

110TH CONGRESS  
1ST SESSION

# H. R. 1945

To improve the energy efficiency of the United States.

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IN THE HOUSE OF REPRESENTATIVES

APRIL 19, 2007

Mr. SHAYS (for himself and Mr. HINCHEY) introduced the following bill; which was referred to the Committee on Energy and Commerce, and in addition to the Committees on Ways and Means, Natural Resources, Transportation and Infrastructure, and Science and Technology, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

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## A BILL

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

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

(a) SHORT TITLE.—This Act may be cited as the “Energy For Our Future Act”.

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

Sec. 1. Short title; table of contents.

#### TITLE I—SAVE OIL

Sec. 101. Help consumers buy more fuel efficient cars.

Sec. 102. Energy efficient motor vehicles manufacturing credit.

Sec. 103. Transit-oriented development corridors.

Sec. 104. Automobile Fuel Economy Standards.

Sec. 105. Inclusion of sports utility vehicles in limitation on depreciation of certain luxury automobiles.

Sec. 106. Fuel efficiency standards for replacement tires.

Sec. 107. Heavy duty vehicle fuel economy requirements.

#### TITLE II—REDUCE HEAT AND ELECTRIC BILLS

##### Subtitle A—General Programs

Sec. 201. Weatherization assistance.

Sec. 202. Energy Star programs.

- Sec. 203. Renewable electricity production credit.
- Sec. 204. Efficiency resource standard.
- Sec. 205. Federal renewable portfolio standard.
- Sec. 206. Net metering.

#### Subtitle B—Energy Efficiency Incentive

- Sec. 211. Performance based energy improvements for non-business property.
- Sec. 212. Extension and modification of credit for nonbusiness energy property.
- Sec. 213. Extension and clarification of new energy efficient home credit.
- Sec. 214. Extension and modification of deduction for energy efficient commercial buildings.
- Sec. 215. Deduction for energy efficient low-rise buildings.
- Sec. 216. Energy efficient property deduction.
- Sec. 217. Credit for energy savings certifications.

#### TITLE III—SAVE TAX PAYERS MONEY

- Sec. 301. Repeal of certain provisions of the Energy Policy Act of 2005.
- Sec. 302. Repeal of certain tax provisions of the Energy Policy Act of 2005.

#### TITLE IV—STATE AND LOCAL AUTHORITY

- Sec. 401. State consumer product energy efficiency standards.
- Sec. 402. Appeals from consistency determinations under Coastal Zone Management Act of 1972.
- Sec. 403. Siting of interstate electric transmission facilities.
- Sec. 404. New natural gas storage facilities.
- Sec. 405. Process coordination; hearings; rules of procedure.
- Sec. 406. Repeal of preemption of State law relating to automobile fuel economy standards.

#### TITLE V—RENEWABLE ENERGY RESEARCH AND DEVELOPMENT

- Sec. 501. Advanced biofuel technologies.
- Sec. 502. Advanced hydrogen storage technologies.
- Sec. 503. Advanced solar photovoltaic technologies.
- Sec. 504. Advanced wind energy technologies.
- Sec. 505. Continuing programs.
- Sec. 506. Plug-in hybrid electric vehicle technology program.
- Sec. 507. Photovoltaic demonstration program.

## TITLE I—SAVE OIL

### SEC. 101. HELP CONSUMERS BUY MORE FUEL EFFICIENT CARS.

(a) **REPEAL OF LIMIT ON NUMBER OF CARS ELIGIBLE FOR CREDIT.**—Section 30B of the Internal Revenue Code of 1986 (relating to alternative motor vehicle credit) is amended by striking subsection (f).

(b) **EMISSIONS STANDARDS.**—Clause (iv) of section 30B(c)(3)(A) of such Code is amended to read as follows:

“(iv) for 2004 and later model vehicles, has received a certificate that such vehicle meets or exceeds the Bin 5 Tier II emission standard established in regulations prescribed by the Administrator of the Environmental Protection

Agency under section 202(i) of the Clean Air Act for that make and model year vehicle.”.

(c) EFFECTIVE DATE.—The amendments made by this section shall take effect as if included in the amendments made by section 1341(a) of the Energy Tax Incentives Act of 2005.

## **SEC. 102. ENERGY EFFICIENT MOTOR VEHICLES MANUFACTURING CREDIT.**

(a) IN GENERAL.—Subpart B of part IV of subchapter A of chapter 1 of the Internal Revenue Code of 1986 (relating to foreign tax credit, etc.) is amended by adding at the end the following new section:

### **“SEC. 30D. ENERGY EFFICIENT MOTOR VEHICLES MANUFACTURING CREDIT.**

“(a) CREDIT ALLOWED.—In the case of an eligible taxpayer, subject to a credit allocation under subsection (e) to such eligible taxpayer, there shall be allowed as a credit against the tax imposed by this chapter for the taxable year to an amount equal to the sum of—

“(1) the initial investment credit determined under subsection (b) for the taxable year,

“(2) the fuel economy achievement credit determined under subsection (c) for such taxable year, and

“(3) the eligible components R&D credit determined under subsection (d) for such taxable year.

“(b) INITIAL INVESTMENT CREDIT.—For purposes of this section, the initial investment credit is equal to 20 percent of the qualified investment of an eligible taxpayer with respect to energy efficient motor vehicles during the taxable year beginning in 2008.

“(c) FUEL ECONOMY ACHIEVEMENT CREDIT.—For purposes of this section—

“(1) IN GENERAL.—In the case of an eligible taxpayer who meets the requirements of paragraph (2) for a model year ending in a taxable year specified in the table contained in paragraph (3), the fuel economy achievement credit for such taxable year is equal to 30 percent of the sum of—

“(A) at the election of the eligible taxpayer, such qualified investment for any preceding taxable year beginning after 2007 if such taxable year has not previously been taken into account under this subsection by such taxpayer, plus

“(B) at the election of the eligible taxpayer, the qualified investment with respect to energy efficient motor vehicles of the eligible taxpayer for the taxable

year beginning in 2017.

“(2) **DEMONSTRATED COMBINED FLEET ECONOMY IMPROVEMENTS.**—The requirements of this paragraph are met for any model year ending in a taxable year if the eligible taxpayer can demonstrate to the satisfaction of the Secretary that the percentage by which the taxpayer's overall combined fuel economy standard for the taxpayer's vehicle fleet for such model year exceeds such standard for such taxpayer's 2007 model year as reported to the National Highway Traffic Safety Administration under [section 32907](#) of title 49, United States Code, is not less than the percentage determined for such model year under paragraph (3).

“(3) **PERCENTAGE INCREASE.**—The percentage determined under this paragraph for any taxable year is equal to—

<b>“Model year ending in taxable year:</b>	<b>Percentage increase:</b>
2010	5.
2011	10.
2012	15.
2013	20.
2014	27.5.
2015	35.
2016	42.5.
2017	50.

“(d) **ELIGIBLE COMPONENTS R&D CREDIT.**—For purposes of this section, the eligible R&D credit for any taxable year is equal to 30 percent of the research and development costs paid or incurred by an eligible taxpayer for such taxable year with respect to eligible components used or to be used in the manufacture of energy efficient motor vehicles.

“(e) **LIMITATION.**—

“(1) **INITIAL INVESTMENT CREDIT AND FUEL ECONOMY ACHIEVEMENT CREDIT.**—Subject to paragraph (2), the aggregate amount of initial investment credits and fuel economy achievement credits allowed under subsection (a) for any taxable year beginning in a calendar year after 2007 shall be allocated by the Secretary among all eligible taxpayers—

“(A) based on each eligible taxpayer's percentage of the total qualified investment of all such taxpayers, and

“(B) such that such aggregate amount does not exceed—

“(i) \$1,000,000,000, plus

“(ii) any amount of credit unallocated during any preceding calendar year.

“(2) ELIGIBLE COMPONENTS R&D CREDIT.—Of the dollar amount available for allocation under paragraph (1) for any taxable year, 10 percent of such amount shall be allocated in the same manner by the Secretary among all eligible taxpayers with respect to the eligible components R&D credit.

“(f) QUALIFIED INVESTMENT.—For purposes of this section—

“(1) IN GENERAL.—The qualified investment for any taxable year is equal to the incremental costs incurred during such taxable year—

“(A) to re-equip or expand any manufacturing facility of the eligible taxpayer to produce energy efficient motor vehicles or to produce eligible components, and

“(B) for engineering integration of such vehicles and components as described in subsection (h).

“(2) ATTRIBUTION RULES.—In the event a facility of the eligible taxpayer produces both energy efficient motor vehicles and conventional motor vehicles, or eligible and non-eligible components, only the qualified investment attributable to production of energy efficient motor vehicles and the research and development costs attributable to eligible components shall be taken into account.

“(g) ENERGY EFFICIENT MOTOR VEHICLES AND ELIGIBLE COMPONENTS.—For purposes of this section—

“(1) ENERGY EFFICIENT MOTOR VEHICLE.—The term ‘energy efficient motor vehicle’ means—

“(A) any new advanced lean burn technology motor vehicle (as defined in section 30B(c)(3) determined without regard to subparagraph (A)(iv)(II) thereof or the weight limitation under subparagraph (A)(iv)(I) thereof),

“(B) any new qualified hybrid motor vehicle (as defined in section 30B(d)(3)(A) determined without regard to subparagraph (A)(ii)(II) thereof, the weight limitation under subparagraph (A)(ii)(I) thereof, and subparagraph (A)(iv) thereof), or

“(C) any other new technology motor vehicle identified by the Secretary as offering a substantial increase in fuel economy.

“(2) ELIGIBLE COMPONENTS.—The term ‘eligible component’ means any component inherent to any energy efficient motor vehicle, including—

“(A) with respect to any gasoline-electric new qualified hybrid motor vehicle—

“(i) electric motor or generator,

“(ii) power split device,

“(iii) power control unit,

“(iv) power controls,

“(v) integrated starter generator, or

“(vi) battery,

“(B) with respect to any new advanced lean burn technology motor vehicle—

“(i) diesel engine,

“(ii) turbocharger,

“(iii) fuel injection system, or

“(iv) after-treatment system, such as a particle filter or NOx absorber, and

“(C) with respect to any energy efficient motor vehicle, any other component approved by the Secretary.

“(h) ENGINEERING INTEGRATION COSTS.—For purposes of subsection (f)(1)(B), costs for engineering integration are costs incurred prior to the market introduction of energy efficient vehicles for engineering tasks related to—

“(1) incorporating eligible components into the design of energy efficient motor vehicles, and

“(2) designing new tooling and equipment for production facilities which produce eligible components or energy efficient motor vehicles.

“(i) ELIGIBLE TAXPAYER.—For purposes of this section, the term ‘eligible taxpayer’ means, with respect to any taxable year, any taxpayer if more than 25 percent of the taxpayer's gross receipts for the taxable year is derived from the manufacture of motor vehicles or any component parts of such vehicles.

“(j) **LIMITATION BASED ON AMOUNT OF TAX.**—The credit allowed under subsection (a) for the taxable year shall not exceed the excess of—

“(1) the sum of—

“(A) the regular tax liability (as defined in section 26(b)) for such taxable year, plus

“(B) the tax imposed by section 55 for such taxable year, over

“(2) the sum of the credits allowable under subpart A and sections 27, 30, 30B, and 30C for the taxable year.

“(k) **REDUCTION IN BASIS.**—For purposes of this subtitle, if a credit is allowed under this section for any expenditure with respect to any property, the increase in the basis of such property which would (but for this paragraph) result from such expenditure shall be reduced by the amount of the credit so allowed.

“(l) **NO DOUBLE BENEFIT.**—

“(1) **COORDINATION WITH OTHER DEDUCTIONS AND CREDITS.**—The amount of any deduction or other credit allowable under this chapter for any cost taken into account in determining the amount of the credit under subsection (a) shall be reduced by the amount of such credit attributable to such cost.

“(2) **RESEARCH AND DEVELOPMENT COSTS.**—

“(A) **IN GENERAL.**—Except as provided in subparagraph (B), any amount described in subsection (d) taken into account in determining the amount of the credit under subsection (a) for any taxable year shall not be taken into account for purposes of determining the credit under section 41 for such taxable year.

“(B) **COSTS TAKEN INTO ACCOUNT IN DETERMINING BASE PERIOD RESEARCH EXPENSES.**—Any amounts described in subsection (d) taken into account in determining the amount of the credit under subsection (a) for any taxable year which are qualified research expenses (within the meaning of section 41(b)) shall be taken into account in determining base period research expenses for purposes of applying section 41 to subsequent taxable years.

“(m) **BUSINESS CARRYOVERS ALLOWED.**—If the credit allowable under subsection (a) for a taxable year exceeds the limitation under subsection (j) for such taxable year, such excess (to the extent of the credit allowable with respect to property subject to the allowance for depreciation) shall be allowed as a credit carryback and carryforward under rules similar to the rules of section 39.

“(n) DEFINITIONS AND SPECIAL RULES.—For purposes of this section—

“(1) DEFINITIONS.—Any term which is used in this section and in [chapter 329](#) of title 49, United States Code, shall have the meaning given such term by such chapter.

“(2) SPECIAL RULES.—Rules similar to the rules of paragraphs (4) and (5) of section 179A(e) and paragraphs (1) and (2) of section 41(f) shall apply.

