§ 12377. Authorization of appropriations

(a) Authorization

There are authorized to be appropriated such sums as may be necessary, for each of the fiscal years 1993 and 1994, to carry out this subchapter. Sums appropriated under this subsection shall remain available until the expiration of the 1-year period beginning on the date the Conference is adjourned. New spending authority or authority to enter into contracts as provided in this subchapter shall be effective only to the extent and in such amounts as are provided in advance in appropriations Acts.

(b) Return of unexpended funds

Any funds remaining upon the expiration of the 1-year period referred to in subsection (a) of this section shall be returned to the Treasury of the United States and credited as miscellaneous receipts.

(Pub. L. 101–501, title IX, § 988, Nov. 3, 1990, 104 Stat. 1283.)

CHAPTER 128—HYDROGEN RESEARCH, DEVELOPMENT, AND DEMONSTRATION PROGRAM

Sec.
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§ 12401. Finding, purposes, and definitions

(a) Finding

Congress finds that it is in the national interest to accelerate efforts to develop a domestic capability to economically produce hydrogen in quantities that will make a significant contribution toward reducing the Nation's dependence on conventional fuels.

(b) Purposes

The purposes of this chapter are—

(1) to direct the Secretary of Energy to conduct a research, development, and demonstration program leading to the production, storage, transport, and use of hydrogen for industrial, residential, transportation, and utility applications;

(2) to direct the Secretary to develop a technology assessment and information transfer program among the Federal agencies and aerospace, transportation, energy, and other entities; and

(3) to develop renewable energy resources as a primary source of energy for the production of hydrogen.

(c) Definitions

As used in this chapter, the term:

(1) ''critical technology'' (or ''critical technical issue'') means a technology (or issue) that, in the opinion of the Secretary, requires understanding and development in order to take the next needed step in the development of hydrogen as an economic fuel or storage medium;

(2) ''Department'' means the Department of Energy; and

(3) ''Secretary'' means the Secretary of Energy.

(Pub. L. 101–566, § 102, Nov. 15, 1990, 104 Stat. 2797; Pub. L. 104–271, title I, § 101, Oct. 9, 1996, 110 Stat. 3304.)

AMENDMENTS

1996—Subsec. (b)(1). Pub. L. 104–271, § 101(a), amended par. (1) generally. Prior to amendment, par. (1) read as follows: ''to direct the Secretary to prepare a comprehensive 5-year comprehensive program management plan that will identify and resolve critical technical issues necessary for the realization of a domestic capability to produce, distribute, and use hydrogen economically within the shortest time practicable;''.

Subsec. (c). Pub. L. 104–271, § 101(b), added par. (2) and redesignated former par. (2) as (3).

SHORT TITLE OF 1996 AMENDMENT

Section 1 of Pub. L. 104–271 provided that: ''This Act [enacting section 7238 of this title, amending this section and sections 12402 to 12405, 12407, 12408, and 13436 of this title, and enacting provisions set out as notes under sections 7238, 12403, and 13436 of this title] may be cited as the 'Hydrogen Future Act of 1996'.''

SHORT TITLE

Section 101 of Pub. L. 101–566 provided that: ''This Act [enacting this chapter] may be referred to as the 'Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990'.''

§ 12402. Report to Congress

(a) Not later than January 1, 1999, the Secretary shall transmit to Congress a detailed report on the status and progress of the programs authorized under this chapter.

(b) A report under subsection (a) of this section shall include, in addition to any views and recommendations of the Secretary—

(1) an analysis of the effectiveness of the programs authorized under this chapter, to be prepared and submitted to the Secretary by the Hydrogen Technical Advisory Panel established under section 12407 of this title; and

(2) recommendations of the Hydrogen Technical Advisory Panel for any improvements in the program that are needed, including recommendations for additional legislation.

(Pub. L. 101–566, § 103, Nov. 15, 1990, 104 Stat. 2797; Pub. L. 104–271, title I, § 102(a), Oct. 9, 1996, 110 Stat. 3304.)

AMENDMENTS

1996—Pub. L. 104–271 amended section generally, substituting provisions requiring report to Congress on chapter programs by Jan. 1, 1999, for provisions regarding preparation and contents of comprehensive 5-year program management plan for research and development activities and comprehensive large-scale hydrogen demonstration plan with respect to section 12404 demonstrations.

