

tablish a research and development program to develop alternatives to sources described in subsection (a) that reduce safety, environmental, or proliferation risks to either workers using the sources or the public.

**(2) Accelerators**

Miniaturized particle accelerators for well-logging or other industrial applications and portable accelerators for production of short-lived radioactive materials at an industrial site shall be considered as part of the research and development efforts.

**(3) Report**

Not later than August 1, 2006, the Secretary shall submit to Congress a report describing the details of the program plan.

(Pub. L. 109-58, title IX, §957, Aug. 8, 2005, 119 Stat. 888.)

PART F—FOSSIL ENERGY

**§ 16291. Fossil energy**

**(a) In general**

The Secretary shall carry out research, development, demonstration, and commercial application programs in fossil energy, including activities under this part, with the goal of improving the efficiency, effectiveness, and environmental performance of fossil energy production, upgrading, conversion, and consumption. Such programs take into consideration the following objectives:

- (1) Increasing the energy conversion efficiency of all forms of fossil energy through improved technologies.
- (2) Decreasing the cost of all fossil energy production, generation, and delivery.
- (3) Promoting diversity of energy supply.
- (4) Decreasing the dependence of the United States on foreign energy supplies.
- (5) Improving United States energy security.
- (6) Decreasing the environmental impact of energy-related activities.
- (7) Increasing the export of fossil energy-related equipment, technology, and services from the United States.

**(b) Authorization of appropriations**

There are authorized to be appropriated to the Secretary to carry out fossil energy research, development, demonstration, and commercial application activities, including activities authorized under this part—

- (1) \$611,000,000 for fiscal year 2007;
- (2) \$626,000,000 for fiscal year 2008; and
- (3) \$641,000,000 for fiscal year 2009.

**(c) Allocations**

From amounts authorized under subsection (a), the following sums are authorized:

- (1) For activities under section 16292 of this title—
  - (A) \$367,000,000 for fiscal year 2007;
  - (B) \$376,000,000 for fiscal year 2008; and
  - (C) \$394,000,000 for fiscal year 2009.
- (2) For activities under section 16294 of this title—
  - (A) \$20,000,000 for fiscal year 2007;
  - (B) \$25,000,000 for fiscal year 2008; and

(C) \$30,000,000 for fiscal year 2009.

(3) For activities under section 16296 of this title—

- (A) \$1,500,000 for fiscal year 2007; and
- (B) \$450,000 for each of fiscal years 2008 and 2009.

(4) For the Office of Arctic Energy under section 7144d of this title \$25,000,000 for each of fiscal years 2007 through 2009.

**(d) Extended authorization**

There are authorized to be appropriated to the Secretary for the Office of Arctic Energy established under section 7144d of this title \$25,000,000 for each of fiscal years 2010 through 2012.

**(e) Limitations**

**(1) Uses**

None of the funds authorized under this section may be used for Fossil Energy Environmental Restoration or Import/Export Authorization.

**(2) Institutions of higher education**

Of the funds authorized under subsection (c)(2), not less than 20 percent of the funds appropriated for each fiscal year shall be dedicated to research and development carried out at institutions of higher education.

(Pub. L. 109-58, title IX, §961, Aug. 8, 2005, 119 Stat. 889.)

REFERENCES IN TEXT

This part, referred to in subsecs. (a) and (b), was in the original “this subtitle”, meaning subtitle F (§§961-968) of title IX of Pub. L. 109-58, Aug. 8, 2005, 119 Stat. 889, which enacted this part and provisions set out as notes under section 2001 of Title 30, Mineral Lands and Mining, and amended provisions set out as a note under section 1902 of Title 30. For complete classification of subtitle F to the Code, see Tables.

**§ 16291a. Property interests**

That for all programs funded under Fossil Energy appropriations in this and subsequent Acts, the Secretary may vest fee title or other property interests acquired under projects in any entity, including the United States.

(Pub. L. 113-76, div. D, title III, Jan. 17, 2014, 128 Stat. 165.)

CODIFICATION

Section was enacted as part of the Energy and Water Development and Related Agencies Appropriations Act, 2014, and also as part of the Consolidated Appropriations Act, 2014, and not as part of the Energy Policy Act of 2005 which comprises this chapter.

DEFINITIONS

For definition of “this [Act]”, referred to in text, see section 3 of Pub. L. 113-76, set out as a note under section 1 of Title 1, General Provisions.