“(o) ELECTION NOT TO TAKE CREDIT.—No credit shall be allowed under subsection (a) for any property if the taxpayer elects not to have this section apply to such property.

“(p) REGULATIONS.—The Secretary shall prescribe such regulations as necessary to carry out the provisions of this section.

“(q) TERMINATION.—This section shall not apply to any qualified investment made after December 31, 2017.”.

(b) CONFORMING AMENDMENTS.—

(1) Section 1016(a) of such Code is amended by striking “and” at the end of paragraph (36), by striking the period at the end of paragraph (37) and inserting “, and”, and by adding at the end the following new paragraph:

“(38) to the extent provided in section 30D(k).”.

(2) Section 6501(m) of such Code is amended by inserting “30D(o),” after “30C(e)(5),”.

(3) The table of sections for subpart B of part IV of subchapter A of chapter 1 of such Code is amended by inserting after the item relating to section 30C the following new item:

“Sec. 30D. Energy efficient motor vehicles manufacturing credit.”.

(c) EFFECTIVE DATE.—The amendments made by this subsection shall apply to amounts incurred in taxable years beginning after December 31, 2007.

### **SEC. 103. TRANSIT-ORIENTED DEVELOPMENT CORRIDORS.**

(a) DEFINITIONS.—In this section, the following definitions apply:

(1) DEFINITIONS FROM TITLE 49, UNITED STATES CODE.—The terms “capital project”, “local governmental authority”, “public transportation”, and “urbanized area” have the meanings such terms have under [section 5302\(a\)](#) of title 49, United States Code.

(2) STATE.—The term “State” means a State of the United States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, Guam, American Samoa, and the United States Virgin Islands.

(3) TRANSIT-ORIENTED DEVELOPMENT CORRIDOR.—The term “transit-oriented development corridor” means rights-of-way for fixed-guideway public transportation facilities, including commercial development that is connected with any such facility physically and functionally.

(b) IN GENERAL.—In consultation with State transportation departments and metropolitan planning organizations, the Secretary of Transportation shall designate, in urbanized areas, at least 20 transit-oriented development corridors by 2015 and 50 transit-oriented development corridors by 2025.

(c) TRANSIT GRANTS.—The Secretary of Transportation shall award grants to a State or local governmental authority to construct or improve transit facilities, bicycle transportation facilities, and pedestrian walkways in a transit-oriented development corridor, including capital projects.

(d) RESEARCH AND DEVELOPMENT.—In order to support effective deployment of grants and incentives under this section, the Secretary of Transportation shall establish a transit-oriented development corridors research and development program for the conduct of research on best practices and performance criteria for transit-oriented development corridors.

(e) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section \$500,000,000 for each of fiscal years 2008 through 2019, of which \$2,000,000 per fiscal year is authorized for the research and development program under subsection (d).

(f) LABOR STANDARDS.—The Secretary of Transportation shall not provide a grant under this section unless the Secretary receives reasonable assurances from a State that laborers and mechanics employed by contractors or subcontractors in the performance of construction or modernization on the a transit project will be paid wages not less than those prevailing on similar construction or modernization in the locality as determined by the Secretary of Labor under subchapter IV of [chapter 31](#) of title 40, United States Code (known as the Davis-Bacon Act).

## **SEC. 104. AUTOMOBILE FUEL ECONOMY STANDARDS.**

(a) PHASED INCREASES IN FUEL ECONOMY STANDARDS.—

(1) PASSENGER AUTOMOBILES.—

(A) MINIMUM STANDARDS.—[Section 32902\(b\)](#) of title 49, United States Code, is amended to read as follows:

“(b) PASSENGER AUTOMOBILES.—Except as otherwise provided under this section, the average fuel economy standard for passenger automobiles manufactured by a manufacturer in a model year—

“(1) after model year 1984 and before model year 2008 shall be 25 miles per gallon;

“(2) after model year 2007 and before model year 2011 shall be 28 miles per gallon;

“(3) after model year 2010 and before model year 2014 shall be 32 miles per gallon;

“(4) after model year 2013 and before model year 2017 shall be 36 miles per gallon; and

“(5) after model year 2016 shall be 40 miles per gallon.”.

(B) HIGHER STANDARDS SET BY REGULATION.—[Section 32902\(c\)](#) of title 49, United States Code, is amended—

(i) by striking paragraph (2); and

(ii) in paragraph (1)—

(I) by striking “(1) Subject to paragraph (2) of this subsection, the” and inserting “The”; and

(II) by striking “amending the standard” and inserting “increasing the standard otherwise applicable”.

(b) INCREASED INCLUSIVENESS OF DEFINITIONS OF AUTOMOBILE AND PASSENGER AUTOMOBILE.—

(1) AUTOMOBILE.—

(A) IN GENERAL.—[Section 32901\(a\)\(3\)](#) of title 49, United States Code, is amended—

(i) by striking “6,000 pounds” each place it appears and inserting “12,000 pounds”; and

(ii) in subparagraph (B)—

(I) by striking “10,000 pounds” and inserting “14,000 pounds”; and

(II) in clause (ii), by striking “an average fuel economy standard” and all that follows through “conservation or”.

(B) SPECIAL RULE.—Section 32908(a)(1) of such title is amended by striking “8,500 pounds” and inserting “14,000 pounds”.

(2) PASSENGER AUTOMOBILE.—Section 32901(a)(16) of title 49, United States Code, is amended to read as follows:

“(16) ‘passenger automobile’ means an automobile having a gross vehicle weight of 10,000 pounds or less that is designed to be used principally for the transportation of persons;”.

(3) APPLICABILITY.—The amendments made by this section shall apply with respect to automobiles manufactured for model years beginning after the date of enactment of this Act.

(c) CIVIL PENALTIES.—

(1) INCREASED PENALTY FOR VIOLATIONS OF FUEL ECONOMY STANDARDS.—Section 32912(b) of title 49, United States Code, is amended—

(A) by inserting “(1)” before “Except as provided”;

(B) by striking “\$5” and inserting “the dollar amount applicable under paragraph (2)”;

(C) by redesignating paragraphs (1), (2), and (3) as subparagraphs (A), (B), and (C), respectively; and

(D) by adding at the end the following:

“(2) (A) The dollar amount referred to in paragraph (1) is \$10, as increased from time to time under subparagraph (B);

“(B) Effective on October 1 of each year, the dollar amount applicable under subparagraph (A) shall be increased by the percentage (rounded to the nearest  $\frac{1}{10}$  of 1 percent) by which the price index for July of such year exceeds the price index for July of the preceding year. The amount calculated under the preceding sentence shall be rounded to the nearest \$0.10.

“(C) In this paragraph, the term ‘price index’ means the Consumer Price Index for all-urban consumers published monthly by the Department of Labor.”.

(2) CONFORMING AMENDMENT.—Section 32912(c)(1) of title 49, United States Code, is amended—

(A) by striking subparagraph (B); and

(B) by redesignating subparagraphs (C) and (D) as subparagraphs (B) and (C), respectively.

(3) APPLICABILITY.—The amendments made by subsection (a) shall apply with respect to automobiles manufactured for model years beginning after the date of enactment of this Act.

### **SEC. 105. INCLUSION OF SPORTS UTILITY VEHICLES IN LIMITATION ON DEPRECIATION OF CERTAIN LUXURY AUTOMOBILES.**

(a) IN GENERAL.—Subparagraph (A) of section 280F(d)(5) of the Internal Revenue Code of 1986 (defining passenger automobile) is amended by striking clause (ii) and all that follows and inserting the following new clause:

“(ii) (I) except as provided in subclause (II) or (III), which is rated at 6,000 pounds unloaded gross vehicle weight or less,

“(II) in the case of a truck or van, which is rated at 6,000 pounds gross vehicle weight or less, or

“(III) in the case of a sports utility vehicle not described in subclause (I), which is rated at more than 6,000 pounds but not more than 14,000 pounds gross vehicle weight.”.

(b) DEFINITION.—Paragraph (5) of section 280F(d) of such Code is amended by adding at the end the following new subparagraph:

“(C) SPORTS UTILITY VEHICLES.—The term ‘sports utility vehicle’ does not include any vehicle which—

“(i) does not have the primary load carrying device or container attached,

“(ii) has a seating capacity of more than 12 individuals,

“(iii) is designed for more than 9 individuals in seating rearward of the driver’s seat,

“(iv) is equipped with an open cargo area, or a covered box not readily accessible from the passenger compartment, of at least 72.0 inches in interior length, or

“(v) has an integral enclosure, fully enclosing the driver compartment and load carrying device, does not have seating rearward of the driver’s seat, and has no body section protruding more than 30 inches ahead of the leading edge of the windshield.”.

(c) CONFORMING AMENDMENT.—Section 179(b) of such Code (relating to limitations) is amended by striking paragraph (6).

(d) EFFECTIVE DATE.—The amendments made by this section shall apply to property placed in service after the date of the enactment of this Act.

## **SEC. 106. FUEL EFFICIENCY STANDARDS FOR REPLACEMENT TIRES.**

(a) STANDARDS FOR TIRES MANUFACTURED FOR INTERSTATE COMMERCE.—Section 30123 of title 49, United States Code, is amended—

(1) in subsection (b), by inserting after the first sentence the following: “The grading system shall include standards for rating the fuel efficiency of tires designed for use on passenger cars and light trucks.”; and

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

“(d) NATIONAL TIRE FUEL EFFICIENCY PROGRAM.—(1) The Secretary shall develop and carry out a national tire efficiency program for tires designed for use on passenger cars and light trucks. The program shall include the following:

“(A) Policies and procedures for testing and labeling tires for fuel economy to enable tire buyers to make informed purchasing decisions about the fuel economy of tires.

“(B) Policies and procedures to promote the purchase of energy-efficient replacement tires, including purchase incentives, website listings on the Internet, printed fuel economy guide booklets, and mandatory requirements for tire retailers to provide tire buyers with fuel-efficiency information on tires.

“(C) Minimum fuel economy standards for tires, promulgated by the Secretary.

“(2) The minimum fuel economy standards for tires required under paragraph (1)(C) shall—

“(A) ensure that, in conjunction with the requirements of paragraph (2)(B), the average fuel economy of replacement tires is equal to or better

than the average fuel economy of tires sold as original equipment;

“(B) secure the maximum technically feasible and cost-effective fuel savings;

“(C) not adversely affect tire safety;

“(D) not adversely affect the average tire life of replacement tires;

“(E) incorporate the results from—

“(i) laboratory testing; and

“(ii) to the extent appropriate and available, on-road fleet testing programs conducted by manufacturers; and

“(F) not adversely affect efforts to manage scrap tires.

“(3) The policies, procedures, and standards developed under paragraph (1) shall apply to all tire types and models that are covered by the Uniform Tire Quality Grading Standards in section 575.104 of title 49, Code of Federal Regulations (or any successor regulation).

“(4) Not less than every 3 years, the Secretary shall review the minimum fuel economy standards in effect for tires under this subsection and revise the standards as necessary to ensure compliance with requirements under paragraph (2). The Secretary may not reduce the average fuel economy standards applicable to replacement tires.

“(5) Nothing in this section shall be construed to preempt any provisions of State law relating to higher fuel economy standards applicable to replacement tires designed for use on passenger cars and light trucks. Nothing in this chapter shall apply to—

“(A) a tire or group of tires with the same product identification number, plant, and year, for which the volume of tires produced or imported is less than 15,000 annually;

“(B) a deep tread, winter-type snow tire, space-saver tire, or temporary use spare tire;

“(C) a tire with a normal rim diameter of 12 inches or less;

“(D) a motorcycle tire; or

“(E) a tire manufactured specifically for use in an off-road motorized

recreational vehicle.

“(6) In this subsection, the term ‘fuel economy’, with respect to tires, means the extent to which the tire contribute to the fuel economy of the motor vehicles on which the tire are mounted.”.

(b) CONFORMING AMENDMENT.—Section 30103(b)(1) of title 49, United States Code, is amended by striking “When” and inserting “Except as provided in section 30123(d) of this title, when”.

(c) IMPLEMENTATION.—The Secretary of Transportation shall ensure that the national tire fuel efficiency program required under [section 30123\(d\)](#) of title 49, United States Code (as added by subsection (a)(2)), is administered so as to apply the policies, procedures, and standards developed under paragraph (2) of such subsection beginning not later than March 31, 2008.

## **SEC. 107. HEAVY DUTY VEHICLE FUEL ECONOMY REQUIREMENTS.**

(a) FUEL ECONOMY STANDARDS FOR HEAVY DUTY TRUCKS.—Part C of subtitle VI of title 49, United States Code, is amended by adding after chapter 329 the following new chapter:

### **“CHAPTER 330—HEAVY DUTY VEHICLE FUEL ECONOMY REQUIREMENTS**

#### **“§ 33001. General**

“(1) PURPOSE AND POLICY.—The purpose of this chapter is to reduce petroleum consumption by heavy duty motor vehicles to the maximum extent feasible. Therefore it is necessary to prescribe fuel economy requirements for heavy duty motor vehicles.

“(2) DEFINITION.—In this chapter, ‘heavy duty motor vehicle’ means a vehicle of greater than 10,000 pounds gross vehicle weight that is driven or drawn by mechanical power and manufactured primarily for use on public streets, roads, and highways, but does not include a vehicle operated only on a rail line.

