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107TH CONGRESS
1ST SESSION

H. R. 2174

To reauthorize and amend the Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

JUNE 14, 2001

Mr. CALVERT (for himself, Ms. WOOLSEY, Mr. BOEHLERT, Mr. SMITH of Michigan, Mr. BARTLETT of Maryland, Mr. EHLERS, Mr. LARSON of Connecticut, Mr. PETERSON of Minnesota, Mrs. MORELLA, Mrs. BIGGERT, Mr. BACA, Ms. RIVERS, Mr. HALL of Texas, and Mr. GARY G. MILLER of California) introduced the following bill; which was referred to the Committee on Science

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A BILL

To reauthorize and amend the Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Robert S. Walker and George E. Brown, Jr. Hydrogen Energy Act of 2001''.

SEC. 2. PURPOSES.

Section 102(b) of the Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990 is amended to read as follows:

''(b) PURPOSES.—The purposes of this Act are—

''(1) to direct the Secretary to conduct research, development, and demonstration activities leading to the production, storage, transportation, and use of hydrogen for industrial, commercial, residential, transportation, and utility applications;

''(2) to direct the Secretary to develop a program of technology assessment, information dissemination, and education in which Federal, State, and local agencies, members of the energy, transportation, and other industries, and other entities may participate; and

''(3) to develop methods of hydrogen production that minimize adverse environmental impacts, including efficient and cost-effective production from renewable and nonrenewable energy resources.''.

SEC. 3. DEFINITIONS.

Section 102(c) of the Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990 is amended—

(1) by redesignating paragraphs (1) through (3) as paragraphs (2) through (4), respectively; and

(2) by inserting before paragraph (2), as so redesignated by paragraph (1) of this section, the following new paragraph:

''(1) 'advisory board' means the advisory board established under section 108;''.

SEC. 4. REPORTS TO CONGRESS.

Section 103 of the Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990 is amended to read as follows:

''SEC. 103. REPORTS TO CONGRESS.

''(a) REQUIREMENT.—Not later than 1 year after the date of the enactment of the Robert S. Walker and George E. Brown, Jr. Hydrogen Energy Act of 2001, and annually thereafter, the Secretary shall transmit to Congress a detailed report on the status and progress of the programs and activities authorized under this Act.

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

''(1) an analysis of Federal, State, and local hydrogen-related research and development activities to identify productive areas for increased intergovernmental collaboration;

''(2) a determination of the effectiveness of the technology assessment, information dissemination,

and education program established under section 106; and

''(3) recommendations of the advisory board for any improvements needed in the programs and activities authorized by this Act.''.

SEC. 5. HYDROGEN RESEARCH AND DEVELOPMENT.

Section 104 of the Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990 is amended to read as follows:

''SEC. 104. HYDROGEN RESEARCH AND DEVELOPMENT.

''(a) ESTABLISHMENT OF 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, commercial, residential, transportation, and utility applications.

''(b) ELEMENTS.—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 and development in critical technical issues that will con-

tribute to the development of more economical hydrogen production, storage, transportation, and use, including 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 and public sector hydrogen research and development activities worldwide, and take steps to ensure that research and development activities under this section do not—

''(A) duplicate any available research and development results; or

''(B) displace or compete with the privately funded hydrogen research and development activities of United States industry.

''(c) EVALUATION OF TECHNOLOGIES.—The Secretary shall evaluate, for the purpose of determining whether to undertake or fund research and development activities under this section, any reasonable new or improved technology that could lead or contribute to the development of economical hydrogen production, storage, transportation, and use.

''(d) COMPETITIVE PEER REVIEW.—The Secretary shall carry out or fund research and development activities under this section only on a competitive basis using peer review.

''(e) COST SHARING.—The Secretary shall require, for research and development activities carried out by industry under this section, a commitment from non-Federal sources of at least 20 percent of the cost of the project.''.

SEC. 6. DEMONSTRATIONS.

Section 105(c) of the Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990 is amended by inserting ''NON-FEDERAL FUNDING REQUIREMENT.—'' after ''(c)''.

