrocracking, coking, alkylation, etherification, polymerization, catalytic reforming, isomerization, hydrotreating, blending, and
any combination thereof, in order to produce
gasoline, distillate, or lubricating base oil;

(B) a facility designed and operated to re-
ceive, load, unload, store, transport, process,
and refine coal by any chemical or physical
process, including liquefaction, in order to
produce gasoline or diesel as its primary out-
put; or

(C) a facility designed and operated to re-
ceive, load, unload, store, transport, process (in-
cluding biochemical, photochemical, and bio-
technology processes), and refine biomass in
order to produce biofuel;

(8) the term “State” means a State, the Dis-
trict of Columbia, the Commonwealth of Puerto
Rico, and any other territory or possession of the
United States; and

(9) the term “tribal organization” has the
meaning given the term in section 4 of the Indian
Self-Determination and Education Assistance Act

(b) STATE AND TRIBAL ORGANIZATION ASSIST-
ANCE.—

(1) FINANCIAL ASSISTANCE.—At the request of
organization, the Administrator is authorized to pro-
provide financial assistance to that State or Indian tribe
to facilitate the hiring of additional personnel to as-
sist the State or Indian tribe with expertise in fields
relevant to consideration of Federal refinery author-
izations.

(2) Other Assistance.—At the request of a
governor of a State, or at the request of a tribal or-
organization, a Federal agency responsible for a Fed-
eral refinery authorization shall provide technical,
legal, or other nonfinancial assistance to that State
or Indian tribe to facilitate its consideration of Fed-
eral refinery authorizations.

(e) Refinery Process Coordination and Proce-
dures.—

(1) Appointment of Federal Coordinator.—

(A) In General.—The President shall ap-
point a Federal coordinator to perform the re-
sponsibilities assigned to the Federal coordi-
nator under this section.

(B) Other Agencies.—Each Federal and
State agency or official required to provide a
Federal refinery authorization shall cooperate
with the Federal coordinator.
(2) **Federal refinery authorizations.**—

(A) **Meeting participants.**—Not later than 30 days after receiving a notification from an applicant that the applicant is seeking a Federal refinery authorization pursuant to Federal law, the Federal coordinator appointed under paragraph (1) shall convene a meeting of representatives from all Federal and State agencies responsible for a Federal refinery authorization with respect to the refinery. The governor of a State shall identify each agency of that State that is responsible for a Federal refinery authorization with respect to that refinery.

(B) **Memorandum of agreement.**—(i) Not later than 90 days after receipt of a notification described in subparagraph (A), the Federal coordinator and the other participants at a meeting convened under subparagraph (A) shall establish a memorandum of agreement setting forth the most expeditious coordinated schedule possible for completion of all Federal refinery authorizations with respect to the refinery, consistent with the full substantive and procedural review required by Federal law. If a Federal or
State agency responsible for a Federal refinery authorization with respect to the refinery is not represented at such meeting, the Federal coordinator shall ensure that the schedule accommodates those Federal refinery authorizations, consistent with Federal law. In the event of conflict among Federal refinery authorization scheduling requirements, the requirements of the Environmental Protection Agency shall be given priority.

(ii) Not later than 15 days after completing the memorandum of agreement, the Federal coordinator shall publish the memorandum of agreement in the Federal Register.

(iii) The Federal coordinator shall ensure that all parties to the memorandum of agreement are working in good faith to carry out the memorandum of agreement, and shall facilitate the maintenance of the schedule established therein.

(3) CONSOLIDATED RECORD.—The Federal coordinator shall, with the cooperation of Federal and State administrative agencies and officials, maintain a complete consolidated record of all decisions made or actions taken by the Federal coordinator or by a
Federal administrative agency or officer (or State administrative agency or officer acting under delegated Federal authority) with respect to any Federal refinery authorization. Such record shall be the record for judicial review under paragraph (4) of decisions made or actions taken by Federal and State administrative agencies and officials, except that, if the Court determines that the record does not contain sufficient information, the Court may remand the proceeding to the Federal coordinator for further development of the consolidated record.

(4) Remedies.—

(A) In general.—The United States District Court for the district in which the proposed refinery is located shall have exclusive jurisdiction over any civil action for the review of the failure of an agency or official to act on a Federal refinery authorization in accordance with the schedule established pursuant to the memorandum of agreement.

(B) Standing.—If an applicant or a party to a memorandum of agreement alleges that a failure to act described in subparagraph (A) has occurred and that such failure to act would jeopardize timely completion of the entire
schedule as established in the memorandum of agreement, such applicant or other party may bring a cause of action under this paragraph.

(C) COURT ACTION.—If an action is brought under subparagraph (B), the Court shall review whether the parties to the memorandum of agreement have been acting in good faith, whether the applicant has been cooperating fully with the agencies that are responsible for issuing a Federal refinery authorization, and any other relevant materials in the consolidated record. Taking into consideration those factors, if the Court finds that a failure to act described in subparagraph (A) has occurred, and that such failure to act would jeopardize timely completion of the entire schedule as established in the memorandum of agreement, the Court shall establish a new schedule that is the most expeditious coordinated schedule possible for completion of proceedings, consistent with the full substantive and procedural review required by Federal law. The court may issue orders to enforce any schedule it establishes under this subparagraph.
(D) **Federal Coordinator’s Action.**—

When any civil action is brought under this paragraph, the Federal coordinator shall immediately file with the Court the consolidated record compiled by the Federal coordinator pursuant to paragraph (3).

(E) ** Expedited Review.**—The Court shall set any civil action brought under this paragraph for expedited consideration.

(5) **Applicability.**—This subsection shall only apply to a refinery sited or proposed to be sited or expanded or proposed to be expanded—

(A) in a State whose governor has submitted a request to the President for the application of the process coordination and rules of procedure under this subsection to the siting, construction, expansion, or operation of any refinery in that State;

(B) on a closed military installation, or portion thereof, made available for the siting of a refinery in the manner provided by the base closure law applicable to the installation; or

(C) on Indian lands if the relevant tribal organization has submitted a request to the President for the application of the process co-
ordination and rules of procedure under this subsection to the siting, construction, expansion, or operation of any refinery on that Indian land.

(d) SAVINGS CLAUSE.—Nothing in this section shall be construed to affect the application of any environmental or other law, or to prevent any party from bringing a cause of action under any environmental or other law, including citizen suits.

(e) REFINERY REVITALIZATION REPEAL.—Subtitle H of title III of the Energy Policy Act of 2005 and the items relating thereto in the table of contents of such Act are repealed.

SEC. 1303. STANDBY LOANS FOR QUALIFYING COAL-TO-LIQUIDS PROJECTS.

Section 1702 of the Energy Policy Act of 2005 (42 U.S.C. 16512) is amended by adding at the end the following new subsection:

“(k) STANDBY LOANS FOR QUALIFYING CTL PROJECTS.—

“(1) DEFINITIONS.—For purposes of this subsection:

“(A) CAP PRICE.—The term ‘cap price’ means a market price specified in the standby
loan agreement above which the project is required to make payments to the United States.

“(B) FULL TERM.—The term ‘full term’ means the full term of a standby loan agreement, as specified in the agreement, which shall not exceed the lesser of 30 years or 90 percent of the projected useful life of the project (as determined by the Secretary).

“(C) MARKET PRICE.—The term ‘market price’ means the average quarterly price of a petroleum price index specified in the standby loan agreement.

“(D) MINIMUM PRICE.—The term ‘minimum price’ means a market price specified in the standby loan agreement below which the United States is obligated to make disbursements to the project.

“(E) OUTPUT.—The term ‘output’ means some or all of the liquid or gaseous transportation fuels produced from the project, as specified in the loan agreement.

“(F) PRIMARY TERM.—The term ‘primary term’ means the initial term of a standby loan agreement, as specified in the agreement, which shall not exceed the lesser of 20 years or 75
percent of the projected useful life of the project (as determined by the Secretary).

“(G) QUALIFYING CTL PROJECT.—The term ‘qualifying CTL project’ means—

“(i) a commercial-scale project that converts coal to one or more liquid or gaseous transportation fuels blended with renewable fuel; or

“(ii) not more than one project at a facility that converts petroleum refinery waste products, including petroleum coke, into one or more liquids or gaseous transportation fuels blended with renewable fuel,

that demonstrates the capture, and sequestration or disposal or use of, the carbon dioxide produced in the conversion process, and that, on the basis of a carbon dioxide sequestration plan prepared by the applicant, is certified by the Administrator of the Environmental Protection Agency, in consultation with the Secretary, as producing fuel with life cycle carbon dioxide emissions at or below the average life cycle carbon dioxide emissions for the same type of fuel.
produced at traditional petroleum based facilities with similar annual capacities.

“(H) STANDBY LOAN AGREEMENT.—The term ‘standby loan agreement’ means a loan agreement entered into under paragraph (2).

“(2) STANDBY LOANS.—

“(A) LOAN AUTHORITY.—The Secretary may enter into standby loan agreements with not more than six qualifying CTL projects, at least one of which shall be a project jointly or in part owned by two or more small coal producers. Such an agreement—

“(i) shall provide that the Secretary will make a direct loan (within the meaning of section 502(1) of the Federal Credit Reform Act of 1990) to the qualifying CTL project; and

“(ii) shall set a cap price and a minimum price for the primary term of the agreement.

“(B) LOAN DISBURSEMENTS.—Such a loan shall be disbursed during the primary term of such agreement whenever the market price falls below the minimum price. The amount of such disbursements in any calendar quarter shall be
equal to the excess of the minimum price over
the market price, times the output of the
project (but not more than a total level of dis-
bursements specified in the agreement).

“(C) Loan repayments.—The Secretary
shall establish terms and conditions, including
interest rates and amortization schedules, for
the repayment of such loan within the full term
of the agreement, subject to the following limi-
tations:

“(i) If in any calendar quarter during
the primary term of the agreement the
market price is less than the cap price, the
project may elect to defer some or all of its
repayment obligations due in that quarter.
Any unpaid obligations will continue to ac-
crue interest.

“(ii) If in any calendar quarter during
the primary term of the agreement the
market price is greater than the cap price,
the project shall meet its scheduled repay-
ment obligation plus deferred repayment
obligations, but shall not be required to
pay in that quarter an amount that is
more than the excess of the market price
over the cap price, times the output of the project.

“(iii) At the end of the primary term of the agreement, the cumulative amount of any deferred repayment obligations, together with accrued interest, shall be amortized (with interest) over the remainder of the full term of the agreement.

“(3) PROFIT-SHARING.—The Secretary is authorized to enter into a profit-sharing agreement with the project at the time the standby loan agreement is executed. Under such an agreement, if the market price exceeds the cap price in a calendar quarter, a profit-sharing payment shall be made for that quarter, in an amount equal to—

“(A) the excess of the market price over the cap price, times the output of the project; less

“(B) any loan repayments made for the calendar quarter.

“(4) COMPLIANCE WITH FEDERAL CREDIT REFORM ACT.—

“(A) UPFRONT PAYMENT OF COST OF LOAN.—No standby loan agreement may be entered into under this subsection unless the
project makes a payment to the United States that the Office of Management and Budget determines is equal to the cost of such loan (determined under 502(5)(B) of the Federal Credit Reform Act of 1990). Such payment shall be made at the time the standby loan agreement is executed.

“(B) Minimization of Risk to the Government.—In making the determination of the cost of the loan for purposes of setting the payment for a standby loan under subparagraph (A), the Secretary and the Office of Management and Budget shall take into consideration the extent to which the minimum price and the cap price reflect historical patterns of volatility in actual oil prices relative to projections of future oil prices, based upon publicly available data from the Energy Information Administration, and employing statistical methods and analyses that are appropriate for the analysis of volatility in energy prices.

“(C) Treatment of Payments.—The value to the United States of a payment under subparagraph (A) and any profit-sharing payments under paragraph (3) shall be taken into
account for purposes of section 502(5)(B)(iii) of
the Federal Credit Reform Act of 1990 in de-
termining the cost to the Federal Government
of a standby loan made under this subsection.
If a standby loan has no cost to the Federal
Government, the requirements of section 504(b)
of such Act shall be deemed to be satisfied.
“(5) Other provisions.—
“(A) No double benefit.—A project re-
ceiving a loan under this subsection may not,
during the primary term of the loan agreement,
receive a Federal loan guarantee under sub-
section (a) of this section, or under other laws.
“(B) Subrogation, etc.—Subsections
(g)(2) (relating to subrogation), (h) (relating to
fees), and (j) (relating to full faith and credit)
shall apply to standby loans under this sub-
section to the same extent they apply to loan
guarantees.”.

SEC. 1304. RENEWABLE FUEL INFRASTRUCTURE DEVELOP-
MENT.

(a) Definition.—For purposes of this subtitle—
(1) the term “renewable fuel” means E85
biofuel, or B20;
(2) the term “biofuel” means fuel produced entirely from biological material and determined by the Department of Energy and the Environmental Protection Agency to be commercially viable;

(3) the term “B20” means a mixture of biodiesel and diesel fuel meeting the standard established by the American Society for Testing and Materials or under section 211(u) of the Clean Air Act for fuel containing 20 percent biodiesel;

(4) the term “E85” means a fuel blend containing 85 percent denatured ethanol and 15 percent gasoline by volume;

(5) the term “flexible-fuel vehicle” means any motor vehicle warranted by the manufacturer of the vehicle as capable of operating on gasoline or diesel fuel and on—

(A) E85; or

(B) B20; and

(6) the term “motor vehicle” means, as defined in regulations promulgated by the Administrator of the Environmental Protection Agency that are in effect on the date of enactment of this Act—

(A) a light-duty truck;

(B) a light-duty vehicle; or

(C) medium-duty passenger vehicle,
that is designed to be propelled by gasoline or diesel fuel.

(b) Infrastructure Development Grants.—
The Secretary of Energy shall establish a program for making grants for providing assistance to retail and wholesale motor fuel dealers or other entities for the installation, replacement, or conversion of motor fuel storage and dispensing infrastructure to be used exclusively to store and dispense renewable fuel. Such infrastructure may include equipment used in the blending, distribution, and transport of such fuels.

(c) Retail Technical and Marketing Assistance.—The Secretary of Energy shall enter into contracts with entities with demonstrated experience in assisting retail fueling stations in installing refueling systems and marketing renewable fuels nationally, for the provision of technical and marketing assistance to recipients of grants under this section. Such assistance shall include—

(1) technical advice for compliance with applicable Federal and State environmental requirements;

(2) help in identifying supply sources and securing long-term contracts; and

(3) provision of public outreach, education, and labeling materials.
(d) ALLOCATION.—The Secretary of Energy may reserve funds appropriated for carrying out this section to support renewable fuels infrastructure development projects with a cost of greater than $1,000,000, that are of national significance. The Secretary shall reserve funds appropriated for the renewable fuels infrastructure development grant program for technical and marketing assistance described in subsection (c).

(e) SELECTION CRITERIA.—Not later than 12 months after the date of enactment of this Act, the Secretary shall establish criteria for evaluating applications for grants under this section that will maximize the availability and use of renewable fuel, and that will ensure that renewable fuel is available across the country. Such criteria shall provide for—

(1) consideration of the public demand for each renewable fuel in a particular geographic area based on State registration records showing the number of flexible-fuel vehicles;

(2) consideration of the opportunity to create or expand corridors of renewable fuel stations along interstate or State highways;

(3) consideration of the experience of each applicant with previous, similar projects;
(4) consideration of population, number of flexible-fuel vehicles, number of retail fuel outlets, and saturation of flexible-fuel vehicles; and

(5) priority consideration to applications that—

(A) are most likely to maximize displacement of petroleum consumption, measured as a total quantity and a percentage;

(B) are best able to incorporate existing infrastructure while maximizing, to the extent practicable, the use of renewable fuels; and

(C) demonstrate the greatest commitment on the part of the applicant to ensure funding for the proposed project and the greatest likelihood that the project will be maintained or expanded after Federal assistance under this section is completed.

(f) COMBINED APPLICATIONS.—States and local government entities and nonprofit entities may apply for assistance under this section on behalf of a group of retailers within a certain geographic area, or to carry out regional or multistate deployment projects. Any such application shall certify the availability and details of a program to match the Federal grant as required under subsection (g) and list the retail locations that would receive the funds.
(g) LIMITATIONS.—Assistance provided under this section shall not exceed—

(1) 33 percent of the estimated cost of the installation, replacement, or conversion of motor fuel storage and dispensing infrastructure; or

(2) $180,000 for a combination of equipment at any one retail outlet location.

(h) OPERATION OF RENEWABLE FUEL STATIONS.—The Secretary shall establish rules that set forth requirements for grant recipients under this section that include providing to the public the renewable fuel, establishing a marketing plan that informs consumers of the price and availability of the renewable fuel, clearly labeling the dispensers and related equipment, and providing periodic reports on the status of the renewable fuel sales, the type and amount of the renewable fuel dispensed at each location, and the average price of such fuel.

(i) NOTIFICATION REQUIREMENTS.—Not later than the date on which each renewable fuel station begins to offer renewable fuel to the public, the grant recipient that used grant funds to construct or upgrade such station shall notify the Secretary of Energy of such opening. The Secretary of Energy shall add each new renewable fuel station to the renewable fuel station locator on its Website when it receives notification under this subsection.
(j) Ineligibility.—No person may receive assistance under this section and receive a credit under section 30C of the Internal Revenue Code of 1986.

(k) Authorization of Appropriations.—There are authorized to be appropriated to the Secretary of Energy for carrying out this section $200,000,000 for each of the fiscal years 2008 through 2014.

(l) Restriction.—No grant shall be provided under this section to a large, vertically integrated oil company.

SEC. 1305. PROHIBITION ON FRANCHISE AGREEMENT RESTRICTIONS RELATED TO RENEWABLE FUEL INFRASTRUCTURE.

(a) In General.—Title I of the Petroleum Marketing Practices Act (15 U.S.C. 2801 et seq.) is amended by adding at the end the following:

“SEC. 107. PROHIBITION ON RESTRICTION OF INSTALLATION OF RENEWABLE FUEL PUMPS.

“(a) Definition.—In this section:

“(1) Renewable fuel.—The term ‘renewable fuel’ means any fuel—

“(A) at least 85 percent of the volume of which consists of ethanol; or

“(B) any mixture of biodiesel and diesel or renewable diesel (as defined in regulations adopted pursuant to section 211(o) of the Clean
Air Act (40 C.F.R., Part 80)), determined without regard to any use of kerosene and containing at least 20 percent biodiesel or renewable diesel.

“(2) FRANCHISE-RELATED DOCUMENT.—The term ‘franchise-related document’ means—

“(A) a franchise under this Act; and

“(B) any other contract or directive of a franchisor relating to terms or conditions of the sale of fuel by a franchisee.

“(b) PROHIBITIONS.—

“(1) IN GENERAL.—No franchise-related document entered into or renewed on or after the date of enactment of this section shall contain any provision allowing a franchisor to restrict the franchisee or any affiliate of the franchisee from—

“(A) installing on the marketing premises of the franchisee a renewable fuel pump or tank, except that the franchisee’s franchisor may restrict the installation of a tank on leased marketing premises of such franchisor;

“(B) converting an existing tank or pump on the marketing premises of the franchisee for renewable fuel use, so long as such tank or pump and the piping connecting them are ei-
ther warranted by the manufacturer or certified by a recognized standards setting organization to be suitable for use with such renewable fuel;

“(C) advertising (including through the use of signage) the sale of any renewable fuel;

“(D) selling renewable fuel in any specified area on the marketing premises of the franchisee (including any area in which a name or logo of a franchisor or any other entity appears);

“(E) purchasing renewable fuel from sources other than the franchisor if the franchisor does not offer its own renewable fuel for sale by the franchisee;

“(F) listing renewable fuel availability or prices, including on service station signs, fuel dispensers, or light poles; or

“(G) allowing for payment of renewable fuel with a credit card,

so long as such activities described in subparagraphs (A) through (G) do not constitute mislabeling, misbranding, willful adulteration, or other trademark violations by the franchisee.