#### **“§ 33002. Requirements**

“(1) GENERAL REQUIREMENTS.—The Secretary of Transportation shall prescribe heavy duty motor vehicle fuel economy requirements, which may be complete vehicle fuel economy standards or some combination of engine fuel economy standards and requirements for other vehicle components and accessories. Such requirements shall be established for as many categories of heavy duty motor vehicle as feasible and at a minimum shall be prescribed for tractor-trailers of 26,000 lbs. or more gross vehicle weight. The requirements shall be practicable, meet the need for heavy duty motor

vehicle fuel consumption reduction, and be stated in objective terms.

“(2) TESTING PROTOCOLS.—The Administrator of the Environmental Protection Agency shall prescribe test protocols for determining compliance with standards and other requirements prescribed by the Secretary.

“(3) CONSIDERATIONS.—When prescribing heavy duty motor vehicle fuel economy standards under paragraph (1), the Secretary shall—

“(A) consider relevant available heavy duty motor vehicle fuel consumption information;

“(B) consider whether a proposed standard is reasonable, practicable, and appropriate for the particular type of heavy duty motor vehicle for which it is prescribed; and

“(C) consider the extent to which the standard will carry out section 33001 of this title.

“(4) COOPERATION.—The Secretary may advise, assist, and cooperate with departments, agencies, and instrumentalities of the Federal government, States, and other public and private agencies in developing fuel economy standards for heavy duty motor vehicles.

“(5) EFFECTIVE DATES OF STANDARDS.—The Secretary shall specify the effective date and heavy duty model years of a fuel economy standard prescribed under this chapter in the order prescribing the standard.

“(6) 5-YEAR PLAN FOR TESTING PROTOCOLS.—The Secretary shall establish and periodically review and update on a continuing basis a 5-year plan for testing motor vehicle fuel economy requirements prescribed under this chapter. In developing the plan and establishing testing priorities, the Secretary shall consider factors the Secretary considers appropriate, consistent with section 33001 of this title and the Secretary’s other duties and powers under this chapter.”.

(b) CLERICAL AMENDMENT.—The table of sections of subtitle VI of title 49, United States Code, is amended by inserting after the item relating to chapter 329, the following new item:

“330. Heavy Duty Vehicle Fuel Economy Requirements ..... 33001”.

## **TITLE II—REDUCE HEAT AND ELECTRIC BILLS**

### **Subtitle A—General Programs**

## **SEC. 201. WEATHERIZATION ASSISTANCE.**

Section 422 of the Energy Conservation and Production Act (42 U.S.C. 6872) is amended—

- (1) by striking “\$500,000,000” and inserting “\$1,000,000,000”;
- (2) by striking “\$600,000,000” and inserting “\$1,200,000,000”; and
- (3) by striking “\$700,000,000” and inserting “\$1,400,000,000”.

## **SEC. 202. ENERGY STAR PROGRAMS.**

There are authorized to be appropriated for carrying out the Energy Star program under section 324A of the Energy Policy and Conservation Act—

- (1) to the Administrator of the Environmental Protection Agency \$100,000,000 for each fiscal year; and
- (2) to the Secretary of Energy \$12,000,000 for each fiscal year.

## **SEC. 203. RENEWABLE ELECTRICITY PRODUCTION CREDIT.**

(a) EXTENSION.—Section 45(d) of the Internal Revenue Code of 1986 (relating to qualified facilities) is amended—

- (1) by striking “January 1, 2009” each place it appears in paragraphs (1), (2), (3), (5), (6), and (7) and inserting “January 1, 2014”, and
- (2) by striking “January 1, 2009 (January 1, 2006, in the case of a facility using solar energy)” in paragraph (4) and inserting “January 1, 2014 (January 1, 2012, in the case of a facility using solar energy)”.

(b) EXTENSION OF CREDIT FOR RESIDENTIAL ENERGY EFFICIENT PROPERTY.—Subsection (g) of section 25D of such Code (relating to termination) is amended by striking “December 31, 2007” and inserting “December 31, 2014”.

## **SEC. 204. EFFICIENCY RESOURCE STANDARD.**

(a) AMENDMENT.—Title VII of the Public Utility Regulatory Policies Act of 1978 is amended by adding the following new section at the end thereof:

“**SEC. 610. EFFICIENCY RESOURCE STANDARD FOR RETAIL ELECTRICITY AND NATURAL GAS SUPPLIERS.**

“(a) RESOURCE STANDARD.—Each retail electricity and natural gas supplier shall

undertake energy savings measures in each calendar year from 2007 through 2011 and thereafter that produce electricity demand savings and electricity and natural gas usage savings, as a percentage of the supplier's base amount as shown in the following table. These targets represent savings realized from measures installed in the current year, plus cumulative savings realized from measures installed in all previous years. Each retail electricity and natural gas supplier subject to this subsection may use any electricity or natural gas savings measures available to it to achieve compliance with the performance standard established under this section, so long as the electricity and natural gas savings achieved by such measures can be calculated and verified pursuant to the rules promulgated under subsection (b).

“Year	Reductions in peak electricity demand	Reductions in electricity and natural gas usage
2007	0.25%	0.25%
2008	0.75%	0.75%
2009	1.75%	1.50%
2010	2.75%	2.25%
2011 and thereafter	3.75%	3.00%

“(b) DETERMINATION OF COMPLIANCE.—The Secretary shall promulgate rules not later than one year after the enactment of this section regarding the means to be used to calculate and verify compliance with the performance standard established under subsection (a). Each retail electric and natural gas supplier subject to this section shall calculate its compliance with such standard in accordance with such rules. The rules shall include each of the following:

“(1) Procedures and standards for defining and measuring electricity savings achieved or obtained by electricity and natural gas suppliers (hereinafter in this section referred to as ‘electricity and natural gas savings’) from customer facility end-uses that occur in a calendar year from all measures in place in that year (including measures implemented in previous years that produce electricity and natural gas savings in such calendar year).

“(2) Procedures and standards for verification of electricity and natural gas savings reported by the retail electricity and natural gas supplier.

“(3) Requirements for the contents and format of a bi-annual report from each retail electricity and natural gas supplier demonstrating its compliance with the requirements of subsection (a). The bi-annual report must include sufficient detail regarding the calculation of electricity and natural gas savings to enable the regulatory authority to verify and enforce compliance with the requirements of this section and the regulations under this section.

“(c) CREDIT AND TRADING SYSTEM.—(1) After consultation with the Administrator of the Environmental Protection Agency, the Secretary shall promulgate rules establishing a nationwide credit and credit trading system for electricity and natural gas savings. Under such rules the Secretary may certify as credits electricity or natural savings achieved by a retail electricity or natural gas supplier in a given year in excess of the quantity of electricity or natural gas savings required that calendar year for such supplier to meet the resource standard, as long as such savings comply with the rules established under subsection (b). The Secretary shall also certify as credits customer energy savings created by retail electric or natural gas suppliers or other entities, as long as such savings comply with the rules established under subsection (b). An electricity savings credit shall equal one kilowatt hour; a natural gas savings credit shall constitute one therm.

“(2) The Secretary shall not award credits to any retail electricity or natural gas supplier subject to State administration and enforcement under subsection (d) unless the Secretary has determined that such administration and enforcement are at least equivalent to administration and enforcement by the Secretary.

“(3) An electricity or natural gas savings credit is not a property right. Nothing in this or any other provision of law shall be construed to limit the authority of the United States to terminate or limit such credits.

“(4) A retail electric or natural gas supplier may sell such credit to any other entity, and other entities may sell such credits to retail electric or natural gas suppliers, in accordance with the accounting and verification rules established by the Secretary. Such credit may be used by a purchasing retail electricity or natural gas supplier for purposes of complying with the resource standards set forth in subsection (a).

“(5) In order to receive an electricity or natural gas savings credit, the recipient of an electricity savings credit shall pay a fee, calculated by the Secretary, in an amount that is equal to the administrative costs of issuing, recording, monitoring the sale or exchange of, and tracking the credit or does not exceed five percent of the dollar value of the credit, whichever is lower. The Secretary shall retain the fee and use it to pay these administrative costs.

“(6) A credit may be counted toward compliance with subsection (a) only once. A retail electricity or natural gas supplier may satisfy the requirements of subsection (a) through the accumulation of—

“(A) electricity or natural gas savings credits obtained by purchase or exchange under paragraph (7);

“(B) electricity or natural gas savings credits borrowed against future years under paragraph (8); or

“(C) any combination of credits under subparagraphs (A) and (B).

“(7) An electricity or natural gas savings credit may be sold or exchanged by the entity to whom issued or by any other entity that acquires the credit. An energy efficiency credit for any year that is not used to satisfy the minimum energy savings requirement of subsection (a) for that year may be carried forward for use within the next 4 years.

“(8) During the first year covered by the standards, a retail electricity or natural gas supplier that has reason to believe that it will not have sufficient electricity savings credits to comply with subsection (a) may—

“(A) submit a plan to the Secretary demonstrating that the retail electricity or natural gas supplier will earn sufficient credits within the next two calendar years which, when taken into account, will enable the retail electricity or natural gas supplier to meet the requirements of subsection (a) for the calendar year involved; and

“(B) upon the approval of the plan by the Secretary, apply credits that the plan demonstrates will be earned within the next two calendar years to meet the requirements of subsection (a) for the calendar year involved.

“(9) Any retail electricity or natural gas supplier may elect to comply with the requirements of this section in any calendar year by paying a fee of 3 cents per kilowatt hour, and 30 cents per therm, for any portion of the electricity or natural gas savings it would be obligated to achieve in that year by not later than March 31 of the following year. Funds produced from such fees shall be deposited in an escrow account established by the Secretary, and shall be distributed to the States for their use in creating electricity or natural gas savings at customer facilities.

“(d) ENFORCEMENT OF COMPLIANCE.—(1) If the State regulatory authority with ratemaking jurisdiction over a State-regulated retail electricity or natural gas supplier notifies the Secretary that it will enforce compliance by such supplier with the performance standards under subsection (a) of this section, such State regulatory authority shall have the authority to administer and enforce such standards for such supplier under State law. If the State regulatory authority does not so notify the Secretary, the Secretary shall exercise such authority until receiving such notice from the State regulatory authority.

“(2) Not later than July 1 of the calendar years 2008, 2010, 2012, 2014, and 2016, each retail electricity and natural gas supplier shall submit the compliance report required under subsection (b) to—

“(A) the appropriate State regulatory authority, if such authority has notified the Secretary under subsection (d), or

“(B) the Secretary to determine and enforce compliance with the standards.

“(3) In the case of any retail electricity or natural gas supplier for which the Secretary is enforcing compliance with the standards under this section, if such supplier fails to comply with such standards for two consecutive calendar years, the Secretary shall determine the number of kilowatt hours of electricity savings, or therms of natural gas savings, by which the supplier has fallen short of the standards, and, by order, require such supplier, after notice and opportunity for hearing, to deposit in an escrow account to be designated by the Secretary an amount equal to 3.5 cents per kilowatt hour for each such kilowatt hour, and 35 cents per therm for each such therm. The holder of such escrow account shall annually distribute the total amount of such account to the States to be used by the States for the purpose of achieving customer electricity and natural gas savings. Any retail electricity or natural gas supplier required to make such a payment may, within 60 calendar days after the issuance of such order, bring an action in the United States Court of Appeals for the District of Columbia for judicial review of such order. Such court shall have jurisdiction to enter a judgment affirming, modifying, or setting aside such order or remanding such order in whole or in part to the Secretary.

“(e) INFORMATION COLLECTION.—The Secretary may collect the information necessary to verify and audit—

“(1) the annual electric energy sales, natural gas sales, electricity savings, and natural gas savings of any entity applying for electricity or natural gas savings credits under this section,

“(2) the validity of electricity or natural gas savings credits submitted by a retail electricity or natural gas supplier to the Secretary, and

“(3) the quantity of electricity and natural gas sales of all retail electricity and natural gas suppliers.

“(f) STATE LAW.—Nothing in this section shall supersede or otherwise affect any State or local law requiring or otherwise relating to reductions in total annual electricity or natural gas energy consumption by or peak power consumption by electric consumers to the extent that such State or local law requires more stringent reductions than those required under this section. Any retail electricity or natural gas supplier that achieves reductions referred to in this section in accordance with State requirements shall be entitled to full credit under this section for such reductions to the extent that such reductions meet the requirements of this section and the regulations under this section (including verification and monitoring requirements).

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

“(1) The term ‘retail electricity or natural supplier’ means a person that sells electric energy or natural gas to consumers and sold not less than 1,000,000 megawatt-hours of electric energy or 20,000,000 therms of natural gas to consumers for purposes other than

resale during the preceding calendar year; except that such term does not include the United States, a State or any political subdivision of a State, or any agency, authority, or instrumentality of any one or more of the foregoing, or a rural electric cooperative.

“(2) The term ‘retail electricity or natural gas supplier’s base amount’ means the total amount of electric energy or natural gas sold by the retail electricity or natural gas supplier to customers during the most recent calendar year for which information is available.