§ 12403. Hydrogen research and development

(a) Program

The Secretary shall conduct a hydrogen research and development program relating to production, storage, transportation, and use of hydrogen, with the goal of enabling the private sector to demonstrate the technical feasibility

of using hydrogen for industrial, residential, transportation, and utility applications.

(b) Research

In conducting the program authorized by this section, the Secretary shall—

(1) give particular attention to developing an understanding and resolution of critical technical issues preventing the introduction of hydrogen into the marketplace;

(2) initiate or accelerate existing research in critical technical issues that will contribute to the development of more economic hydrogen production and use, including, but not limited to, critical technical issues with respect to production (giving priority to those production techniques that use renewable energy resources as their primary source of energy for hydrogen production), liquefaction, transmission, distribution, storage, and use (including use of hydrogen in surface transportation); and

(3) survey private sector hydrogen activities and take steps to ensure that research and development activities under this section do not displace or compete with the privately funded hydrogen research and development activities of United States industry.

(c) Innovative energy technologies

The Secretary is authorized to evaluate any reasonable new or improved technology, including basic research on highly innovative energy technologies, that could lead or contribute to the development of economic hydrogen production, storage, and utilization.

(d) Renewable energy systems; hybrid systems

The Secretary is authorized to evaluate any reasonable new or improved technology that could lead or contribute to, or demonstrate the use of, advanced renewable energy systems or hybrid systems for use in isolated communities that currently import diesel fuel as the primary fuel for electric power production.

(e) Information

The Secretary is authorized to arrange for tests and demonstrations and to disseminate to researchers and developers information, data, and other materials necessary to support the research and development activities authorized under this section and other efforts authorized under this chapter, consistent with section 12405 of this title.

(f) Federal funding

The Secretary shall carry out the research and development activities authorized under this section only through the funding of research and development proposals submitted by interested persons according to such procedures as the Secretary may require and evaluate on a competitive basis using peer review. Such funding shall be in the form of a grant agreement, procurement contract, or cooperative agreement (as those terms are used in chapter 63 of title 31).

(g) Non-Federal funding

The Secretary shall not consider a proposal submitted by a person from industry unless the proposal contains a certification that reasonable efforts to obtain non-Federal funding for the entire cost of the project have been made, and that such non-Federal funding could not be reasonably obtained. As appropriate, the Secretary shall require a commitment from non-Federal sources of at least 50 percent of the cost of the development portion of such a proposal.

(h) Prohibition on duplicative efforts

The Secretary shall not carry out any activities under this section that unnecessarily duplicate activities carried out elsewhere by the Federal Government or industry.

(i) Federal funding consistent with the Agreement on Subsidies and Countervailing Measures

The Secretary shall establish, after consultation with other Federal agencies, terms and conditions under which Federal funding will be provided under this chapter that are consistent with the Agreement on Subsidies and Countervailing Measures referred to in section 3511(d)(12) of title 19.

(Pub. L. 101–566, § 104, Nov. 15, 1990, 104 Stat. 2798; Pub. L. 104–271, title I, § 103(a), Oct. 9, 1996, 110 Stat. 3305.)

AMENDMENTS

1996—Pub. L. 104–271 amended section generally, substituting present provisions for provisions which stated in subsec. (a) the Secretary was to conduct a research and development program for development of a domestic hydrogen fuel production capability; subsec. (b) attention was to be given to research of critical technical issues; subsec. (c) renewable energy priority; subsec. (d) new technologies; and subsec. (e) gathering and dissemination of information to support research and development efforts.

FUEL CELLS

Title II of Pub. L. 104–271 provided that:

''SEC. 201. INTEGRATION OF FUEL CELLS WITH HYDROGEN PRODUCTION SYSTEMS.

''(a) Not later than 180 days after the date of enactment of this section [Oct. 9, 1996], and subject to the availability of appropriations made specifically for this section, the Secretary of Energy shall solicit proposals for projects to prove the feasibility of integrating fuel cells with—

''(1) photovoltaic systems for hydrogen production; or

''(2) systems for hydrogen production from solid waste via gasification or steam reforming.

