

Union Calendar No. 46

104TH CONGRESS
1ST SESSION

H. R. 655

[Report No. 104-95]

A BILL

To authorize the hydrogen research, development, and demonstration programs of the Department of Energy, and for other purposes.

MARCH 30, 1995

Reported with amendments, committed to the Committee of the Whole House on the State of the Union, and ordered to be printed

Union Calendar No. 46

104TH CONGRESS
1ST SESSION

H. R. 655

[Report No. 104-95]

To authorize the hydrogen research, development, and demonstration programs of the Department of Energy, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

JANUARY 24, 1995

Mr. WALKER introduced the following bill; which was referred to the Committee on Science

MARCH 30, 1995

Additional sponsors: Mrs. MORELLA, Mr. FOLEY, Mr. WELDON of Florida, Mr. BAKER of California, Mr. GRAHAM, Mrs. SEASTRAND, and Mr. GUTKNECHT

MARCH 30, 1995

Reported with amendments, committed to the Committee of the Whole House on the State of the Union, and ordered to be printed

[Strike out all after the enacting clause and insert the part printed in italic]

[For text of introduced bill, see copy of bill as introduced on January 24, 1995]

A BILL

To authorize the hydrogen research, development, and demonstration programs of the Department of Energy, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 *This Act may be cited as the “Hydrogen Future Act*
5 *of 1995”.*

6 **SEC. 2. FINDINGS.**

7 *The Congress finds that—*

8 (1) *fossil fuels, the main energy source of the*
9 *present, have provided this country with tremendous*
10 *supply but are limited and polluting;*

11 (2) *additional basic research and development*
12 *are needed to encourage private sector investment in*
13 *development of new and better energy sources and en-*
14 *abling technologies;*

15 (3) *hydrogen holds tremendous promise as a fuel,*
16 *because it can be extracted from water and can be*
17 *burned much more cleanly than conventional fuels;*

18 (4) *hydrogen production efficiency is a major*
19 *technical barrier to society collectively benefiting from*
20 *one of the great energy sources of the future;*

21 (5) *an aggressive, results-oriented, multiyear re-*
22 *search initiative on efficient hydrogen fuel production*
23 *and use should continue; and*

24 (6) *the current Federal effort to develop hydrogen*
25 *as a fuel is inadequate.*

1 **SEC. 3. PURPOSES.**

2 *The purposes of this Act are—*

3 *(1) to provide for a basic research, development,*
4 *and demonstration program leading to the produc-*
5 *tion, storage, transport, and use of hydrogen for in-*
6 *dustrial, residential, transportation, and utility ap-*
7 *plications; and*

8 *(2) to provide for advice from academia and the*
9 *private sector in the implementation of the Depart-*
10 *ment of Energy hydrogen research, development, and*
11 *demonstration program to ensure that economic bene-*
12 *fits of the program accrue to the United States.*

13 **SEC. 4. DEFINITIONS.**

14 *For purposes of this Act—*

15 *(1) the term “demonstration” means a valida-*
16 *tion of the technical feasibility of a theory or process;*

17 *(2) the term “Department” means the Depart-*
18 *ment of Energy; and*

19 *(3) the term “Secretary” means the Secretary of*
20 *Energy.*

21 **SEC. 5. RESEARCH AND DEVELOPMENT.**

22 *(a) AUTHORIZED ACTIVITIES.—Pursuant to this sec-*
23 *tion, the Spark M. Matsunaga Hydrogen Research, Devel-*
24 *opment, and Demonstration Act of 1990 and the Energy*
25 *Policy Act of 1992, and in accordance with the purposes*
26 *of this Act, the Secretary shall provide for a hydrogen en-*

1 *ergy research, development, and demonstration program re-*
2 *lating to production, storage, transportation, and use of hy-*
3 *drogen, with the goal of enabling the private sector to dem-*
4 *onstrate the technical feasibility of using hydrogen for in-*
5 *dustrial, residential, transportation, and utility applica-*
6 *tions. In establishing priorities for Federal funding under*
7 *this section, the Secretary shall survey private sector hydro-*
8 *gen activities and take steps to ensure that activities under*
9 *this section do not displace or compete with the privately*
10 *funded hydrogen activities of United States industry.*

11 *(b) SCHEDULE.—Within 180 days after the date of the*
12 *enactment of the later of this Act or an Act providing ap-*
13 *propriations for programs authorized by this Act, the Sec-*
14 *retary shall solicit proposals from all interested parties (in-*
15 *cluding the Department’s laboratories) for carrying out the*
16 *research, development, and demonstration activities author-*
17 *ized under this section. Within 180 days after such sollicita-*
18 *tion, if the Secretary identifies proposals worthy of Federal*
19 *assistance, financial assistance shall be awarded under this*
20 *section competitively, using peer review of proposals with*
21 *appropriate protection of proprietary information. The*
22 *Secretary shall use appropriations authorized by this Act*
23 *that are not allocated for such awards to carry out research,*
24 *development, and demonstration activities in accordance*
25 *with the purposes of this Act.*

