including schedules and estimates for implementation, and including a section outlining long-term funding requirements consistent with anticipated budgets and annual authorization of appropriations. Such plan shall address the coordination of modernization and consolidation of facilities in order to meet changing mission requirements, and shall provide for annual reports to Congress on accomplishments, conformance to schedules, commitments, and expenditures.

(e) Authorization of appropriations

There are authorized to be appropriated to the Secretary for Supporting Research and Technical Analysis, including Basic Energy Sciences, Energy Research Analysis, University and Science Education, Technology Transfer, Advisory and Oversight Program Direction, and Facilities Support for Multiprogram Energy Laboratories, $966,804,000 for fiscal year 1993 and such sums as may be necessary for fiscal year 1994.

(Pub. L. 102–486, title XXII, § 2203, Oct. 24, 1992, 106 Stat. 3087; Pub. L. 105–245, title III, § 309(b)(2)(F), Oct. 7, 1998, 112 Stat. 1853; Pub. L. 116–260, div. Z, title IX, § 9011, Dec. 27, 2020, 134 Stat. 2606; Pub. L. 116–283, div. H, title XCIV, § 9411, Jan. 1, 2021, 134 Stat. 4815.)

Editorial Notes

AMENDMENTS

2021—Subsec. (b)(3). Pub. L. 116–283 added par. (3) identical to the par. (3) appearing in the amendment by Pub. L. 116–260. See 2020 Amendment note below.

2020—Subsec. (b)(3). Pub. L. 116–260 added par. (3) and struck out former par. (3) which related to the operation of an Experimental Program to Stimulate Competitive Research (EPSCoR).

1998—Subsec. (b)(3)(A)(i). Pub. L. 105–245 substituted ''Office of Science'' for ''Office of Energy Research''.

§ 13504. Math and science education program

(a) Program

The Secretary shall enter into contracts with existing qualified entities to conduct science and mathematics education programs that supplement the Special Programs for Students from Disadvantaged Backgrounds carried out by the Secretary of Education under sections 1070d through 1070d–1d of title 20.[1]

(b) Purpose

(1) The purpose of the programs shall be to provide support to Federal, State, and private programs designed to promote the participation of low-income and first generation college students as defined in section 1070d of title 20[1] in post-secondary science and mathematics education.

(2) Support activities may include—

(A) the development of educational materials;

(B) the training of teachers and counselors;

(C) the establishment of student internships;

(D) the development of seminars on mathematics and science;

(E) tutoring in mathematics and science;

(F) academic counseling;

(G) the development of opportunities for research; and

(H) such other activities that may promote the participation of low-income and first generation college students in post-secondary science and mathematics education.

(c) Support

(1) In carrying out the purpose of this section, the entities may provide support under subsection (b)(2) to—

(A) low-income and first generation college students; and

(B) institutions of higher education, public and private agencies and organizations, and secondary and middle schools that principally benefit low-income students.

(2) The qualified entities shall, to the extent practicable, coordinate support activities under this section with the Secretary of Education and the Secretary.

(d) Cooperation with qualified entities

The Secretary shall cooperate with qualified entities and, to the extent practicable, make available to the entities such personnel, facilities, and other resources of the Department of Energy as may be necessary to carry out the duties of the entities.

(e) Report

Not later than October 1 of each year, the entities shall report to the Secretary, the Secretary of Education, and the Congress on—

(1) progress made to promote the participation of low-income and first generation college students in post-secondary science and mathematics education by—

(A) the qualified entities;

(B) other mathematics and science education programs of the Department of Energy; and

(C) the Special Programs for Students from Disadvantaged Backgrounds of the Department of Education; and

(2) recommendations for such additional actions as may be needed to promote the participation of low-income students in post-secondary science and mathematics education.

(f) Effect on existing programs

The programs in this section shall supplement and be developed in cooperation with the current mathematics and science education programs of the Department of Energy and the Department of Education but shall not supplant them.

(g) "Qualified entity" defined

For purposes of this section, the term ''qualified entity'' means a nonprofit corporation, association, or institution that has demonstrated special knowledge of, and experience with, the education of low-income and first generation college students and whose primary mission is the operation of national programs that focus on low-income students and provide training and other services to educators.