''(b) Each proposal submitted in response to the solicitation under this section shall be evaluated on a competitive gas is [basis] using peer review. The Secretary is not required to make an award under this section in the absence of a meritorious proposals. [sic]

''(c) The Secretary shall give preference, in making an award under this section, to proposals that—

''(1) are submitted jointly from consortia including academic institutions, industry, State or local governments, and Federal laboratories; and

''(2) reflect proven experience and capability with technologies relevant to the systems described in subsections (a)(1) and (a)(2).

''(d) In the case of a proposal involving development or demonstration, the Secretary shall require a commitment from non-Federal sources of at least 50 percent of the cost of the development or demonstration portion of the proposal.

''(e) The Secretary shall establish, after consultation with other Federal agencies, terms and conditions under which Federal funding will be provided under this title that are consistent with the Agreement on Subsidies and Countervailing Measures referred to in

section 101(d)(12) of the Uruguay Round Agreement Act (19 U.S.C. 3511(d)(12)).

''SEC. 202. AUTHORIZATION OF APPROPRIATIONS.

''There are authorized to be appropriated, for activities under this section [title], a total of $50,000,000 for fiscal years 1997 and 1998, to remain available until September 30, 1999.''

§ 12404. Demonstrations

(a) Requirement

The Secretary shall conduct demonstrations of critical technologies, preferably in self-contained locations, so that technical and non-technical parameters can be evaluated to best determine commercial applicability of the technology.

(b) Small-scale demonstrations

Concurrently with activities conducted pursuant to section 12403 of this title, the Secretary shall conduct small-scale demonstrations of hydrogen technology at self-contained sites.

(c) Non-Federal funding

The Secretary shall require a commitment from non-Federal sources of at least 50 percent of the cost of any demonstration conducted under this section.

(Pub. L. 101–566, § 105, Nov. 15, 1990, 104 Stat. 2799; Pub. L. 104–271, title I, § 104, Oct. 9, 1996, 110 Stat. 3306.)

AMENDMENTS

1996—Subsec. (c). Pub. L. 104–271 added subsec. (c).

§ 12405. Technology transfer program

(a) Program

The Secretary shall conduct a program designed to accelerate wider application of hydrogen production, storage, utilization, and other technologies available in near term as a result of aerospace experience as well as other research progress by transferring critical technologies to the private sector. The Secretary shall direct the program with the advice and assistance of the Hydrogen Technical Advisory Panel established under section 12407 of this title. The objective in seeking this advice is to increase participation of private industry in the demonstration of near commercial applications through cooperative research and development arrangements, joint ventures or other appropriate arrangements involving the private sector.

(b) Information

The Secretary, in carrying out the program authorized by subsection (a) of this section, shall—

(1) undertake an inventory and assessment of hydrogen technologies and their commercial capability to economically produce, store, or utilize hydrogen in aerospace, transportation, electric utilities, petrochemical, chemical, merchant hydrogen, and other industrial sectors; and

(2) develop a National Aeronautics Space Administration, Department of Energy, and industry information exchange program to improve technology transfer for—

(A) application of aerospace experience by industry;

(B) application of research progress by industry and aerospace;

(C) application of commercial capability of industry by aerospace; and

(D) expression of industrial needs to research organizations.

The information exchange program may consist of workshops, publications, conferences, and a data base for the use by the public and private sectors. The Secretary shall also foster the exchange of generic, nonproprietary information and technology, developed pursuant to this chapter, among industry, academia, and the Federal Government, to help the United States economy attain the economic benefits of this information and technology.

(Pub. L. 101–566, § 106, Nov. 15, 1990, 104 Stat. 2799; Pub. L. 104–271, title I, § 105, Oct. 9, 1996, 110 Stat. 3306.)

AMENDMENTS

1996—Subsec. (b). Pub. L. 104–271 inserted at end ''The Secretary shall also foster the exchange of generic, nonproprietary information and technology, developed pursuant to this chapter, among industry, academia, and the Federal Government, to help the United States economy attain the economic benefits of this information and technology.''

§ 12406. Coordination and consultation

(a) Secretary's responsibility

The Secretary shall have overall management responsibility for carrying out programs under this chapter. In carrying out such programs, the Secretary, consistent with such overall management responsibility—

(1) shall use the expertise of the National Aeronautics and Space Administration and the Department of Transportation; and

(2) may use the expertise of any other Federal agency in accordance with subsection (b) of this section in carrying out any activities under this chapter,[1] to the extent that the Secretary determines that any such agency has capabilities which would allow such agency to contribute to the purpose of this chapter.