“(2) EFFECT OF PROVISION.—Nothing in this section shall be construed to preclude a franchisor
from requiring the franchisee to obtain reasonable indemnification and insurance policies.

“(c) EXCEPTION TO 3-GRADE REQUIREMENT.—No franchise-related document that requires that 3 grades of gasoline be sold by the applicable franchisee shall prevent the franchisee from selling an renewable fuel in lieu of 1, and only 1, grade of gasoline.”.

(b) ENFORCEMENT.—Section 105 of the Petroleum Marketing Practices Act (15 U.S.C. 2805) is amended by striking “102 or 103” each place it appears and inserting “102, 103, or 107”.

(c) CONFORMING AMENDMENTS.—

(1) IN GENERAL.—Section 101(13) of the Petroleum Marketing Practices Act (15 U.S.C. 2801(13)) is amended by aligning the margin of subparagraph (C) with subparagraph (B).

(2) TABLE OF CONTENTS.—The table of contents of the Petroleum Marketing Practices Act (15 U.S.C. 2801 note) is amended—

(A) by inserting after the item relating to section 106 the following:

“Sec. 107. Prohibition on restriction of installation of renewable fuel pumps.”;

and

(B) by striking the item relating to section 202 and inserting the following:

“Sec. 202. Automotive fuel rating testing and disclosure requirements.”.
SEC. 1306. RENEWABLE FUEL DISPENSER REQUIREMENTS.

(a) Market Penetration Reports.—The Secretary of Energy, in consultation with the Secretary of Transportation, shall determine and report to Congress annually on the market penetration for flexible-fuel vehicles in use within geographic regions to be established by the Secretary of Energy.

(b) Dispenser Feasibility Study.—Not later than 24 months after the date of enactment of this Act, the Secretary of Energy, in consultation with the Department of Transportation, shall report to the Congress on the feasibility of requiring motor fuel retailers to install E-85 compatible dispensers and related systems at retail fuel facilities in regions where flexible-fuel vehicle market penetration has reached 15 percent of motor vehicles. In conducting such study, the Secretary shall consider and report on the following factors:

(1) The commercial availability of E-85 fuel and the number of competing E-85 wholesale suppliers in a given region.

(2) The level of financial assistance provided on an annual basis by the Federal Government, State governments, and nonprofit entities for the installation of E-85 compatible infrastructure.
(3) The number of retailers whose retail locations are unable to support more than 2 underground storage tank dispensers.

(4) The expense incurred by retailers in the installation and sale of E-85 compatible dispensers and related systems and any potential effects on the price of motor vehicle fuel.

**SEC. 1307. PIPELINE FEASIBILITY STUDY.**

(a) In General.—The Secretary of Energy, in consultation with the Secretary of Transportation, shall conduct a study of the feasibility of the construction of dedicated ethanol pipelines.

(b) Factors.—In conducting the study, the Secretary shall consider—

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

(2) existing or potential barriers to dedicated ethanol pipelines, including technical, siting, financing, and regulatory barriers;

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

(4) regulatory, financing, and siting options that would mitigate risk in those areas and help ensure the construction of 1 or more dedicated ethanol pipelines;
(5) financial incentives that may be necessary for the construction of dedicated ethanol pipelines, including the return on equity that sponsors of the initial dedicated ethanol pipelines will require to invest in the pipelines;

(6) technical factors that may compromise the safe transportation of ethanol in pipelines, identifying remedial and preventative measures to ensure pipeline integrity; and

(7) such other factors as the Secretary considers appropriate.

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

SEC. 1308. STUDY OF ETHANOL-BLENDED GASOLINE WITH GREATER LEVELS OF ETHANOL.

(a) IN GENERAL.—The Administrator of the Environmental Protection Agency, in cooperation with the Secretary of Energy and the Secretary of Transportation, and after providing notice and an opportunity for public comment, shall conduct a study of the feasibility of widespread utilization in the United States of ethanol blended gasoline with levels of ethanol greater than 10 percent.
(b) STUDY.—The study under subsection (a) shall include—

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

(2) an evaluation of the economic, market, and energy impacts of State and regional differences in ethanol blends;

(3) an evaluation of the economic, market, and energy impacts on gasoline retailers and consumers of separate and distinctly labeled fuel storage facilities and dispensers;

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

(5) an evaluation of the impacts of mid-level ethanol blends on the operation, durability, and performance of on-road, off-road, and marine engines, recreational boats, vehicles, and equipment; and

(6) an evaluation of the safety impacts of mid-level ethanol blends on consumers that own and operate off-road and marine engines, recreational boats, vehicles, or equipment.
(c) REPORT.—Not later than 24 months after the date of enactment of this Act, the Administrator shall submit to the Committee on Energy and Commerce of the House of Representatives and the Committee on Environment and Public Works of the Senate a report describing the results of the study conducted under this section.

(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Administrator such sums as may be necessary for the completion of the study required under this section.

SEC. 1309. STUDY OF THE ADEQUACY OF TRANSPORTATION, DISTRIBUTION, AND RETAIL DISPENSING OF DOMESTICALLY-PRODUCED RENEWABLE FUEL.

(a) STUDY.—

(1) IN GENERAL.—The Secretary of Energy shall conduct a study of the adequacy of transportation, distribution, and retail dispensing of domestically-produced renewable fuel.

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

(A) the adequacy of, and appropriate location for tracks, fuel terminals and retail dispensing facilities that have sufficient capacity, and are in the appropriate condition, to move
the necessary quantities of domestically-produced renewable fuel;

(B) the adequacy of the supply of equipment and personnel to move the necessary quantities of domestically-produced renewable fuel in a timely fashion;

(C)(i) the projected costs of transporting, distributing, and dispensing the domestically-produced renewable fuel; and

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

(D) whether there is adequate competition to ensure—

(i) a fair price for transportation, distribution, and retail dispensing of domestically-produced renewable fuel; and

(ii) acceptable levels of service for transportation, distribution, and retail dispensing of domestically-produced renewable fuel;

(E) any infrastructure capital investments that are needed to transport, distribute, and dispense domestically-produced renewable fuel;
(F) whether Federal agencies have adequate legal authority to ensure a fair and reasonable transportation price and acceptable levels of service in cases in which the domestically produced renewable fuel source does not have access to competitive transportation service;

(G) whether Federal agencies have adequate legal authority to address transportation, distribution and retail dispensing problems that may be resulting in inadequate supplies of domestically-produced renewable fuel in any area of the United States; and

(H) any recommendations for any additional legal authorities for Federal agencies to ensure the reliable transportation, distribution, and retail dispensing of adequate supplies of domestically-produced renewable fuel at reasonable prices.

(b) REPORT.—Not later than 180 days after the date of enactment of this Act, the Secretary shall submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Energy and Commerce of the House of Representatives a report that describes the results of the study conducted under subsection (a).
SEC. 1310. STANDARD SPECIFICATIONS FOR BIODIESEL.

Section 211 of the Clean Air Act (42 U.S.C. 7545) is amended by redesignating subsection (s) as subsection (t), redesignating subsection (r) (relating to conversion assistance for cellulosic biomass, waste-derived ethanol, approved renewable fuels) as subsection (s) and by adding the following new subsection at the end thereof:

“(u) STANDARD SPECIFICATIONS FOR BIODIESEL.—

Unless the American Society for Testing and Materials has adopted a standard for diesel fuel containing 20 percent biodiesel, not later than 1 year after the date of enactment of this subsection, the Administrator shall initiate a rulemaking establishing a series of uniform per gallon fuel standards for categories of fuels that contain biodiesel, including one standard for fuel containing 20 percent biodiesel, and designate an identification number for fuel meeting each standard in each such category so that vehicle manufacturers are able to design engines to use fuel meeting one or more of such standards. The Administrator shall finalize the standards under this subsection 18 months after the date of the enactment of this subsection.”.

SEC. 1311. GRANTS FOR CELLULOSIC ETHANOL PRODUCTION.

Subsection (s) of section 211 of the Clean Air Act (as added by section 1512 of the Energy Policy Act of
(1) By adding the following new subparagraphs at the end of paragraph (3):

“(D) $500,000,000 for fiscal year 2009.

“(E) $500,000,000 for fiscal year 2010.”.

(2) By adding the following new paragraph at the end thereof:

“(5) CRITERIA.—In awarding grants under this section, the Secretary shall give priority to applications that promote feedstock diversity and the geographic dispersion of production facilities.”.

SEC. 1312. CONSUMER EDUCATION CAMPAIGN RELATING TO FLEXIBLE-FUEL VEHICLES.

The Secretary of Transportation, in consultation with the Secretary of Energy, shall carry out an education program to inform consumers about which motor vehicles are flexible-fuel vehicles and how to exercise their opportunity to choose E85 or B20. As part of such program, the Secretary of Transportation may coordinate with motor vehicle manufacturers to notify owners of flexible-fuel vehicles of locations where E85 and B20 are sold in their area.
SEC. 1313. DOMESTIC MANUFACTURING CONVERSION GRANT PROGRAM.

Section 712 of the Energy Policy Act of 2005 (42 U.S.C. 16062) is amended—

(1) in subsection (a)—

(A) by inserting “, flexible-fuel,” after “production of efficient hybrid”; and

(B) by adding at the end the following:

“Priority shall be given to the refurbishment or retooling of manufacturing facilities that have recently ceased operation or will cease operation in the near future.”; and

(2) by striking subsection (b) and inserting the following:

“(b) COORDINATION WITH STATE AND LOCAL PROGRAMS.—The Secretary may coordinate implementation of this section with State and local programs designed to accomplish similar goals, including the retention and retraining of skilled workers from the such manufacturing facilities, including by establishing matching grant arrangements.

“(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary such $90,000,000 to carry out this section.”.

$90,000,000 to carry out this section.”.
SEC. 1314. CELLULOSIC ETHANOL AND BIOFUELS RESEARCH.

There are authorized to be appropriated to the Secretary of Energy $50,000,000 for fiscal year 2008, to remain available until expended, for cellulosic ethanol and biofuels research and development grants to 10 entities from among 1890 land grant colleges, Historically Black Colleges or Universities, Tribal serving institutions, or Hispanic serving institutions, selected by the Secretary of Energy to receive a grant under this section through a peer-reviewed competitive process. The selected entities shall then collaborate with one of the Department of Energy’s Office of Science Bioenergy Research Centers.

SEC. 1315. GRANTS FOR RENEWABLE FUEL PRODUCTION RESEARCH AND DEVELOPMENT IN CERTAIN STATES.

(a) In General.—The Secretary shall provide grants to eligible entities to conduct research into, and develop and implement, renewable fuel production technologies in States with low rates of ethanol production, including low rates of production of cellulosic biomass ethanol, as determined by the Secretary.

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

(1)(A) be an institution of higher education (as defined in section 2 of the Energy Policy Act of
2005 (42 U.S.C. 15801)) located in a State described in subsection (a);

(B) be an institution—

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

(ii) that is eligible for a grant under the Tribally Controlled College or University Assistance Act of 1978 (25 U.S.C. 1801 et seq.), including Dine College; or

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

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

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

(e) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section $25,000,000 for each of fiscal years 2008 through 2010.

SEC. 1316. STUDY OF EFFECT OF OIL PRICES.

The Secretary of Energy shall conduct a study to review the anticipated effects on renewable fuels production
if oil were priced no lower than $40 per barrel. The Secretary shall report the findings of such study to Congress by December 31, 2008.

SEC. 1317. BIODIESEL AS ALTERNATIVE FUEL FOR CAFÉ PURPOSES.

Section 32901(a) of title 49, United States Code, is amended—

(1) in paragraph (1), by redesignating subparagraphs (J) and (K) as subparagraphs (K) and (L), respectively, and inserting after subparagraph (I) the following:

“(J) B20 biodiesel blend;”; and

(2) by redesignating paragraphs (7) through (16) as paragraphs (9) through (18), respectively, and insert after paragraph (6) the following:

“(7) ‘biodiesel’ means the monoalkyl esters of long chain fatty acids derived from plant or animal matter which meet—

“(A) the registration requirements for fuels and fuel additives established by the Environmental Protection Agency under section 211 of the Clean Air Act (42 U.S.C. 7545); and

“(B) the requirements of the American Society of Testing and Materials D6751.
“(8) ‘B20 biodiesel blend’ means a mixture of biodiesel and diesel fuel approximately 20 percent of the content of which is biodiesel, and commonly known as ‘B20’.”.

PART 2—UNITED STATES-ISRAEL ENERGY COOPERATION

SEC. 1331. SHORT TITLE.

This part may be cited as the “United States-Israel Energy Cooperation Act”.

SEC. 1332. FINDINGS.

Congress finds that—

(1) it is in the highest national security interests of the United States to ensure secure access to reliable energy sources;

(2) the United States relies heavily on the foreign supply of crude oil to meet the energy needs of the United States, currently importing 58 percent of the total oil requirements of the United States, of which 45 percent comes from member states of the Organization of Petroleum Exporting Countries (OPEC);

(3) revenues from the sale of oil by some of these countries directly or indirectly provide funding for terrorism and propaganda hostile to the values of the United States and the West;
(4) in the past, these countries have manipulated the dependence of the United States on the oil supplies of these countries to exert undue influence on United States policy, as during the embargo of OPEC during 1973 on the sale of oil to the United States, which became a major factor in the ensuing recession;

(5) research by the Energy Information Administration of the Department of Energy has shown that the dependence of the United States on foreign oil will increase by 33 percent over the next 20 years;

(6) a rise in the price of imported oil sufficient to increase gasoline prices by 10 cents per gallon at the pump would result in an additional outflow of $18,000,000,000 from the United States to oil-exporting nations;

(7) for economic and national security reasons, the United States should reduce, as soon as practicable, the dependence of the United States on nations that do not share the interests and values of the United States;

(8) the State of Israel has been a steadfast ally and a close friend of the United States since the creation of Israel in 1948;
(9) like the United States, Israel is a democracy that holds civil rights and liberties in the highest regard and is a proponent of the democratic values of peace, freedom, and justice;

(10) cooperation between the United States and Israel on such projects as the development of the Arrow Missile has resulted in mutual benefits to United States and Israeli security;

(11) the special relationship between Israel and the United States has been and continues to be manifested in a variety of jointly-funded cooperative programs in the field of scientific research and development, such as—

(A) the United States-Israel Binational Science Foundation (BSF);

(B) the Israel-United States Binational Agricultural Research and Development Fund (BARD); and

(C) the Israel-United States Binational Industrial Research and Development (BIRD) Foundation;

(12) these programs, supported by the matching contributions from the Government of Israel and the Government of the United States and directed by key scientists and academics from both countries,
have made possible many scientific breakthroughs in
the fields of life sciences, medicine, bioengineering,
agriculture, biotechnology, communications, and oth-
ers;

(13) on February 1, 1996, United States Sec-
retary of Energy Hazel R. O'Leary and Israeli Min-
ister of Energy and Infrastructure Gonen Segev
signed the Agreement Between the Department of
Energy of the United States of America and the
Ministry of Energy and Infrastructure of Israel Con-
cerning Energy Cooperation, to establish a frame-
work for collaboration between the United States
and Israel in energy research and development ac-
tivities;

(14) the United States and Israeli governments
should promote cooperation in a broad range of
projects designed to enhance supplies of nonpetro-
leum energy for both countries, and to provide for
cutting edge research in each country;

(15) Israeli scientists and researchers have long
been at the forefront of research and development in
the field of alternative renewable energy sources;

(16) many of the top corporations of the world
have recognized the technological and scientific ex-
pertise of Israel by locating important research and
development facilities in Israel;

(17) among the technological breakthroughs
made by Israeli scientists and researchers in the
field of alternative, renewable energy sources are—

(A) the development of a cathode that uses
hexavalent iron salts that accept 3 electrons per
ion and enable rechargeable batteries to provide
3 times as much electricity as existing recharge-
able batteries;

(B) the development of a technique that
vastly increases the efficiency of using solar en-
ergy to generate hydrogen for use in energy
cells; and

(C) the development of a novel membrane
used in new and powerful direct-oxidant fuel
cells that is capable of competing favorably with
hydrogen fuel cells and traditional internal com-
bustion engines; and

(18) cooperation between the United States and
Israel in the field of research and development of al-
ternative renewable energy sources would be in the
interests of both countries, and both countries stand
to gain much from such cooperation.
SEC. 1333. GRANT PROGRAM.

(a) AUTHORITY.—Pursuant to the responsibilities described in section 102(10), (14), and (17) of the Department of Energy Organization Act (42 U.S.C. 7112(10), (14), and (17)) and section 103(9) of the Energy Reorganization Act of 1974 (42 U.S.C. 5813(9)), the Secretary, in consultation with the BIRD or BSF, shall award grants to eligible entities.

(b) APPLICATION.—

(1) SUBMISSION OF APPLICATIONS.—To receive a grant under this section, an eligible entity shall submit an application to the Secretary containing such information and assurances as the Secretary, in consultation with the BIRD or BSF, may require.

(2) SELECTION OF ELIGIBLE ENTITIES.—The Secretary, in consultation with the Directors of the BIRD and BSF, may review any application submitted by any eligible entity and select any eligible entity meeting criteria established by the Secretary, in consultation with the Advisory Board, for a grant under this section.

(c) AMOUNT OF GRANT.—The amount of each grant awarded for a fiscal year under this section shall be determined by the Secretary, in consultation with the BIRD or BSF.

(d) RECOUPMENT.—
(1) In general.—Not later than 180 days after the date of enactment of this Act, the Secretary shall establish procedures and criteria for recoupment in connection with any eligible project carried out by an eligible entity that receives a grant under this section, which has led to the development of a product or process which is marketed or used.

(2) Amount required.—

(A) Except as provided in subparagraph (B), such recoupment shall be required as a condition for award and be proportional to the Federal share of the costs of such project, and shall be derived from the proceeds of royalties or licensing fees received in connection with such product or process.

(B) In the case where a product or process is used by the recipient of a grant under this section for the production and sale of its own products or processes, the recoupment shall consist of a payment equivalent to the payment which would be made under subparagraph (A).

(3) Waiver.—The Secretary may at any time waive or defer all or some of the recoupment requirements of this subsection as necessary, depending on—
(A) the commercial competitiveness of the entity or entities developing or using the product or process;

(B) the profitability of the project; and

(C) the commercial viability of the product or process utilized.

(e) PRIVATE FUNDS.—The Secretary may accept contributions of funds from private sources to carry out this part.

(f) OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY.—The Secretary shall carry out this section through the existing programs at the Office of Energy Efficiency and Renewable Energy.

(g) REPORT.—Not later than 180 days after receiving a grant under this section, each recipient shall submit a report to the Secretary—

(1) documenting how the recipient used the grant funds; and

(2) evaluating the level of success of each project funded by the grant.

SEC. 1334. INTERNATIONAL ENERGY ADVISORY BOARD.

(a) ESTABLISHMENT.—There is established in the Department of Energy an International Energy Advisory Board.
(b) **DUTIES.**—The Advisory Board shall advise the Secretary on—

1. criteria for the recipients of grants awarded under section 1333(a);
2. the total amount of grant money to be awarded to all grantees selected by the Secretary, in consultation with the BIRD; and
3. the total amount of grant money to be awarded to all grantees selected by the Secretary, in consultation with the BSF, for each fiscal year.

(c) **MEMBERSHIP.**—

1. **COMPOSITION.**—The Advisory Board shall be composed of—

   (A) 1 member appointed by the Secretary of Commerce;

   (B) 1 member appointed by the Secretary of Energy; and

   (C) 2 members who shall be Israeli citizens, appointed by the Secretary of Energy after consultation with appropriate officials in the Israeli Government.