(h) Authorization of appropriations

There are authorized to be appropriated such sums as may be necessary, to be derived from

[1] See References in Text note below.

section 13503(e) of this title and the Environmental Restoration and Waste Management program, to carry out the purposes of this section.

(Pub. L. 102–486, title XXII, § 2204, Oct. 24, 1992, 106 Stat. 3089.)

Editorial Notes

REFERENCES IN TEXT

Sections 1070d through 1070d–1d of title 20, referred to in subsec. (a), and section 1070d of title 20, referred to in subsec. (b)(1), were repealed by Pub. L. 102–325, title IV, § 402(a)(1), July 23, 1992, 106 Stat. 482.

§ 13505. Integration of research and development

Within 180 days after October 24, 1992, the Secretary, in consultation with appropriate representatives of industry, institutions of higher education, Department of Energy national laboratories, and professional and technical societies, shall prepare and submit to Congress a 5-year program plan for improving the integration of basic energy research programs with other energy programs within the Department of Energy. Such program plan shall include—

(1) an evaluation of current procedures and mechanisms used to achieve such integration;

(2) an assessment of the role that the Department of Energy national laboratories play in such integration;

(3) an identification and evaluation of models that could enhance such integration;

(4) an identification and evaluation of new programs, mechanisms, and related policy options that could improve the integrating process, including—

(A) set aside funding for matching or leveraging basic and applied programs;

(B) more formal linkages; and

(C) program coordination;

(5) recommendations for expanded research and development and new technology areas; and

(6) budget estimates for activities under this section.

(Pub. L. 102–486, title XXII, § 2205, Oct. 24, 1992, 106 Stat. 3091.)

§ 13506. Definitions

For purposes of this subchapter—

(1) the term ''advanced manufacturing technology'' means processes, equipment, techniques, practices, and capabilities that are applied for the purpose of—

(A) improving the productivity, quality, or energy efficiency of the design, development, testing, or manufacture of a product; or

(B) expanding the technical capability to design, develop, test, or manufacture a product that is fundamentally different in character from existing products and that will result in improved energy efficiency;

(2) the term ''advanced materials'' means materials that are processed, synthesized, fabricated, and manufactured to develop high performance properties that exceed the corresponding properties of conventional materials for structural, electronic, magnetic, or photonic applications, or for joining, welding, bonding, or packaging components into complex assemblies, including—

(A) advanced monolithic materials such as metals, ceramics, and polymers;

(B) advanced composite materials such as metal matrix (including intermetallics), polymer matrix, ceramic matrix, continuous fiber ceramic composite, and carbon matrix composites; and

(C) advanced electronic, magnetic, and photonic materials, including superconducting, semiconductor, electrooptic, magnetooptic, thin-film, and special purpose coating materials used in technologies for energy efficiency, renewable energy, or electric power applications; and

(3) the term ''United States'' means the 50 States of the United States, the District of Columbia, the Commonwealth of Puerto Rico, the United States Virgin Islands, Guam, the Northern Mariana Islands, and any other territory or possession of the United States.

(Pub. L. 102–486, title XXII, § 2206, Oct. 24, 1992, 106 Stat. 3091.)

SUBCHAPTER XI—POLICY AND ADMINISTRATIVE PROVISIONS

§ 13521. Policy on major construction projects

(a) Report and management plan

The Secretary shall submit to the Congress a report and management plan for any major construction project involving $100,000,000 or more, prior to the expenditure of those funds.

(b) Congressional review

Expenditure of funds for a project described in subsection (a) may be made after a period of 30 calendar days (not including any day on which either House of Congress is not in session because of adjournment of more than 3 calendar days prior to a day certain) has passed after receipt of the report and management plan by Congress.

(Pub. L. 102–486, title XXIII, § 2301, Oct. 24, 1992, 106 Stat. 3092.)

§ 13522. Energy Research, Development, Demonstration, and Commercial Application Advisory Board

(a) Establishment

The Secretary shall establish an Energy Research, Development, Demonstration, and Commercial Application Advisory Board (hereafter in this section referred to as the ''Advisory Board'').

(b) Responsibilities

The Advisory Board shall provide impartial technical advice to the Secretary to assist in the development of energy research, development, demonstration, and commercial application plans and reports under sections 5905 and 5914[1] of this title, under section 7321 of this title, and as otherwise provided in subchapters VIII through XI of this chapter. The Advisory Board

[1] See References in Text note below.