

Sec.	
17382.	Smart grid system report.
17383.	Smart Grid Advisory Committee and Smart Grid Task Force.
17384.	Smart grid technology research, development, and demonstration.
17385.	Smart grid interoperability framework.
17386.	Federal matching fund for smart grid investment costs.

### § 17001. Definitions

In this Act:

#### (1) Department

The term “Department” means the Department of Energy.

#### (2) Institution of higher education

The term “institution of higher education” has the meaning given the term in section 1001(a) of title 20.

#### (3) Secretary

The term “Secretary” means the Secretary of Energy.

(Pub. L. 110–140, § 2, Dec. 19, 2007, 121 Stat. 1498.)

#### REFERENCES IN TEXT

This Act, referred to in text, is Pub. L. 110–140, Dec. 19, 2007, 121 Stat. 1492, known as the Energy Independence and Security Act of 2007, which enacted this chapter and enacted and amended numerous other sections and notes in the Code. For complete classification of this Act to the Code, see Short Title note below and Tables.

#### EFFECTIVE DATE

Section effective on the date that is 1 day after Dec. 19, 2007, see section 1601 of Pub. L. 110–140, set out as a note under section 1824 of Title 2, The Congress.

#### SHORT TITLE OF 2015 AMENDMENT

Pub. L. 114–11, §1(a), Apr. 30, 2015, 129 Stat. 182, provided that: “This Act [enacting sections 17062, 17063, 17084, and 17085 of this title, amending sections 6295, 6302 to 6304, and 17091 of this title, and enacting provisions set out as a note under this section] may be cited as the ‘Energy Efficiency Improvement Act of 2015.’”

Pub. L. 114–11, title I, §101, Apr. 30, 2015, 129 Stat. 182, provided that: “This title [enacting sections 17062, 17084, and 17085 of this title] may be cited as the ‘Better Buildings Act of 2015.’”

#### SHORT TITLE

Pub. L. 110–140, §1(a), Dec. 19, 2007, 121 Stat. 1492, provided that: “This Act [see Tables for classification] may be cited as the ‘Energy Independence and Security Act of 2007.’”

Pub. L. 110–140, title VI, §601, Dec. 19, 2007, 121 Stat. 1674, provided that: “This subtitle [subtitle A (§§601–607) of title VI of Pub. L. 110–140, enacting part A (§17171 et seq.) of subchapter V of this chapter] may be cited as the ‘Solar Energy Research and Advancement Act of 2007.’”

Pub. L. 110–140, title VI, §611, Dec. 19, 2007, 121 Stat. 1678, provided that: “This subtitle [subtitle B (§§611–625) of title VI of Pub. L. 110–140, enacting part B (§17191 et seq.) of subchapter V of this chapter] may be cited as the ‘Advanced Geothermal Energy Research and Development Act of 2007.’”

Pub. L. 110–140, title VI, §631, Dec. 19, 2007, 121 Stat. 1686, provided that: “This subtitle [subtitle C (§§631–636) of title VI of Pub. L. 110–140, enacting part C (§17211 et seq.) of subchapter V of this chapter] may be cited as the ‘Marine and Hydrokinetic Renewable Energy Research and Development Act.’”

Pub. L. 110–140, title VII, §701, Dec. 19, 2007, 121 Stat. 1704, provided that: “This subtitle [subtitle A

(§§701–708) of title VII of Pub. L. 110–140, enacting part A (§17251 et seq.) of subchapter VI of this chapter and amending section 16293 of this title] may be cited as the ‘Department of Energy Carbon Capture and Sequestration Research, Development, and Demonstration Act of 2007.’”

### § 17002. Relationship to other law

Except to the extent expressly provided in this Act or an amendment made by this Act, nothing in this Act or an amendment made by this Act supersedes, limits the authority provided or responsibility conferred by, or authorizes any violation of any provision of law (including a regulation), including any energy or environmental law or regulation.

(Pub. L. 110–140, § 3, Dec. 19, 2007, 121 Stat. 1498.)

#### REFERENCES IN TEXT

This Act, referred to in text, is Pub. L. 110–140, Dec. 19, 2007, 121 Stat. 1492, known as the Energy Independence and Security Act of 2007, which enacted this chapter and enacted and amended numerous other sections and notes in the Code. For complete classification of this Act to the Code, see Short Title note set out under section 17001 of this title and Tables.

#### EFFECTIVE DATE

Section effective on the date that is 1 day after Dec. 19, 2007, see section 1601 of Pub. L. 110–140, set out as a note under section 1824 of Title 2, The Congress.