2. **DEADLINE FOR APPOINTMENTS.**—The initial appointments under paragraph (1) shall be made not later than 60 days after the date of enactment of this Act.
(3) TERM.—Each member of the Advisory Board shall be appointed for a term of 4 years.

(4) VACANCIES.—A vacancy on the Advisory Board shall be filled in the manner in which the original appointment was made.

(5) BASIC PAY.—

(A) COMPENSATION.—A member of the Advisory Board shall serve without pay.

(B) TRAVEL EXPENSES.—Each member of the Advisory Board shall receive travel expenses, including per diem in lieu of subsistence, in accordance with applicable provisions of subchapter I of chapter 57 of title 5, United States Code.

(6) QUORUM.—Three members of the Advisory Board shall constitute a quorum.

(7) CHAIRPERSON.—The Chairperson of the Advisory Board shall be designated by the Secretary of Energy at the time of the appointment.

(8) MEETINGS.—The Advisory Board shall meet at least once annually at the call of the Chairperson.

(d) TERMINATION.—Section 14(a)(2)(B) of the Federal Advisory Committee Act (5 U.S.C. App.) shall not apply to the Advisory Board.
SEC. 1335. DEFINITIONS.

In this part:

(1) ADVISORY BOARD.—The term “Advisory Board” means the International Energy Advisory Board established by section 1334(a).

(2) BIRD.—The term “BIRD” means the Israel-United States Binational Industrial Research and Development Foundation.

(3) BSF.—The term “BSF” means the United States-Israel Binational Science Foundation.

(4) ELIGIBLE ENTITY.—The term “eligible entity” means a joint venture comprised of both Israeli and United States private business entities or a joint venture comprised of both Israeli academic persons (who reside and work in Israel) and United States academic persons, that—

(A) carries out an eligible project; and

(B) is selected by the Secretary, in consultation with the BIRD or BSF, using the criteria established by the Secretary, in consultation with the Advisory Board.

(5) ELIGIBLE PROJECT.—The term “eligible project” means a project to encourage cooperation between the United States and Israel on research, development, or commercialization of alternative en-
energy, improved energy efficiency, or renewable energy sources.

(6) SECRETARY.—The term “Secretary” means the Secretary of Energy, acting through the Assistant Secretary of Energy for Energy Efficiency and Renewable Energy.

SEC. 1336. TERMINATION.

The grant program authorized under section 1333 and the Advisory Board shall terminate upon the expiration of the 7-year period which begins on the date of the enactment of this Act.

SEC. 1337. AUTHORIZATION OF APPROPRIATIONS.

The Secretary is authorized to expend not more than $20,000,000 to carry out this part for each of fiscal years 2008 through 2014 from funds previously authorized to the Office of Energy Efficiency and Renewable Energy.

SEC. 1338. CONSTITUTIONAL AUTHORITY.

The Constitutional authority on which this part rests is the power of Congress to regulate commerce with foreign nations as enumerated in Article I, Section 8 of the United States Constitution.
Subtitle E—Advanced Battery and Plug-In Hybrid Programs

SEC. 1401. ADVANCED BATTERY LOAN GUARANTEE PROGRAM.

(a) Establishment of Program.—The Secretary of Energy shall establish a program to provide guarantees of loans by private institutions for the construction of facilities for the manufacture of advanced vehicle batteries and battery systems that are developed and produced in the United States, including advanced lithium ion batteries and hybrid electrical system and component manufacturers and software designers.

(b) Requirements.—The Secretary may provide a loan guarantee under subsection (a) to an applicant if—

(1) without a loan guarantee, credit is not available to the applicant under reasonable terms or conditions sufficient to finance the construction of a facility described in subsection (a);

(2) the prospective earning power of the applicant and the character and value of the security pledged provide a reasonable assurance of repayment of the loan to be guaranteed in accordance with the terms of the loan; and

(3) the loan bears interest at a rate determined by the Secretary to be reasonable, taking into ac...
count the current average yield on outstanding obligations of the United States with remaining periods of maturity comparable to the maturity of the loan.

(c) CRITERIA.—In selecting recipients of loan guarantees from among applicants, the Secretary shall give preference to proposals that—

(1) meet all applicable Federal and State permitting requirements;

(2) are most likely to be successful; and

(3) are located in local markets that have the greatest need for the facility.

(d) MATURITY.—A loan guaranteed under subsection (a) shall have a maturity of not more than 20 years.

(e) TERMS AND CONDITIONS.—The loan agreement for a loan guaranteed under subsection (a) shall provide that no provision of the loan agreement may be amended or waived without the consent of the Secretary.

(f) ASSURANCE OF REPAYMENT.—The Secretary shall require that an applicant for a loan guarantee under subsection (a) provide an assurance of repayment in the form of a performance bond, insurance, collateral, or other means acceptable to the Secretary in an amount equal to not less than 20 percent of the amount of the loan.

(g) GUARANTEE FEE.—The recipient of a loan guarantee under subsection (a) shall pay the Secretary an
amount determined by the Secretary, including defaults, to be sufficient to cover the administrative costs of the Secretary relating to the loan guarantee.

(h) **FULL FAITH AND CREDIT.**—The full faith and credit of the United States is pledged to the payment of all guarantees made under this section. Any such guarantee made by the Secretary shall be conclusive evidence of the eligibility of the loan for the guarantee with respect to principal and interest. The validity of the guarantee shall be incontestable in the hands of a holder of the guaranteed loan.

(i) **REPORTS.**—Until each guaranteed loan under this section has been repaid in full, the Secretary shall annually submit to Congress a report on the activities of the Secretary under this section.

(j) **AUTHORIZATION OF APPROPRIATIONS.**—There are authorized to be appropriated such sums as are necessary to carry out this section.

(k) **TERMINATION OF AUTHORITY.**—The authority of the Secretary to issue a loan guarantee under subsection (a) terminates on the date that is 10 years after the date of enactment of this Act.
SEC. 1402. DOMESTIC MANUFACTURING CONVERSION

GRANT PROGRAM.

Section 712 of the Energy Policy Act of 2005 (42 U.S.C. 16062) is amended—

(1) in subsection (a)—

(A) by inserting “and components thereof” after “sales of efficient hybrid and advanced diesel vehicles”; 

(B) by inserting “and hybrid component manufacturers” after “grants to automobile manufacturers”; 

(C) by inserting “, plug-in electric hybrid,” after “production of efficient hybrid”; 

(D) by inserting “and suppliers” after “automobile manufacturers”; and 

(E) by adding at the end the following:

“Priority shall be given to the refurbishment or retooling of manufacturing facilities that have recently ceased operation or will cease operation in the near future.”; and

(2) by striking subsection (b) and inserting the following:

“(b) COORDINATION WITH STATE AND LOCAL PROGRAMS.—The Secretary may coordinate implementation of this section with State and local programs designed to accomplish similar goals, including the retention and retrain-
ing of skilled workers from the such manufacturing facili-
ties, including by establishing matching grant arrange-
ments.

“(c) Authorization of Appropriations.—There
are authorized to be appropriated to the Secretary
$90,000,000 to carry out this section.”.

SEC. 1403. INCENTIVE FOR FEDERAL AND STATE FLEETS
FOR MEDIUM AND HEAVY DUTY HYBRIDS.

Section 301 of the Energy Policy Act of 1992 (42
U.S.C. 13211) is amended—

(1) in paragraph (3), by striking “or a dual
fueled vehicle” and inserting “, a dual fueled vehicle,
or a medium or heavy duty vehicle that is a hybrid
vehicle”;

(2) by redesignating paragraphs (11), (12),
(13), and (14) as paragraphs (12), (14), (15), and
(16), respectively;

(3) by inserting after paragraph (10) the fol-
lowing new paragraph:

“(11) the term ‘hybrid vehicle’ means a vehicle
powered both by a diesel or gasoline engine and an
electric motor or hydraulic energy storage device
that is recharged as the vehicle operates;”; and
(4) by inserting after paragraph (12) (as so re-designated by paragraph (2) of this section) the following new paragraph:

“(13) the term ‘medium or heavy duty vehicle’ means a vehicle that—

“(A) in the case of a medium duty vehicle, has a gross vehicle weight rating of more than 8,500 pounds but not more than 14,000 pounds; and

“(B) in the case of a heavy duty vehicle, has a gross vehicle weight rating of more than 14,000 pounds;”.


(1) by striking “The Secretary” in subsection (a) and inserting “(1) The Secretary”; and

(2) by adding at the end of subsection (a) the following:

“(2) Not later than January 31, 2009, the Secretary shall allocate credit in an amount to be determined by the Secretary for acquisition of—

“(A) a hybrid electric vehicle;

“(B) a plug-in hybrid electric vehicle;
“(C) a fuel cell electric vehicle;

“(D) a neighborhood electric vehicle; or

“(E) a medium-duty or heavy-duty electric, hybrid electric, hybrid hydraulic, or plug-in hybrid electric vehicle.”; and

(3) by adding at the end the following:

“(e) DEFINITIONS.—In this section:

“(1) FUEL CELL ELECTRIC VEHICLE.—The term ‘fuel cell electric vehicle’ means an on-road or nonroad vehicle that uses a fuel cell (as defined in section 803 of the Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 2005 (42 U.S.C. 16152)).

“(2) HYBRID ELECTRIC VEHICLE.—The term ‘hybrid electric vehicle’ means a new qualified hybrid motor vehicle (as defined in section 30B(d)(3) of the Internal Revenue Code of 1986).

“(3) MEDIUM-DUTY OR HEAVY-DUTY ELECTRIC, HYBRID ELECTRIC, OR PLUG-IN HYBRID ELECTRIC VEHICLE.—The term ‘medium-duty or heavy-duty electric, hybrid electric, or plug-in hybrid electric vehicle’ is an electric, hybrid electric, or plug-in hybrid electric motor vehicle greater than 8,501 pounds gross vehicle rating.
“(4) Neighborhood electric vehicle.—

The term ‘neighborhood electric vehicle’ means a 4-wheeled on-road or nonroad vehicle, with a top attainable speed in 1 mile of more than 20 mph and not more than 25 mph on a paved level surface, that is propelled by an electric motor and on board, rechargeable energy storage system that is rechargeable using an off-board source of electricity.

“(5) Plug-in hybrid electric vehicle.—

The term ‘plug-in hybrid electric vehicle’ means a light-duty, medium-duty, or heavy-duty on-road or nonroad vehicle that is propelled by any combination of—

“(A) an electric motor and on-board, rechargeable energy storage system capable of operating the vehicle in intermittent or continuous all-electric mode and which is rechargeable using an off-board source of electricity; and

“(B) an internal combustion engine or heat engine using any combustible fuel.”.

SEC. 1405. STUDYING THE BENEFITS OF PLUG-IN HYBRID ELECTRIC DRIVE VEHICLES AND ELECTRIC DRIVE TRANSPORTATION.

(a) Study.—Not later than 1 year after the date of enactment of this section, the Secretary of Transportation
in consultation with the Secretary of Energy and appropriate Federal agencies and interested stakeholders in the public, private and non-profit sectors, shall study and report to Congress on the benefits of and barriers to the widespread use of a potentially new class of vehicles known as city cars with performance capability that exceeds that of low speed vehicles but is less than that of passenger vehicles, and which may be battery electric, fuel cell electric, or plug-in hybrid electric vehicles. Such study shall examine the benefits and issues associated with limiting city cars to a maximum speed of 35 mph, 45 mph, 55 mph, or any other maximum speed, and make a recommendation regarding maximum speed.

(b) DEFINITIONS.—In this section—

(1) NONROAD VEHICLE.—The term “nonroad vehicle” has the meaning given that term in section 216 of the Clean Air Act (42 U.S.C. 7550)), or vehicles of the same classification that are fully or partially powered by an electric motor powered by a fuel cell, a battery, or an off-board source of electricity.

(2) PLUG-IN ELECTRIC DRIVE VEHICLE.—The term “plug-in electric drive vehicle” means a means a light-duty, medium-duty, or heavy-duty on-road or nonroad battery electric, hybrid or fuel cell vehicle
that can be recharged from an external electricity source for motive power.

(3) **Plug-in Hybrid Electric Vehicle.**—The term “plug-in hybrid electric vehicle” means a light-duty, medium-duty, or heavy-duty on-road or nonroad vehicle that is propelled by any combination of—

(A) an electric motor and on-board, rechargeable energy storage system capable of operating the vehicle in intermittent or continuous all-electric mode and which is rechargeable using an off-board source of electricity; and

(B) an internal combustion engine or heat engine using any combustible fuel.

**SEC. 1406. Plug-in Hybrid Vehicle Program.**

(a) **Establishment.**—The Secretary of Energy (in this section referred to as the “Secretary”) shall establish a competitive program to provide grants on a cost-shared basis to State governments, local governments, metropolitan transportation authorities, air pollution control districts, private or nonprofit entities or combinations thereof, to carry out a project or projects to encourage the use of plug-in electric drive vehicles or other emerging electric vehicle technologies, as determined by the Secretary.
(b) ADMINISTRATION.—The Secretary shall establish requirements for applications for grants under this section, including reporting of data to be summarized for dissemination to the Department, other grantees, and the public, including vehicle and component performance and vehicle and component life cycle costs.

(e) SELECTION CRITERIA.—

(1) PRIORITY.—When making awards under this section, the Secretary shall give priority consideration to applications that encourage early widespread utilization of such vehicles and are likely to make a significant contribution to the advancement of the production of such vehicles in the United States.

(2) SCOPE OF PROGRAMS.—When making awards under this section, the Secretary shall ensure that the programs will maximize diversity in applications, manufacturers, end-uses and vehicle control systems.

(d) AUTHORIZATIONS OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out the program under this section, $60,000,000, to remain available until expended.

(e) CERTAIN APPLICANTS.—A battery manufacturer that proposes to supply to an applicant for a grant under
this section a battery with a capacity of greater than 1 kilowatt-hour for use in a plug-in electric drive vehicle shall—

(1) ensure that the applicant includes in the application a description of the price of the battery per kilowatt hour;

(2) on approval by the Secretary of the application, publish, or permit the Secretary to publish, the price described in subparagraph (A); and

(3) for any order received by the battery manufacturer for at least 1,000 batteries, offer batteries at that price.

SEC. 1407. NEAR-TERM ELECTRIC DRIVE TRANSPORTATION DEPLOYMENT PROGRAM.

(a) REVOLVING LOAN PROGRAM.—

(1) IN GENERAL.—The Secretary shall establish a revolving loan program to provide loans to eligible entities for the conduct of qualified electric transportation projects.

(2) CRITERIA.—The Secretary shall establish criteria for the provision of loans under this subsection.

(b) MARKET ASSESSMENT AND ELECTRICITY USAGE PROGRAM.—
(1) IN GENERAL.—The Administrator of the Environmental Protection Agency, in consultation with the Secretary and private industry, shall carry out a program—

(A) to inventory and analyze existing electric drive transportation technologies and hybrid technologies and markets; and

(B) to identify and implement methods of removing barriers for existing and emerging applications of electric drive transportation technologies and hybrid transportation technologies.

(2) ELECTRICITY USAGE.—The Secretary, in consultation with the Administrator of the Environmental Protection Agency and private industry, shall carry out a program—

(A) to develop systems and processes—

(i) to enable plug-in electric vehicles to enhance the availability of emergency back-up power for consumers; and

(ii) to study and demonstrate the potential value to the electric grid of using the energy stored in the on-board storage systems to improve the efficiency of the grid generation system; and
(B) to work with utilities and other interested stakeholders to study and demonstrate the implications of the introduction of plug-in electric vehicles and other types of electric transportation on the production of electricity from renewable resources.

(3) **OFF-PeAK ELECTRICITY USAGE GRANTS.**—In carrying out the program under paragraph (2), the Secretary shall provide grants to assist eligible public and private electric utilities to conduct programs or activities to encourage owners of electric drive transportation technologies—

(A) to use off-peak electricity; or

(B) to have the load managed by the utility.

(e) **DEFINITION OF QUALIFIED ELECTRIC TRANSPORTATION PROJECT.**—In this section, the term “qualified electric transportation project” includes a project relating to—

(1) ship-side or shore-side electrification for vessels;

(2) truck-stop electrification;

(3) electric truck refrigeration units;

(4) battery-powered auxiliary power units for trucks;
(5) electric airport ground support equipment;
(6) electric material/cargo handling equipment;
(7) electric or dual-mode electric freight rail;
(8) any distribution upgrades needed to supply
electricity to the qualified electric transportation
projects; and
(9) any ancillary infrastructure, including panel
upgrades, battery chargers, in-situ transformer, and
trenching.

(d) AUTHORIZATION OF APPROPRIATIONS.—There
are authorized to carry this section $90,000,000 for each
of the fiscal years 2008 through 2011.

Subtitle A—Energy Market Study

SEC. 1501. FINDINGS.

The Congress finds that—

(1) the Energy Information Administration’s
data is critical not merely for analysis of the role of
energy in our economy and environment, but for the
effective functioning of domestic and international
energy markets.

(2) Federal and State policymakers rely on the
Energy Information Administration to collect and
report State level energy information needed for en-
ergy policymaking, compliance with Federal and
State mandates, and for purposes of emergency energy preparedness and response;

(3) as policymakers consider and implement policies to cut greenhouse gas emissions, accurate, timely, and comparable State energy information becomes even more important;

(4) new and expanded sources of information about energy demand and supply have become available and need to be incorporated in the Energy Information Administration’s data and analysis functions;

(5) the Energy Information Administration needs to maintain and enhance its ability to collect, process, and analyze data while confronting broader demands for information in greater detail; and

(6) budget and personnel constraints have forced the Energy Information Administration to curtail surveys relied upon by energy and financial markets and could further defer important improvements in the scope and quality of resulting information.

SEC. 1502. ASSESSMENT OF RESOURCES.

(a) 5-YEAR PLAN.—The Administrator of the Energy Information Administration shall establish a 5-year plan to enhance the quality and scope of the data collection nee-
necessary to ensure the scope, accuracy, and timeliness of the information needed for efficient functioning of energy markets and related financial operations. Particular attention shall be paid to restoring data series terminated because of budget constraints, data on demand response, timely data series of State-level information, improvements in the area of oil and gas data, and the ability to provide data mandated by Congress promptly and completely.

(b) SUBMITTAL TO CONGRESS.—The Administrator shall submit this plan to Congress detailing improvements needed to enhance the Energy Information Administration’s ability to collect and process energy information in a manner consistent with the needs of energy markets.

(c) GUIDELINES.—The Administrator shall—

(1) establish guidelines to ensure the quality, comparability, and scope of State energy data, including data on energy production and consumption by product and sector and renewable and alternative sources, required to provide a comprehensive, accurate energy profile at the State level;

(2) share company-level data collected at the State level with the State involved, provided the State has agreed to reasonable guidelines for its use adopted by the Administrator;
(3) assess any existing gaps in data obtained by and compiled by the Energy Information Administration; and

(4) evaluate the most cost effective ways to address any data quality and quantity issues in conjunction with State officials.

The Energy Information Administration shall consult with State officials and the Federal Energy Regulatory Commission on a regular basis in establishing these guidelines and scope of State level data, as well as in exploring ways to address data needs and serve data uses.

(d) ASSESSMENT OF STATE DATA NEEDS.—The Administrator shall provide an assessment of these State-level data needs to the Congress not later than 1 year after the date of enactment of this Act, detailing a plan to address the needs identified.

(e) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Administrator for carrying out this section, in addition to any other authorizations—

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

(2) $10,000,000 for fiscal year 2009;

(3) $10,000,000 for fiscal year 2010;

(4) $15,000,000 for fiscal year 2011;

(5) $20,000,000 for fiscal year 2012; and
(6) such sums as are necessary for subsequent fiscal years.