“(3) The term ‘electricity savings’ means reductions in end-use electricity consumption in customer facilities relative to consumption at those same facilities in a base year as defined in rules issued by the Secretary, or in the case of new facilities, relative to reference facilities defined in rules issued by the Secretary, or distributed generation efficiency measures, including fuel cells and combined heat and power (CHP) technologies, that provide electricity only for onsite customer use.

“(4) The term ‘natural gas savings’ means reductions in end-use natural gas consumption in customer facilities relative to consumption at those same facilities in a base year as defined in rules issued by the Secretary, or in the case of new facilities, relative to reference facilities defined in rules issued by the Secretary.”.

(b) TABLE OF CONTENTS.—The table of contents for title VII of the Public Utility Regulatory Policies Act of 1978 is amended by adding the following new item at the end thereof:

“Sec. 610. Efficiency resource standard for retail electricity and natural gas suppliers.”.

#### **SEC. 205. FEDERAL RENEWABLE PORTFOLIO STANDARD.**

(a) IN GENERAL.—Title VI of the Public Utility Regulatory Policies Act of 1978 is amended by adding at the end the following:

#### **“SEC. 611. FEDERAL RENEWABLE PORTFOLIO STANDARD.**

“(a) MINIMUM RENEWABLE GENERATION REQUIREMENT.—For each calendar year beginning in calendar year 2009, each retail electric supplier shall submit to the Secretary, not later than April 1 of the following calendar year, renewable energy credits in an amount equal to the required annual percentage specified in subsection (b).

“(b) REQUIRED ANNUAL PERCENTAGE.—For calendar years after 2008, the required annual percentage of the retail electric supplier’s base amount that shall be generated from renewable energy resources, or otherwise credited towards such percentage requirement pursuant to subsection (c), shall be the percentage specified in the following table:

<b>Calendar years:</b>	<b>Required annual percentage:</b>
2009 through 2010	1.
2010 through 2011	2.
2011 through 2012	4.
2012 through 2013	6.
2013 through 2015	8.
2015 through 2016	10.
2016 through 2017	12.
2017 through 2018	14.
2018 through 2019	16.
2019 through 2020	18.
2020 and thereafter	20.

“(c) SUBMISSION OF CREDITS.—(1) A retail electric supplier may satisfy the requirements of subsection (a) through the submission of renewable energy credits—

“(A) issued to the retail electric supplier under subsection (d);

“(B) obtained by purchase or exchange under subsection (e); or

“(C) borrowed under subsection (f).

“(2) A renewable energy credit may be counted toward compliance with subsection (a) only once.

“(d) ISSUANCE OF CREDITS.—(1) The Secretary shall establish by rule, not later than 1 year after the date of enactment of this section, a program to issue and monitor the sale or exchange of, and track, renewable energy credits.

“(2) Under the program established by the Secretary, an entity that generates electric energy through the use of a renewable energy resource may apply to the Secretary for the issuance of renewable energy credits. The application shall indicate—

“(A) the type of renewable energy resource used to produce the electricity;

“(B) the location where the electric energy was produced; and

“(C) any other information the Secretary determines appropriate.

“(3) (A) Except as provided in subparagraphs (B), (C), and (D), the Secretary shall issue to each entity that generates electric energy one renewable energy credit for each kilowatt hour of electric energy the entity generates from the date of enactment of this section and in each subsequent calendar year through the use of a renewable energy resource at an eligible

facility.

“(B) For incremental hydropower the renewable energy credits shall be calculated based on the expected increase in average annual generation resulting from the efficiency improvements or capacity additions. The number of credits shall be calculated using the same water flow information used to determine a historic average annual generation baseline for the hydroelectric facility and certified by the Secretary or the Federal Energy Regulatory Commission. The calculation of the renewable energy credits for incremental hydropower shall not be based on any operational changes at the hydroelectric facility not directly associated with the efficiency improvements or capacity additions.

“(C) The Secretary shall issue two renewable energy credits for each kilowatt hour of electric energy generated and supplied to the grid in that calendar year through the use of a renewable energy resource at an eligible facility located on Indian land. For purposes of this paragraph, renewable energy generated by biomass cofired with other fuels is eligible for two credits only if the biomass was grown on such land.

“(D) For electric energy resources produced from a generation offset, the Secretary shall issue two renewable energy credits for each kilowatt hour generated.

“(E) To be eligible for a renewable energy credit, the unit of electric energy generated through the use of a renewable energy resource may be sold or may be used by the generator. If both a renewable energy resource and a non-renewable energy resource are used to generate the electric energy, the Secretary shall issue renewable energy credits based on the proportion of the renewable energy resources used. The Secretary shall identify renewable energy credits by type and date of generation.

“(4) When a generator sells electric energy generated through the use of a renewable energy resource to a retail electric supplier under a contract subject to section 210 of this Act, the retail electric supplier is treated as the generator of the electric energy for the purposes of this section or the duration of the contract.

“(5) The Secretary shall issue renewable energy credits for existing facility offsets to be applied against a retail electric supplier’s required annual percentage. Such credits are not tradeable and may be used only in the calendar year generation actually occurs.

“(e) CREDIT TRADING.—A renewable energy credit, may be sold or exchanged by the entity to whom issued or by any other entity who acquires the renewable energy credit. A renewable energy credit for any year that is not used to satisfy the minimum renewable generation requirement of subsection (a) for that year may be carried forward for use within the next 4 years.

“(f) CREDIT BORROWING.—At any time before the end of calendar year 2009, a retail electric supplier that has reason to believe it will not have sufficient renewable energy credits

to comply with subsection (a) may—

“(1) submit a plan to the Secretary demonstrating that the retail electric supplier will earn sufficient credits within the next 3 calendar years which, when taken into account, will enable the retail electric supplier to meet the requirements of subsection (a) for calendar year 2009 and the subsequent calendar years involved; and

“(2) upon the approval of the plan by the Secretary, apply renewable energy credits that the plan demonstrates will be earned within the next 3 calendar years to meet the requirements of subsection (a) for each calendar year involved.

The retail electric supplier must repay all of the borrowed renewable energy credits by submitting an equivalent number of renewable energy credits, in addition to those otherwise required under subsection (a), by calendar year 2010 or any earlier deadlines specified in the approved plan. Failure to repay the borrowed renewable energy credits shall subject the retail electric supplier to civil penalties under subsection (h) for violation of the requirements of subsection (a) for each calendar year involved.

“(g) CREDIT COST CAP.—The Secretary shall offer renewable energy credits for sale at the lesser of 3 cents per kilowatt-hour or 200 percent of the average market value of renewable credits for the applicable compliance period. On January 1 of each year following calendar year 2008, the Secretary shall adjust for inflation the price charged per credit for such calendar year, based on the Gross Domestic Product Implicit Price Deflator.

“(h) ENFORCEMENT.—The Secretary may bring an action in the appropriate United States district court to impose a civil penalty on a retail electric supplier that does not comply with subsection (a), unless the retail electric supplier was unable to comply with subsection (a) for reasons outside of the supplier's reasonable control (including weather-related damage, mechanical failure, lack of transmission capacity or availability, strikes, lockouts, actions of a governmental authority). A retail electric supplier who does not submit the required number of renewable energy credits under subsection (a) shall be subject to a civil penalty of not more than the greater of 3 cents or 200 percent of the average market value of credits for the compliance period for each renewable energy credit not submitted..

“(i) INFORMATION COLLECTION.—The Secretary may collect the information necessary to verify and audit—

“(1) the annual electric energy generation and renewable energy generation of any entity applying for renewable energy credits under this section;

“(2) the validity of renewable energy credits submitted by a retail electric supplier to the Secretary; and

“(3) the quantity of electricity sales of all retail electric suppliers.

“(j) ENVIRONMENTAL SAVINGS CLAUSE.—Incremental hydropower shall be subject to all applicable environmental laws and licensing and regulatory requirements.

“(k) EXISTING PROGRAMS.—This section does not preclude a State from imposing additional renewable energy requirements in that State, including specifying eligible technologies under such State requirements.

“(l) DEFINITIONS.—For purposes of this section:

“(1) BIOMASS.—The term ‘biomass’ means any organic material that is available on a renewable or recurring basis, including dedicated energy crops, trees grown for energy production, wood waste and wood residues, plants (including aquatic plants, grasses, and agricultural crops), residues, fibers, animal wastes and other organic waste materials (but not including unsegregated municipal solid waste (garbage)), and fats and oils, except that with respect to material removed from National Forest System lands the term includes only organic material from—

“(A) thinnings from trees that are less than 12 inches in diameter;

“(B) slash;

“(C) brush; and

“(D) mill residues.

“(2) ELIGIBLE FACILITY.—The term ‘eligible facility’ means—

“(A) a facility for the generation of electric energy from a renewable energy resource that is placed in service on or after the date of enactment of this section; or

“(B) a repowering or cofiring increment that is placed in service on or after the date of enactment of this section at a facility for the generation of electric energy from a renewable energy resource that was placed in service before that date.

“(3) ELIGIBLE RENEWABLE ENERGY RESOURCE.—The term ‘renewable energy resource’ means solar, wind, ocean, or geothermal energy, biomass (excluding solid waste and paper that is commonly recycled), landfill gas, a generation offset, or incremental hydropower.

“(4) GENERATION OFFSET.—The term ‘generation offset’ means reduced electricity usage metered at a site where a customer consumes energy from a renewable energy technology.

“(5) EXISTING FACILITY OFFSET.—The term ‘existing facility offset’ means renewable energy generated from an existing facility, not classified as an eligible

facility, that is owned or under contract, directly or indirectly, to a retail electric supplier on the date of enactment of this section.

“(6) INCREMENTAL HYDROPOWER.—The term ‘incremental hydropower’ means additional generation that is achieved from increased efficiency or additions of capacity on or after the date of enactment of this section or the effective date of the applicable State renewable portfolio standard program, at a hydroelectric facility that was placed in service before that date.

“(7) INDIAN LAND.—The term ‘Indian land’ means—

“(A) any land within the limits of any Indian reservation, pueblo, or rancharia;

“(B) any land not within the limits of any Indian reservation, pueblo, or rancharia title to which was on the date of enactment of this paragraph either held by the United States for the benefit of any Indian tribe or individual or held by any Indian tribe or individual subject to restriction by the United States against alienation;

“(C) any dependent Indian community; and

“(D) any land conveyed to any Alaska Native corporation under the Alaska Native Claims Settlement Act.

“(8) INDIAN TRIBE.—The term ‘Indian tribe’ means any Indian tribe, band, nation, or other organized group or community, including any Alaskan Native village or regional or village corporation as defined in or established pursuant to the Alaska Native Claims Settlement Act ([43 U.S.C. 1601 et seq.](#)), which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.

“(9) RENEWABLE ENERGY.—The term ‘renewable energy’ means electric energy generated by a renewable energy resource.

“(10) RENEWABLE ENERGY RESOURCE.—The term ‘renewable energy resource’ means solar, wind, ocean, geothermal energy, biomass (not including municipal solid waste), landfill gas, a generation offset, or incremental hydropower.

“(11) REPOWERING OR COFIRING INCREMENT.—The term ‘repowering or cofiring increment’ means—

“(A) the additional generation from a modification that is placed in service on or after the date of enactment of this section to expand electricity production at a facility used to generate electric energy from a renewable energy resource or to cofire biomass that was placed in service before the date of enactment of this

section, or

“(B) the additional generation above the average generation in the 3 years preceding the date of enactment of this section to expand electricity production at a facility used to generate electric energy from a renewable energy resource or to cofire biomass that was placed in service before the date of enactment of this section.

“(12) RETAIL ELECTRIC SUPPLIER.—The term ‘retail electric supplier’ means a person that sells electric energy to electric consumers and sold not less than 1,000,000 megawatt-hours of electric energy to electric consumers for purposes other than resale during the preceding calendar year; except that such term does not include the United States, a State or any political subdivision of a State, or any agency, authority, or instrumentality of any one or more of the foregoing.

“(13) RETAIL ELECTRIC SUPPLIER’S BASE AMOUNT.—The term ‘retail electric supplier’s base amount’ means the total amount of electric energy sold by the retail electric supplier to electric customers during the most recent calendar year for which information is available, excluding electric energy generated by—

“(A) an eligible renewable energy resource; or

“(B) a hydroelectric facility.

“(m) SUNSET.—This section expires December 31, 2030.”.

(b) TABLE OF CONTENTS.—The table of contents for such title is amended by adding the following new item at the end:

“Sec. 611. Federal renewable portfolio standard.”.

## **SEC. 206. NET METERING.**

(a) ADOPTION OF STANDARD.—Section 111(d)(11) of the Public Utility Regulatory Policies Act of 1978 ([16 U.S.C. 2621\(d\)](#)) is amended to read as follows:

“(11) NET METERING.—(A) Each electric utility shall make available upon request net metering service to any electric consumer that the electric utility serves.

“(B) For purposes of implementing this paragraph, any reference contained in this section to the date of enactment of the Public Utility Regulatory Policies Act of 1978 shall be deemed to be a reference to the date of enactment of this paragraph.

“(C) Notwithstanding subsections (b) and (c) of section 112, each State regulatory authority may consider and make a determination concerning whether it is appropriate in

the public interest to not implement the standard set out in subparagraph (A) not later than 1 year after the date of enactment of this paragraph.

