

**(c) Administration of grants**

Grants may be awarded under this section for up to 3 years. The Secretary shall award grants to ensure sufficient geographic distribution of training programs nationally. Grants shall only be awarded for programs certified by an industry-accepted quality-control certification institution, or for new and growing programs with a credible path to certification. Due consideration shall be given to women, underrepresented minorities, and persons with disabilities.

**(d) Report**

The Secretary shall make public, on the website of the Department or upon request, information on the name and institution for all grants awarded under this section, including a brief description of the project as well as the grant award amount.

**(e) Authorization of appropriations**

There are authorized to be appropriated to the Secretary for carrying out this section \$10,000,000 for each of the fiscal years 2008 through 2012.

(Pub. L. 110-140, title VI, §604, Dec. 19, 2007, 121 Stat. 1675.)

**§ 17173. Daylighting systems and direct solar light pipe technology****(a) Establishment**

The Secretary shall establish a program of research and development to provide assistance in the demonstration and commercial application of direct solar renewable energy sources to provide alternatives to traditional power generation for lighting and illumination, including light pipe technology, and to promote greater energy conservation and improved efficiency. All direct solar renewable energy devices supported under this program shall have the capability to provide measurable data on the amount of kilowatt-hours saved over the traditionally powered light sources they have replaced.

**(b) Reporting**

The Secretary shall transmit to Congress an annual report assessing the measurable data derived from each project in the direct solar renewable energy sources program and the energy savings resulting from its use.

**(c) Definitions**

For purposes of this section—

(1) the term “direct solar renewable energy” means energy from a device that converts sunlight into useable light within a building, tunnel, or other enclosed structure, replacing artificial light generated by a light fixture and doing so without the conversion of the sunlight into another form of energy; and

(2) the term “light pipe” means a device designed to transport visible solar radiation from its collection point to the interior of a building while excluding interior heat gain in the nonheating season.

**(d) Authorization of appropriations**

There are authorized to be appropriated to the Secretary for carrying out this section \$3,500,000 for each of the fiscal years 2008 through 2012.

(Pub. L. 110-140, title VI, §605, Dec. 19, 2007, 121 Stat. 1676.)

**§ 17174. Solar air conditioning research and development program****(a) Establishment**

The Secretary shall establish a research, development, and demonstration program to promote less costly and more reliable decentralized distributed solar-powered air conditioning for individuals and businesses.

**(b) Authorized activities**

Grants made available under this section may be used to support the following activities:

(1) Advancing solar thermal collectors, including concentrating solar thermal and electric systems, flat plate and evacuated tube collector performance.

(2) Achieving technical and economic integration of solar-powered distributed air-conditioning systems with existing hot water and storage systems for residential applications.

(3) Designing and demonstrating mass manufacturing capability to reduce costs of modular standardized solar-powered distributed air conditioning systems and components.

(4) Improving the efficiency of solar-powered distributed air-conditioning to increase the effectiveness of solar-powered absorption chillers, solar-driven compressors and condensers,<sup>1</sup> and cost-effective precooling approaches.

(5) Researching and comparing performance of solar-powered distributed air conditioning systems in different regions of the country, including potential integration with other on-site systems, such as solar, biogas, geothermal heat pumps, and propane assist or combined propane fuel cells, with a goal to develop site-specific energy production and management systems that ease fuel and peak utility loading.

**(c) Cost sharing**

Section 16352 of this title shall apply to a project carried out under this section.

**(d) Authorization of appropriations**

There are authorized to be appropriated to the Secretary for carrying out this section \$2,500,000 for each of the fiscal years 2008 through 2012.

(Pub. L. 110-140, title VI, §606, Dec. 19, 2007, 121 Stat. 1676.)

**§ 17175. Photovoltaic demonstration program****(a) In general**

The Secretary shall establish a program of grants to States to demonstrate advanced photovoltaic technology.

**(b) 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 (f).

<sup>1</sup> So in original.

**(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 (f) 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.

**(c) Competition**

The Secretary shall award grants on a competitive basis to the States with the proposals the Secretary considers most likely to encourage the widespread adoption of photovoltaic technologies. The Secretary shall take into consideration the geographic distribution of awards.

**(d) Proposals**

Not later than 6 months after December 19, 2007, 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.

**(e) Competitive criteria**

In awarding funds in a competitive allocation under subsection (c), 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 amount of photovoltaics demonstrated;
  - (B) maximize the proportion of non-Federal cost share; and
  - (C) limit State administrative costs.

**(f) 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) endeavor to fund recipients in the commercial, industrial, institutional, governmental, and residential sectors;
- (3) limit State administrative costs to no more than 10 percent of the grant;
- (4) report annually to the Secretary on—
  - (A) the amount of funds disbursed;
  - (B) the amount of photovoltaics purchased; and
  - (C) the results of the monitoring under paragraph (5);
- (5) 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; and
- (6) require that applicant buildings must have received an independent energy efficiency audit during the 6-month period preceding the filing of the application.

**(g) Unexpended funds**

If a State fails to expend any funds received under this section within 3 years of receipt, such remaining funds shall be returned to the Treasury.

**(h) 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 results of the monitoring under subsection (f)(5); and
- (5) the total amount of funds distributed, including a breakdown by State.

**(i) Authorization of appropriations**

There are authorized to be appropriated to the Secretary for the purposes of carrying out this section—

- (1) \$15,000,000 for fiscal year 2008;
- (2) \$30,000,000 for fiscal year 2009;
- (3) \$45,000,000 for fiscal year 2010;
- (4) \$60,000,000 for fiscal year 2011; and
- (5) \$70,000,000 for fiscal year 2012.

(Pub. L. 110-140, title VI, § 607, Dec. 19, 2007, 121 Stat. 1677.)

## PART B—GEOTHERMAL ENERGY

**§ 17191. Definitions**

For purposes of this part:

**(1) Engineered**

When referring to enhanced geothermal systems, the term “engineered” means subjected to intervention, including intervention to address one or more of the following issues:

- (A) Lack of effective permeability or porosity or open fracture connectivity within the reservoir.
- (B) Insufficient contained geofluid in the reservoir.
- (C) A low average geothermal gradient, which necessitates deeper drilling.

**(2) Enhanced geothermal systems**

The term “enhanced geothermal systems” means geothermal reservoir systems that are engineered, as opposed to occurring naturally.

**(3) Geofluid**

The term “geofluid” means any fluid used to extract thermal energy from the Earth which is transported to the surface for direct use or electric power generation, except that such term shall not include oil or natural gas.

**(4) Geopressured resources**

The term “geopressured resources” mean geothermal deposits found in sedimentary rocks under higher than normal pressure and saturated with gas or methane.

**(5) Geothermal**

The term “geothermal” refers to heat energy stored in the Earth’s crust that can be accessed for direct use or electric power generation.