## SUBCHAPTER I—IMPROVED VEHICLE TECHNOLOGY

### § 17011. Transportation electrification

#### (a) Definitions

In this section:

##### (1) Administrator

The term “Administrator” means the Administrator of the Environmental Protection Agency.

##### (2) Battery

The term “battery” means an electrochemical energy storage system powered directly by electrical current.

##### (3) Electric transportation technology

The term “electric transportation technology” means—

(A) technology used in vehicles that use an electric motor for all or part of the motive power of the vehicles, including battery electric, hybrid electric, plug-in hybrid electric, fuel cell, and plug-in fuel cell vehicles, or rail transportation; or

(B) equipment relating to transportation or mobile sources of air pollution that use an electric motor to replace an internal combustion engine for all or part of the work of the equipment, including—

(i) corded electric equipment linked to transportation or mobile sources of air pollution; and

(ii) electrification technologies at airports, ports, truck stops, and material-handling facilities.

##### (4) Nonroad vehicle

The term “nonroad vehicle” means a vehicle—

(A) powered—

(i) by a nonroad engine, as that term is defined in section 7550 of this title; or

(ii) fully or partially by an electric motor powered by a fuel cell, a battery, or an off-board source of electricity; and

(B) that is not a motor vehicle or a vehicle used solely for competition.

**(5) Plug-in electric drive vehicle**

The term “plug-in electric drive vehicle” means a vehicle that—

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

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

(C) is a light-, medium-, or heavy-duty motor vehicle or nonroad vehicle (as those terms are defined in section 7550 of this title).

**(6) Qualified electric transportation project**

The term “qualified electric transportation project” means an electric transportation technology project that would significantly reduce emissions of criteria pollutants, greenhouse gas emissions, and petroleum, including—

(A) shipside or shoreside electrification for vessels;

(B) truck-stop electrification;

(C) electric truck refrigeration units;

(D) battery-powered auxiliary power units for trucks;

(E) electric airport ground support equipment;

(F) electric material and cargo handling equipment;

(G) electric or dual-mode electric rail;

(H) any distribution upgrades needed to supply electricity to the project; and

(I) any ancillary infrastructure, including panel upgrades, battery chargers, in-situ transformers, and trenching.

**(b) Plug-in electric drive vehicle program**

**(1) Establishment**

The Secretary shall establish a competitive program to provide grants on a cost-shared basis to State governments, local governments, metropolitan transportation authorities, air pollution control districts, private or nonprofit entities, or combinations of those governments, authorities, districts, and entities, to carry out one or more projects to encourage the use of plug-in electric drive vehicles or other emerging electric vehicle technologies, as determined by the Secretary.

**(2) Administration**

The Secretary shall, in consultation with the Secretary of Transportation and the Administrator, establish requirements for applications for grants under this section, including reporting of data to be summarized for dissemination to grantees and the public, including safety, vehicle, and component performance, and vehicle and component life cycle costs.

**(3) Priority**

In making awards under this subsection, the Secretary shall—

(A) give priority consideration to applications that—

(i) encourage early widespread use of vehicles described in paragraph (1); and

(ii) are likely to make a significant contribution to the advancement of the production of the vehicles in the United States; and

(B) ensure, to the maximum extent practicable, that the program established under this subsection includes a variety of applications, manufacturers, and end-uses.

**(4) Reporting**

The Secretary shall require a grant recipient under this subsection to submit to the Secretary, on an annual basis, data relating to safety, vehicle performance, life cycle costs, and emissions of vehicles demonstrated under the grant, including emissions of greenhouse gases.

**(5) Cost sharing**

Section 16352 of this title shall apply to a grant made under this subsection.

**(6) Authorization of appropriations**

There is authorized to be appropriated to carry out this subsection \$90,000,000 for each of fiscal years 2008 through 2012, of which not less than 1/3 of the total amount appropriated shall be available each fiscal year to make grants to local and municipal governments.

**(c) Near-term transportation sector electrification program**

**(1) In general**

Not later than 1 year after December 19, 2007, the Secretary, in consultation with the Secretary of Transportation and the Administrator, shall establish a program to provide grants for the conduct of qualified electric transportation projects.

**(2) Priority**

In providing grants under this subsection, the Secretary shall give priority to large-scale projects and large-scale aggregators of projects.

**(3) Cost sharing**

Section 16352 of this title shall apply to a grant made under this subsection.

**(4) Authorization of appropriations**

There is authorized to be appropriated to carry out this subsection \$95,000,000 for each of fiscal years 2008 through 2013.