**TITLE II—SCIENCE AND TECHNOLOGY**

**Subtitle A—Geothermal Energy**

**SEC. 2001. SHORT TITLE.**

This subtitle may be cited as the “Advanced Geothermal Energy Research and Development Act of 2007”.

**SEC. 2002. DEFINITIONS.**

For purposes of this subtitle:

(1) **ENGINEERED.**—When referring to enhanced geothermal systems, the term “engineered” means subjected to intervention, including intervention to address one or more of the following issues:

(A) Lack of effective permeability or porosity or open fracture connectivity within the reservoir.

(B) Insufficient contained geofluid in the reservoir.

(C) A low average geothermal gradient, which necessitates deeper drilling.

(2) **ENHANCED GEOTHERMAL SYSTEMS.**—The term “enhanced geothermal systems” means geothermal reservoir systems that are engineered, as opposed to occurring naturally.
(3) **Geofluid.**—The term “geofluid” means any fluid used to extract thermal energy from the Earth which is transported to the surface for direct use or electric power generation, except that such term shall not include oil or natural gas.

(4) **Geopressed Resources.**—The term “geopressed resources” mean geothermal deposits found in sedimentary rocks under higher than normal pressure and saturated with gas or methane.

(5) **Geothermal.**—The term “geothermal” refers to heat energy stored in the Earth’s crust that can be accessed for direct use or electric power generation.

(6) **Hydrothermal.**—The term “hydrothermal” refers to naturally occurring subsurface reservoirs of hot water or steam.

(7) **Secretary.**—The term “Secretary” means the Secretary of Energy.

(8) **Systems Approach.**—The term “systems approach” means an approach to solving problems or designing systems that attempts to optimize the performance of the overall system, rather than a particular component of the system.
SEC. 2003. HYDROTHERMAL RESEARCH AND DEVELOPMENT.

(a) In general.—The Secretary shall support programs of research, development, demonstration, and commercial application to expand the use of geothermal energy production from hydrothermal systems, including the programs described in subsection (b).

(b) Programs.—

(1) Advanced hydrothermal resource tools.—The Secretary, in consultation with other appropriate agencies, shall support a program to develop advanced geophysical, geochemical, and geologic tools to assist in locating hidden hydrothermal resources, and to increase the reliability of site characterization before, during, and after initial drilling. The program shall develop new prospecting techniques to assist in prioritization of targets for characterization. The program shall include a field component.

(2) Industry coupled exploratory drilling.—The Secretary shall support a program of cost-shared field demonstration programs, to be pursued, simultaneously and independently, in collaboration with industry partners, for the demonstration of technologies and techniques of siting and exploratory drilling for undiscovered resources in a variety
of geologic settings. The program shall include incentives to encourage the use of advanced technologies and techniques.

SEC. 2004. GENERAL GEOTHERMAL SYSTEMS RESEARCH AND DEVELOPMENT.

(a) Subsurface Components and Systems.—The Secretary shall support a program of research, development, demonstration, and commercial application of components and systems capable of withstanding extreme geothermal environments and necessary to cost-effectively develop, produce, and monitor geothermal reservoirs and produce geothermal energy. These components and systems shall include advanced casing systems (expandable tubular casing, low-clearance casing designs, and others), high-temperature cements, high-temperature submersible pumps, and high-temperature packers, as well as technologies for under-reaming, multilateral completions, high-temperature logging, and logging while drilling.

(b) Reservoir Performance Modeling.—The Secretary shall support a program of research, development, demonstration, and commercial application of models of geothermal reservoir performance, with an emphasis on accurately modeling performance over time. Models shall be developed to assist both in the development of geothermal reservoirs and to more accurately account for
stress-related effects in stimulated hydrothermal and enhanced geothermal systems production environments.

(c) Environmental Impacts.—The Secretary shall—

(1) support a program of research, development, demonstration, and commercial application of technologies and practices designed to mitigate or preclude potential adverse environmental impacts of geothermal energy development, production or use, and seek to ensure that geothermal energy development is consistent with the highest practicable standards of environmental stewardship; and

(2) in conjunction with the Assistant Administrator for Research and Development at the Environmental Protection Agency, support a research program to identify potential environmental impacts of geothermal energy development, production, and use, and ensure that the program described in paragraph (1) addresses such impacts, including effects on groundwater and local hydrology.

Any potential environmental impacts identified as part of the development, production, and use of geothermal energy shall be measured and examined against the potential emissions offsets of greenhouse gases gained by geothermal energy development, production, and use.
SEC. 2005. ENHANCED GEOTHERMAL SYSTEMS RESEARCH AND DEVELOPMENT.

(a) In General.—The Secretary shall support a program of research, development, demonstration, and commercial application for enhanced geothermal systems, including the programs described in subsection (b).

(b) Programs.—

(1) Enhanced geothermal systems technologies.—The Secretary shall support a program of research, development, demonstration, and commercial application of the technologies and knowledge necessary for enhanced geothermal systems to advance to a state of commercial readiness, including advances in—

(A) reservoir stimulation;

(B) reservoir characterization, monitoring, and modeling;

(C) stress mapping;

(D) tracer development;

(E) three-dimensional tomography;

(F) understanding seismic effects of reservoir engineering and stimulation; and

(G) laser-based drilling technology.

(2) Enhanced geothermal systems reservoir stimulation.—
(A) PROGRAM.—In collaboration with industry partners, the Secretary shall support a program of research, development, and demonstration of enhanced geothermal systems reservoir stimulation technologies and techniques. A minimum of 5 sites shall be selected in locations that show particular promise for enhanced geothermal systems development. Each site shall—

(i) represent a different class of subsurface geologic environments; and

(ii) take advantage of an existing site where subsurface characterization has been conducted or existing drill holes can be utilized, if possible.

(B) CONSIDERATION OF EXISTING SITES.—The following 2 sites, where Department of Energy and industry cooperative enhanced geothermal systems projects are already underway, may be considered for inclusion among the sites selected under subparagraph (A):

(i) Desert Peak, Nevada.

(ii) Coso, California.
SEC. 2006. GEOTHERMAL ENERGY PRODUCTION FROM OIL AND GAS FIELDS AND RECOVERY AND PRODUCTION OF GEOPRESSURED GAS RESOURCES.

(a) In general.—The Secretary shall establish a program of research, development, demonstration, and commercial application to support development of geothermal energy production from oil and gas fields and production and recovery of energy from geopressed resources. In addition, the Secretary shall conduct such supporting activities including research, resource characterization, and technology development as necessary.

(b) Geothermal Energy Production from Oil and Gas Fields.—The Secretary shall implement a grant program in support of geothermal energy production from oil and gas fields. The program shall include grants for a total of not less than three demonstration projects of the use of geothermal techniques such as organic rankine cycle systems at marginal, unproductive, and productive oil and gas wells. The Secretary shall, to the extent practicable and in the public interest, make awards that—

(1) include not less than five oil or gas well sites per project award;

(2) use a range of oil or gas well hot water source temperatures from 150 degrees Fahrenheit to 300 degrees Fahrenheit;
(3) cover a range of sizes up to one megawatt;
(4) are located at a range of sites;
(5) can be replicated at a wide range of sites;
(6) facilitate identification of optimum techniques among competing alternatives;
(7) include business commercialization plans that have the potential for production of equipment at high volumes and operation and support at a large number of sites; and
(8) satisfy other criteria that the Secretary determines are necessary to carry out the program and collect necessary data and information.

The Secretary shall give preference to assessments that address multiple elements contained in paragraphs (1) through (8).

(e) Grant Awards.—Each grant award for demonstration of geothermal technology such as organic rankine cycle systems at oil and gas wells made by the Secretary under subsection (b) shall include—

(1) necessary and appropriate site engineering study;
(2) detailed economic assessment of site specific conditions;
(3) appropriate feasibility studies to determine whether the demonstration can be replicated;
(4) design or adaptation of existing technology for site-specific circumstances or conditions;
(5) installation of equipment, service, and support;
(6) operation for a minimum of one year and monitoring for the duration of the demonstration; and
(7) validation of technical and economic assumptions and documentation of lessons learned.

(d) GEOPRESSURED GAS RESOURCE RECOVERY AND PRODUCTION.—(1) The Secretary shall implement a program to support the research, development, demonstration, and commercial application of cost-effective techniques to produce energy from geopressed resources situated in and near the Gulf of Mexico.
(2) The Secretary shall solicit preliminary engineering designs for geopressed resources production and recovery facilities.
(3) Based upon a review of the preliminary designs, the Secretary shall award grants, which may be cost-shared, to support the detailed development and completion of engineering, architectural and technical plans needed to support construction of new designs.
(4) Based upon a review of the final design plans above, the Secretary shall award cost-shared development
and construction grants for demonstration geopressed production facilities that show potential for economic recovery of the heat, kinetic energy and gas resources from geopressed resources.

(e) COMPETITIVE GRANT SELECTION.—Not less than 90 days after the date of the enactment of this Act, the Secretary shall conduct a national solicitation for applications for grants under the programs outlined in subsections (b) and (d). Grant recipients shall be selected on a competitive basis based on criteria in the respective subsection.

(f) WELL DRILLING.—No funds may be used under this section for the purpose of drilling new wells.

SEC. 2007. GEOPOWERING AMERICA.

(a) IN GENERAL.—The Secretary shall expand the Department of Energy’s GeoPowering the West program to extend its geothermal technology transfer activities throughout the entire United States. The program shall be renamed “GeoPowering America”. The program shall continue to be based in the Department of Energy office in Golden, Colorado.

(b) ADDITIONAL PURPOSES.—In addition to the other duties of GeoPowering the West, the new GeoPowering America program is authorized to serve as an information clearinghouse for the geothermal industry,
collecting and disseminating information on best practices in all areas related to developing and managing hydrothermal resources, geothermal resources from oil and gas fields, enhanced geothermal systems resources, and geopressed resources. GeoPowering America shall collect and disseminate information on all subjects germane to the development and use of hydrothermal systems, geothermal systems from oil and gas fields, enhanced geothermal systems, and geopressed systems. Information for hydrothermal systems shall at a minimum include—

(1) resource location;
(2) reservoir characterization, monitoring, and modeling;
(3) drilling techniques;
(4) reservoir management techniques; and
(5) technologies for electric power conversion or direct use of geothermal energy.

SEC. 2008. EDUCATIONAL PILOT PROGRAM.

The Secretary shall seek to award grant funding, on a competitive basis, to an institution of higher education for a geothermal-powered energy generation facility on the institution’s campus. The purpose of the facility shall be to provide electricity and space heating. The facility shall also serve as an educational resource to students in relevant fields of study, and the data generated by the facility
shall be available to students and the general public. The total funding award shall not exceed $2,000,000.

SEC. 2009. REPORTS.

(a) Reports on Advanced Uses of Geothermal Energy.—Not later than 1 year, 3 years, and 5 years, after the date of enactment of this Act, the Secretary shall report to the Committee on Science and Technology of the House of Representatives and the Committee on Energy and Natural Resources of the Senate on advanced concepts and technologies to maximize the geothermal resource potential of the United States. The reports shall include—

(1) the use of carbon dioxide as an alternative geofluid with potential carbon sequestration benefits;

(2) mineral recovery from geofluids;

(3) use of geothermal energy to produce hydrogen;

(4) use of geothermal energy to produce biofuels;

(5) use of geothermal heat for oil recovery from oil shales and tar sands; and

(6) other advanced geothermal technologies, including advanced drilling technologies and advanced power conversion technologies.
(b) **Progress Reports.**—(1) Not later than 36 months after the date of enactment of this Act, the Secretary shall submit to the Committee on Science and Technology of the House of Representatives and the Committee on Energy and Natural Resources of the Senate an interim report describing the progress made under this subtitle. At the end of 60 months, the Secretary shall submit to Congress a report on the results of projects undertaken under this subtitle and other such information the Secretary considers appropriate.

(2) As necessary, the Secretary shall report to the Congress on any legal, regulatory, or other barriers encountered that hinder economic development of these resources, and provide recommendations on legislative or other actions needed to address such impediments.

**SEC. 2010. APPLICABILITY OF OTHER LAWS.**

Nothing in this subtitle shall be construed as waiving the applicability of any requirement under any environmental or other Federal or State law.

**SEC. 2011. AUTHORIZATION OF APPROPRIATIONS.**

There are authorized to be appropriated to the Secretary to carry out this subtitle $80,000,000 for each of the fiscal years 2008 through 2012, of which $20,000,000 for each fiscal year shall be for carrying out section 2006.
Subtitle B—Biofuels

SEC. 2101. SHORT TITLE.

This subtitle may be cited as the “Biofuels Research and Development Enhancement Act”.

SEC. 2102. BIODIESEL.

(a) BIODIESEL STUDY.—Not later than 180 days after the date of enactment of this Act, the Secretary shall submit to Congress a report on any research and development challenges inherent in increasing to 2.5 percent the proportion of diesel fuel sold in the United States that is biodiesel (within the meaning of section 211(o) of the Clean Air Act).

(b) MATERIALS FOR THE ESTABLISHMENT OF STANDARDS.—The Director of the National Institute of Standards and Technology shall make publicly available the physical property data and characterization of biodiesel, as is defined in subsection (a), in order to encourage the establishment of standards that will promote their utilization in the transportation and fuel delivery system.

SEC. 2103. BIOGAS.

Not later than 180 days after the date of enactment of this Act, the Secretary shall submit to Congress a report on any research and development challenges inherent in increasing to 5 percent of the transportation fuels sold...
in the United States fuel with biogas or a blend of biogas and natural gas.

SEC. 2104. GRANTS FOR BIOFUEL PRODUCTION RESEARCH AND DEVELOPMENT IN CERTAIN STATES.

(a) In General.—The Secretary shall provide grants to eligible entities for research, development, demonstration, and commercial application of biofuel production technologies other than ethanol production from corn, as determined by the Secretary.

(b) Eligibility.—To be eligible to receive a grant under this section, an entity shall—

(1)(A) be an institution of higher education (as defined in section 2 of the Energy Policy Act of 2005 (42 U.S.C. 15801)) located in a State described in subsection (a); or

(B) be a consortium including at least 1 such institution of higher education, and industry, State agencies, Indian tribal agencies, National Laboratories, or local government agencies located in the State; and

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

(e) Authorization of Appropriations.—There are authorized to be appropriated to the Secretary to carry
out this section $25,000,000 for each of fiscal years 2008
through 2010.

SEC. 2105. BIOREFINERY ENERGY EFFICIENCY.

Section 932 of Energy Policy Act of 2005 (42 U.S.C. 16232), is amended by adding at the end the following
new subsections:

“(g) BIOREFINERY ENERGY EFFICIENCY.—The Sec-
retary shall establish a program of research, development,
demonstration, and commercial application for increasing
energy efficiency and reducing energy consumption in the
operation of biorefinery facilities.

“(h) RETROFIT TECHNOLOGIES FOR THE DEVELOP-
MENT OF ETHANOL FROM CELLULOSIC MATERIALS.—
The Secretary shall establish a program of research, devel-
opment, demonstration, and commercial application on

technologies and processes to enable biorefineries that ex-
clusively use corn grain or corn starch as a feedstock to
produce ethanol to be retrofitted to accept a range of bio-

mass, including lignocellulosic feedstocks.”.

SEC. 2106. STUDY OF INCREASED CONSUMPTION OF ETH-
ANOL-BLENDED GASOLINE WITH HIGHER
LEVELS OF ETHANOL.

(a) IN GENERAL.—The Secretary, in cooperation
with the Secretary of Agriculture, the Administrator of the
Environmental Protection Agency, and the Secretary of
Transportation, shall conduct a study of the methods of increasing consumption in the United States of ethanol-blended gasoline with levels of ethanol that are not less than 10 percent and not more than 40 percent.

(b) STUDY.—The study under subsection (a) shall include—

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

(2) an evaluation of the environmental consequences of the ethanol blends described in subsection (a) on evaporative and exhaust emissions from on-road, off-road, and marine vehicle engines;

(3) an evaluation of the consequences of the ethanol blends described in subsection (a) on the operation, durability, and performance of on-road, off-road, and marine vehicle engines; and

(4) an evaluation of the life cycle impact of the use of the ethanol blends described in subsection (a) on carbon dioxide and greenhouse gas emissions.

(c) REPORT.—Not later than 1 year after the date of enactment of this Act, the Secretary shall submit to Congress a report describing the results of the study conducted under this section.
SEC. 2107. STUDY OF OPTIMIZATION OF FLEXIBLE FUELED VEHICLES TO USE E-85 FUEL.

(a) In General.—The Secretary, in consultation with the Secretary of Transportation, shall conduct a study of whether optimizing flexible fueled vehicles to operate using E–85 fuel would increase the fuel efficiency of flexible fueled vehicles.

(b) Report.—Not later than 180 days after the date of enactment of this Act, the Secretary shall submit to the Committee on Science and Technology of the House of Representatives the Committee on Energy and Natural Resources of the Senate a report that describes the results of the study under this section, including any recommendations of the Secretary.

SEC. 2108. STUDY OF ENGINE DURABILITY AND PERFORMANCE ASSOCIATED WITH THE USE OF BIO-DIESEL.

(a) In General.—Not later than 30 days after the date of enactment of this Act, the Secretary shall initiate a study on the effects of the use of biodiesel on the performance and durability of engines and engine systems.

(b) Components.—The study under this section shall include—

(1) an assessment of whether the use of biodiesel lessens the durability and performance of conventional diesel engines and engine systems; and
(2) an assessment of the effects referred to in subsection (a) with respect to biodiesel blends at varying concentrations, including the following percentage concentrations of biodiesel:

(A) 5 percent biodiesel.
(B) 10 percent biodiesel.
(C) 20 percent biodiesel.
(D) 30 percent biodiesel.
(E) 100 percent biodiesel.

(c) Report.—Not later than 24 months after the date of enactment of this Act, the Secretary shall submit to the Committee on Science and Technology of the House of Representatives the Committee on Energy and Natural Resources of the Senate a report that describes the results of the study under this section, including any recommendations of the Secretary.

SEC. 2109. BIOENERGY RESEARCH AND DEVELOPMENT, AUTHORIZATION OF APPROPRIATION.

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

(1) in subsection (b)—

(A) at the end of paragraph (2) by striking “and”;

(B) at the end of paragraph (3) by striking the period and inserting “; and”; and
(C) by adding at the end the following new paragraph:

“(4) $963,000,000 for fiscal year 2010.”; and

(2) in subsection (c)—

(A) in paragraph (2), by striking “$251,000,000” and inserting “$377,000,000”;

(B) in paragraph (3), by striking “$274,000,000” and inserting “$398,000,000”;

and

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

“(4) $419,000,000 for fiscal year 2010, of which $150,000,00 shall be for section 932(d).”.

SEC. 2110. ENVIRONMENTAL RESEARCH AND DEVELOPMENT.

(a) Amendments.—Section 977 of the Energy Policy Act of 2005 (42 U.S.C. 16317) is amended—

(1) in subsection (a)(1), by striking “and computational biology” and inserting “computational biology, and environmental science”; and

(2) in subsection (b)—

(A) in paragraph (1), by inserting “in sustainable production systems that reduce greenhouse gas emissions” after “hydrogen”;

(2) in subsection (c)—

(A) in paragraph (2), by striking “$251,000,000” and inserting “$377,000,000”;

(B) in paragraph (3), by striking “$274,000,000” and inserting “$398,000,000”;

and

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

“(4) $419,000,000 for fiscal year 2010, of which $150,000,00 shall be for section 932(d).”.

SEC. 2110. ENVIRONMENTAL RESEARCH AND DEVELOPMENT.