“(D) Nothing in this section shall preclude a State from establishing additional incentives or to encourage on-site generating facilities and net metering in addition to that required under this section.

“(E) The Department shall report within 11 months of enactment and annually thereafter on the public benefit provided by adoption of net metering and interconnection standards, and the status of state adoption of such.”.

(b) SPECIAL RULES FOR NET METERING.—Section 115 of the Public Utility Regulatory Policies Act of 1978 ([16 U.S.C. 2625](#)) is amended by adding at the end the following:

“(i) NET METERING.—In undertaking the consideration and making the determination under section 111 with respect to the standard concerning net metering established by section 111(d)(11), the term net metering service shall mean a service provided in accordance with the following standards:

“(1) An electric utility—

“(A) shall charge the owner or operator of an on-site generating facility rates and charges that are identical to those that would be charged other electric consumers of the electric utility in the same rate class; and

“(B) shall not charge the owner or operator of an on-site generating facility any additional standby, capacity, interconnection, or other rate or charge.

“(2) An electric utility that sells electric energy to the owner or operator of an on-site generating facility shall measure the quantity of electric energy produced by the on-site facility and the quantity of electric energy consumed by the owner or operator of an on-site generating facility during a billing period with a single bi-directional meter or otherwise in accordance with reasonable metering practices.

“(3) If the quantity of electric energy sold by the electric utility to an on-site generating facility exceeds the quantity of electric energy supplied by the on-site generating facility to the electric utility during the billing period, the electric utility may bill the owner or operator for the net quantity of electric energy sold, in accordance with reasonable metering practices.

“(4) If the quantity of electric energy supplied by the on-site generating facility to the electric utility exceeds the quantity of electric energy sold by the electric utility to the on-site generating facility during the billing period—

“(A) the electric utility may bill the owner or operator of the on-site generating

facility for the appropriate charges for the billing period in accordance with paragraph; and

“(B) the owner or operator of the on-site generating facility shall be credited for the excess kilowatt-hours generated during the billing period, with the kilowatt-hour credit appearing on the bill for the following billing period.

“(5) An eligible on-site generating facility and net metering system used by an electric consumer shall meet all applicable safety, performance, reliability, and interconnection standards established by the National Electrical Code, the Institute of Electrical and Electronics Engineers, and Underwriters Laboratories.

“(6) The Commission, after consultation with State regulatory authorities and unregulated electric utilities and after notice and opportunity for comment, may adopt, by rule, additional control and testing and interconnection requirements for on-site generating facilities and net metering systems that the Commission determines are necessary to protect public safety and system reliability.

“(7) For purposes of this subsection:

“(A) The term ‘eligible on-site generating facility’ means a facility on the site of a residential electric consumer with a maximum generating capacity of 10 kilowatts or less that is fueled by solar energy, wind energy, or fuel cells; or a facility on the site of a commercial electric consumer with a maximum generating capacity of 500 1000 kilowatts or less that is fueled solely by a renewable energy resource, landfill gas, or a high efficiency system.

“(B) The term ‘renewable energy resource’ means solar, wind, biomass, micro-freeflow hydro, or geothermal energy.

“(C) The term ‘high efficiency system’ means fuel cells or combined heat and power.

“(D) The term ‘net metering service’ means service to an electric consumer under which electric energy generated by that electric consumer from an eligible on-site generating facility and delivered to the local distribution facilities may be used to offset electric energy provided by the electric utility to the electric consumer during the applicable billing period.”.

## **Subtitle B—Energy Efficiency Incentive**

### **SEC. 211. PERFORMANCE BASED ENERGY IMPROVEMENTS FOR NON-BUSINESS PROPERTY.**

(a) IN GENERAL.—Subpart A of part IV of subchapter A of chapter 1 of the Internal

Revenue Code of 1986 is amended by inserting after section 25D the following new section:

**“SEC. 25E. PERFORMANCE BASED ENERGY IMPROVEMENTS.**

“(a) IN GENERAL.—In the case of an individual, there shall be allowed as a credit against the tax imposed by this chapter for the taxable year an amount equal to the amount of qualified energy efficiency expenditures paid or incurred by the taxpayer during the taxable year.

“(b) LIMITATIONS.—

“(1) IN GENERAL.—The amount allowed as a credit under subsection (a) shall not exceed the product of—

“(A) the qualified energy savings achieved, and

“(B) \$4,000.

“(2) MINIMUM AMOUNT OF QUALIFIED ENERGY SAVINGS.—No credit shall be allowed under subsection (a) with respect to any principal residence which achieves a qualified energy savings of less than 20 percent.

“(3) LIMITATION BASED ON AMOUNT OF TAX.—In the case of taxable years to which section 26(a)(2) does not apply, the credit allowed under subsection (a) for any taxable year shall not exceed the excess of—

“(A) the sum of the regular tax liability (as defined in section 26(b)) plus the tax imposed by section 55, over

“(B) the sum of the credit allowable under this subpart (other than this section and sections 23, 24, and 25B) and section 27 for the taxable year.

“(c) QUALIFIED ENERGY EFFICIENCY EXPENDITURES.—For purposes of this section:

“(1) IN GENERAL.—The term ‘qualified energy efficiency expenditures’ means any amount paid or incurred which is related to producing qualified energy savings in a principal residence of the taxpayer which is located in the United States.

“(2) NO DOUBLE BENEFIT FOR CERTAIN EXPENDITURES.—The term ‘qualified energy efficiency expenditures’ shall not include any expenditure for which a deduction or credit is otherwise allowed to the taxpayer under this chapter.

“(3) PRINCIPAL RESIDENCE.—The term ‘principal residence’ has the same meaning as when used in section 121, except that—

“(A) no ownership requirement shall be imposed, and

“(B) the period for which a building is treated as used as a principal residence shall also include the 60-day period ending on the 1st day on which it would (but for this subparagraph) first be treated as used as a principal residence.

“(d) QUALIFIED ENERGY SAVINGS.—For purposes of this section—

“(1) IN GENERAL.—The term ‘qualified energy savings’ means, with respect to any principal residence, the amount (measured as a percentage) by which—

“(A) the annual energy use with respect to the principal residence after qualified energy efficiency expenditures are made, as certified under paragraph (2), is less than

“(B) the annual energy use with respect to the principal residence before the qualified energy efficiency expenditures were made, as certified under paragraph (2).

In determining annual energy use under subparagraph (B), any energy efficiency improvements which are not attributable to qualified energy efficiency expenditures shall be disregarded.

“(2) CERTIFICATION.—

“(A) IN GENERAL.—The Secretary, in consultation with the Secretary of Energy, shall prescribe the procedures and methods for the making of certifications under this paragraph based on the Residential Energy Services Network (RESNET) Technical Guidelines in effect on the date of the enactment of this section.

“(B) QUALIFIED INDIVIDUALS.—Any certification made under this paragraph may only be made by an individual who is recognized by an organization certified by the Secretary for such purposes.

“(e) SPECIAL RULES.—For purposes of this section rules similar to the rules under paragraphs (4), (5), (6), (7), (8), and (9) of section 25D(e) and section 25C(e)(2) shall apply.

“(f) BASIS ADJUSTMENTS.—For purposes of this subtitle, if a credit is allowed under this section with respect to any expenditure with respect to any property, the increase in the basis of such property which would (but for this subsection) result from such expenditure shall be reduced by the amount of the credit so allowed.

“(g) TERMINATION.—This section shall not apply with respect to any property placed in service after December 31, 2011.”.

(b) INTERIM GUIDANCE ON CERTIFICATION.—

(1) IN GENERAL.—Not later than 90 days after the date of the enactment of this Act, the Secretary of the Treasury, in consultation with the Secretary of Energy, shall issue interim guidance on—

(A) the procedures and methods for making certifications under sections 25E(d)(2)(A) and 179F(d)(2)(A) of the Internal Revenue Code of 1986, as added by subsection (a) and section 203, respectively;

(B) the recognition of qualified individuals under sections 25E(d)(2)(B) and 179F(d)(2)(B) of such Code for the purpose of making such certifications; and

(C) how participation in State energy efficiency programs can be used in the procedures and methods described in subparagraph (A).

(2) CONSULTATION WITH STAKEHOLDERS.—

(A) IN GENERAL.—The Secretary of the Treasury, in issuing guidance pursuant to paragraph (1), shall consider comments from energy efficiency experts and other interested parties.

(B) OTHER CONSIDERATIONS.—In the case of guidance issued pursuant to paragraph (1)(B), the Secretary of the Treasury shall also consider—

(i) the Residential Energy Services Network Technical Guidelines and other pertinent guidelines for evaluating energy savings;

(ii) energy modeling software, including software accredited through the Residential Energy Services Network; and

(iii) quality assurance procedures of the Building Performance Institute, Home Performance through Energy Star, and the Residential Energy Services Network.

(c) ALTERNATIVE CERTIFICATION METHODS.—

(1) IN GENERAL.—The Secretary of the Treasury shall establish a procedure for individuals and businesses to petition for the approval of alternative methods of certification under sections 25E(d)(2)(A) and 179F(d)(2)(A) of the Internal Revenue Code of 1986, as added by subsection (a) and section 203, respectively.

(2) DETERMINATION.—The Secretary of the Treasury shall make a determination on the approval or disapproval of such alternative methods of certification not later than 90 days after receiving a petition under paragraph (1).

(d) CONFORMING AMENDMENTS.—

(1) Section 1016(a) is amended by striking “and” at the end of paragraph (36), by striking the period at the end of paragraph (37) and inserting “, and”, and by adding at the end the following new paragraph:

“(38) to the extent provided in section 25E(f).”.

(2) The table of sections for subpart A of part IV of subchapter A chapter 1 is amended by inserting after the item relating to section 25D the following new item:

“Sec. 25E. Performance based energy improvements.”.

(e) EFFECTIVE DATE.—The amendments made by this section shall apply to amounts paid or incurred in taxable years beginning after the date of the enactment of this Act.

## **SEC. 212. EXTENSION AND MODIFICATION OF CREDIT FOR NONBUSINESS ENERGY PROPERTY.**

(a) EXTENSION.—Subsection (g) of section 25C (relating to termination) is amended by striking “December 31, 2007” and inserting “December 31, 2011”.

(b) LABOR COSTS FOR QUALIFIED ENERGY EFFICIENCY IMPROVEMENTS.—Section 25C(c)(1) is amended by adding at the end the following new flush sentence:

“The amount taken into account under subsection (a)(1) with respect to qualified energy efficiency improvements shall include expenditures for labor costs properly allocable to the onsite preparation, assembly, or original installation of any component described in this paragraph.”.

(c) MODIFICATIONS FOR RESIDENTIAL ENERGY EFFICIENCY PROPERTY EXPENDITURES.—

(1) INCREASED LIMITATION FOR OIL FURNACES AND NATURAL GAS, PROPANE, AND OIL HOT WATER BOILERS.—

(A) IN GENERAL.—Subparagraphs (B) and (C) of section 25C(b)(3) are amended to read as follows:

“(B) \$150 for any qualified natural gas furnace or qualified propane furnace, and

“(C) \$300 for—

“(i) any item of energy-efficient building property, and

“(ii) any qualified oil furnace, qualified natural gas hot water boiler, qualified propane hot water boiler, or

qualified oil hot water boiler.”.

(B) CONFORMING AMENDMENT.—Clause (ii) of section 25C(d)(2)(A) is amended to read as follows:

“(ii) any qualified natural gas furnace, qualified propane furnace, qualified oil furnace, qualified natural gas hot water boiler, qualified propane hot water boiler, or qualified oil hot water boiler, or”.

(2) MODIFICATIONS OF STANDARDS FOR ENERGY-EFFICIENT BUILDING PROPERTY.—

(A) ELECTRIC HEAT PUMPS.—Subparagraph (B) of section 25C(d)(3) is amended to read as follows:

“(A) an electric heat pump which achieves the highest efficiency tier established by the Consortium for Energy Efficiency, as in effect on January 1, 2008.”.

(B) CENTRAL AIR CONDITIONERS.—Section 25C(d)(3)(D) is amended by striking “2006” and inserting “2008”.

(C) WATER HEATERS.—Subparagraph (E) of section 25C(d) is amended to read as follows:

“(E) a natural gas, propane, or oil water heater which has either an energy factor of at least 0.80 or a thermal efficiency of at least 90 percent.”.

(D) OIL FURNACES AND HOT WATER BOILERS.—Paragraph (4) of section 25C(d) is amended to read as follows:

“(4) QUALIFIED NATURAL GAS, PROPANE, AND OIL FURNACES AND HOT WATER BOILERS.—

“(A) QUALIFIED NATURAL GAS FURNACE.—The term ‘qualified natural gas furnace’ means any natural gas furnace which achieves an annual fuel utilization efficiency rate of not less than 95.

“(B) QUALIFIED NATURAL GAS HOT WATER BOILER.—The term ‘qualified natural gas hot water boiler’ means any natural gas hot water boiler which achieves an annual fuel utilization efficiency rate of not less than 90.

“(C) QUALIFIED PROPANE FURNACE.—The term ‘qualified propane furnace’ means any propane furnace which achieves an annual fuel utilization efficiency rate of not less than 95.

“(D) QUALIFIED PROPANE HOT WATER BOILER.—The term ‘qualified propane hot water boiler’ means any propane hot water boiler which achieves an annual fuel utilization efficiency rate of not less than 90.