**(d) Education program**

**(1) In general**

The Secretary shall develop a nationwide electric drive transportation technology education program under which the Secretary shall provide—

(A) teaching materials to secondary schools and high schools; and

(B) assistance for programs relating to electric drive system and component engineering to institutions of higher education.

**(2) Electric vehicle competition**

The program established under paragraph (1) shall include a plug-in hybrid electric vehicle

competition for institutions of higher education, which shall be known as the “Dr. Andrew Frank Plug-In Electric Vehicle Competition”.

**(3) Engineers**

In carrying out the program established under paragraph (1), the Secretary shall provide financial assistance to institutions of higher education to create new, or support existing, degree programs to ensure the availability of trained electrical and mechanical engineers with the skills necessary for the advancement of—

(A) plug-in electric drive vehicles; and

(B) other forms of electric drive transportation technology vehicles.

**(4) Authorization of appropriations**

There are authorized to be appropriated such sums as may be necessary to carry out this subsection.

(Pub. L. 110-140, title I, §131, Dec. 19, 2007, 121 Stat. 1508.)

EFFECTIVE DATE

Section effective on the date that is 1 day after Dec. 19, 2007, see section 1601 of Pub. L. 110-140, set out as a note under section 1824 of Title 2, The Congress.

**§ 17012. Advanced battery loan guarantee program**

**(a) Establishment of program**

The Secretary shall establish a program to provide guarantees of loans by private institutions for the construction of facilities for the manufacture of advanced vehicle batteries and battery systems that are developed and produced in the United States, including advanced lithium ion batteries and hybrid electrical system and component manufacturers and software designers.

**(b) Requirements**

The Secretary may provide a loan guarantee under subsection (a) to an applicant if—

(1) without a loan guarantee, credit is not available to the applicant under reasonable terms or conditions sufficient to finance the construction of a facility described in subsection (a);

(2) the prospective earning power of the applicant and the character and value of the security pledged provide a reasonable assurance of repayment of the loan to be guaranteed in accordance with the terms of the loan; and

(3) the loan bears interest at a rate determined by the Secretary to be reasonable, taking into account the current average yield on outstanding obligations of the United States with remaining periods of maturity comparable to the maturity of the loan.

**(c) Criteria**

In selecting recipients of loan guarantees from among applicants, the Secretary shall give preference to proposals that—

(1) meet all applicable Federal and State permitting requirements;

(2) are most likely to be successful; and

(3) are located in local markets that have the greatest need for the facility.

**(d) Maturity**

A loan guaranteed under subsection (a) shall have a maturity of not more than 20 years.

**(e) Terms and conditions**

The loan agreement for a loan guaranteed under subsection (a) shall provide that no provision of the loan agreement may be amended or waived without the consent of the Secretary.

**(f) Assurance of repayment**

The Secretary shall require that an applicant for a loan guarantee under subsection (a) provide an assurance of repayment in the form of a performance bond, insurance, collateral, or other means acceptable to the Secretary in an amount equal to not less than 20 percent of the amount of the loan.

**(g) Guarantee fee**

The recipient of a loan guarantee under subsection (a) shall pay the Secretary an amount determined by the Secretary to be sufficient to cover the administrative costs of the Secretary relating to the loan guarantee.

**(h) Full faith and credit**

The full faith and credit of the United States is pledged to the payment of all guarantees made under this section. Any such guarantee made by the Secretary shall be conclusive evidence of the eligibility of the loan for the guarantee with respect to principal and interest. The validity of the guarantee shall be incontestable in the hands of a holder of the guaranteed loan.

**(i) Reports**

Until each guaranteed loan under this section has been repaid in full, the Secretary shall annually submit to Congress a report on the activities of the Secretary under this section.

**(j) Authorization of appropriations**

There are authorized to be appropriated such sums as are necessary to carry out this section.

**(k) Termination of authority**

The authority of the Secretary to issue a loan guarantee under subsection (a) terminates on the date that is 10 years after December 19, 2007.

(Pub. L. 110-140, title I, §135, Dec. 19, 2007, 121 Stat. 1513.)

EFFECTIVE DATE

Section effective on the date that is 1 day after Dec. 19, 2007, see section 1601 of Pub. L. 110-140, set out as a note under section 1824 of Title 2, The Congress.

**§ 17013. Advanced technology vehicles manufacturing incentive program**

**(a) Definitions**

In this section:

**(1) Advanced technology vehicle**

The term “advanced technology vehicle” means an ultra efficient vehicle or a light duty vehicle that meets—

(A) the Bin 5 Tier II emission standard established in regulations issued by the Administrator of the Environmental Protection Agency under section 202(i) of the Clean Air Act (42 U.S.C. 7521(i)), or a lower-numbered Bin emission standard;