

§ 17195. Geothermal energy production from oil and gas fields and recovery and production of geopressured gas resources

(a) In general

The Secretary shall establish a program of research, development, demonstration, and commercial application to support development of geothermal energy production from oil and gas fields and production and recovery of energy, including electricity, from geopressured resources. In addition, the Secretary shall conduct such supporting activities including research, resource characterization, and technology development as necessary.

(b) Geothermal energy production from oil and gas fields

The Secretary shall implement a grant program in support of geothermal energy production from oil and gas fields. The program shall include grants for a total of not less than three demonstration projects of the use of geothermal techniques such as advanced organic rankine cycle systems at marginal, unproductive, and productive oil and gas wells. The Secretary shall, to the extent practicable and in the public interest, make awards that—

- (1) include not less than five oil or gas well sites per project award;
- (2) use a range of oil or gas well hot water source temperatures from 150 degrees Fahrenheit to 300 degrees Fahrenheit;
- (3) cover a range of sizes up to one megawatt;
- (4) are located at a range of sites;
- (5) can be replicated at a wide range of sites;
- (6) facilitate identification of optimum techniques among competing alternatives;
- (7) include business commercialization plans that have the potential for production of equipment at high volumes and operation and support at a large number of sites; and
- (8) satisfy other criteria that the Secretary determines are necessary to carry out the program and collect necessary data and information.

The Secretary shall give preference to assessments that address multiple elements contained in paragraphs (1) through (8).

(c) Grant awards

Each grant award for demonstration of geothermal technology such as advanced organic rankine cycle systems at oil and gas wells made by the Secretary under subsection (b) shall include—

- (1) necessary and appropriate site engineering study;
- (2) detailed economic assessment of site specific conditions;
- (3) appropriate feasibility studies to determine whether the demonstration can be replicated;
- (4) design or adaptation of existing technology for site specific circumstances or conditions;
- (5) installation of equipment, service, and support;
- (6) operation for a minimum of 1 year and monitoring for the duration of the demonstration; and

(7) validation of technical and economic assumptions and documentation of lessons learned.

(d) Geopressured gas resource recovery and production

(1) The Secretary shall implement a program to support the research, development, demonstration, and commercial application of cost-effective techniques to produce energy from geopressured resources.

(2) The Secretary shall solicit preliminary engineering designs for geopressured resources production and recovery facilities.

(3) Based upon a review of the preliminary designs, the Secretary shall award grants, which may be cost-shared, to support the detailed development and completion of engineering, architectural and technical plans needed to support construction of new designs.

(4) Based upon a review of the final design plans above, the Secretary shall award cost-shared development and construction grants for demonstration geopressured production facilities that show potential for economic recovery of the heat, kinetic energy and gas resources from geopressured resources.

(e) Competitive grant selection

Not less than 90 days after December 19, 2007, the Secretary shall conduct a national solicitation for applications for grants under the programs outlined in subsections (b) and (d). Grant recipients shall be selected on a competitive basis based on criteria in the respective subsection.

(f) Well drilling

No funds may be used under this section for the purpose of drilling new wells.

(Pub. L. 110-140, title VI, §616, Dec. 19, 2007, 121 Stat. 1681.)

Statutory Notes and Related Subsidiaries

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.

§ 17195a. Geothermal heat pumps and direct use research and development

(a) Purposes

The purposes of this section are—

(1) to improve the understanding of related earth sciences, components, processes, and systems used for geothermal heat pumps and the direct use of geothermal energy; and

(2) to increase the energy efficiency, lower the cost, increase the use, and improve and demonstrate the effectiveness of geothermal heat pumps and the direct use of geothermal energy.

(b) Definitions

In this section:

(1) Direct use of geothermal energy

The term “direct use of geothermal energy” means geothermal systems that use water directly or through a heat exchanger to provide—