“(E) QUALIFIED OIL FURNACES.—The term ‘qualified oil furnace’ means any oil furnace which achieves an annual fuel utilization efficiency rate of not less than 90.

“(F) QUALIFIED OIL HOT WATER BOILER.—The term ‘qualified oil hot water boiler’ means any oil hot water boiler which achieves an annual fuel utilization efficiency rate of not less than 90.”.

(3) ELIMINATION OF LIFETIME LIMITATION.—Paragraph (1) of section 25C(b) is amended by inserting “by reason of subsection (a)(1)” after “under this section”.

(d) MODIFICATION OF QUALIFIED ENERGY EFFICIENCY IMPROVEMENTS.—

(1) IN GENERAL.—Paragraph (1) of section 25C(c) is amended by inserting “, or an asphalt roof with appropriate cooling granules,” before “which meet the Energy Star program requirements”.

(2) BUILDING ENVELOPE COMPONENT.—Subparagraph (D) of section 25C(c)(2) is amended—

(A) by inserting “or asphalt roof” after “metal roof”, and

(B) by inserting “or cooling granules” after “pigmented coatings”.

(e) NATURAL GAS FIRED HEAT PUMPS.—Section 25C(d)(3), as amended by this section, is amended by striking “and” at the end of subparagraph (D), by striking the period at the end of subparagraph (E) and inserting “, and”, and by adding at the end the following new subparagraph:

“(F) a natural gas fired heat pump with a heating coefficient of performance (COP) of at least 1.1.”.

(f) ELIMINATION OF CREDIT FOR QUALIFIED ENERGY EFFICIENCY IMPROVEMENTS IN 2010.—

(1) IN GENERAL.—Subsection (a) of section 25C is amended to read as follows:

“(a) ALLOWANCE OF CREDIT.—In the case of an individual, there shall be allowed as a credit against the tax imposed by this chapter for the taxable year an amount equal to the amount of residential energy property expenditures paid or incurred by the taxpayer during the taxable year.”.

(2) CONFORMING AMENDMENTS.—

(A) Section 25C(b), as amended by subsection (b), is amended by striking paragraphs (1) and (2) and by redesignating paragraph (3) as paragraph (1).

(B) Section 25C(b)(1), as redesignated by subparagraph (A), is amended by striking “by reason of subsection (a)(2)”.

(C) Section 25C is amended by striking subsection (c).

(g) CLARIFICATION OF ELIGIBILITY OF STANDARDS FOR QUALIFIED ENERGY PROPERTY.—Section 25C(d)(2)(C) is amended by striking “and” at the end of clause (i), by striking the period at the end of clause (ii) and inserting “, and”, and by adding at the end the following new clause:

“(iii) shall allow for the testing of products regardless of the size or capacity of the product.”.

(h) EFFECTIVE DATES.—

(1) IN GENERAL.—Except as provided in paragraphs (2) and (3), the amendments made by this section shall apply to property placed in service after the date of the enactment of this Act.

(2) STANDARDS FOR ELECTRIC HEAT PUMPS AND CENTRAL AIR CONDITIONERS.—The amendments made by subparagraphs (A) and (B) subsection (c)(2) shall apply to property placed in service after December 31, 2007.

(3) ELIMINATION OF CREDIT FOR QUALIFIED ENERGY EFFICIENCY IMPROVEMENTS.—The amendments made by subsection (f) shall apply to property placed in service after December 31, 2009.

### **SEC. 213. EXTENSION AND CLARIFICATION OF NEW ENERGY EFFICIENT HOME CREDIT.**

(a) EXTENSION.—Subsection (g) of section 45L (relating to termination), as amended by section 205 of division A of the Tax Relief and Health Care Act of 2006, is amended by striking “December 31, 2008” and inserting “December 31, 2011”.

## (b) CLARIFICATION.—

(1) IN GENERAL.—Paragraph (1) of section 45L(a) is amended by striking “and” at the end of subparagraph (A) and by striking subparagraph (B) and inserting the following:

“(B) acquired by a person from such eligible contractor, and

“(C) used by any person as a residence during the taxable year.”.

(2) EFFECTIVE DATE.—The amendments made by this subsection shall take effect as if included in section 1332 of the Energy Policy Act of 2005.

## **SEC. 214. EXTENSION AND MODIFICATION OF DEDUCTION FOR ENERGY EFFICIENT COMMERCIAL BUILDINGS.**

(a) EXTENSION.—Subsection (h) of section 179D (relating to termination) is amended to read as follows:

“(h) TERMINATION.—This section shall not apply with respect to property—

“(1) which is certified under subsection (d)(6) after December 31, 2012, or

“(2) which is placed in service after December 31, 2014.

A provisional certification shall be treated as meeting the requirements of paragraph (1) if it is based on the building plans, subject to inspection and testing after installation.”.

## (b) INCREASE IN MAXIMUM AMOUNT OF DEDUCTION.—

(1) IN GENERAL.—Subparagraph (A) of section 179D(b)(1) is amended by striking “\$1.80” and inserting “\$2.25”.

(2) PARTIAL ALLOWANCE.—Paragraph (1) of section 179D(d) is amended—

(A) by striking “\$.60” and inserting “\$0.75”, and

(B) by striking “\$1.80” and inserting “\$2.25”.

## (c) MODIFICATIONS TO CERTAIN SPECIAL RULES.—

(1) METHODS OF CALCULATING ENERGY SAVINGS.—

(A) IN GENERAL.—Paragraph (2) of section 179D(d) is amended—

(i) by inserting “in detail” after “based”,

(ii) by inserting “, except that the Secretary shall use Standard 90.1–2001 in lieu of the California title 24 energy standards and the tables contained therein and the Secretary may add requirements from Standard 90.1–2001 (or any successor standard)” before the period at the end, and

(iii) by adding at the end the following new sentence: “The calculation methods contained in such regulations shall also provide for the calculation of appropriate energy savings for design methods and technologies not otherwise credited in such manual or standard, including energy savings associated with natural ventilation, evaporative cooling, automatic lighting controls (such as occupancy sensors, photocells, and time clocks), day lighting, designs utilizing semi-conditioned spaces which maintain adequate comfort conditions without air conditioning or without heating, improved fan system efficiency (including reductions in static pressure), advanced unloading mechanisms for mechanical cooling (such as multiple or variable speed compressors), on-site generation of electricity (including combined heat and power systems, fuel cells, and renewable energy generation such as solar energy), and wiring with lower energy losses than wiring satisfying Standard 90.1–2001 requirements for building power distribution systems.”.

(B) REQUIREMENTS FOR COMPUTER SOFTWARE USED IN CALCULATING ENERGY AND POWER CONSUMPTION COSTS.—Paragraph (3)(B) of section 179D(d) is amended by striking “and” at the end of clause (ii), by striking the period at the end of clause (iii) and inserting “, and”, and by adding at the end the following:

“(iv) which automatically—

“(I) generates the features, energy use, and energy and power consumption costs of a reference building which meets Standard 90.1–2001,

“(II) generates the features, energy use, and energy and power consumption costs of a compliant building or system which reduces the annual energy and power costs by 50 percent compared to Standard 90.1–2001, and

“(III) compares such features, energy use, and consumption costs to the features, energy use, and consumption costs of the building or system with respect to which the calculation is being made.”.

(2) TARGETS FOR PARTIAL ALLOWANCE OF CREDIT.—Paragraph (1)(B) of section 179D(d) is amended—

(A) by striking “The Secretary” and inserting the following:

“(i) IN GENERAL.—The Secretary”, and

(B) by adding at the end the following:

“(ii) ADDITIONAL REQUIREMENTS.—For purposes of clause (i)—

“(I) the Secretary shall determine prescriptive criteria that can be modeled explicitly for reference buildings which meet the requirements of subsection (c)(1)(D) for different building types and regions,

“(II) a system may be certified as meeting the target under subparagraph (A)(ii) if the appropriate reference building either meets the requirements of subsection (c)(1)(D) with such system rather than the comparable reference system (using the calculation under paragraph (2)) or meets the relevant prescriptive criteria under subclause (I), and

“(III) the lighting system target shall be based on lighting power density, except that it shall allow lighting controls credits that trade off for lighting power density savings based on Section 3.2.2 of the 2005 California Nonresidential Alternative Calculation Method Approval Manual.

“(iii) PUBLICATION.—The Secretary shall publish in the Federal Register the bases for the target levels established in the regulations under clause (i).”.

(d) ALTERNATIVE STANDARDS.—Section 179D(d) is amended by adding at the end the following new paragraph:

“(7) ALTERNATIVE STANDARDS PENDING FINAL REGULATIONS.—Until such time as the Secretary issues final regulations under paragraph (1)(B)—

“(A) in the case of property which is part of a building envelope, the building envelope system target under paragraph (1)(A)(ii) shall be a 7 percent reduction in total annual energy and power costs (determined in the same manner as under subsection (c)(1)(D)), and

“(B) in the case of property which is part of the heating, cooling, ventilation,

and hot water systems, the heating, cooling, ventilation, and hot water system shall be treated as meeting the target under paragraph (1)(A)(ii) if it would meet the requirement in subsection (c)(1)(D) if combined with a building envelope system and lighting system which met their respective targets under paragraph(1)(A)(ii) (including interim targets in effect under subsections (f) and subparagraph (A)).”.

(e) MODIFICATIONS TO LIGHTING STANDARDS.—

(1) STANDARDS TO BE ALTERNATE STANDARDS.—Subsection (f) of section 179D is amended by—

(A) striking “INTERIM” in the heading and inserting “ALTERNATIVE”, and

(B) inserting “, or, if the taxpayer elects, in lieu of the target set forth in such final regulations ” after “lighting system” at the end of the matter preceding paragraph (1).

(2) QUALIFIED INDIVIDUALS.—Section 179D(d)(6)(C) is amended by adding at the end the following: “For purposes of certification of whether the alternative target for lighting systems under subsection (f) is met, individuals qualified to determine compliance shall include individuals who are certified as Lighting Certified (LC) by the National Council on Qualifications for the Lighting Professions, Certified Energy Managers (CEM) by the Association of Energy Engineers, and LEED Accredited Professionals (AP) by the U.S. Green Buildings Council.”.

(3) REQUIREMENT FOR BILEVEL SWITCHING.—Section 179D(f)(2) is amended by adding at the end the following new subparagraph:

“(3) APPLICATION OF SUBSECTION TO BILEVEL SWITCHING.—

“(A) IN GENERAL.—Notwithstanding paragraph (2)(C)(i), this subsection shall apply to a system which does not include provisions for bilevel switching if the reduction in lighting power density is at least 37.5 percent of the minimum requirements in Table 9.3.1.1 or Table 9.3.1.2 (not including additional interior lighting allowances) of Standard 90.1–2001.

“(B) REDUCTION IN DEDUCTION.—In the case of a system to which this subsection applies by reason of subparagraph (A), paragraph (2) shall be applied—

“(i) by substituting ‘50 percent’ for ‘40 percent’ in subparagraph (A) thereof, and

“(ii) in subparagraph (B)(ii) thereof—

“(I) by substituting ‘37.5 percentage points’ for ‘25 percentage points’, and

“(II) by substituting ‘12.5’ for ‘15’.”.

(f) PUBLIC PROPERTY.—Paragraph (4) of section 179(d) is amended by striking “the Secretary shall promulgate a regulation to allow the allocation of the deduction” and inserting “the deduction under this section shall be allowed”.

(g) EFFECTIVE DATE.—The amendments made by this section shall apply to property placed in service in taxable years beginning after the date of the enactment of this Act.

## **SEC. 215. DEDUCTION FOR ENERGY EFFICIENT LOW-RISE BUILDINGS.**

(a) IN GENERAL.—Part VI of subchapter B of chapter 1, as amended by section 404 of division A of the Tax Relief and Health Care Act of 2006, is amended by inserting after section 179E the following new section:

### **“SEC. 179F. ENERGY EFFICIENT LOW-RISE BUILDINGS DEDUCTION.**

“(a) IN GENERAL.—There shall be allowed as a deduction an amount equal to the amount of qualified energy efficiency expenditures paid or incurred by the taxpayer during the taxable year.

“(b) LIMITATIONS.—

“(1) IN GENERAL.—The amount allowed as a credit under subsection (a) with respect to any dwelling unit shall not exceed the product of—

“(A) the qualified energy savings achieved, and

“(B) \$12,000.

“(2) MINIMUM AMOUNT OF QUALIFIED ENERGY SAVINGS.—No credit shall be allowed under subsection (a) with respect to any dwelling unit in a qualified low-rise building which achieves a qualified energy savings of less than 20 percent.

“(c) QUALIFIED ENERGY EFFICIENCY EXPENDITURES.—For purposes of this section—

“(1) IN GENERAL.—The term ‘qualified energy efficiency expenditures’ means any amount paid or incurred which is related to producing qualified energy savings in any dwelling unit located in a qualified low-rise building of the taxpayer which is located in the United States.

“(2) NO DOUBLE BENEFIT FOR CERTAIN EXPENDITURES.—The term ‘qualified energy efficiency expenditures’ shall not include any expenditure for any property for

which a deduction has been allowed to the taxpayer under section 179G.

