

(vi) whether the technology has been successfully deployed elsewhere;

(vii) whether the technology was sourced from a manufacturer based in the United States; and

(viii) whether the project will be completed in 5 years or less.

(C) Applications

(i) In general

Subject to clause (ii), an eligible entity seeking a grant under the pilot program shall submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary determines to be necessary.

(ii) Contents

An application under clause (i) shall, at a minimum, include—

(I) a description of the project;

(II) a description of the technology to be used in the project;

(III) the anticipated results, including energy and water savings, of the project;

(IV) a comprehensive budget for the project;

(V) the names of the project lead organization and any partners;

(VI) the number of users to be served by the project;

(VII) a description of the ways in which the proposal would meet performance measures established by the Secretary; and

(VIII) any other information that the Secretary determines to be necessary to complete the review and selection of a grant recipient.

(4) Administration

(A) In general

Not later than 1 year after December 27, 2020, the Secretary shall select grant recipients under this section.

(B) Evaluations

(i) Annual evaluations

The Secretary shall annually carry out an evaluation of each project for which a grant is provided under this section that meets performance measures and benchmarks developed by the Secretary, consistent with the purposes of this section.

(ii) Requirements

Consistent with the performance measures and benchmarks developed under clause (i), in carrying out an evaluation under that clause, the Secretary shall—

(I) evaluate the progress and impact of the project; and

(II) assess the degree to which the project is meeting the goals of the pilot program.

(C) Technical and policy assistance

On the request of a grant recipient, the Secretary shall provide technical and policy assistance.

(D) Best practices

The Secretary shall make available to the public through the Internet and other means the Secretary considers to be appropriate—

(i) a copy of each evaluation carried out under subparagraph (B); and

(ii) a description of any best practices identified by the Secretary as a result of those evaluations.

(E) Report to Congress

The Secretary shall submit to Congress a report containing the results of each evaluation carried out under subparagraph (B).

(c) Authorization of appropriations

There is authorized to be appropriated to the Secretary to carry out this section \$15,000,000, to remain available until expended.

(Pub. L. 109–58, title IX, §918, as added Pub. L. 116–260, div. Z, title I, §1014(a), Dec. 27, 2020, 134 Stat. 2451.)

PART B—DISTRIBUTED ENERGY AND ELECTRIC ENERGY SYSTEMS

§ 16211. Distributed energy and electric energy systems

(a) In general

The Secretary shall carry out programs of research, development, demonstration, and commercial application on distributed energy resources and systems reliability and efficiency, to improve the reliability and efficiency of distributed energy resources and systems, integrating advanced energy technologies with grid connectivity, including activities described in this part. The programs shall address advanced energy technologies and systems and advanced grid reliability technologies.

(b) Authorization of appropriations

(1) Distributed energy and electric energy systems activities

There are authorized to be appropriated to the Secretary to carry out distributed energy and electric energy systems activities, including activities authorized under this part—

(A) \$240,000,000 for fiscal year 2007;

(B) \$255,000,000 for fiscal year 2008; and

(C) \$273,000,000 for fiscal year 2009.

(2) Power delivery research initiative

There are authorized to be appropriated to the Secretary to carry out the Power Delivery Research Initiative under subsection¹ 16215(e) of this title such sums as may be necessary for each of fiscal years 2007 through 2009.

(c) Micro-cogeneration energy technology

From amounts authorized under subsection (b), \$20,000,000 for each of fiscal years 2007 and 2008 shall be available to carry out activities under section 16213 of this title.

(d) High-voltage transmission lines

From amounts authorized under subsection (b), \$2,000,000 for fiscal year 2007 shall be available to carry out activities under section 16215(g) of this title.

(Pub. L. 109–58, title IX, §921, Aug. 8, 2005, 119 Stat. 864.)

¹ So in original. Probably should be “section”.

§ 16212. High power density industry program**(a) In general**

The Secretary shall establish a comprehensive research, development, demonstration, and commercial application to improve the energy efficiency of high power density facilities, including data centers, server farms, and telecommunications facilities.

(b) Technologies

The program shall consider technologies that provide significant improvement in thermal controls, metering, load management, peak load reduction, or the efficient cooling of electronics.

(Pub. L. 109-58, title IX, §922, Aug. 8, 2005, 119 Stat. 864.)

§ 16213. Micro-cogeneration energy technology**(a) In general**

The Secretary shall make competitive, merit-based grants to consortia for the development of micro-cogeneration energy technology.

(b) Uses

The consortia shall explore—

- (1) the use of small-scale combined heat and power in residential heating appliances;
- (2) the use of excess power to operate other appliances within the residence; and
- (3) the supply of excess generated power to the power grid.

(Pub. L. 109-58, title IX, §923, Aug. 8, 2005, 119 Stat. 865.)

§ 16214. Distributed energy technology demonstration programs**(a) Coordinating consortia program**

The Secretary may provide financial assistance to coordinating consortia of interdisciplinary participants for demonstrations designed to accelerate the use of distributed energy technologies (such as fuel cells, microturbines, reciprocating engines, thermally activated technologies, and combined heat and power systems) in high-energy intensive commercial applications.

(b) Small-scale portable power program**(1) In general**

The Secretary shall—

- (A) establish a research, development, and demonstration program to develop working models of small scale portable power devices; and
- (B) to the fullest extent practicable, identify and utilize the resources of universities that have shown expertise with respect to advanced portable power devices for either civilian or military use.

(2) Organization

The universities identified and utilized under paragraph (1)(B) are authorized to establish an organization to promote small scale portable power devices.

(3) Definition

For purposes of this subsection, the term “small scale portable power device” means a

field-deployable portable mechanical or electromechanical device that can be used for applications such as communications, computation, mobility enhancement, weapons systems, optical devices, cooling, sensors, medical devices, and active biological agent detection systems.

(Pub. L. 109-58, title IX, §924, Aug. 8, 2005, 119 Stat. 865.)

§ 16215. Electric transmission and distribution programs**(a) Program**

The Secretary shall establish a comprehensive research, development, and demonstration program to ensure the reliability, efficiency, and environmental integrity of electrical transmission and distribution systems, which shall include—

- (1) advanced energy delivery technologies, energy storage technologies, materials, and systems, giving priority to new transmission technologies, including composite conductor materials and other technologies that enhance reliability, operational flexibility, or power-carrying capability;
- (2) advanced grid reliability and efficiency technology development;
- (3) technologies contributing to significant load reductions;
- (4) advanced metering, load management, and control technologies;
- (5) technologies to enhance existing grid components;
- (6) the development and use of high-temperature superconductors to—
 - (A) enhance the reliability, operational flexibility, or power-carrying capability of electric transmission or distribution systems; or
 - (B) increase the efficiency of electric energy generation, transmission, distribution, or storage systems;

(7) integration of power systems, including systems to deliver high-quality electric power, electric power reliability, and combined heat and power;

(8) supply of electricity to the power grid by small scale, distributed and residential-based power generators;

(9) the development and use of advanced grid design, operation, and planning tools;

(10) the development of cost-effective technologies that enable two-way information and power flow between distributed energy resources and the electric grid;

(11) the development of technologies and concepts that enable interoperability between distributed energy resources and other behind-the-meter devices and the electric grid;

(12) any other infrastructure technologies, as appropriate; and

(13) technology transfer and education.

(b) Program plan**(1) In general**

Not later than 1 year after August 8, 2005, the Secretary, in consultation with other appropriate Federal agencies, shall prepare and