

SUBCHAPTER V—ACCELERATED RESEARCH  
AND DEVELOPMENT

PART A—SOLAR ENERGY

§ 17171. **Thermal energy storage research and development program**

(a) **Establishment**

The Secretary shall establish a program of research and development to provide lower cost and more viable thermal energy storage technologies to enable the shifting of electric power loads on demand and extend the operating time of concentrating solar power electric generating plants.

(b) **Authorization of appropriations**

There are authorized to be appropriated to the Secretary for carrying out this section \$5,000,000 for fiscal year 2008, \$7,000,000 for fiscal year 2009, \$9,000,000 for fiscal year 2010, \$10,000,000 for fiscal year 2011, and \$12,000,000 for fiscal year 2012.

(Pub. L. 110-140, title VI, §602, Dec. 19, 2007, 121 Stat. 1674.)

SHORT TITLE

This part known as the “Solar Energy Research and Advancement Act of 2007”, see Short Title note set out under section 17001 of this title.

§ 17172. **Solar energy curriculum development and certification grants**

(a) **Establishment**

The Secretary shall establish in the Office of Solar Energy Technologies a competitive grant program to create and strengthen solar industry workforce training and internship programs in installation, operation, and maintenance of solar energy products. The goal of this program is to ensure a supply of well-trained individuals to support the expansion of the solar energy industry.

(b) **Authorized activities**

Grant funds may be used to support the following activities:

(1) Creation and development of a solar energy curriculum appropriate for the local educational, entrepreneurial, and environmental conditions, including curriculum for community colleges.

(2) Support of certification programs for individual solar energy system installers, instructors, and training programs.

(3) Internship programs that provide hands-on participation by students in commercial applications.

(4) Activities required to obtain certification of training programs and facilities by an industry-accepted quality-control certification program.

(5) Incorporation of solar-specific learning modules into traditional occupational training and internship programs for construction-related trades.

(6) The purchase of equipment necessary to carry out activities under this section.

(7) Support of programs that provide guidance and updates to solar energy curriculum instructors.

(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.