“(3) QUALIFIED LOW-RISE BUILDING.—The term ‘qualified low-rise building’ means a building—

“(A) with respect to which depreciation is allowable under section 167,

“(B) which is used for multifamily housing, and

“(C) which is not within the scope of Standard 90.1–2001 (as defined under section 179D(c)(2)).

“(d) QUALIFIED ENERGY SAVINGS.—For purposes of this section—

“(1) IN GENERAL.—The term ‘qualified energy savings’ means, with respect to any dwelling unit in a qualified low-rise building, the amount (measured as a percentage) by which—

“(A) the annual energy use with respect to such dwelling unit after qualified energy efficiency expenditures are made, as certified under paragraph (2), is less than

“(B) the annual energy use with respect to such dwelling unit before the qualified energy efficiency expenditures were made, as certified under paragraph (2).

In determining annual energy use under subparagraph (B), any energy efficiency improvements which are not attributable to qualified energy efficiency expenditures shall be disregarded.

“(2) CERTIFICATION.—

“(A) IN GENERAL.—The Secretary, in consultation with the Secretary of Energy, shall prescribe the procedures and method for the making of certifications under this paragraph based on the Residential Energy Services Network (RESNET) Technical Guidelines in effect on the date of the enactment of this Act.

“(B) QUALIFIED INDIVIDUALS.—Any certification made under this paragraph may only be made by an individual who is recognized by an organization certified by the Secretary for such purposes.

“(e) SPECIAL RULES.—For purposes of this section, rules similar to the rules under paragraphs (8) and (9) of section 25D(e) shall apply.

“(f) BASIS ADJUSTMENTS.—For purposes of this subtitle, if a credit is allowed under this

section with respect to any expenditure with respect to any property, the increase in the basis of such property which would (but for this subsection) result from such expenditure shall be reduced by the amount of the credit so allowed.

“(g) TERMINATION.—This section shall not apply with respect to any property placed in service after December 31, 2011.”.

(b) CONFORMING AMENDMENTS.—

(1) Section 263(a)(1), as amended by section 404 of division A of the Tax Relief and Health Care Act of 2006, the is amended by striking “or” at the end of subparagraph (K), by striking the period at the end of subparagraph (L) and inserting “, or”, and by inserting after subparagraph (L) the following new subparagraph:

“(M) expenditures for which a deduction is allowed under section 179F.”.

(2) Section 312(k)(3)(B) is amended by striking “179, 179A, 179B, 179C, 179D, or 179E” each place it appears in the heading and text and inserting “179, 179A, 179B, 179C, 179D, 179E, or 179F”.

(3) Section 1016(a), as amended by section 101, is amended by striking “and” at the end of paragraph (37), by striking the period at the end of paragraph (38) and inserting “, and”, and by adding at the end the following new paragraph:

“(39) to the extent provided in section 179F(f).”.

(4) Section 1245(a) is amended by inserting “179F,” after “179E,” both places it appears in paragraphs (2)(C) and (3)(C).

(5) The table of sections for part VI of subchapter B is amended by inserting after the item relating to section 179E the following new item:

“[Sec. 179F. Energy efficient low-rise buildings deduction.](#)”.

(c) EFFECTIVE DATE.—The amendments made by this section shall apply to amounts paid or incurred in taxable years beginning after the date of the enactment of this Act.

## **SEC. 216. ENERGY EFFICIENT PROPERTY DEDUCTION.**

(a) IN GENERAL.—Part VI of subchapter B of chapter 1, as amended by section 203, is amended by inserting after section 179F the following new section:

“**SEC. 179G. ENERGY EFFICIENT PROPERTY.**

“(a) IN GENERAL.—There shall be allowed as a deduction an amount equal to the energy

efficient property expenditures paid or incurred by the taxpayer during the taxable year.

“(b) **LIMITATION.**—The amount of the deduction allowed under subsection (a) for any taxable years shall not exceed—

“(1) \$150 for any advanced main air circulating fan,

“(2) \$450 for any qualified natural gas furnace or qualified propane furnace, and

“(3) \$900 for—

“(A) any item of energy-efficient building property, and

“(B) any qualified oil furnace, qualified natural gas hot water boiler, qualified propane hot water boiler, or qualified oil hot water boiler.

“(c) **ENERGY EFFICIENT PROPERTY EXPENDITURES.**—For purposes of this section—

“(1) **IN GENERAL.**—The term ‘energy efficient property expenditures’ means expenditures paid by the taxpayer for qualified energy property which is—

“(A) of a character subject to the allowance for depreciation, and

“(B) originally placed in service by the taxpayer.

“(2) **QUALIFIED ENERGY PROPERTY.**—The term ‘qualified energy property’ has the meaning given such term by section 25C(d)(2).

“(d) **BASIS ADJUSTMENTS.**—For purposes of this subtitle, if a deduction is allowed under this section with respect to any expenditure with respect to any property, the increase in the basis of such property which would (but for this subsection) result from such expenditure shall be reduced by the amount of the deduction so allowed.

“(e) **TERMINATION.**—This section shall not apply with respect to any property placed in service after December 31, 2011.”.

(b) **NO DOUBLE BENEFIT.**—Section 179D(c) is amended by adding at the end the following new paragraph:

“(3) **CERTAIN PROPERTY EXCLUDED.**—The term ‘energy efficient commercial building property’ does not include any property with respect to which a credit has been allowed to the taxpayer under section 179G.”.

(c) **CONFORMING AMENDMENTS.**—

(1) Section 263(a)(1), as amended by section 203, is amended by striking “or” at the

end of subparagraph (K), by striking the period at the end of subparagraph (L) and inserting “, or”, and by inserting after subparagraph (L) the following new subparagraph:

“(M) expenditures for which a deduction is allowed under section 179G.”.

(2) Section 312(k)(3)(B), as amended by section 203, is amended by striking “179, 179A, 179B, 179C, 179D, 179E, or 179F” each place it appears in the heading and text and inserting “179, 179A, 179B, 179C, 179D, 179E, 179F, or 179G”.

(3) Section 1016(a), as amended by section 203, is amended by striking “and” at the end of paragraph (38), by striking the period at the end of paragraph (39) and inserting “, and”, and by adding at the end the following new paragraph:

“(40) to the extent provided in section 179G(e).”.

(4) Section 1245(a), as amended by section 203 is amended by inserting “179G,” after “179F,” both places it appears in paragraphs (2)(C) and (3)(C).

(5) The table of sections for part VI of subchapter B is amended by inserting after the item relating to section 179F the following new item:

“[Sec. 179G. Energy efficient property.](#)”.

(d) EFFECTIVE DATE.—The amendments made by this section shall apply to property placed in service in taxable years beginning after the date of the enactment of this Act.

## **[SEC. 217. CREDIT FOR ENERGY SAVINGS CERTIFICATIONS.](#)**

(a) IN GENERAL.—Subpart D of part IV of subchapter A of chapter 1 is amended by adding at the end the following new section:

### **[“SEC. 450. ENERGY SAVINGS CERTIFICATION CREDIT.](#)**

“(a) IN GENERAL.—For purposes of section 38, the energy savings certification credit determined under this section for any taxable year is an amount equal to the sum of—

“(1) the qualified training and certification costs paid or incurred by the taxpayer which may be taken into account for such taxable year, plus

“(2) the qualified certification equipment expenditures paid or incurred by the taxpayer which may be taken into account for such taxable year.

“(b) QUALIFIED TRAINING AND CERTIFICATION COSTS.—

“(1) IN GENERAL.—The term ‘qualified training and certification costs’ means costs

paid or incurred for training which is required for the taxpayer or employees of the taxpayer to be certified by the Secretary under section 25D(d)(2)(B) or 179F(d)(2)(B) for the purpose of certifying energy savings.

“(2) LIMITATION.—The qualified training and certification costs taken into account under subsection (a)(1) for the taxable year with respect to any individual shall not exceed \$500 reduced by the amount of the credit allowed under subsection (a)(1) to the taxpayer (or any predecessor) with respect to such individual for all prior taxable years.

“(3) YEAR COSTS TAKEN INTO ACCOUNT.—Qualified training and certifications costs with respect to any individual shall not be taken into account under subsection (a)(1) before the taxable year in which the individual with respect to whom such costs are paid or incurred has performed 25 certifications under sections 25E(d)(2)(A) and 179F(d)(2)(A).

“(c) QUALIFIED CERTIFICATION EQUIPMENT EXPENDITURES.—

“(1) IN GENERAL.—The term ‘qualified training equipment expenditures’ means costs paid or incurred for—

“(A) blower doors,

“(B) duct leakage testing equipment,

“(C) flue gas combustion equipment, and

“(D) digital manometers.

“(2) LIMITATION.—

“(A) IN GENERAL.—The qualified certification equipment expenditures taken into account under subsection (a)(2) with respect to any taxpayer for any taxable year shall not exceed \$1,000.

“(B) LIMITATION ON INDIVIDUAL ITEMS.—The qualified certification equipment expenditures taken into account under subsection (a)(2) shall not exceed—

“(i) \$500 with respect to any blower door or duct leakage testing equipment, and

“(ii) \$100 with respect to any flue gas combustion equipment or digital manometer.

“(3) YEAR EXPENDITURES TAKEN INTO ACCOUNT.—The qualified certification

equipment expenditures of any taxpayer shall not be taken into account under subsection (a)(2) before the taxable year in which the taxpayer has performed 25 certifications under sections 25E(d)(2)(A) and 179F(d)(2)(A).

“(d) SPECIAL RULES.—

“(1) AGGREGATION RULES.—For purposes of this section, all persons treated as a single employer under subsections (a) and (b) of section 52 shall be treated as 1 person.

“(2) BASIS REDUCTION.—The basis of any property shall be reduced by the portion of the cost of such property taken into account under subsection (a).

“(3) DENIAL OF DOUBLE BENEFIT.—

“(A) IN GENERAL.—No deduction shall be allowed for that portion of the expenses otherwise allowable as a deduction for the taxable year which is equal to the amount taken into account under subsection (a) for such taxable year.

“(B) AMOUNT PREVIOUSLY DEDUCTED.—No credit shall be allowed under subsection (a) with respect to any amount for which a deduction has been allowed in any preceding taxable year.”.

(b) CREDIT TREATED AS PART OF GENERAL BUSINESS CREDIT.—Section 38(b) is amended by striking “plus” at the end of paragraph (30), by striking the period at the end of paragraph (31) and inserting “plus”, and by adding at the end the following new paragraph:

“(32) the energy savings certification credit determined under section 45O(a).”.

(c) CONFORMING AMENDMENTS.—

(1) Section 1016(a), as amended by this Act, is amended by striking “and” at the end of paragraph (39), by striking the period at the end of paragraph (40) and inserting “and”, and by adding at the end the following new paragraph:

“(41) to the extent provided in section 45O(d)(2).”.

(2) The table of sections for subpart D of part IV of subchapter A of chapter 1 is amended by inserting after the item relating to section 45N the following new item:

“Sec. 45O. Energy savings certification credit.”.

(d) EFFECTIVE DATE.—The amendments made by this section shall apply to amounts paid or incurred after the date of the enactment of this Act.

## **TITLE III—SAVE TAX PAYERS MONEY**

**SEC. 301. REPEAL OF CERTAIN PROVISIONS OF THE ENERGY POLICY ACT OF 2005.**

(a) REPEALS.—The following provisions of the Energy Policy Act of 2005, and the items relating thereto in the table of contents of that Act, are repealed:

(1) Section 342 (relating to program on oil and gas royalties in-kind).

(2) Section 343 (relating to marginal property production incentives).

(3) Section 344 (relating to incentives for natural gas production from deep wells in the shallow waters of the Gulf of Mexico).

(4) Section 345 (relating to royalty relief for deep water production).

(5) Section 357 (relating to comprehensive inventory of OCS oil and natural gas resources).

(6) Subtitle J of title IX (relating to ultra-deepwater and unconventional natural gas and other petroleum resources).

(b) REPEAL OF ALASKA OFFSHORE ROYALTY SUSPENSION.—Section 8(a)(3)(B) of the Outer Continental Shelf Lands Act ([43 U.S.C. 1337\(a\)\(3\)\(B\)](#)) is amended by striking “and in the Planning Areas offshore Alaska”.

**SEC. 302. REPEAL OF CERTAIN TAX PROVISIONS OF THE ENERGY POLICY ACT OF 2005.**

(a) REPEAL.—The following provisions, and amendments made by such provisions, of the Energy Policy Act of 2005 are hereby repealed:

(1) Section 1306 (relating to credit for production from advanced nuclear power facilities).

(2) Section 1307 (relating to credit for investment in clean coal facilities).

(3) Section 1308 (relating to electric transmission property treated as 15-year property).

(4) Section 1309 (relating to expansion of amortization for certain atmospheric pollution control facilities).

(5) Section 1310 (relating to modifications to special rules for nuclear decommissioning costs).

(6) Section 1321 (relating to extension of credit for producing fuel from nonconventional source (coke or coke gas)).

(7) Section 1323 (relating to temporary expensing for equipment used in refining of liquid fuels).

(8) Section 1325 (relating to natural gas distribution lines treated as 15-year property).

(9) Section 1326 (relating to natural gas gathering lines treated as 7-year property).