(a) Amendments.—Section 977 of the Energy Policy Act of 2005 (42 U.S.C. 16317) is amended—

(1) in subsection (a)(1), by striking “and computational biology” and inserting “computational biology, and environmental science”; and

(2) in subsection (b)—

(A) in paragraph (1), by inserting “in sustainable production systems that reduce greenhouse gas emissions” after “hydrogen”;
(B) at the end of paragraph (3), by strik-
ing “and”;

(C) by redesignating paragraph (4) as
paragraph (5); and

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

“(4) develop cellulosic and other feedstocks that
are less resource and land intensive and that pro-
mote sustainable use of resources, including soil,
water, energy, forests, and land, and ensure protec-
tion of air, water, and soil quality; and”.

(b) TOOLS AND EVALUATION.—The Secretary, in
consultation with the Administrator of the Environmental
Protection Agency and the Secretary of Agriculture, shall
establish a research and development program to—

(1) improve and develop analytical tools to fa-
cilitate the analysis of life-cycle energy and green-
house gas emissions, including emissions related to
direct and indirect land use changes, attributable to
all potential biofuel feedstocks and production proc-
esses; and

(2) promote the systematic evaluation of the
impact of expanded biofuel production on the envi-
ronment, including forestlands, and on the food sup-
ply for humans and animals.
(c) Small-Scale Production and Use of Biofuels.—The Secretary, in cooperation with the Secretary of Agriculture, shall establish a research and development program to facilitate small-scale production, local, and on-farm use of biofuels, including the development of small-scale gasification technologies for production of biofuel from cellulosic feedstocks.

SEC. 2111. Study of Optimization of Biogas Used in Natural Gas Vehicles.

(a) In General.—The Secretary of Energy shall conduct a study of methods of increasing the fuel efficiency of vehicles using biogas by optimizing natural gas vehicle systems that can operate on biogas, including the advancement of vehicle fuel systems and the combination of hybrid-electric and plug-in hybrid electric drive platforms with natural gas vehicle systems using biogas.

(b) Report.—Not later than 180 days after the date of enactment of this Act, the Secretary of Energy shall submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Science and Technology of the House of Representatives a report that describes the results of the study, including any recommendations of the Secretary.
SEC. 2112. ALGAL BIOMASS.

Not later than 90 days after the date of enactment of this Act, the Secretary shall submit to the Committee on Science and Technology of the House of Representatives and the Committee on Energy and Natural Resources of the Senate a report on the progress of the research and development that is being conducted on the use of algae as a feedstock for the production of biofuels. The report shall identify continuing research and development challenges and any regulatory or other barriers found by the Secretary that hinder the use of this resource, as well as recommendations on how to encourage and further its development as a viable transportation fuel.

SEC. 2113. BLENDED FUELS.

The Secretary shall carry out a program of research, development, and demonstration as it relates to the blending of transportation fuels derived from coal-to-liquids and the blending thereof with transportation fuels derived from renewable sources, including biomass (as defined in section 932 of the Energy Policy Act of 2005). The program shall focus on—

(1) maximizing the fungibility and supply of blended transportation fuels;

(2) the viability of the blend as a cost competitive replacement for transportation fuels;
(3) evaluation of the environmental consequences of the blend on evaporative and exhaust emissions from on-road and off-road engines;
(4) the quality of the resultant blend at varying concentrations of biofuel; and
(5) other areas the Secretary considers appropriate.

Subtitle C—Carbon Capture and Storage

SEC. 2201. SHORT TITLE.

This subtitle may be cited as the “Department of Energy Carbon Capture and Storage Research, Development, and Demonstration Act of 2007”.

SEC. 2202. CARBON CAPTURE AND STORAGE RESEARCH, DEVELOPMENT, AND DEMONSTRATION PROGRAM.

(a) AMENDMENTS.—Section 963 of the Energy Policy Act of 2005 (42 U.S.C. 16293) is amended—

(1) in the section heading, by striking “RESEARCH AND DEVELOPMENT” and inserting “AND STORAGE RESEARCH, DEVELOPMENT, AND DEMONSTRATION”;
(A) by striking “research and development” and inserting “and storage research, development, and demonstration”; and

(B) by striking “capture technologies on combustion-based systems” and inserting “capture and storage technologies related to electric power generating systems”;

(3) in subsection (b)—

(A) in paragraph (3), by striking “and” at the end;

(B) in paragraph (4), by striking the period at the end and inserting “; and”; and

(C) by adding at the end the following:

“(5) to expedite and carry out large-scale testing of carbon sequestration systems in a range of geological formations that will provide information on the cost and feasibility of deployment of sequestration technologies.”; and

(4) by striking subsection (c) and inserting the following:

“(c) PROGRAMMATIC ACTIVITIES.—

“(1) FUNDAMENTAL SCIENCE AND ENGINEERING RESEARCH AND DEVELOPMENT AND DEMONSTRATION SUPPORTING CARBON CAPTURE AND STORAGE TECHNOLOGIES.—
“(A) IN GENERAL.—The Secretary shall carry out fundamental science and engineering research (including laboratory-scale experiments, numeric modeling, and simulations) to develop and document the performance of new approaches to capture and store carbon dioxide, or to learn how to use carbon dioxide in products to lead to an overall reduction of carbon dioxide emissions.

“(B) PROGRAM INTEGRATION.—The Secretary shall ensure that fundamental research carried out under this paragraph is appropriately applied to energy technology development activities and the field testing of carbon sequestration and carbon use activities, including—

“(i) development of new or advanced technologies for the capture of carbon dioxide;

“(ii) development of new or advanced technologies that reduce the cost and increase the efficacy of the compression of carbon dioxide required for the storage of carbon dioxide;
“(iii) modeling and simulation of geological sequestration field demonstrations;

“(iv) quantitative assessment of risks relating to specific field sites for testing of sequestration technologies; and

“(v) research and development of new and advanced technologies for carbon use, including recycling and reuse of carbon dioxide.

“(2) FIELD VALIDATION TESTING ACTIVITIES.—

“(A) IN GENERAL.—The Secretary shall promote, to the maximum extent practicable, regional carbon sequestration partnerships to conduct geologic sequestration tests involving carbon dioxide injection and monitoring, mitigation, and verification operations in a variety of candidate geological settings, including—

“(i) operating oil and gas fields;

“(ii) depleted oil and gas fields;

“(iii) unmineable coal seams;

“(iv) deep saline formations;

“(v) deep geologic systems that may be used as engineered reservoirs to extract economical quantities of heat from geo-
thermal resources of low permeability or porosity;

“(vi) deep geologic systems containing basalt formations; and

“(vii) high altitude terrain oil and gas fields.

“(B) OBJECTIVES.—The objectives of tests conducted under this paragraph shall be—

“(i) to develop and validate geophysical tools, analysis, and modeling to monitor, predict, and verify carbon dioxide containment;

“(ii) to validate modeling of geological formations;

“(iii) to refine storage capacity estimated for particular geological formations;

“(iv) to determine the fate of carbon dioxide concurrent with and following injection into geological formations;

“(v) to develop and implement best practices for operations relating to, and monitoring of, injection and storage of carbon dioxide in geologic formations;
“(vi) to assess and ensure the safety of operations related to geological storage of carbon dioxide;

“(vii) to allow the Secretary to promulgate policies, procedures, requirements, and guidance to ensure that the objectives of this subparagraph are met in large-scale testing and deployment activities for carbon capture and storage that are funded by the Department of Energy; and

“(viii) to support Environmental Protection Agency efforts, in consultation with other agencies, to develop a scientifically sound regulatory framework to enable commercial-scale sequestration operations.

“(3) LARGE-SCALE CARBON DIOXIDE SEQUESTRATION TESTING.—

“(A) IN GENERAL.—The Secretary shall conduct not less than 7 initial large-volume sequestration tests for geological containment of carbon dioxide (at least 1 of which shall be international in scope) to validate information on the cost and feasibility of commercial deployment of technologies for geological containment of carbon dioxide.
“(B) Diversity of Formations to be Studied.—In selecting formations for study under this paragraph, the Secretary shall consider a variety of geological formations across the United States, and require characterization and modeling of candidate formations, as determined by the Secretary.

“(C) Source of Carbon Dioxide for Large-Scale Sequestration Demonstrations.—In the process of any acquisition of carbon dioxide for sequestration demonstrations under subparagraph (A), the Secretary shall give preference to purchases of carbon dioxide from industrial and coal-fired electric generation facilities. To the extent feasible, the Secretary shall prefer test projects from industrial and coal-fired electric generation facilities that would facilitate the creation of an integrated system of capture, transportation and storage of carbon dioxide, including facilities that convert coal to one or more liquid or gaseous transportation fuels. Until coal-fired electric generation facilities, either new or existing, are operating with carbon dioxide capture technologies, other industrial sources of carbon dioxide
should be pursued under this paragraph. The preference provided for under this subparagraph shall not delay the implementation of the large-scale sequestration tests under this paragraph.

“(D) Definition.—For purposes of this paragraph, the term ‘large-scale’ means the injection of more than 1,000,000 metric tons of carbon dioxide annually, or a scale that demonstrably exceeds the necessary thresholds in key geologic transients to validate the ability continuously to inject quantities on the order of several million metric tons of industrial carbon dioxide annually for a large number of years.

“(4) Large-scale demonstration of carbon dioxide capture technologies.—

“(A) In general.—The Secretary shall carry out at least 3 and no more than 5 demonstrations, that include each of the technologies described in subparagraph (B), for the large-scale capture of carbon dioxide from industrial sources of carbon dioxide, at least 2 of which are facilities that generate electric energy from fossil fuels. Candidate facilities for other demonstrations under this paragraph shall in-
clude facilities that refine petroleum, convert coal to one or more liquid or gaseous transportation fuels, manufacture iron or steel, manufacture cement or cement clinker, manufacture commodity chemicals, and ethanol and fertilizer plants. Consideration may be given to capture of carbon dioxide from industrial facilities and electric generation carbon sources that are near suitable geological reservoirs and could continue sequestration. To ensure reduced carbon dioxide emissions, the Secretary shall take necessary actions to provide for the integration of the program under this paragraph with the long-term carbon dioxide sequestration demonstrations described in paragraph (3). These actions should not delay implementation of the large-scale sequestration tests authorized in paragraph (3).

“(B) TECHNOLOGIES.—The technologies referred to in subparagraph (A) are precombustion capture, post-combustion capture, and oxycombustion.

“(C) SCOPE OF AWARD.—An award under this paragraph shall be only for the portion of the project that carries out the large-scale capture (including purification and compression) of
carbon dioxide, as well as the cost of transportation and injection of carbon dioxide.

“(5) Preference in project selection from meritorious proposals.—In making competitive awards under this subsection, subject to the requirements of section 989, the Secretary shall give preference to proposals from partnerships among industrial, academic, and government entities.

“(6) Cost sharing.—Activities under this subsection shall be considered research and development activities that are subject to the cost-sharing requirements of section 988(b).

“(d) Authorization of Appropriations.—

“(1) In general.—There are authorized to be appropriated to the Secretary for carrying out this section, other than subsection (c)(3) and (4)—

“(A) $100,000,000 for fiscal year 2008;

“(B) $100,000,000 for fiscal year 2009;

“(C) $100,000,000 for fiscal year 2010;

and

“(D) $100,000,000 for fiscal year 2011.

“(2) Sequestration.—There are authorized to be appropriated to the Secretary for carrying out subsection (c)(3)—

“(A) $140,000,000 for fiscal year 2008;
“(B) $140,000,000 for fiscal year 2009;
“(C) $140,000,000 for fiscal year 2010;
and
“(D) $140,000,000 for fiscal year 2011.
“(3) CARBON CAPTURE.—There are authorized to be appropriated to the Secretary for carrying out subsection (c)(4)—
“(A) $180,000,000 for fiscal year 2009;
“(B) $180,000,000 for fiscal year 2010;
“(C) $180,000,000 for fiscal year 2011;
and
“(D) $180,000,000 for fiscal year 2012.”.

(b) TABLE OF CONTENTS AMENDMENT.—The item relating to section 963 in the table of contents for the Energy Policy Act of 2005 is amended to read as follows:

“Sec. 963. Carbon capture and storage research, development, and demonstration program.”.

SEC. 2203. REVIEW OF LARGE-SCALE PROGRAMS.

The Secretary of Energy shall enter into an arrangement with the National Academy of Sciences for an independent review and oversight, beginning in 2011, of the programs under section 963(c)(3) and (4) of the Energy Policy Act of 2005, as added by section 2202 of this subtitle, to ensure that the benefits of such programs are maximized. Not later than January 1, 2012, the Secretary
shall transmit to the Congress a report on the results of such review and oversight.

SEC. 2204. SAFETY RESEARCH.

(a) PROGRAM.—The Assistant Administrator for Research and Development of the Environmental Protection Agency shall conduct a research program to determine procedures necessary to protect public health, safety, and the environment from impacts that may be associated with capture, injection, and sequestration of greenhouse gases in subterranean reservoirs.

(b) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated for carrying out this section $5,000,000 for each fiscal year.

SEC. 2205. GEOLOGICAL SEQUESTRATION TRAINING AND RESEARCH.

(a) STUDY.—

(1) IN GENERAL.—The Secretary of Energy shall enter into an arrangement with the National Academy of Sciences to undertake a study that—

(A) defines an interdisciplinary program in geology, engineering, hydrology, environmental science, and related disciplines that will support the Nation’s capability to capture and sequester carbon dioxide from anthropogenic sources;
(B) addresses undergraduate and graduate education, especially to help develop graduate level programs of research and instruction that lead to advanced degrees with emphasis on geological sequestration science;

(C) develops guidelines for proposals from colleges and universities with substantial capabilities in the required disciplines that wish to implement geological sequestration science programs that advance the Nation’s capacity to address carbon management through geological sequestration science; and

(D) outlines a budget and recommendations for how much funding will be necessary to establish and carry out the grant program under subsection (b).

(2) REPORT.—Not later than 1 year after the date of enactment of this Act, the Secretary of Energy shall transmit to the Congress a copy of the results of the study provided by the National Academy of Sciences under paragraph (1).

(3) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary for carrying out this subsection $1,000,000 for fiscal year 2008.
(b) Grant Program.—

(1) Establishment.—The Secretary of Energy, through the National Energy Technology Laboratory, shall establish a competitive grant program through which colleges and universities may apply for and receive 4-year grants for—

(A) salary and startup costs for newly designated faculty positions in an integrated geological carbon sequestration science program; and

(B) internships for graduate students in geological sequestration science.

(2) Renewal.—Grants under this subsection shall be renewable for up to 2 additional 3-year terms, based on performance criteria, established by the National Academy of Sciences study conducted under subsection (a), that include the number of graduates of such programs.

(3) Interface with Regional Geological Carbon Sequestration Partnerships.—To the greatest extent possible, geological carbon sequestration science programs supported under this subsection shall interface with the research of the Regional Carbon Sequestration Partnerships operated by the Department of Energy to provide internships
and practical training in carbon capture and geological sequestration.

(4) Authorization of Appropriations.—

There are authorized to be appropriated to the Secretary for carrying out this subsection such sums as may be necessary.

SEC. 2206. UNIVERSITY BASED RESEARCH AND DEVELOPMENT GRANT PROGRAM.

(a) Establishment.—The Secretary of Energy, in consultation with other appropriate agencies, shall establish a university based research and development program to study carbon capture and sequestration using the various types of coal.

(b) Grants.—Under this section, the Secretary shall award 5 grants for projects submitted by colleges or universities to study carbon capture and sequestration in conjunction with the recovery of oil and other enhanced elemental and mineral recovery. Consideration shall be given to areas that have regional sources of coal for the study of carbon capture and sequestration.

(c) Rural and Agricultural Institutions.—The Secretary shall designate that at least 2 of these grants shall be awarded to rural or agricultural based institutions that offer interdisciplinary programs in the area of environmental science to study carbon capture and sequestra-
tion in conjunction with the recovery of oil and other enhanced elemental and mineral recovery.

(d) Authorization of Appropriations.—There are to be authorized to be appropriated $10,000,000 to carry out this section.

Subtitle D—Produced Water Utilization

SEC. 2301. SHORT TITLE.

This subtitle may be cited as the “Produced Water Utilization Act of 2007”.

SEC. 2302. FINDINGS.

The Congress finds as follows:

(1) The population of the United States is increasing, and as the population increases, additional potable water supplies are required to sustain individuals, agricultural production, and industrial users, particularly in the Mountain West and desert Southwest, where water resources are scarce.

(2) During the development of domestic energy sources, including coalbed methane, oil, and natural gas, water may be extracted from underground sources and brought to the surface, often increasing energy production from subsurface geological formations in the process.
(3) Produced water frequently contains increased levels of potentially harmful dissolved solids, rendering much of the water nonpotable and unsuitable for agricultural or industrial uses, and encouraging reinjection of the water to subsurface geological formations to safely dispose of it, which may lead to reduced production of domestic energy resources and increased costs to producers.

(4) Increasing environmentally responsible surface utilization of produced water would—

(A) increase water supplies available for agricultural and industrial use;

(B) reduce the amount of produced water returned to underground formations; and

(C) increase domestic energy production by reducing costs associated with reinjection of produced water to the subsurface.

SEC. 2303. DEFINITIONS.

In this subtitle:

(1) Existing program.—The term “existing program” means a program at the Department of Energy which is engaged in research, development, demonstration, and commercial application of technologies for unconventional domestic natural gas
production and other domestic petroleum production
as of the date of enactment of this Act.

(2)produced water.—The term “produced
water” means water from an underground source
that is brought to the surface as part of the process
of exploration for or development of coalbed meth-
ane, oil, natural gas, or any other substance to be
used as an energy source.

(3)Secretary.—The term “Secretary” means
the Secretary of Energy.

SEC. 2304. PURPOSES.

(a)In general.—The Secretary shall carry out
under this subtitle, in conjunction with an existing pro-
gram, a program of research, development, and dem-
onstration of technologies for environmentally sustainable
utilization of produced water for use for agriculture, irri-
gation, municipal, or industrial uses, or other environ-
mentally sustainable purposes. The program shall be de-
dsigned to maximize the utilization of produced water in
the United States by increasing the quality of produced
water and reducing the environmental impacts of produced
water.

(b)Program elements.—The program under this
subtitle shall address the following areas, including im-
proving safety and minimizing environmental impacts of activities within each area:

(1) Produced water recovery, including research for desalination and demineralization to reduce total dissolved solids in the produced water.

(2) Produced water utilization for agricultural, irrigation, municipal, or industrial uses, or other environmentally sustainable purposes.

(3) Reinjection of produced water into subsurface geological formations to increase energy production.

(c) Program Administration.—The program under this subtitle shall be administered by a consortium, administering an existing program, whose members have collectively demonstrated capabilities and experience in planning and managing research, development, demonstration, and commercial application programs for unconventional natural gas and other petroleum production and produced water utilization.

(d) Activities at the National Energy Technology Laboratory.—The Secretary, through the National Energy Technology Laboratory, shall carry out a program of research, development, and demonstration activities complementary to and supportive of the research,
development, and demonstration programs under sub-
section (b).

(e) CONSULTATION.—In carrying out this subtitle,
the Secretary shall consult regularly with the Secretary
of the Interior and the Administrator of the Environ-
mental Protection Agency.

SEC. 2305. SUNSET.

The authority provided by this subtitle shall termi-
nate on September 30, 2016.

SEC. 2306. FUNDING.

(a) ALLOCATION.—Amounts appropriated for this
subtitle for each fiscal year shall be allocated as follows:

(1) 75 percent shall be for activities under sec-
tion 2304(a), (b), and (c).

(2) 25 percent shall be for activities under sec-
tion 2304(d) and other activities under section 2304,
including administrative functions such as program
direction, overall program oversight, and contract
management.

