

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.

SHORT TITLE

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

§ 17192. Hydrothermal research and development**(a) In general**

The Secretary shall carry out a program of research, development, demonstration, and commercial application for geothermal energy production from hydrothermal systems.

(b) Programs

The program authorized in subsection (a) shall include the following:

(1) Advanced hydrothermal resource tools

The research and development of advanced geologic tools to assist in locating hydrothermal resources, and to increase the reliability of site characterization, including the development of new imaging and sensing technologies and techniques to assist in prioritization of targets for characterization;

(2) Exploratory drilling for geothermal resources

The demonstration of advanced technologies and techniques of siting and exploratory drilling for undiscovered resources in a variety of geologic settings, carried out in collaboration with industry partners that will assist in the acquisition of high quality data sets relevant for hydrothermal subsurface characterization activities.

(Pub. L. 110-140, title VI, §613, Dec. 19, 2007, 121 Stat. 1679; Pub. L. 116-260, div. Z, title III, §3002(b), Dec. 27, 2020, 134 Stat. 2487.)

Editorial Notes

AMENDMENTS

2020—Pub. L. 116-260 amended section generally. Prior to amendment, section related to hydrothermal research and development.

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§ 17193. General geothermal systems research and development**(a) Subsurface components and systems**

The Secretary shall support a program of research, development, demonstration, and commercial application of components and systems capable of withstanding geothermal environments and necessary to develop, produce, and monitor geothermal reservoirs and produce geothermal energy.

(b) Environmental impacts

The Secretary shall—

(1) support a program of research, development, demonstration, and commercial application of technologies and practices designed to mitigate or preclude potential adverse environmental impacts of geothermal energy development, production or use;

(2) support a research program to identify potential environmental impacts, including induced seismicity, and environmental benefits of geothermal energy development, production, and use, and ensure that the program described in paragraph (1) addresses such impacts, including water use and effects on groundwater and local hydrology;

(3) support a program of research to compare the potential environmental impacts and environmental benefits identified as part of the development, production, and use of geothermal energy with the potential emission reductions of greenhouse gases gained by geothermal energy development, production, and use; and

(4) in carrying out this section, the Secretary shall,¹ to the maximum extent practicable, consult with relevant federal agencies, including the Environmental Protection Agency.

(c) Reservoir thermal energy storage

The Secretary shall support a program of research, development, and demonstration of reservoir thermal energy storage, emphasizing cost-effective improvements through deep direct use engineering, design, and systems research.

(d) Oil and gas technology transfer initiative**(1) In general**

The Secretary shall support an initiative among the Office of Fossil Energy, the Office of Energy Efficiency and Renewable Energy, and the private sector to research, develop, and demonstrate relevant advanced technologies and operation techniques used in the oil and gas sector for use in geothermal energy development.

(2) Priorities

In carrying out paragraph (1), the Secretary shall prioritize technologies with the greatest potential to significantly increase the use and lower the cost of geothermal energy in the United States, including the cost and speed of geothermal drilling surface technologies, large- and small-scale drilling, and well construction.

(e) Coproduction of geothermal energy and minerals production research and development initiative**(1) In general**

The Secretary shall carry out a research and development initiative under which the Secretary shall provide financial assistance to demonstrate the coproduction of critical minerals from geothermal resources.

(2) Requirements

An award made under paragraph (1) shall—

(A) improve the cost effectiveness of removing minerals from geothermal brines as part of the coproduction process;

¹ So in original. The words “The Secretary shall” appear in introductory provisions.