

(b) The program referred to in subsection (a) shall include the use of metallurgical coal—

(1) as a boiler fuel for the purpose of generating steam to produce electricity, including blending metallurgical coal with other coals in order to enhance its efficient application as a boiler fuel;

(2) as an ingredient in the manufacturing of steel; and

(3) as a source of pipeline quality coalbed methane.

(Pub. L. 102-486, title XIII, § 1307, Oct. 24, 1992, 106 Stat. 2975.)

#### § 13338. Utilization of coal wastes

##### (a) Coal waste utilization program

The Secretary, in consultation with the Secretary of the Interior, shall establish a research, development, demonstration, and commercial application program on coal waste utilization for the purpose of developing techniques that will lead to the greater and more efficient utilization of coal wastes from mining and processing, other than coal ash.

##### (b) Use as boiler fuel

The program referred to in subsection (a) shall include projects to facilitate the use of coal wastes from mining and processing as a boiler fuel for the purpose of generating steam to produce electricity.

(Pub. L. 102-486, title XIII, § 1308, Oct. 24, 1992, 106 Stat. 2975.)

#### § 13339. Underground coal gasification

##### (a) Program

The Secretary shall conduct a research, development, demonstration, and commercial application program for underground coal gasification technology for in-situ conversion of coal to a cleaner burning, easily transportable gaseous fuel. The goal and objective of this program shall be to accelerate the development and commercialization of underground coal gasification. In carrying out this program, the Secretary shall give equal consideration to all ranks of coal.

##### (b) Demonstration projects

As part of the program authorized in subsection (a), the Secretary may solicit proposals for underground coal gasification technology projects to fulfill the goal and objective of subsection (a).

(Pub. L. 102-486, title XIII, § 1309, Oct. 24, 1992, 106 Stat. 2975.)

#### § 13340. Low-rank coal research and development

The Secretary shall pursue a program of research and development with respect to the technologies needed to expand the use of low-rank coals which take into account the unique properties of lignites and sub-bituminous coals, including, but not limited to, the following areas—

(1) high value-added carbon products;

(2) fuel cell applications;

(3) emissions control and combustion efficiencies;

(4) coal water fuels and underground coal gasification;

(5) distillates; and

(6) any other technologies which will assist in the development of niche markets for lignites and sub-bituminous coals.

(Pub. L. 102-486, title XIII, § 1310, Oct. 24, 1992, 106 Stat. 2975.)

#### § 13341. Magnetohydrodynamics

##### (a) Program

The Secretary shall carry out a research, development, demonstration, and commercial application program in magnetohydrodynamics. The purpose of this program shall be to determine the adequacy of the engineering and design information completed to date under Department of Energy contracts related to magnetohydrodynamics retrofit systems and to determine whether any further Federal investment in this technology is warranted.

##### (b) Solicitation of proposals

In order to carry out the program authorized in subsection (a), the Secretary may solicit proposals from the private sector and seek to enter into an agreement with appropriate parties.

(Pub. L. 102-486, title XIII, § 1311, Oct. 24, 1992, 106 Stat. 2976.)

#### § 13342. Oil substitution through coal liquefaction

##### (a) Program direction

The Secretary shall conduct a program of research, development, demonstration, and commercial application for the purpose of developing economically and environmentally acceptable advanced technologies for oil substitution through coal liquefaction.

##### (b) Program goals

The goals of the program established under subsection (a) shall include—

(1) improved resource selection and product quality;

(2) the development of technologies to increase net yield of liquid fuel product per ton of coal;

(3) an increase in overall thermal efficiency; and

(4) a reduction in capital and operating costs through technology improvements.

##### (c) Proposals

Within 180 days after October 24, 1992, the Secretary shall solicit proposals for conducting activities under this section.

(Pub. L. 102-486, title XIII, § 1312, Oct. 24, 1992, 106 Stat. 2976.)

#### § 13343. Authorization of appropriations

There are authorized to be appropriated to the Secretary for carrying out this part \$278,139,000 for fiscal year 1993 and such sums as may be necessary for fiscal years 1994 through 1997.

(Pub. L. 102-486, title XIII, § 1313, Oct. 24, 1992, 106 Stat. 2976.)