**§ 16292. Coal and related technologies program**

**(a) In general**

In addition to the programs authorized under subchapter IV, the Secretary shall conduct a program of technology research, development, demonstration, and commercial application for coal and power systems, including programs to facilitate production and generation of coal-based power through—

- (1) innovations for existing plants (including mercury removal);
- (2) gasification systems;
- (3) advanced combustion systems;
- (4) turbines for synthesis gas derived from coal;
- (5) carbon capture and sequestration research and development;
- (6) coal-derived chemicals and transportation fuels;
- (7) liquid fuels derived from low rank coal water slurry;
- (8) solid fuels and feedstocks;
- (9) advanced coal-related research;
- (10) advanced separation technologies; and
- (11) fuel cells for the operation of synthesis gas derived from coal.

**(b) Cost and performance goals**

**(1) In general**

In carrying out programs authorized by this section, during each of calendar years 2008, 2010, 2012, and 2016, and during each fiscal year beginning after September 30, 2021, the Secretary shall identify cost and performance goals for coal-based technologies that would permit the continued cost-competitive use of coal for the production of electricity, chemical feedstocks, and transportation fuels.

**(2) Administration**

In establishing the cost and performance goals, the Secretary shall—

(A) consider activities and studies undertaken as of August 8, 2005, by industry in cooperation with the Department in support of the identification of the goals;

(B) consult with interested entities, including—

- (i) coal producers;
- (ii) industries using coal;
- (iii) organizations that promote coal and advanced coal technologies;
- (iv) environmental organizations;
- (v) organizations representing workers; and
- (vi) organizations representing consumers;

(C) not later than 120 days after August 8, 2005, publish in the Federal Register proposed draft cost and performance goals for public comments; and

(D) not later than 180 days after August 8, 2005, and every 4 years thereafter, submit to Congress a report describing the final cost and performance goals for the technologies that includes—

- (i) a list of technical milestones; and
- (ii) an explanation of how programs authorized in this section will not duplicate the activities authorized under the Clean Coal Power Initiative authorized under subchapter IV.

**(c) Powder River Basin and Fort Union lignite coal mercury removal**

**(1) In general**

In addition to the programs authorized by subsection (a), the Secretary shall establish a program to test and develop technologies to control and remove mercury emissions from

subbituminous coal mined in the Powder River Basin, and Fort Union lignite coals, that are used for the generation of electricity.

**(2) Efficacy of mercury removal technology**

In carrying out the program under paragraph (1), the Secretary shall examine the efficacy of mercury removal technologies on coals described in that paragraph that are blended with other types of coal.

**(d) Fuel cells**

**(1) In general**

The Secretary shall conduct a program of research, development, demonstration, and commercial application on fuel cells for low-cost, high-efficiency, fuel-flexible, modular power systems.

**(2) Demonstrations**

The demonstrations referred to in paragraph (1) shall include solid oxide fuel cell technology for commercial, residential, and transportation applications, and distributed generation systems, using improved manufacturing production and processes.

(Pub. L. 109-58, title IX, §962, Aug. 8, 2005, 119 Stat. 890.)

REFERENCES IN TEXT

Subchapter IV, referred to in subsecs. (a) and (b)(2)(D)(ii), was in the original “title IV”, meaning title IV of Pub. L. 109-58, Aug. 8, 2005, 119 Stat. 749, which enacted subchapter IV of this chapter and subchapter XIII (§13571 et seq.) of chapter 134 of this title, amended sections 201, 202a, 203, and 207 of Title 30, Mineral Lands and Mining, and enacted provisions set out as notes under section 15801 of this title and section 201 of Title 30. For complete classification of title IV to the Code, see Tables.

**§ 16293. Carbon capture and sequestration research, development, and demonstration program**

**(a) In general**

The Secretary shall carry out a 10-year carbon capture and sequestration research, development, and demonstration program to develop carbon dioxide capture and sequestration technologies related to industrial sources of carbon dioxide for use—

- (1) in new coal utilization facilities; and
- (2) on the fleet of coal-based units in existence on August 8, 2005.

**(b) Objectives**

The objectives of the program under subsection (a) shall be—

- (1) to develop carbon dioxide capture technologies, including adsorption and absorption techniques and chemical processes, to remove the carbon dioxide from gas streams containing carbon dioxide potentially amenable to sequestration;
- (2) to develop technologies that would directly produce concentrated streams of carbon dioxide potentially amenable to sequestration;
- (3) to increase the efficiency of the overall system to reduce the quantity of carbon dioxide emissions released from the system per megawatt generated;
- (4) in accordance with the carbon dioxide capture program, to promote a robust carbon