SEC. 7. TECHNOLOGY TRANSFER.

Section 106 of the Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990 is amended to read as follows:

''SEC. 106. TECHNOLOGY ASSESSMENT, INFORMATION DISSEMINATION, AND EDUCATION PROGRAM.

''(a) PROGRAM.—The Secretary shall, in consultation with the advisory board, conduct a program designed to accelerate wider application of hydrogen production, storage, transportation, and use technologies, including application in foreign countries to increase the global market

for the technologies and foster global economic development without harmful environmental effects.

''(b) INFORMATION.—The Secretary, in carrying out the program authorized by subsection (a), shall—

''(1) undertake an update of the inventory and assessment, required under section 106(b)(1) of this Act as in effect before the date of the enactment of the Robert S. Walker and George E. Brown, Jr. Hydrogen Energy Act of 2001, of hydrogen technologies and their commercial capability to economically produce, store, transport, or use hydrogen in industrial, commercial, residential, transportation, and utility sectors;

''(2) develop, with other Federal agencies as appropriate and industry, an information exchange program to improve technology transfer for hydrogen production, storage, transportation, and use, which may consist of workshops, publications, conferences, and a database for the use by the public and private sectors; and

''(3) foster the exchange of generic, nonproprietary hydrogen production, storage, transportation, and use information and technology among industry, academia, and Federal, State, and local governments.''.

SEC. 8. COORDINATION AND CONSULTATION.

Section 107 of the Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990 is amended—

(1) in subsection (a), by striking ''management responsibility—'' and all that follows through ''(2)'' and inserting ''management responsibility''; and

(2) by amending subsection (c) to read as follows:

''(c) CONSULTATION.—The Secretary shall consult with other Federal agencies as appropriate, and the advisory board, in carrying out the Secretary's authorities pursuant to this Act.''.

SEC. 9. ADVISORY BOARD.

Section 108 of the Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990 is amended to read as follows:

''SEC. 108. ADVISORY BOARD.

''(a) ESTABLISHMENT.—The Secretary shall enter into appropriate arrangements with the National Academy of Sciences to establish an advisory board consisting of experts drawn from domestic industry, academia, Governmental laboratories, and financial, environmental, and other organizations, as appropriate, to review and advise on the progress made through the programs and activities authorized under this Act.

''(b) COOPERATION.—The heads of Federal agencies shall cooperate with the advisory board in carrying out this section and shall furnish to the advisory board such information as the advisory board reasonably deems necessary to carry out this section.

''(c) REVIEW.—The advisory board shall review and make any necessary recommendations to the Secretary on—

''(1) the implementation and conduct of programs and activities authorized under this Act; and

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

SEC. 10. AUTHORIZATION OF APPROPRIATIONS.

Section 109 of the Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990 is amended to read as follows:

''SEC. 109. AUTHORIZATION OF APPROPRIATIONS.

''(a) RESEARCH AND DEVELOPMENT; ADVISORY BOARD.—There are authorized to be appropriated to the Secretary to carry out sections 104 and 108—

''(1) $40,000,000 for fiscal year 2002;

''(2) $45,000,000 for fiscal year 2003;

''(3) $50,000,000 for fiscal year 2004;

''(4) $55,000,000 for fiscal year 2005; and

''(5) $60,000,000 for fiscal year 2006.

''(b) DEMONSTRATION.—There are authorized to be appropriated to the Secretary to carry out section 105—

''(1) $20,000,000 for fiscal year 2002;

''(2) $25,000,000 for fiscal year 2003;

''(3) $30,000,000 for fiscal year 2004;

''(4) $35,000,000 for fiscal year 2005; and

''(5) $40,000,000 for fiscal year 2006.''.

SEC. 11. REPEAL.

(a) REPEAL.—Title II of the Hydrogen Future Act of 1996 is repealed.

(b) CONFORMING AMENDMENT.—Section 2 of the Hydrogen Future Act of 1996 is amended by striking ''titles II and III'' and inserting ''title III''.

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