(b) AUTHORIZATION OF APPROPRIATIONS.—There
are authorized to be appropriated to carry out this subtitle
$20,000,000 for each of fiscal years 2008 through 2016.
Subtitle E—Natural Gas Vehicles

SEC. 2401. NATURAL GAS VEHICLE RESEARCH, DEVELOPMENT, AND DEMONSTRATION PROJECTS.

(a) IN GENERAL.—The Secretary of Energy shall conduct a 5-year program of natural gas vehicle research, development, and demonstration. The Secretary shall coordinate with the Administrator of the Environmental Protection Agency, as necessary.

(b) PURPOSE.—The program under this section shall focus on—

(1) the continued improvement and development of new, cleaner, more efficient light-duty, medium-duty, and heavy-duty natural gas vehicle engines;

(2) the integration of those engines into light-duty, medium-duty, and heavy-duty natural gas vehicles for onroad and offroad applications;

(3) expanding product availability by assisting manufacturers with the certification of the engines or vehicles described in paragraph (1) or (2) to Federal or California certification requirements and in-use emission standards;

(4) the demonstration and proper operation and use of the vehicles described in paragraph (2) under all operating conditions;
(5) the development and improvement of nationally recognized codes and standards for the continued safe operation of natural gas vehicles and their components;

(6) improvement in the reliability and efficiency of natural gas fueling station infrastructure;

(7) the certification of natural gas fueling station infrastructure to nationally recognized and industry safety standards;

(8) the improvement in the reliability and efficiency of onboard natural gas fuel storage systems;

(9) the development of new natural gas fuel storage materials;

(10) the certification of onboard natural gas fuel storage systems to nationally recognized and industry safety standards; and

(11) the use of natural gas engines in hybrid vehicles.

(c) Certification of Conversion Systems.—The Secretary shall coordinate with the Administrator on issues related to streamlining the certification of natural gas conversion systems to the appropriate Federal certification requirements and in-use emission standards.

(d) Cooperation and Coordination With Industry.—In developing and carrying out the program under
this section, the Secretary shall coordinate with the nat-
ural gas vehicle industry to ensure cooperation between
the public and the private sector.

(e) CONDUCT OF PROGRAM.—The program under
this section shall be conducted in accordance with sections

(f) REPORT.—Not later than 2 years after the date
of enactment of this Act, the Secretary shall provide a re-
port to Congress on the implementation of this section.

(g) AUTHORIZATION OF APPROPRIATIONS.—There
are authorized to be appropriated to the Secretary
$20,000,000 for each of the fiscal years 2008 through
2012 to carry out this section.

(h) DEFINITION.—For purposes of this section, the
term “natural gas” means compressed natural gas, lique-
fied natural gas, biomethane, and mixtures of hydrogen
and methane or natural gas.

Subtitle F—Energy Efficient
Buildings

SEC. 2501. SHORT TITLE.

This subtitle may be cited as the “Energy Efficient
Buildings Act of 2007”.
SEC. 2502. ENERGY EFFICIENT BUILDING GRANT PROGRAM.

(a) Energy Efficient Building Pilot Grant Program.—

(1) In general.—Not later than 6 months after the date of enactment of this Act, the Secretary of Energy (in this subtitle referred to as the “Secretary”) shall establish a pilot program to award grants to businesses and organizations for new construction of energy efficient buildings, or major renovations of buildings that will result in energy efficient buildings, to demonstrate innovative energy efficiency technologies, especially those sponsored by the Department of Energy.

(2) Awards.—The Secretary shall award grants under this subsection competitively to those applicants whose proposals—

(A) best demonstrate—

(i) likelihood to meet or exceed the standards referred to in subsection (b)(2);

(ii) likelihood to maximize cost-effective energy efficiency opportunities; and

(iii) advanced energy efficiency technologies; and
(B) maximize the leverage of private investment for costs related to increasing the energy efficiency of the building.

(3) CONSIDERATION.—The Secretary shall give due consideration to proposals for buildings that are likely to serve low and moderate income populations.

(4) AMOUNT OF GRANTS.—Grants under this subsection shall be for up to 50 percent of design and energy modeling costs, not to exceed $50,000 per building. No single grantee may be eligible for more than 3 grants per year under this program.

(5) GRANT PAYMENTS.—

(A) INITIAL PAYMENT.—The Secretary shall pay 50 percent of the total amount of the grant to grant recipients upon selection.

(B) REMAINDER OF PAYMENT.—The Secretary shall pay the remaining 50 percent of the grant only after independent certification, by a professional engineer or other qualified professional, that operational buildings are energy efficient buildings as defined in subsection (b).

(C) FAILURE TO COMPLY.—The Secretary shall not provide the remainder of the payment unless the building is certified within 6 months after operation of the completed building to...
meet the requirements described in subparagraph (B), or in the case of major renovations the building is certified within 6 months of the completion of the renovations.

(6) REPORT TO CONGRESS.—Not later than 3 years after awarding the first grant under this subsection, the Secretary shall transmit to Congress a report containing—

(A) the total number and dollar amount of grants awarded under this subsection; and

(B) an estimate of aggregate cost and energy savings enabled by the pilot program under this subsection.

(7) ADMINISTRATIVE EXPENSES.—Administrative expenses for the program under this subsection shall not exceed 10 percent of appropriated funds.

(b) DEFINITION OF ENERGY EFFICIENT BUILDING.—For purposes of this section the term “energy efficient building” means a building that—

(1) achieves a reduction in energy consumption of—

(A) at least 30 percent for new construction, compared to the energy standards set by the 2004 International Energy Conservation
Code (in the case of residential buildings) or
ASHRAE Standard 90.1–2004; or
(B) at least 20 percent for major renova-
tions, compared to energy consumption before
renovations are begun;
(2) is constructed or renovated in accordance
with the most current, appropriate, and applicable
voluntary consensus standards, as determined by the
Secretary, such as those listed in the assessment
under section 914(b), or revised or developed under
section 914(c), of the Energy Policy Act of 2005;
and
(3) after construction or renovation—
(A) uses heating, ventilating, and air con-
ditioning systems that perform at no less than
Energy Star standards; or
(B) if Energy Star standards are not ap-
pllicable, uses Federal Energy Management Pro-
gram recommended heating, ventilating, and air
conditioning products.
(c) Authorization of Appropriations.—There
are authorized to be appropriated to the Secretary for car-
rying out this section $10,000,000 for each of the fiscal
years 2008 through 2012.
Subtitle G—Plug-In Hybrid Electric Vehicles

SEC. 2601. SHORT TITLE.
This subtitle may be cited as the “Plug-In Hybrid Electric Vehicle Act of 2007”.

SEC. 2602. NEAR-TERM VEHICLE TECHNOLOGY PROGRAM.
(a) DEFINITIONS.—In this section:

(1) BATTERY.—The term “battery” means a device or system for the electrochemical storage of energy.

(2) BIOMASS.—The term “biomass” has meaning given the term in section 932 of the Energy Policy Act of 2005 (42 U.S.C. 16232).

(3) E85.—The term “E85” means a fuel blend containing 85 percent ethanol and 15 percent gasoline by volume.

(4) ELECTRIC DRIVE TRANSPORTATION TECHNOLOGY.—The term “electric drive transportation technology” means—

(A) vehicles that use an electric motor for all or part of their motive power and that may or may not use offboard electricity, including battery electric vehicles, fuel cell vehicles, hybrid electric vehicles, plug-in hybrid electric ve-
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vehicles, flexible fuel plug-in hybrid electric vehicles, and electric rail; and
(B) related equipment, including electric equipment necessary to recharge a plug-in hybrid electric vehicle.

(5) FLEXIBLE FUEL PLUG-IN HYBRID ELECTRIC VEHICLE.—The term “flexible fuel plug-in hybrid electric vehicle” means a plug-in hybrid electric vehicle—

(A) warranted by its manufacturer as capable of operating on any combination of gasoline or E85 for its onboard internal combustion or heat engine; or

(B) that uses a fuel cell for battery charging when disconnected from offboard power sources.

(6) FUEL CELL VEHICLE.—The term “fuel cell vehicle” means an onroad vehicle that uses a fuel cell (as defined in section 803 of the Energy Policy Act of 2005 (42 U.S.C. 16152)).

(7) HYBRID ELECTRIC VEHICLE.—The term “hybrid electric vehicle” means an onroad vehicle that—
(A) can operate on either liquid combustible fuel or electric power provided by an on-board battery; and

(B) utilizes regenerative power capture technology to recover energy expended in braking the vehicle for use in recharging the battery.

(8) **PLUG-IN HYBRID ELECTRIC VEHICLE.**—The term “plug-in hybrid electric vehicle” means a hybrid electric vehicle that can operate solely on electric power for a minimum of 20 miles under city driving conditions, and that is capable of recharging its battery from an offboard electricity source.

(9) **SECRETARY.**—The term “Secretary” means the Secretary of Energy.

(b) **PROGRAM.**—The Secretary shall conduct a program of research, development, demonstration, and commercial application on technologies needed for the development of plug-in hybrid electric vehicles, including—

(1) high capacity, high efficiency batteries, to—

(A) improve battery life, energy storage capacity, and power delivery capacity, and lower cost; and

(B) minimize waste and hazardous material production in the entire value chain, includ-
ing after the end of the useful life of the bat-
teries;

(2) high efficiency onboard and offboard charg-
ing components;

(3) high power drive train systems for pas-
senger and commercial vehicles and for supporting

equipment;

(4) onboard energy management systems, power

trains, and systems integration for plug-in hybrid
electric vehicles, flexible fuel plug-in hybrid electric
vehicles, and hybrid electric vehicles, including effi-
cient cooling systems and systems that minimize the

emissions profile of such vehicles; and

(5) lightweight materials, including research,
development, demonstration, and commercial appli-
cation to reduce the cost of materials such as steel
alloys and carbon fibers.

(c) Plug-In Hybrid Electric Vehicle Demo-

stration Program.—

(1) Establishment.—The Secretary shall es-

tablish a competitive grant pilot demonstration pro-

gram to provide not more than 25 grants annually
to State governments, local governments, metropoli-
tan transportation authorities, or combinations
thereof to carry out a project or projects for demonstration of plug-in hybrid electric vehicles.

(2) APPLICATIONS.—

(A) REQUIREMENTS.—The Secretary shall issue requirements for applying for grants under the demonstration pilot program. The Secretary shall require that applications, at a minimum, include a description of how data will be—

(i) collected on the—

(I) performance of the vehicle or vehicles and the components, including the battery, energy management, and charging systems, under various driving speeds, trip ranges, traffic, and other driving conditions;

(II) costs of the vehicle or vehicles, including acquisition, operating, and maintenance costs, and how the project or projects will be self-sustaining after Federal assistance is completed; and

(III) emissions of the vehicle or vehicles, including greenhouse gases, and the amount of petroleum dis-
placed as a result of the project or projects; and

(ii) summarized for dissemination to the Department, other grantees, and the public.

(B) Partners.—An applicant under subparagraph (A) may carry out a project or projects under the pilot program in partnership with one or more private entities.

(3) Selection Criteria.—

(A) Preference.—When making awards under this subsection, the Secretary shall consider each applicant’s previous experience involving plug-in hybrid electric vehicles and shall give preference to proposals that—

(i) provide the greatest demonstration per award dollar, with preference increasing as the number of miles that a plug-in hybrid electric vehicle can operate solely on electric power under city driving conditions increases; and

(ii) demonstrate the greatest commitment on the part of the applicant to ensure funding for the proposed project or projects and the greatest likelihood that
each project proposed in the application will be maintained or expanded after Federal assistance under this subsection is completed.

(B) BREADTH OF DEMONSTRATIONS.—In awarding grants under this subsection, the Secretary shall ensure the program will demonstrate plug-in hybrid electric vehicles under various circumstances, including—

(i) driving speeds;

(ii) trip ranges;

(iii) driving conditions;

(iv) climate conditions; and

(v) topography,

to optimize understanding and function of plug-in hybrid electric vehicles.

(4) PILOT PROJECT REQUIREMENTS.—

(A) SUBSEQUENT FUNDING.—An applicant that has received a grant in one year may apply for additional funds in subsequent years, but the Secretary shall not provide more than $10,000,000 in Federal assistance under the pilot program to any applicant for the period encompassing fiscal years 2008 through fiscal year 2012.
(B) INFORMATION.—The Secretary shall establish mechanisms to ensure that the information and knowledge gained by participants in the pilot program are shared among the pilot program participants and are available to other interested parties, including other applicants.

(5) AWARD AMOUNTS.—The Secretary shall determine grant amounts, but the maximum size of grants shall decline as the cost of producing plug-in hybrid electric vehicles declines or the cost of converting a hybrid electric vehicle to a plug-in hybrid electric vehicle declines.

(d) COST SHARING.—The Secretary shall carry out the program under this section in compliance with section 988(a) through (d) and section 989 of the Energy Policy Act of 2005 (42 U.S.C. 16352(a) through (d) and 16353).

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

(1) for carrying out subsection (b), $250,000,000 for each of fiscal years 2008 through 2012, of which up to $50,000,000 may be used for the program described in paragraph (5) of that subsection; and

(2) for carrying out subsection (c), $50,000,000 for each of fiscal years 2008 through 2012.
Subtitle H—H-PRIZE

SEC. 2701. SHORT TITLE.

This subtitle may be cited as the “H-Prize Act of 2007”.

SEC. 2702. DEFINITIONS.

In this subtitle:

(1) ADMINISTERING ENTITY.—The term “administering entity” means the entity with which the Secretary enters into an agreement under section 2703(c).

(2) DEPARTMENT.—The term “Department” means the Department of Energy.

(3) SECRETARY.—The term “Secretary” means the Secretary of Energy.

SEC. 2703. PRIZE AUTHORITY.

(a) IN GENERAL.—The Secretary shall carry out a program to competitively award cash prizes in conformity with this subtitle to advance the research, development, demonstration, and commercial application of hydrogen energy technologies.

(b) ADVERTISING AND SOLICITATION OF COMPETITORS.—

(1) ADVERTISING.—The Secretary shall widely advertise prize competitions to encourage broad participation, including by individuals, universities (in-
including historically Black colleges and universities and other minority serving institutions), and large and small businesses (including businesses owned or controlled by socially and economically disadvantaged persons).

(2) ANNOUNCEMENT THROUGH FEDERAL REGISTER NOTICE.—The Secretary shall announce each prize competition by publishing a notice in the Federal Register. This notice shall include essential elements of the competition such as the subject of the competition, the duration of the competition, the eligibility requirements for participation in the competition, the process for participants to register for the competition, the amount of the prize, and the criteria for awarding the prize.

(e) ADMINISTERING THE COMPETITIONS.—The Secretary shall enter into an agreement with a private, non-profit entity to administer the prize competitions, subject to the provisions of this subtitle. The duties of the administering entity under the agreement shall include—

(1) advertising prize competitions and their results;

(2) raising funds from private entities and individuals to pay for administrative costs and to contribute to cash prizes, including funds provided in
exchange for the right to name a prize awarded under this section;

(3) developing, in consultation with and subject to the final approval of the Secretary, the criteria for selecting winners in prize competitions, based on goals provided by the Secretary;

(4) determining, in consultation with the Secretary, the appropriate amount and funding sources for each prize to be awarded, subject to the final approval of the Secretary with respect to Federal funding;

(5) providing advice and consultation to the Secretary on the selection of judges in accordance with section 2704(d), using criteria developed in consultation with and subject to the final approval of the Secretary; and

(6) protecting against the entity’s unauthorized use or disclosure of a registered participant’s trade secrets and confidential business information. Any information properly identified as trade secrets or confidential business information that is submitted by a participant as part of a competitive program under this subtitle may be withheld from public disclosure.
(d) **Funding Sources.**—Prizes under this subtitle shall consist of Federal appropriated funds and any funds provided by the administering entity (including funds raised pursuant to subsection (c)(2)) for such cash prize programs. The Secretary may accept funds from other Federal agencies for such cash prizes and, notwithstanding section 3302(b) of title 31, United States Code, may use such funds for the cash prize program. Other than publication of the names of prize sponsors, the Secretary may not give any special consideration to any private sector entity or individual in return for a donation to the Secretary or administering entity.

(e) **Announcement of Prizes.**—The Secretary may not issue a notice required by subsection (b)(2) until all the funds needed to pay out the announced amount of the prize have been appropriated or committed in writing by the administering entity. The Secretary may increase the amount of a prize after an initial announcement is made under subsection (b)(2) if—

1. notice of the increase is provided in the same manner as the initial notice of the prize; and
2. the funds needed to pay out the announced amount of the increase have been appropriated or committed in writing by the administering entity.
(f) SUNSET.—The authority to announce prize competitions under this subtitle shall terminate on September 30, 2018.

SEC. 2704. PRIZE CATEGORIES.

(a) CATEGORIES.—The Secretary shall establish prizes for—

(1) advancements in technologies, components, or systems related to—

(A) hydrogen production;

(B) hydrogen storage;

(C) hydrogen distribution; and

(D) hydrogen utilization;

(2) prototypes of hydrogen-powered vehicles or other hydrogen-based products that best meet or exceed objective performance criteria, such as completion of a race over a certain distance or terrain or generation of energy at certain levels of efficiency; and

(3) transformational changes in technologies for the distribution or production of hydrogen that meet or exceed far-reaching objective criteria, which shall include minimal carbon emissions and which may include cost criteria designed to facilitate the eventual market success of a winning technology.

(b) AWARDS.—
(1) ADVANCEMENTS.—To the extent permitted under section 2703(e), the prizes authorized under subsection (a)(1) shall be awarded biennially to the most significant advance made in each of the four subcategories described in subparagraphs (A) through (D) of subsection (a)(1) since the submission deadline of the previous prize competition in the same category under subsection (a)(1) or the date of enactment of this Act, whichever is later, unless no such advance is significant enough to merit an award. No one such prize may exceed $1,000,000. If less than $4,000,000 is available for a prize competition under subsection (a)(1), the Secretary may omit one or more subcategories, reduce the amount of the prizes, or not hold a prize competition.

(2) PROTOTYPES.—To the extent permitted under section 2703(e), prizes authorized under subsection (a)(2) shall be awarded biennially in alternate years from the prizes authorized under subsection (a)(1). The Secretary is authorized to award up to one prize in this category in each 2-year period. No such prize may exceed $4,000,000. If no registered participants meet the objective performance criteria established pursuant to subsection (c)
for a competition under this paragraph, the Secretary shall not award a prize.

(3) TRANSFORMATIONAL TECHNOLOGIES.—To the extent permitted under section 2703(e), the Secretary shall announce one prize competition authorized under subsection (a)(3) as soon after the date of enactment of this Act as is practicable. A prize offered under this paragraph shall be not less than $10,000,000, paid to the winner in a lump sum, and an additional amount paid to the winner as a match for each dollar of private funding raised by the winner for the hydrogen technology beginning on the date the winner was named. The match shall be provided for 3 years after the date the prize winner is named or until the full amount of the prize has been paid out, whichever occurs first. A prize winner may elect to have the match amount paid to another entity that is continuing the development of the winning technology. The Secretary shall announce the rules for receiving the match in the notice required by section 2703(b)(2). The Secretary shall award a prize under this paragraph only when a registered participant has met the objective criteria established for the prize pursuant to subsection (c) and announced pursuant to section 2703(b)(2). Not more than
$10,000,000 in Federal funds may be used for the
prize award under this paragraph. The admin-
istering entity shall seek to raise $40,000,000 to-
ward the matching award under this paragraph.

(c) CRITERIA.—In establishing the criteria required
by this subtitle, the Secretary—

(1) shall consult with the Department’s Hydro-
gen Technical and Fuel Cell Advisory Committee;
(2) shall consult with other Federal agencies,
including the National Science Foundation; and
(3) may consult with other experts such as pri-
ivate organizations, including professional societies,
industry associations, and the National Academy of
Sciences and the National Academy of Engineering.

