

to such criteria as the Secretary may develop.

(B) Competitive basis

The Secretary shall select entities to receive grants under this subsection on a competitive basis.

(C) Priority criteria

In selecting entities to receive grants under this subsection, the Secretary shall prioritize consideration of applicants that—

- (i) have access to existing or planned research facilities for direct air capture and storage technologies;
- (ii) are institutions of higher education with established expertise in engineering for direct air capture and storage technologies, or partnerships with such institutions of higher education; or
- (iii) have access to existing research and test facilities for bulk materials design and testing, component design and testing, or professional engineering design.

(4) Formula for awarding grants

The Secretary may develop a formula for awarding grants under this subsection.

(5) Schedule

(A) In general

Each grant awarded under this subsection shall be for a term of not more than 5 years, subject to the availability of appropriations.

(B) Renewal

The Secretary may renew a grant for 1 or more additional 5-year terms, subject to a competitive merit review and the availability of appropriations.

(6) Termination

To the extent otherwise authorized by law, the Secretary may eliminate, and terminate grant funding under this subsection for, a Center during any 5-year term described in paragraph (5) if the Secretary determines that the Center is underperforming.

(g) Pilot and demonstration projects

In supporting the technology development activities under this section, the Secretary is encouraged to support carbon removal pilot and demonstration projects, including—

- (1) pilot projects that test direct air capture systems capable of capturing 10 to 100 tonnes of carbon oxides per year to provide data for demonstration-scale projects; and
- (2) direct air capture demonstration projects capable of capturing greater than 1,000 tonnes of carbon oxides per year.

(h) Intraagency collaboration

In carrying out the program, the Secretary shall encourage and promote collaborations among relevant offices and agencies within the Department.

(i) Accounting

The Secretary shall collaborate with the Administrator of the Environmental Protection Agency and the heads of other relevant Federal agencies to develop and improve accounting frameworks and tools to accurately measure

carbon removal and sequestration methods and technologies.

(j) Authorization of appropriations

There are authorized to be appropriated to the Secretary to carry out this section—

- (1) \$175,000,000 for fiscal year 2021, of which—
 - (A) \$15,000,000 shall be used to carry out subsection (e)(2)(A), to remain available until expended; and
 - (B) \$100,000,000 shall be used to carry out subsection (e)(2)(B), to remain available until expended;
- (2) \$63,500,000 for fiscal year 2022;
- (3) \$66,150,000 for fiscal year 2023;
- (4) \$69,458,000 for fiscal year 2024; and
- (5) \$72,930,000 for fiscal year 2025.

(Pub. L. 109–58, title IX, §969D, as added Pub. L. 116–260, div. Z, title V, §5001(a), Dec. 27, 2020, 134 Stat. 2547.)

APPLICATION

Provisions of section 3212 of this title applicable to construction, alteration, or repair work of demonstration projects funded by grants or contracts authorized under this section, see section 9006(b) of div. Z of Pub. L. 116–260, set out as a note under section 16237 of this title.

§ 16298e. Carbon dioxide removal task force and report

(a) Definition of carbon dioxide removal

In this section, the term “carbon dioxide removal” means the capture of carbon dioxide directly from ambient air or, in dissolved form, from seawater, combined with the sequestration of that carbon dioxide, including through—

- (1) direct air capture and sequestration;
- (2) enhanced carbon mineralization;
- (3) bioenergy with carbon capture and sequestration;
- (4) forest restoration;
- (5) soil carbon management; and
- (6) direct ocean capture.

(b) Report

Not later than 180 days after December 27, 2020, the Secretary of Energy (in this section referred to as the “Secretary”), in consultation with the heads of any other relevant Federal agencies, shall prepare a report that—

- (1) estimates the magnitude of excess carbon dioxide in the atmosphere that will need to be removed by 2050 to achieve net-zero emissions and stabilize the climate;
- (2) inventories current and emerging approaches of carbon dioxide removal and evaluates the advantages and disadvantages of each of the approaches; and
- (3) identifies recommendations for legislation, funding, rules, revisions to rules, financing mechanisms, or other policy tools that the Federal Government can use to sufficiently advance the deployment of carbon dioxide removal projects in order to meet, in the aggregate, the magnitude of needed removals estimated under paragraph (1), including policy tools, such as—

- (A) grants;
- (B) loans or loan guarantees;
- (C) public-private partnerships;

- (D) direct procurement;
- (E) incentives, including subsidized Federal financing mechanisms available to project developers;
- (F) advance market commitments;
- (G) regulations; and
- (H) any other policy mechanism determined by the Secretary to be beneficial for advancing carbon dioxide removal methods and the deployment of carbon dioxide removal projects.