**§ 13344. Rare earth elements****(a) Research program****(1) In general**

The Secretary of Energy, acting through the Assistant Secretary for Fossil Energy (referred to in this section as the “Secretary”), shall conduct a program of research and development—

(A) to develop and assess advanced separation technologies for the extraction and recovery of rare earth elements and other critical materials from coal and coal byproducts; and

(B) to determine if there are, and mitigate, any potential environmental or public health impacts that could arise from the recovery of rare earth elements from coal-based resources.

**(2) Authorization of appropriations**

There is authorized to be appropriated to the Secretary to carry out the program described in paragraph (1)—

(A) \$23,000,000 for each of fiscal years 2021 and 2022;

(B) \$24,200,000 for fiscal year 2023;

(C) \$25,400,000 for fiscal year 2024;

(D) \$26,600,000 for fiscal year 2025; and

(E) \$27,800,000 for fiscal year 2026.

**(b) Report**

Not later than 1 year after December 27, 2020, and annually thereafter while the facility established under subsection (c) remains in operation, the Secretary shall submit to the Committee on Energy and Natural Resources of the Senate and the Committees on Science, Space, and Technology and Energy and Commerce of the House of Representatives a report evaluating the development of advanced separation technologies for the extraction and recovery of rare earth elements and other critical materials from coal and coal byproducts, including acid mine drainage from coal mines.

**(c) Rare earth demonstration facility****(1) Establishment**

In coordination with the research program under subsection (a)(1)(A), the Secretary shall fund, through an agreement with an academic partner, the design, construction, and build-out of a facility to demonstrate the commercial feasibility of a full-scale integrated rare earth element extraction and separation facility and refinery.

**(2) Facility activities**

The facility established under paragraph (1) shall—

(A) provide environmental benefits through use of feedstock derived from acid mine drainage, mine waste, or other deleterious material;

(B) separate mixed rare earth oxides into pure oxides of each rare earth element;

(C) refine rare earth oxides into rare earth metals; and

(D) provide for separation of rare earth oxides and refining into rare earth metals at a single site.

**(3) Authorization of appropriations**

There is authorized to be appropriated to the Secretary to carry out this subsection

\$140,000,000 for fiscal year 2022, to remain available until expended.

**(d) Critical material**

In this section, the term “critical material” has the meaning given the term in section 1606 of title 30.

(Pub. L. 116-260, div. Z, title VII, §7001, Dec. 27, 2020, 134 Stat. 2561; Pub. L. 117-58, div. D, title II, §40205, Nov. 15, 2021, 135 Stat. 960.)

**Editorial Notes****CODIFICATION**

Section was enacted as part of the Energy Act of 2020, and not as part of the Energy Policy Act of 1992 which comprises this chapter.

**AMENDMENTS**

2021—Subsec. (b). Pub. L. 117-58, §40205(1), inserted “and annually thereafter while the facility established under subsection (c) remains in operation,” after “December 27, 2020,”.

Subsecs. (c), (d). Pub. L. 117-58, §40205(2), (3), added subsec. (c) and redesignated former subsec. (c) as (d).

**Statutory Notes and Related Subsidiaries****WAGE RATE REQUIREMENTS**

For provisions relating to rates of wages to be paid to laborers and mechanics on projects for construction, alteration, or repair work funded under div. D or an amendment by div. D of Pub. L. 117-58, including authority of Secretary of Labor, see section 18851 of this title.

**PART B—CLEAN COAL TECHNOLOGY PROGRAM****§ 13351. Additional clean coal technology solicitations****(a) Program design**

Additional clean coal technology solicitations described in subsection (b) shall be designed to ensure the timely development of cost-effective technologies or energy production processes or systems utilizing coal that achieve greater efficiency in the conversion of coal to useful energy when compared to currently commercially available technology for the use of coal and the control of emissions from the combustion of coal. Such program shall be designed to ensure, to the greatest extent possible, the availability for commercial use of such technologies by the year 2010.

**(b) Additional solicitations**

In conducting the Clean Coal Program established by Public Law 98-473, the Secretary shall consider the potential benefits of conducting additional solicitations pursuant to such program and, based on the results of that consideration, may carry out such additional solicitations, which shall be similar in scope and percentage of Federal cost sharing as that provided by Public Law 101-121.

(Pub. L. 102-486, title XIII, §1321, Oct. 24, 1992, 106 Stat. 2976.)

**Editorial Notes****REFERENCES IN TEXT**

Public Law 98-473, referred to in subsec. (b), is Pub. L. 98-473, Oct. 12, 1984, 98 Stat. 1837, as amended. For