(d) JUDGES.—For each prize competition, the Sec-
retary in consultation with the administering entity shall
assemble a panel of qualified judges to select the winner
or winners on the basis of the criteria established under
subsection (c). Judges for each prize competition shall in-
clude individuals from outside the Department, including
from the private sector. A judge, spouse, minor children,
and members of the judge’s household may not—

(1) have personal or financial interests in, or be
an employee, officer, director, or agent of, any entity
that is a registered participant in the prize competition for which he or she will serve as a judge; or

(2) have a familial or financial relationship with an individual who is a registered participant in the prize competition for which he or she will serve as a judge.

SEC. 2705. ELIGIBILITY.

To be eligible to win a prize under this subtitle, an individual or entity—

(1) shall have complied with all the requirements in accordance with the Federal Register notice required under section 2703(b)(2);

(2) in the case of a private entity, shall be incorporated in and maintain a primary place of business in the United States, and in the case of an individual, whether participating singly or in a group, shall be a citizen of, or an alien lawfully admitted for permanent residence in, the United States; and

(3) shall not be a Federal entity, a Federal employee acting within the scope of his employment, or an employee of a national laboratory acting within the scope of his employment.

SEC. 2706. INTELLECTUAL PROPERTY.

The Federal Government shall not, by virtue of offering or awarding a prize under this subtitle, be entitled to
any intellectual property rights derived as a consequence
of, or direct relation to, the participation by a registered
participant in a competition authorized by this subtitle.

This section shall not be construed to prevent the Federal
Government from negotiating a license for the use of intel-
lectual property developed for a prize competition under
this subtitle.

SEC. 2707. LIABILITY.

(a) WAIVER OF LIABILITY.—The Secretary may re-
quire registered participants to waive claims against the
Federal Government and the administering entity (except
claims for willful misconduct) for any injury, death, dam-
age, or loss of property, revenue, or profits arising from
the registered participants’ participation in a competition
under this subtitle. The Secretary shall give notice of any
waiver required under this subsection in the notice re-
quired by section 2703(b)(2). The Secretary may not re-
quire a registered participant to waive claims against the
administering entity arising out of the unauthorized use
or disclosure by the administering entity of the registered
participant’s trade secrets or confidential business infor-
mation.

(b) LIABILITY INSURANCE.—

(1) REQUIREMENTS.—Registered participants
shall be required to obtain liability insurance or
demonstrate financial responsibility, in amounts determined by the Secretary, for claims by—

(A) a third party for death, bodily injury, or property damage or loss resulting from an activity carried out in connection with participation in a competition under this subtitle; and

(B) the Federal Government for damage or loss to Government property resulting from such an activity.

(2) Federal Government Insured.—The Federal Government shall be named as an additional insured under a registered participant’s insurance policy required under paragraph (1)(A), and registered participants shall be required to agree to indemnify the Federal Government against third party claims for damages arising from or related to competition activities.

SEC. 2708. REPORT TO CONGRESS.

Not later than 60 days after the awarding of the first prize under this subtitle, and annually thereafter, the Secretary shall transmit to the Congress a report that—

(1) identifies each award recipient;

(2) describes the technologies developed by each award recipient; and
(3) specifies actions being taken toward commercial application of all technologies with respect to which a prize has been awarded under this subtitle.

SEC. 2709. AUTHORIZATION OF APPROPRIATIONS.

(a) Authorization of Appropriations.—

(1) Awards.—There are authorized to be appropriated to the Secretary for the period encompassing fiscal years 2008 through 2017 for carrying out this subtitle—

(A) $20,000,000 for awards described in section 2704(a)(1);

(B) $20,000,000 for awards described in section 2704(a)(2); and

(C) $10,000,000 for the award described in section 2704(a)(3).

(2) Administration.—In addition to the amounts authorized in paragraph (1), there are authorized to be appropriated to the Secretary for each of fiscal years 2008 and 2009 $2,000,000 for the administrative costs of carrying out this subtitle.

(b) Carryover of Funds.—Funds appropriated for prize awards under this subtitle shall remain available until expended, and may be transferred, reprogrammed, or expended for other purposes only after the expiration of 10 fiscal years after the fiscal year for which the funds
were originally appropriated. No provision in this subtitle permits obligation or payment of funds in violation of section 1341 of title 31 of the United States Code (commonly referred to as the Anti-Deficiency Act).

**SEC. 2710. NONSUBSTITUTION.**

The programs created under this subtitle shall not be considered a substitute for Federal research and development programs.

**Subtitle I—Coal Gasification for Ethanol Production**

**SEC. 2801. SHORT TITLE.**

This subtitle may be cited as the “America’s Domestic Fuels Act”.

**SEC. 2802. FINDINGS.**

The Congress finds the following:

(1) Currently, the bulk of energy used in the production of ethanol comes from natural gas. While coal is used for this purpose, advanced coal gasification technologies would increase the use of coal and reduce air emissions.

(2) In coal gasification-based systems, pollutant-forming impurities can be separated from the gaseous stream before combustion. As much as 99 percent of sulfur and other pollutants can be removed and processed into commercial products. Eth-
anol plants using coal gasification technology offer many benefits.

(3) Coal potentially is an economically desirable alternative to natural gas as the fuel in ethanol production facilities. The Energy Information Administration projects that in 2025 the industrial cost of natural gas will be $5.99 per million Btu but coal will only be $1.86 per million Btu.

(4) Coal is our most price-consistent fossil fuel. Natural gas is our most price-volatile and unpredictable fuel. In 2005 alone, natural gas ranged from $5.75 to over $15.00 per million Btu. Coal therefore has the potential to allow ethanol plants to better manage their costs.

(5) Coal is a domestic fuel with substantial reserves and growing production. The United States has a vast supply of domestic coal resources to meet soaring energy needs.

(6) Utilizing coal as a major fuel source for ethanol production could eliminate the need to import natural gas for the process.

(7) Using domestic coal to produce ethanol has the potential to create jobs, spur new businesses, and generate tax revenues for local communities.
(8) The United States has ambitious plans to rapidly grow ethanol production, but the scale of this growth will depend upon the availability of an economical fuel source. Events over the past few years have demonstrated that we do not want to be overly dependent on any one fuel source. Thus, dependency on natural gas for ethanol production is undesirable. Diversifying the fuel source used for ethanol production by increasing the number of ethanol plants that are coal fueled reduces risk.

SEC. 2803. RESEARCH, DEVELOPMENT, AND DEMONSTRATION.

(a) Grant Program.—The Secretary of Energy shall provide grants to States for the conduct of the research needed to expedite the use of coal gasification as an energy source in ethanol production. Such research assistance shall be provided—

(1) to develop the knowledge base that will be needed to expediently permit coal gasification fueled ethanol plants;

(2) to aid ethanol producers in the evaluation and inclusion of coal gasification technologies in existing or new ethanol plants;

(3) to understand how to reduce the capital costs of coal gasification as an energy source in eth-
anol production, including making use of byproducts from agricultural practice, and biomass material or blends, in the processing of ethanol; and

(4) to understand the applicability of carbon dioxide capture and sequestration technologies, including adsorption and absorption techniques and chemical processes, to coal gasification as an energy source in ethanol production.

(b) Demonstration Project.—At least 1 pilot project receiving assistance under this section shall be fueled by coal gasification and located in an area with high sulfur bituminous coal reserves.

(c) Research and Development Authorization of Appropriations.—There are authorized to be appropriated to the Secretary of Energy for carrying out research and development activities under this section $5,000,000 for fiscal year 2008.

(d) Demonstration Project Authorization of Appropriations.—There are authorized to be appropriated to the Secretary of Energy for carrying out demonstration activities under this section $20,000,000 for fiscal year 2008.
TITLE III—TRANSPORTATION 
AND INFRASTRUCTURE 
Subtitle A—Federal-Aid Highways 

SEC. 3001. ELIGIBILITY FOR CONGESTION RELIEF PROJECTS.

Section 149(b) of title 23, United States Code, is amended in the matter following paragraph (7) by inserting after “travel times” the following: “or the Secretary determines that the project is likely to contribute to reductions in fuel consumption or the attainment of a national ambient air quality standard”.

SEC. 3002. REPEAL.

Section 1948 of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users is repealed.

Subtitle B—Other Matters 

SEC. 3011. IMPROVING HYDROPOWER CAPABILITIES.

(a) STUDY.—The Secretary of the Army shall conduct a study on the potential for reduced fossil fuel consumption through an increase in hydropower capabilities of the Corps of Engineers.

(b) CONTENTS.—The study shall include the following:

(1) An inventory of all lands, properties, and projects under the jurisdiction of the Corps of Engi-
neers that have the potential of increasing hydro-
electric or other alternative power generation capa-
bility, including the ecological impacts of increasing
such capability.

(2) A description of the potential effects of re-
moving Federal hydroelectric power facilities under
the jurisdiction of the Corps of Engineers, includ-
ing—

(A) the impacts on domestic energy costs
to consumers;

(B) the need to import more energy to
compensate for lost production from such hy-
droelectric power facilities;

(C) the types of fossil-fuel based or other
energy sources that are likely to be utilized to
compensate for the lost energy associated with
the removal of hydroelectric power facilities;

and

(D) any impacts on existing or future agri-
cultural production of biofuels or other alter-
native energy sources as a result of the loss of
water to the Nation’s agricultural sector.

(3) A description of the potential effects of con-
structing additional Federal hydroelectric power fa-
cilities under the jurisdiction of the Corps of Engineers.

(c) REPORT.—Not later than one year after the date of enactment of this Act, the Secretary shall submit to Congress a report containing the results of the study conducted under this section.

SEC. 3012. PERMIT STREAMLINING FOR HAZARDOUS LIQUID AND BIOFUEL PIPELINES.

(a) CHIEF ENVIRONMENTAL PERMIT OFFICER.—

Section 60133(e) of title 49, United States Code, is amended to read as follows:

“(e) CHIEF ENVIRONMENTAL PERMIT OFFICER.—The Secretary shall designate a chief environmental permit officer to assist resolving disagreements between Federal, State, and local agencies and pipeline operators arising during agency review of pipeline repairs and hazardous liquid and biofuel pipeline construction projects in order to expedite pipeline projects, consistent with protection of human health, public safety, and the environment.”.

(b) STATE AND LOCAL PERMITTING PROCESSES.—

Section 60133(f) of such title is amended by striking the first sentence and inserting the following: “The Secretary shall encourage States and local governments to consolidate their respective permitting processes for pipeline repair and hazardous liquid and biofuel pipeline construction
projects subject to any time periods for repairs specified 
by rule by the Secretary.”.

(c) CONSTRUCTION AND EXPANSION OF PIPE- 
LINES.—Section 60133 of such title is further amended 
by adding at the end the following new subsection:

“(g) CONSTRUCTION AND EXPANSION OF PIPE- 
LINES.—Upon request by any person proposing to con- 
struct or expand a hazardous liquid pipeline, including 
pipelines to transport biofuels such as ethanol, the Sec- 
retary may coordinate the environmental reviews and per-
mitting processes of the agencies having responsibility for 
issuing permits or otherwise authorizing pipeline construc-
tion projects if the Secretary determines that coordinating 
the permitting processes to expedite the completion of the 
project would be in the national interest.”.

(d) PIPELINE REPAIRS.—Section 60133 of such title 
(as amended by this subsection (c) of this section) is fur-
ther amended by adding at the end the following:

“(h) PRESumptive Exclusions.—

“(1) NEPA Review.—With respect to any activ-
ity described in paragraph (3), including an activity 
on non-Federal land, if the Federal agency having 
responsibility for conducting environmental reviews 
under the National Environmental Policy Act of 
1969 (42 U.S.C. 4321 et seq.) determines that—
“(A) the proposed activity is substantially similar to a pipeline repair activity for which the Interagency Committee has developed or adopted best practices under subsection (a)(3) for determining and reducing or eliminating the potential for significant impacts to the human environment under such Act,

“(B) the proposed activity is consistent with these best practices, and

“(C) in the absence of extraordinary circumstances, the proposed activity is not likely to individually or cumulatively result in significant impacts on the human environment,

then a Federal agency having responsibility for conducting environmental reviews under such Act or coordinating the permitting process, in consultation with the Council on Environmental Quality, may adopt categorical exclusions for those activities. Actions by those agencies regarding pipeline repair permits shall be subject to a rebuttable presumption that the use of a categorical exclusion will apply.

“(2) ESA REVIEW.—With respect to any activity described in paragraph (3), including an activity on non-Federal land, if the Secretary of Interior or the Secretary of Commerce—
“(A) determines that the proposed activity is substantially similar to a pipeline repair activity for which the Interagency Committee has developed or adopted best practices under subsection (a)(3) for determining and reducing or eliminating impacts to listed species under the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.),

“(B) concludes that if these best practices are followed, the activity is not likely to jeopardize the continued existence of any listed species or adversely modify the habitat of such species, and

“(C) concludes that the repair activity would not conflict with any existing biological opinion or any agreement made under such Act relating to the geographic area where the proposed activity will occur,

then action by the Secretary of the Interior or the Secretary of Commerce regarding pipeline repair permits shall be subject to a rebuttable presumption that the biological assessment and consultation requirements of such Act have been satisfied.
“(3) Activities described.—The activities referred to in paragraphs (1) and (2) are the following:

“(A) Site repairs required to ensure the integrity of an existing pipeline facility performed entirely within an existing right-of-way corridor that do not change the physical character of the facility and where the facility was constructed in accordance with the environmental reviews and authorizations, if any, required by Federal law.

“(B) Functional replacement of pipeline equipment performed entirely within an existing right-of-way corridor that does not change the physical character of the facility and where the facility was constructed in accordance with the environmental reviews and authorizations, if any, required by Federal law.”

SEC. 3013. REDUCTION IN THE EMISSION OF GASES THAT MAY CAUSE CLIMATE CHANGE.

(a) Environmental Review Criteria.—Section 6(a) of the Deepwater Port Act (33 U.S.C. 1505(a)) is amended—

(1) in paragraph (6) by striking “and” after the semicolon;
(2) by redesignating paragraph (7) as paragraph (8); and

(3) by inserting after paragraph (6) the following:

“(7) in the case of a deepwater port at which natural gas will be delivered, the effect of the additional natural gas supply provided by that port on reducing the emission of gases that contribute to climate change; and”.

(b) PORTS DEEMED IN NATIONAL INTEREST.—The Deepwater Port Act (33 U.S.C. 1501 et seq.) is amended by adding at the end the following:

“SEC. 25. PORTS DEEMED IN NATIONAL INTEREST.

“A deepwater port at which natural gas will be delivered is deemed to be in the national interest for purposes of section 4(c)(3) if the natural gas will be used in areas where its use will reduce the emissions of gases that contribute to climate change.”.

TITLE IV—AMERICAN-MADE ENERGY AND GOOD JOBS ACT

SEC. 4001. SHORT TITLE.

This Act may be cited as the “American-Made Energy and Good Jobs Act”.

SEC. 4002. DEFINITIONS.

In this Act:
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(1) COASTAL PLAIN.—The term “Coastal Plain” means that area described in appendix I to part 37 of title 50, Code of Federal Regulations.

(2) SECRETARY.—The term “Secretary”, except as otherwise provided, means the Secretary of the Interior or the Secretary’s designee.

SEC. 4003. LEASING PROGRAM FOR LANDS WITHIN THE COASTAL PLAIN.

(a) IN GENERAL.—The Secretary shall take such actions as are necessary—

(1) to establish and implement, in accordance with this Act and acting through the Director of the Bureau of Land Management in consultation with the Director of the United States Fish and Wildlife Service, a competitive oil and gas leasing program that will result in an environmentally sound program for the exploration, development, and production of the oil and gas resources of the Coastal Plain; and

(2) to administer the provisions of this Act through regulations, lease terms, conditions, restrictions, prohibitions, stipulations, and other provisions that ensure the oil and gas exploration, development, and production activities on the Coastal Plain will result in no significant adverse effect on fish and wildlife, their habitat, subsistence resources, and the
environment, including, in furtherance of this goal, by requiring the application of the best commercially available technology for oil and gas exploration, development, and production to all exploration, development, and production operations under this Act in a manner that ensures the receipt of fair market value by the public for the mineral resources to be leased.

(b) Repeal.—


(2) **Conforming Amendment.**—The table of contents in section 1 of such Act is amended by striking the item relating to section 1003.

(e) **Compliance With Requirements Under Certain Other Laws.**—

(1) **Compatibility.**—For purposes of the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd et seq.), the oil and gas leasing program and activities authorized by this section in the Coastal Plain are deemed to be compatible with the purposes for which the Arctic National Wildlife Refuge was established, and no fur-
other findings or decisions are required to implement this determination.

(2) Adequacy of the Department of the Interior’s Legislative Environmental Impact Statement.—The “Final Legislative Environmental Impact Statement” (April 1987) on the Coastal Plain prepared pursuant to section 1002 of the Alaska National Interest Lands Conservation Act of 1980 (16 U.S.C. 3142) and section 102(2)(C) of the National Environmental Policy Act of 1969 (42 U.S.C. 4332(2)(C)) is deemed to satisfy the requirements under the National Environmental Policy Act of 1969 that apply with respect to prelease activities, including actions authorized to be taken by the Secretary to develop and promulgate the regulations for the establishment of a leasing program authorized by this Act before the conduct of the first lease sale.

(3) Compliance with NEPA for Other Actions.—Before conducting the first lease sale under this Act, the Secretary shall prepare an environmental impact statement under the National Environmental Policy Act of 1969 with respect to the actions authorized by this Act that are not referred to in paragraph (2). Notwithstanding any other law,
the Secretary is not required to identify nonleasing alternative courses of action or to analyze the environmental effects of such courses of action. The Secretary shall only identify a preferred action for such leasing and a single leasing alternative, and analyze the environmental effects and potential mitigation measures for those two alternatives. The identification of the preferred action and related analysis for the first lease sale under this Act shall be completed within 18 months after the date of enactment of this Act. The Secretary shall only consider public comments that specifically address the Secretary’s preferred action and that are filed within 20 days after publication of an environmental analysis. Notwithstanding any other law, compliance with this paragraph is deemed to satisfy all requirements for the analysis and consideration of the environmental effects of proposed leasing under this Act.

(d) **RELATIONSHIP TO STATE AND LOCAL AUTHORITY.**—Nothing in this Act shall be considered to expand or limit State and local regulatory authority.

(e) **SPECIAL AREAS.**—

(1) **IN GENERAL.**—The Secretary, after consultation with the State of Alaska, the city of Kaktovik, and the North Slope Borough, may des-
ignite up to a total of 45,000 acres of the Coastal Plain as a Special Area if the Secretary determines that the Special Area is of such unique character and interest so as to require special management and regulatory protection. The Secretary shall designate as such a Special Area the Sadlerochit Spring area, comprising approximately 4,000 acres.

(2) MANAGEMENT.—Each such Special Area shall be managed so as to protect and preserve the area’s unique and diverse character including its fish, wildlife, and subsistence resource values.

(3) EXCLUSION FROM LEASING OR SURFACE OCCUPANCY.—The Secretary may exclude any Special Area from leasing. If the Secretary leases a Special Area, or any part thereof, for purposes of oil and gas exploration, development, production, and related activities, there shall be no surface occupancy of the lands comprising the Special Area.

(4) DIRECTIONAL DRILLING.—Notwithstanding the other provisions of this subsection, the Secretary may lease all or a portion of a Special Area under terms that permit the use of horizontal drilling technology from sites on leases located outside the Special Area.
(f) LIMITATION ON CLOSED AREAS.—The Secretary’s sole authority to close lands within the Coastal Plain to oil and gas leasing and to exploration, development, and production is that set forth in this Act.