(c) Submission; publication

The Secretary shall—

(1) submit the report prepared under subsection (b) to the Committee on Energy and Natural Resources of the Senate and the Committees on Energy and Commerce and Science, Space, and Technology of the House of Representatives; and

(2) as soon as practicable after completion of the report, make the report publicly available.

(d) Evaluation; revision

(1) In general

Not later than 2 years after the date on which the Secretary publishes the report under subsection (c)(2), and every 2 years thereafter, the Secretary shall evaluate the findings and recommendations of the report, or the most recent updated report submitted under paragraph (2)(B), as applicable, taking into consideration any issues and recommendations identified by the task force established under subsection (e)(1).

(2) Revision

After completing each evaluation under paragraph (1), the Secretary shall—

(A) revise the report as necessary; and

(B) if the Secretary revises the report under subparagraph (A), submit and publish the updated report in accordance with subsection (c).

(e) Task force

(1) Establishment and duties

Not later than 60 days after December 27, 2020, the Secretary shall establish a task force—

(A) to identify barriers to advancement of carbon dioxide removal methods and the deployment of carbon dioxide removal projects;

(B) to inventory existing or potential Federal legislation, rules, revisions to rules, financing mechanisms, or other policy tools that are capable of advancing carbon dioxide removal methods and the deployment of carbon dioxide removal projects;

(C) to assist in preparing the report described in subsection (b) and any updates to the report under subsection (d); and

(D) to advise the Secretary on matters pertaining to carbon dioxide removal.

(2) Members and selection

The Secretary shall—

(A) develop criteria for the selection of members to the task force established under paragraph (1); and

(B) select members for the task force in accordance with the criteria developed under subparagraph (A).

(3) Meetings

The task force shall meet not less frequently than once each year.

(4) Evaluation

Not later than 7 years after December 27, 2020, the Secretary shall—

(A) reevaluate the need for the task force established under paragraph (1); and

(B) submit to Congress a recommendation as to whether the task force should continue.

(Pub. L. 116-260, div. Z, title V, §5002, Dec. 27, 2020, 134 Stat. 2550.)

CODIFICATION

Section was enacted as part of the Energy Act of 2020, and not as part of the Energy Policy Act of 2005 which comprises this chapter.

PART G—SCIENCE

§ 16311. Science

(a) In general

The Secretary shall conduct, through the Office of Science, programs of research, development, demonstration, and commercial application in high energy physics, nuclear physics, biological and environmental research, basic energy sciences, advanced scientific computing research, and fusion energy sciences, including activities described in this part. The programs shall include support for facilities and infrastructure, education, outreach, information, analysis, and coordination activities.

(b) Authorization of appropriations

There are authorized to be appropriated to the Secretary to carry out research, development, demonstration, and commercial application activities of the Office of Science, including activities authorized under this part (including the amounts authorized under the amendment made by section 976(b)¹ and including basic energy sciences, advanced scientific and computing research, biological and environmental research, fusion energy sciences, high energy physics, nuclear physics, research analysis, and infrastructure support)—

- (1) \$4,153,000,000 for fiscal year 2007;
- (2) \$4,586,000,000 for fiscal year 2008;
- (3) \$5,200,000,000 for fiscal year 2009;
- (4) \$5,814,000,000 for fiscal year 2010;
- (5) \$5,247,000,000 for fiscal year 2011;
- (6) \$5,614,000,000 for fiscal year 2012; and
- (7) \$6,007,000,000 for fiscal year 2013.

(c) Allocations

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

(1) For activities under the Fusion Energy Sciences program (including activities under section 16312 of this title)—

- (A) \$355,500,000 for fiscal year 2007;
- (B) \$369,500,000 for fiscal year 2008;
- (C) \$384,800,000 for fiscal year 2009; and

(D) in addition to the amounts authorized under subparagraphs (A), (B), and (C), such sums as may be necessary for ITER con-

¹ See References in Text note below.