(b) Assistance

The Secretary may, in accordance with subsection (a) of this section, obtain the assistance of any department, agency, or instrumentality of the Executive branch of the Federal Government upon written request, on a reimbursable basis or otherwise and with the consent of such department, agency, or instrumentality. Each such request shall identify the assistance the Secretary deems necessary to carry out any duty under this chapter.

(c) Consultation

The Secretary shall consult with the Administrator of the National Aeronautics and Space Administration, the Administrator of the Environmental Protection Agency, the Secretary of Transportation, and the Hydrogen Technical Advisory Panel established under section 12407 of this title in carrying out his authorities pursuant to this chapter.

[1] See References in Text note below.

(Pub. L. 101–566, § 107, Nov. 15, 1990, 104 Stat. 2800.)

REFERENCES IN TEXT

This chapter, the first time appearing in subsec. (a)(2), was in the original ''this title'', and was translated as reading ''this Act'' meaning Pub. L. 101–566, to reflect the probable intent of Congress, because Pub. L. 101–566 is not divided into titles.

§ 12407. Technical panel

(a) Establishment

There is hereby established the Hydrogen Technical Advisory Panel (the ''technical panel''), to advise the Secretary on the programs under this chapter.

(b) Membership

The technical panel shall be appointed by the Secretary and shall be comprised of such representatives from domestic industry, universities, professional societies, Government laboratories, financial, environmental, and other organizations as the Secretary deems appropriate based on his assessment of the technical and other qualifications of such representatives. Appointments to the technical panel shall be made within 90 days after November 15, 1990. The technical panel shall have a chairman, who shall be elected by the members from among their number.

(c) Cooperation

The heads of the departments, agencies, and instrumentalities of the Executive branch of the Federal Government shall cooperate with the technical panel in carrying out the requirements of this section and shall furnish to the technical panel such information as the technical panel deems necessary to carry out this section.

(d) Review

The technical panel shall review and make any necessary recommendations to the Secretary on the following items—

(1) the implementation and conduct of programs under this chapter; and

(2) the economic, technological, and environmental consequences of the deployment of hydrogen production and use systems.

(e) Support

The Secretary shall provide such staff, funds and other support as may be necessary to enable the technical panel to carry out the functions described in this section.

(Pub. L. 101–566, § 108, Nov. 15, 1990, 104 Stat. 2800; Pub. L. 104–271, title I, § 102(b), Oct. 9, 1996, 110 Stat. 3305.)

AMENDMENTS

1996—Subsec. (d)(3). Pub. L. 104–271 struck out par. (3) which read as follows: ''comments on and recommendations for improvements in the comprehensive 5-year program management plan required under section 12402 of this title.''

TERMINATION OF ADVISORY PANELS

Advisory panels established after Jan. 5, 1973, to terminate not later than the expiration of the 2-year period beginning on the date of their establishment, unless, in the case of a panel established by the President or an officer of the Federal Government, such panel is renewed by appropriate action prior to the expiration of such 2-year period, or in the case of a panel established by Congress, its duration is otherwise provided for by law. See sections 3(2) and 14 of Pub. L. 92–463, Oct. 6, 1972, 86 Stat. 770, 776, set out in the Appendix to Title 5, Government Organization and Employees.

§ 12408. Authorization of appropriations

There is hereby authorized to be appropriated to carry out the purposes of this chapter (in addition to any amounts made available for such purposes under other Acts)—

(1) $3,000,000 for the fiscal year 1992;
(2) $7,000,000 for the fiscal year 1993;
(3) $10,000,000 for the fiscal year 1994;
(4) $14,500,000 for fiscal year 1996;
(5) $20,000,000 for fiscal year 1997;
(6) $25,000,000 for fiscal year 1998;
(7) $30,000,000 for fiscal year 1999;
(8) $35,000,000 for fiscal year 2000; and
(9) $40,000,000 for fiscal year 2001.

(Pub. L. 101–566, § 109, Nov. 15, 1990, 104 Stat. 2801; Pub. L. 104–271, title I, § 106, Oct. 9, 1996, 110 Stat. 3306.)

AMENDMENTS

1996—Pub. L. 104–271 substituted ''under other Acts'' for ''to other Acts'' in introductory provisions and added pars. (4) to (9).

CHAPTER 129—NATIONAL AND COMMUNITY SERVICE

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