(g) REGULATIONS.—

(1) IN GENERAL.—The Secretary shall prescribe such regulations as may be necessary to carry out this Act, including rules and regulations relating to protection of the fish and wildlife, their habitat, subsistence resources, and environment of the Coastal Plain, by no later than 15 months after the date of enactment of this Act.

(2) REVISION OF REGULATIONS.—The Secretary shall periodically review and, if appropriate, revise the rules and regulations issued under subsection (a) to reflect any significant biological, environmental, or engineering data that come to the Secretary’s attention.

SEC. 4004. LEASE SALES.

(a) IN GENERAL.—Lands may be leased pursuant to this Act to any person qualified to obtain a lease for deposits of oil and gas under the Mineral Leasing Act (30 U.S.C. 181 et seq.).

(b) PROCEDURES.—The Secretary shall, by regulation, establish procedures for—
(1) receipt and consideration of sealed nominations for any area in the Coastal Plain for inclusion in, or exclusion (as provided in subsection (c)) from, a lease sale;

(2) the holding of lease sales after such nomination process; and

(3) public notice of and comment on designation of areas to be included in, or excluded from, a lease sale.

(c) LEASE SALE BIDS.—Bidding for leases under this Act shall be by sealed competitive cash bonus bids.

(d) ACREAGE MINIMUM IN FIRST SALE.—In the first lease sale under this Act, the Secretary shall offer for lease those tracts the Secretary considers to have the greatest potential for the discovery of hydrocarbons, taking into consideration nominations received pursuant to subsection (b)(1), but in no case less than 200,000 acres.

(e) TIMING OF LEASE SALES.—The Secretary shall—

(1) conduct the first lease sale under this Act within 22 months after the date of the enactment of this Act; and

(2) conduct additional sales so long as sufficient interest in development exists to warrant, in the Secretary’s judgment, the conduct of such sales.
SEC. 4005. GRANT OF LEASES BY THE SECRETARY.

(a) IN GENERAL.—The Secretary may grant to the highest responsible qualified bidder in a lease sale conducted pursuant to section 4004 any lands to be leased on the Coastal Plain upon payment by the lessee of such bonus as may be accepted by the Secretary.

(b) SUBSEQUENT TRANSFERS.—No lease issued under this Act may be sold, exchanged, assigned, sublet, or otherwise transferred except with the approval of the Secretary. Prior to any such approval the Secretary shall consult with, and give due consideration to the views of, the Attorney General.

SEC. 4006. LEASE TERMS AND CONDITIONS.

(a) IN GENERAL.—An oil or gas lease issued pursuant to this Act shall—

(1) provide for the payment of a royalty of not less than 12 1⁄2 percent in amount or value of the production removed or sold from the lease, as determined by the Secretary under the regulations applicable to other Federal oil and gas leases;

(2) provide that the Secretary may close, on a seasonal basis, portions of the Coastal Plain to exploratory drilling activities as necessary to protect caribou calving areas and other species of fish and wildlife;
(3) require that the lessee of lands within the Coastal Plain shall be fully responsible and liable for the reclamation of lands within the Coastal Plain and any other Federal lands that are adversely affected in connection with exploration, development, production, or transportation activities conducted under the lease and within the Coastal Plain by the lessee or by any of the subcontractors or agents of the lessee;

(4) provide that the lessee may not delegate or convey, by contract or otherwise, the reclamation responsibility and liability to another person without the express written approval of the Secretary;

(5) provide that the standard of reclamation for lands required to be reclaimed under this Act shall be, as nearly as practicable, a condition capable of supporting the uses which the lands were capable of supporting prior to any exploration, development, or production activities, or upon application by the lessee, to a higher or better use as approved by the Secretary;

(6) contain terms and conditions relating to protection of fish and wildlife, their habitat, subsistence resources, and the environment as required pursuant to section 4003(a)(2);
(7) provide that the lessee, its agents, and its contractors use best efforts to provide a fair share, as determined by the level of obligation previously agreed to in the 1974 agreement implementing section 29 of the Federal Agreement and Grant of Right of Way for the Operation of the Trans-Alaska Pipeline, of employment and contracting for Alaska Natives and Alaska Native Corporations from throughout the State;

(8) prohibit the export of oil produced under the lease; and

(9) contain such other provisions as the Secretary determines necessary to ensure compliance with the provisions of this Act and the regulations issued under this Act.

(b) PROJECT LABOR AGREEMENTS.—The Secretary, as a term and condition of each lease under this Act and in recognizing the Government’s proprietary interest in labor stability and in the ability of construction labor and management to meet the particular needs and conditions of projects to be developed under the leases issued pursuant to this Act and the special concerns of the parties to such leases, shall require that the lessee and its agents and contractors negotiate to obtain a project labor agreement for the employment of laborers and mechanics on
production, maintenance, and construction under the lease.

**SEC. 4007. COASTAL PLAIN ENVIRONMENTAL PROTECTION.**

(a) **No Significant Adverse Effect Standard to Govern Authorized Coastal Plain Activities.**—The Secretary shall, consistent with the requirements of section 4003, administer the provisions of this Act through regulations, lease terms, conditions, restrictions, prohibitions, stipulations, and other provisions that—

1. ensure the oil and gas exploration, development, and production activities on the Coastal Plain will result in no significant adverse effect on fish and wildlife, their habitat, and the environment;
2. require the application of the best commercially available technology for oil and gas exploration, development, and production on all new exploration, development, and production operations; and
3. ensure that the maximum amount of surface acreage covered by production and support facilities, including airstrips and any areas covered by gravel berms or piers for support of pipelines, does not exceed 2,000 acres on the Coastal Plain.
(b) Site-Specific Assessment and Mitigation.—

The Secretary shall also require, with respect to any proposed drilling and related activities, that—

(1) a site-specific analysis be made of the probable effects, if any, that the drilling or related activities will have on fish and wildlife, their habitat, subsistence resources, and the environment;

(2) a plan be implemented to avoid, minimize, and mitigate (in that order and to the extent practicable) any significant adverse effect identified under paragraph (1); and

(3) the development of the plan shall occur after consultation with the agency or agencies having jurisdiction over matters mitigated by the plan.

(c) Regulations to Protect Coastal Plain Fish and Wildlife Resources, Subsistence Users, and the Environment.—Before implementing the leasing program authorized by this Act, the Secretary shall prepare and promulgate regulations, lease terms, conditions, restrictions, prohibitions, stipulations, and other measures designed to ensure that the activities undertaken on the Coastal Plain under this Act are conducted in a manner consistent with the purposes and environmental requirements of this Act.
(d) **Compliance With Federal and State Environmental Laws and Other Requirements.**—The proposed regulations, lease terms, conditions, restrictions, prohibitions, and stipulations for the leasing program under this Act shall require compliance with all applicable provisions of Federal and State environmental law, and shall also require the following:

1. Standards at least as effective as the safety and environmental mitigation measures set forth in items 1 through 29 at pages 167 through 169 of the “Final Legislative Environmental Impact Statement” (April 1987) on the Coastal Plain.

2. Seasonal limitations on exploration, development, and related activities, where necessary, to avoid significant adverse effects during periods of concentrated fish and wildlife breeding, denning, nesting, spawning, and migration.

3. That exploration activities, except for surface geological studies, be limited to the period between approximately November 1 and May 1 each year and that exploration activities shall be supported, if necessary, by ice roads, winter trails with adequate snow cover, ice pads, ice airstrips, and air transport methods, except that such exploration activities may occur at other times if the Secretary
finds that such exploration will have no significant adverse effect on the fish and wildlife, their habitat, and the environment of the Coastal Plain.

(4) Design safety and construction standards for all pipelines and any access and service roads, that—

(A) minimize, to the maximum extent possible, adverse effects upon the passage of migratory species such as caribou; and

(B) minimize adverse effects upon the flow of surface water by requiring the use of culverts, bridges, and other structural devices.

(5) Prohibitions on general public access and use on all pipeline access and service roads.

(6) Stringent reclamation and rehabilitation requirements, consistent with the standards set forth in this Act, requiring the removal from the Coastal Plain of all oil and gas development and production facilities, structures, and equipment upon completion of oil and gas production operations, except that the Secretary may exempt from the requirements of this paragraph those facilities, structures, or equipment that the Secretary determines would assist in the management of the Arctic National Wildlife Refuge.
and that are donated to the United States for that purpose.

(7) Appropriate prohibitions or restrictions on access by all modes of transportation.

(8) Appropriate prohibitions or restrictions on sand and gravel extraction.

(9) Consolidation of facility siting.

(10) Appropriate prohibitions or restrictions on use of explosives.

(11) Avoidance, to the extent practicable, of springs, streams, and river system; the protection of natural surface drainage patterns, wetlands, and riparian habitats; and the regulation of methods or techniques for developing or transporting adequate supplies of water for exploratory drilling.

(12) Avoidance or minimization of air traffic-related disturbance to fish and wildlife.

(13) Treatment and disposal of hazardous and toxic wastes, solid wastes, reserve pit fluids, drilling muds and cuttings, and domestic wastewater, including an annual waste management report, a hazardous materials tracking system, and a prohibition on chlorinated solvents, in accordance with applicable Federal and State environmental law.
(14) Fuel storage and oil spill contingency planning.

(15) Research, monitoring, and reporting requirements.

(16) Field crew environmental briefings.

(17) Avoidance of significant adverse effects upon subsistence hunting, fishing, and trapping by subsistence users.

(18) Compliance with applicable air and water quality standards.

(19) Appropriate seasonal and safety zone designations around well sites, within which subsistence hunting and trapping shall be limited.

(20) Reasonable stipulations for protection of cultural and archeological resources.

(21) All other protective environmental stipulations, restrictions, terms, and conditions deemed necessary by the Secretary.

(e) CONSIDERATIONS.—In preparing and promulgating regulations, lease terms, conditions, restrictions, prohibitions, and stipulations under this section, the Secretary shall consider the following:

(1) The stipulations and conditions that govern the National Petroleum Reserve-Alaska leasing program, as set forth in the 1999 Northeast National

(2) The environmental protection standards that governed the initial Coastal Plain seismic exploration program under parts 37.31 to 37.33 of title 50, Code of Federal Regulations.

(3) The land use stipulations for exploratory drilling on the KIC–ASRC private lands that are set forth in Appendix 2 of the August 9, 1983, agreement between Arctic Slope Regional Corporation and the United States.

(f) FACILITY CONSOLIDATION PLANNING.—

(1) IN GENERAL.—The Secretary shall, after providing for public notice and comment, prepare and update periodically a plan to govern, guide, and direct the siting and construction of facilities for the exploration, development, production, and transportation of Coastal Plain oil and gas resources.

(2) OBJECTIVES.—The plan shall have the following objectives:

(A) Avoiding unnecessary duplication of facilities and activities.

(B) Encouraging consolidation of common facilities and activities.
(C) Locating or confining facilities and activities to areas that will minimize impact on fish and wildlife, their habitat, and the environment.

(D) Utilizing existing facilities wherever practicable.

(E) Enhancing compatibility between wildlife values and development activities.

(g) ACCESS TO PUBLIC LANDS.—The Secretary shall—

(1) manage public lands in the Coastal Plain subject to subsections (a) and (b) of section 811 of the Alaska National Interest Lands Conservation Act (16 U.S.C. 3121); and

(2) ensure that local residents shall have reasonable access to public lands in the Coastal Plain for traditional uses.

SEC. 4008. EXPEDITED JUDICIAL REVIEW.

(a) FILING OF COMPLAINT.—

(1) DEADLINE.—Subject to paragraph (2), any complaint seeking judicial review of any provision of this Act or any action of the Secretary under this Act shall be filed—
(A) except as provided in subparagraph

(B), within the 90-day period beginning on the

date of the action being challenged; or

(B) in the case of a complaint based solely

on grounds arising after such period, within 90
days after the complainant knew or reasonably
should have known of the grounds for the com-
plaint.

(2) VENUE.—Any complaint seeking judicial re-
view of any provision of this Act or any action of the
Secretary under this Act may be filed only in the
United States Court of Appeals for the District of
Columbia.

(3) LIMITATION ON SCOPE OF CERTAIN RE-
VIEW.—Judicial review of a Secretarial decision to
conduct a lease sale under this Act, including the en-
vironmental analysis thereof, shall be limited to
whether the Secretary has complied with the terms
of this Act and shall be based upon the administra-
tive record of that decision. The Secretary’s identi-
fication of a preferred course of action to enable
leasing to proceed and the Secretary’s analysis of
environmental effects under this Act shall be pre-
sumed to be correct unless shown otherwise by clear
and convincing evidence to the contrary.
(b) LIMITATION ON OTHER REVIEW.—Actions of the Secretary with respect to which review could have been obtained under this section shall not be subject to judicial review in any civil or criminal proceeding for enforcement.

SEC. 4009. FEDERAL AND STATE DISTRIBUTION OF REVENUES.

(a) IN GENERAL.—Notwithstanding any other provision of law, of the amount of adjusted bonus, rental, and royalty revenues from Federal oil and gas leasing and operations authorized under this Act—

(1) 50 percent shall be paid to the State of Alaska; and

(2) except as provided in section 4012(d), the balance shall be deposited into the Treasury as miscellaneous receipts.

(b) PAYMENTS TO ALASKA.—Payments to the State of Alaska under this section shall be made semiannually.

SEC. 4010. RIGHTS-OF-WAY ACROSS THE COASTAL PLAIN.

(a) IN GENERAL.—The Secretary shall issue rights-of-way and easements across the Coastal Plain for the transportation of oil and gas—

(1) except as provided in paragraph (2), under section 28 of the Mineral Leasing Act (30 U.S.C. 185), without regard to title XI of the Alaska Na-
tional Interest Lands Conservation Act (30 U.S.C. 3161 et seq.); and


(b) TERMS AND CONDITIONS.—The Secretary shall include in any right-of-way or easement issued under subsection (a) such terms and conditions as may be necessary to ensure that transportation of oil and gas does not result in a significant adverse effect on the fish and wildlife, subsistence resources, their habitat, and the environment of the Coastal Plain, including requirements that facilities be sited or designed so as to avoid unnecessary duplication of roads and pipelines.

e) REGULATIONS.—The Secretary shall include in regulations under section 4003(g) provisions granting rights-of-way and easements described in subsection (a) of this section.

SEC. 4011. CONVEYANCE.

In order to maximize Federal revenues by removing clouds on title to lands and clarifying land ownership patterns within the Coastal Plain, the Secretary, notwithstanding the provisions of section 1302(h)(2) of the Alas-
ka National Interest Lands Conservation Act (16 U.S.C. 3192(h)(2)), shall convey—

(1) to the Kaktovik Inupiat Corporation the surface estate of the lands described in paragraph 1 of Public Land Order 6959, to the extent necessary to fulfill the Corporation’s entitlement under sections 12 and 14 of the Alaska Native Claims Settlement Act (43 U.S.C. 1611 and 1613) in accordance with the terms and conditions of the Agreement between the Department of the Interior, the United States Fish and Wildlife Service, the Bureau of Land Management, and the Kaktovik Inupiat Corporation effective January 22, 1993; and

(2) to the Arctic Slope Regional Corporation the remaining subsurface estate to which it is entitled pursuant to the August 9, 1983, agreement between the Arctic Slope Regional Corporation and the United States of America.

SEC. 4012. LOCAL GOVERNMENT IMPACT AID AND COMMUNITY SERVICE ASSISTANCE.

(a) Financial Assistance Authorized.—

(1) In general.—The Secretary may use amounts available from the Coastal Plain Local Government Impact Aid Assistance Fund established by subsection (d) to provide timely financial assistance
to entities that are eligible under paragraph (2) and that are directly impacted by the exploration for or production of oil and gas on the Coastal Plain under this Act.

(2) **Eligible Entities.**—The North Slope Borough, the City of Kaktovik, and any other borough, municipal subdivision, village, or other community in the State of Alaska that is directly impacted by exploration for, or the production of, oil or gas on the Coastal Plain under this Act, as determined by the Secretary, shall be eligible for financial assistance under this section.

(b) **Use of Assistance.**—Financial assistance under this section may be used only for—

(1) planning for mitigation of the potential effects of oil and gas exploration and development on environmental, social, cultural, recreational, and subsistence values;

(2) implementing mitigation plans and maintaining mitigation projects;

(3) developing, carrying out, and maintaining projects and programs that provide new or expanded public facilities and services to address needs and problems associated with such effects, including fire-
fighting, police, water, waste treatment, medivac, and medical services; and

(4) establishment of a coordination office, by the north slope borough, in the city of kaktovik, which shall—

(A) coordinate with and advise developers on local conditions, impact, and history of the areas utilized for development; and

(B) provide to the Committee on Resources of the House of Representatives and the Committee on Energy and Natural Resources of the Senate an annual report on the status of coordination between developers and the communities affected by development.

(c) APPLICATION.—

(1) IN GENERAL.—Any community that is eligible for assistance under this section may submit an application for such assistance to the Secretary, in such form and under such procedures as the Secretary may prescribe by regulation.

(2) NORTH SLOPE BOROUGH COMMUNITIES.—A community located in the North Slope Borough may apply for assistance under this section either directly to the Secretary or through the North Slope Borough
(3) Application Assistance.—The Secretary shall work closely with and assist the North Slope Borough and other communities eligible for assistance under this section in developing and submitting applications for assistance under this section.

(d) Establishment of Fund.—

(1) In General.—There is established in the Treasury the Coastal Plain Local Government Impact Aid Assistance Fund.

(2) Use.—Amounts in the fund may be used only for providing financial assistance under this section.

(3) Deposits.—Subject to paragraph (4), there shall be deposited into the fund amounts received by the United States as revenues derived from rents, bonuses, and royalties from Federal leases and lease sales authorized under this Act.

(4) Limitation on Deposits.—The total amount in the fund may not exceed $11,000,000.

(5) Investment of Balances.—The Secretary of the Treasury shall invest amounts in the fund in interest bearing government securities.

(e) Authorization of Appropriations.—To provide financial assistance under this section there is authorized to be appropriated to the Secretary from the Coastal
Plain Local Government Impact Aid Assistance Fund $5,000,000 for each fiscal year.

SEC. 4013. NATURAL GAS LEASING 100 MILES OR MORE FROM THE COASTLINE.

(a) LEASING AND PRELEASING ACTIVITIES.—The Secretary of the Interior may conduct natural gas leasing and preleasing activities for the area of the outer Continental Shelf 100 miles or more seaward from the coastline.

(b) REVOCATION OF WITHDRAWALS.—All withdrawals of submerged lands of the outer Continental Shelf from leasing, including withdrawals by the President under the authority of section 12 of the Outer Continental Shelf Lands Act (43 U.S.C. 1341), are hereby revoked and no longer in effect with respect to the leasing of areas 100 miles or more seaward from the coastline for exploration for, and development and production of, natural gas.

(c) GRANT OF NATURAL GAS LEASES.—Section 8 of the Outer Continental Shelf Lands Act (43 U.S.C. 1337) is amended in subsection (a)(1) by inserting after the first sentence the following: “Further, the Secretary may grant natural gas leases in a manner similar to the granting of oil and gas leases and under the various bidding systems available for oil and gas leases.”.
(d) DEFINITIONS.—For purposes of this section and the Outer Continental Shelf Lands Act (43 U.S.C. 1331 et seq.) the following definitions shall apply:

(1) The term “miles” means statute miles.

(2) For purposes of a natural gas lease, “natural gas” means any and all substances produced in association with gas, including, but not limited to, hydrocarbon liquids (other than crude oil) that are obtained by the condensation of hydrocarbon vapors and separate out in liquid form from the produced gas stream.

(3) The term “coastline” has the same meaning as the term “coast line” as defined in section 2(c) of the Submerged Lands Act (43 U.S.C. 1301(c)).