(10) Section 1328 (relating to determination of small refiner exception to oil depletion deduction).

(11) Section 1329 (relating to amortization of geological and geophysical expenditures).

(b) ADMINISTRATION OF INTERNAL REVENUE CODE OF 1986.—The Internal Revenue Code of 1986 shall be applied and administered as if the provisions, and amendments, specified in subsection (a) had never been enacted.

## **TITLE IV—STATE AND LOCAL AUTHORITY**

### **SEC. 401. STATE CONSUMER PRODUCT ENERGY EFFICIENCY STANDARDS.**

Section 327 of the Energy Policy and Conservation Act (42 U.S.C. 6297) is amended by adding at the end the following new subsection:

### **SEC. 402. APPEALS FROM CONSISTENCY DETERMINATIONS UNDER COASTAL ZONE MANAGEMENT ACT OF 1972.**

Section 319 of the Coastal Zone Management Act of 1972 (16 U.S.C. 1465) is amended to read as if section 381 of the Energy Policy Act of 2005 (119 Stat. 737) were not enacted.

### **SEC. 403. SITING OF INTERSTATE ELECTRIC TRANSMISSION FACILITIES.**

Section 216 of the Federal Power Act (16 U.S.C. 824p) is repealed.

### **SEC. 404. NEW NATURAL GAS STORAGE FACILITIES.**

Subsection (f) of section 4 of the Natural Gas Act (15 U.S.C. 717c(f)) is repealed.

### **SEC. 405. PROCESS COORDINATION; HEARINGS; RULES OF PROCEDURE.**

The amendments to the Natural Gas Act made by section 313 of the Energy Policy Act of 2005 are repealed, and the Natural Gas Act shall be administered as if those amendments were never enacted.

### **SEC. 406. REPEAL OF PREEMPTION OF STATE LAW RELATING TO AUTOMOBILE FUEL**

## **ECONOMY STANDARDS.**

Section 32919 of title 49, United States Code, is repealed.

# **TITLE V—RENEWABLE ENERGY RESEARCH AND DEVELOPMENT**

## **SEC. 501. ADVANCED BIOFUEL TECHNOLOGIES.**

(a) **IN GENERAL.**—The Secretary of Energy shall carry out a program of research, development, demonstration, and commercial application for production of motor and other fuels from biomass.

(b) **OBJECTIVES.**—The Secretary shall design the program under this section to—

(1) develop technologies that would make ethanol produced from cellulosic feedstocks cost competitive with ethanol produced from corn by 2012;

(2) conduct research and development on how to apply advanced genetic engineering and bioengineering techniques to increase the efficiency and lower the cost of industrial-scale production of liquid fuels from cellulosic feedstocks; and

(3) conduct research and development on the production of hydrocarbons other than ethanol from biomass.

(c) **INSTITUTION OF HIGHER EDUCATION GRANTS.**—The Secretary shall designate not less than 10 percent of the funds appropriated under subsection (d) for each fiscal year to carry out the program for grants to competitively selected institutions of higher education around the country focused on meeting the objectives stated in subsection (b).

(d) **AUTHORIZATION OF APPROPRIATIONS.**—From amounts authorized to be appropriated under section 931(c) of the Energy Policy Act of 2005 ([42 U.S.C. 16231\(c\)](#)), there are authorized to be appropriated to the Secretary to carry out this section—

(1) \$150,000,000 for fiscal year 2008;

(2) \$160,000,000 for fiscal year 2009; and

(3) \$175,000,000 for fiscal year 2010.

## **SEC. 502. ADVANCED HYDROGEN STORAGE TECHNOLOGIES.**

(a) **IN GENERAL.**—The Secretary of Energy shall carry out a program of research, development, demonstration, and commercial application for technologies to enable practical onboard storage of hydrogen for use as a fuel for light-duty motor vehicles.

(b) **OBJECTIVE.**—The Secretary shall design the program under this section to develop practical hydrogen storage technologies that would enable a hydrogen-fueled light-duty motor vehicle to travel 300 miles before refueling.

### **SEC. 503. ADVANCED SOLAR PHOTOVOLTAIC TECHNOLOGIES.**

(a) **IN GENERAL.**—The Secretary of Energy shall carry out a program of research, development, demonstration, and commercial application for advanced solar photovoltaic technologies.

(b) **OBJECTIVES.**—The Secretary shall design the program under this section to develop technologies that would—

(1) make electricity generated by solar photovoltaic power cost-competitive by 2015; and

(2) enable the widespread use of solar photovoltaic power.

(c) **AUTHORIZATION OF APPROPRIATIONS.**—There are authorized to be appropriated to the Secretary to carry out this section—

(1) \$148,000,000 for fiscal year 2008;

(2) \$155,000,000 for fiscal year 2009;

(3) \$165,000,000 for fiscal year 2010; and

(4) \$180,000,000 for fiscal year 2012.

### **SEC. 504. ADVANCED WIND ENERGY TECHNOLOGIES.**

(a) **IN GENERAL.**—The Secretary of Energy shall carry out a program of research, development, demonstration, and commercial application for advanced wind energy technologies.

(b) **OBJECTIVES.**—The Secretary shall design the program under this section to—

(1) improve the efficiency and lower the cost of wind turbines;

(2) minimize adverse environmental impacts; and

(3) develop new small-scale wind energy technologies for use in low wind speed environments.

(c) **AUTHORIZATION OF APPROPRIATIONS.**—There are authorized to be appropriated to the Secretary to carry out this section—

- (1) \$44,000,000 for fiscal year 2008;
- (2) \$48,400,000 for fiscal year 2009;
- (3) \$53,240,000 for fiscal year 2010; and
- (4) \$58,564,000 for fiscal year 2011.

#### **SEC. 505. CONTINUING PROGRAMS.**

The Secretary of Energy shall continue to carry out the research, development, demonstration, and commercial application activities authorized in sections 921(b)(1) (for distributed energy), 923 (for micro-cogeneration technology), and 931(a)(2)(C), (D), and (E)(i) (for geothermal energy, hydropower, and ocean energy) of the Energy Policy Act of 2005.

#### **SEC. 506. PLUG-IN HYBRID ELECTRIC VEHICLE TECHNOLOGY PROGRAM.**

(a) **SHORT TITLE.**—This section may be cited as the “Plug-In Hybrid Electric Vehicle Act of 2007”.

(b) **DEFINITIONS.**—In this section:

(1) **BATTERY.**—The term “battery” means a device or system for the electrochemical storage of energy.

(2) **e85.**—The term “E85” means a fuel blend containing 85 percent ethanol and 15 percent gasoline by volume.

(3) **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, hybrid electric vehicles, plug-in hybrid electric 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.

(4) **FLEXIBLE FUEL PLUG-IN HYBRID ELECTRIC VEHICLE.**—The term “flexible fuel plug-in hybrid electric vehicle” means a plug-in hybrid electric vehicle warranted by its manufacturer as capable of operating on any combination of gasoline or E85 for its onboard internal combustion or heat engine.

(5) **HYBRID ELECTRIC VEHICLE.**—The term “hybrid electric vehicle” means a

vehicle that—

(A) can be propelled using liquid combustible fuel and electric power provided by an onboard battery; and

(B) utilizes regenerative power capture technology to recover energy expended in braking the vehicle for use in recharging the battery.

(6) **PLUG-IN HYBRID ELECTRIC VEHICLE.**—The term “plug-in hybrid electric vehicle” means a hybrid electric onroad light-duty vehicle that can be propelled 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.

(c) **PROGRAM.**—The Secretary of Energy shall conduct a program of research, development, demonstration, and commercial application on technologies needed for the development of plug-in hybrid electric vehicles and electric drive transportation, 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, including after the end of the useful life of the batteries;

(2) high efficiency onboard and offboard charging components;

(3) high power drive train systems for passenger 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 efficient cooling systems and systems that minimize the emissions profile of such vehicles; and

(5) lightweight materials, including research, development, demonstration, and commercial application to reduce the cost of materials such as steel alloys and carbon fibers.

(d) **PLUG-IN HYBRID ELECTRIC VEHICLE DEMONSTRATION PROGRAM.**—

(1) **ESTABLISHMENT.**—The Secretary shall establish a competitive grant pilot demonstration program to provide not more than 25 grants annually to State governments, local governments and public entities, metropolitan 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 displaced 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 or nonprofit entities, which may include institutions of higher education, including Historically Black Colleges and Universities, Hispanic Serving Institutions, and other minority-serving institutions.

(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 be propelled solely on electric power under city driving conditions increases; and

(ii) maximize the non-Federal share of project funding and demonstrate 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.

(e) 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).

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

(1) for carrying out subsection (c), \$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 (d), \$50,000,000 for each of fiscal years 2008 through 2012.

## **SEC. 507. PHOTOVOLTAIC DEMONSTRATION PROGRAM.**

(a) **SHORT TITLE.**—This section may be cited as the “Solar Utilization Now Demonstration Act of 2007” or the “SUN Act of 2007”.

(b) **IN GENERAL.**—The Secretary of Energy shall establish a program of grants to States to demonstrate advanced photovoltaic technology.

(c) **REQUIREMENTS.**—

(1) **ABILITY TO MEET REQUIREMENTS.**—To receive funding under the program under this section, a State must submit a proposal that demonstrates, to the satisfaction of the Secretary, that the State will meet the requirements of subsection (g).

(2) **COMPLIANCE WITH REQUIREMENTS.**—If a State has received funding under this section for the preceding year, the State must demonstrate, to the satisfaction of the Secretary, that it complied with the requirements of subsection (g) in carrying out the program during that preceding year, and that it will do so in the future, before it can receive further funding under this section.

(3) **FUNDING ALLOCATION.**—Except as provided in subsection (d), each State submitting a proposal that meets the requirements under subsection (c) shall receive funding under the program based on the proportion of United States population in the State according to the 2000 census. In each fiscal year, the portion of funds attributable under this paragraph to States that have not submitted proposals that meet the requirements under subsection (c) in the time and manner specified by the Secretary shall be distributed pro rata to the States that have submitted proposals that meet the requirements under subsection (c) in the specified time and manner.

(d) **COMPETITION.**—If more than \$80,000,000 is available for the program under this section for any fiscal year, the Secretary shall allocate 75 percent of the total amount of funds available according to subsection (c)(3), and shall award the remaining 25 percent on a competitive basis to the States with the proposals the Secretary considers most likely to encourage the widespread adoption of photovoltaic technologies. In awarding funds under this subsection, the Secretary may give preference to proposals that would demonstrate the use of newer materials or technologies.

(e) **PROPOSALS.**—Not later than 6 months after the date of enactment of this Act, and in each subsequent fiscal year for the life of the program, the Secretary shall solicit proposals from the States to participate in the program under this section.

(f) **COMPETITIVE CRITERIA.**—In awarding funds in a competitive allocation under

subsection (d), the Secretary shall consider—

(1) the likelihood of a proposal to encourage the demonstration of, or lower the costs of, advanced photovoltaic technologies; and

(2) the extent to which a proposal is likely to—

(A) maximize the size of photovoltaic installation, based on rated capacity;

(B) maximize the proportion of non-Federal cost share; and

(C) limit State administrative costs.

(g) STATE PROGRAM.—A program operated by a State with funding under this section shall provide competitive awards for the demonstration of advanced photovoltaic technologies. Each State program shall—

(1) require a contribution of at least 60 percent per award from non-Federal sources, which may include any combination of State, local, and private funds, except that at least 10 percent of the funding must be supplied by the State;

(2) limit awards for any single project to a maximum of \$5,000,000;

(3) prohibit any nongovernmental recipient from receiving more than \$1,000,000 per year;

(4) endeavor to fund recipients in the commercial, industrial, institutional, governmental, and residential sectors;

(5) limit State administrative costs to no more than 10 percent of the grant;

(6) report annually to the Secretary on—

(A) the amount of funds disbursed;

(B) the rated capacity of the photovoltaics purchased and installed; and

(C) the results of the monitoring under paragraph (7);

(7) provide for measurement and verification of the output of a representative sample of the photovoltaics systems demonstrated throughout the average working life of the systems, or at least 20 years;

(8) require that applicant buildings must have received an independent energy efficiency audit during the 6-month period preceding the filing of the application; and

(9) encourage Historically Black Colleges and Universities, Hispanic Serving Institutions, and other minority-serving institutions to apply for grants under this program.

(h) UNEXPENDED FUNDS.—If a State fails to expend any funds received under subsection (c) or (d) within 3 years of receipt, such remaining funds shall be returned to the Treasury.

(i) REPORTS.—The Secretary shall report to Congress 5 years after funds are first distributed to the States under this section—

(1) the amount of photovoltaics demonstrated;

(2) the number of projects undertaken;

(3) the administrative costs of the program;

(4) the amount of funds that each State has not received because of a failure to submit a qualifying proposal, as described in subsection (c)(3);

(5) the results of the monitoring under subsection (g)(7); and

(6) the total amount of funds distributed, including a breakdown by State.

(j) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary for the purposes of carrying out this section—

(1) \$50,000,000 for fiscal year 2008;

(2) \$100,000,000 for fiscal year 2009;

(3) \$150,000,000 for fiscal year 2010;

(4) \$200,000,000 for fiscal year 2011; and

(5) \$300,000,000 for fiscal year 2012.

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