1 (c) *COST SHARING.*—(1) *Except as otherwise provided*
2 *in section 6, for research and development proposals funded*
3 *under this Act, the Secretary shall require a commitment*
4 *from non-Federal sources of at least 20 percent of the cost*
5 *of the proposed program. The Secretary may reduce or*
6 *eliminate the non-Federal requirement under this para-*
7 *graph if the Secretary determines that the research and de-*
8 *velopment is of such a purely basic or fundamental nature*
9 *that a non-Federal commitment is not obtainable.*

10 (2) *The Secretary shall require at least 50 percent of*
11 *the costs directly and specifically related to any demonstra-*
12 *tion project under this Act to be provided from non-Federal*
13 *sources. The Secretary may reduce the non-Federal require-*
14 *ment under this paragraph if the Secretary determines that*
15 *the reduction is necessary and appropriate considering the*
16 *technological risks involved in the project and is necessary*
17 *to serve the purposes and goals of this Act.*

18 (3) *In calculating the amount of the non-Federal com-*
19 *mitment under paragraph (1) or (2), the Secretary shall*
20 *include cash, and the fair market value of personnel, serv-*
21 *ices, equipment, and other resources.*

22 (d) *CERTIFICATIONS.*—*Before financial assistance is*
23 *provided under this section or the Spark M. Matsunaga*
24 *Hydrogen Research, Development, and Demonstration Act*
25 *of 1990—*

1 (1) *the Secretary must certify that providing*
2 *such financial assistance is consistent with the Agree-*
3 *ment on Subsidies and Countervailing Measures de-*
4 *scribed in section 771(8) of the Tariff Act of 1930 (19*
5 *U.S.C. 1677(8)); and*

6 (2) *industry participants must certify that they*
7 *have made reasonable efforts to obtain non-Federal*
8 *funding for the entire cost of the project, and that*
9 *such non-Federal funding could not be reasonably*
10 *obtained.*

11 (e) *DUPLICATION OF PROGRAMS.—The Secretary shall*
12 *not carry out any activities under this section that unneces-*
13 *sarily duplicate activities carried out elsewhere by the Fed-*
14 *eral Government or the private sector.*

15 **SEC. 6. HIGHLY INNOVATIVE TECHNOLOGIES.**

16 *Of the amounts made available for carrying out section*
17 *5, up to 5 percent shall be used to support research on high-*
18 *ly innovative energy technologies. Such amounts shall not*
19 *be subject to the cost sharing requirements in section 5(c).*

20 **SEC. 7. TECHNOLOGY TRANSFER.**

21 *The Secretary shall foster the exchange of generic,*
22 *nonproprietary information and technology, developed pur-*
23 *suant to section 5, among industry, academia, and the Fed-*
24 *eral Government. The Secretary shall ensure that economic*

1 *benefits of such exchange of information and technology will*
2 *accrue to the United States economy.*

3 **SEC. 8. REPORTS TO CONGRESS.**

4 *Within 18 months after the date of the enactment of*
5 *this Act, and annually thereafter, the Secretary shall trans-*
6 *mit to the Congress a detailed report on the status and*
7 *progress of the Department's hydrogen research and devel-*
8 *opment program. Such report shall include an analysis of*
9 *the effectiveness of such program, to be prepared and sub-*
10 *mitted by the Hydrogen Technical Advisory Panel estab-*
11 *lished under section 108 of the Spark M. Matsunaga Hydro-*
12 *gen Research, Development, and Demonstration Act of*
13 *1990. Such Panel shall also make recommendations for im-*
14 *provements to such program if needed, including rec-*
15 *ommendations for additional legislation.*

16 **SEC. 9. COORDINATION AND CONSULTATION.**

17 *(a) COORDINATION WITH OTHER FEDERAL AGEN-*
18 *CIES.—The Secretary shall coordinate all hydrogen research*
19 *and development activities within the Department, and*
20 *with the activities of other Federal agencies involved in*
21 *similar research and development, including the Depart-*
22 *ment of Defense, the Department of Transportation, and the*
23 *National Aeronautics and Space Administration. Further,*
24 *the Secretary shall pursue opportunities for cooperation*
25 *with such Federal entities.*

1 (b) *CONSULTATION.*—*The Secretary shall consult with*
2 *the Hydrogen Technical Advisory Panel established under*
3 *section 108 of the Spark M. Matsunaga Hydrogen Research,*
4 *Development, and Demonstration Act of 1990 as necessary*
5 *in carrying out this Act.*

6 **SEC. 10. AUTHORIZATION OF APPROPRIATIONS.**

7 (a) *GENERAL AUTHORIZATION.*—*There are authorized*
8 *to be appropriated, to carry out the purposes of this Act—*

9 (1) *\$25,000,000 for fiscal year 1996;*

10 (2) *\$35,000,000 for fiscal year 1997; and*

11 (3) *\$40,000,000 for fiscal year 1998.*

12 (b) *RELATED AUTHORIZATIONS.*—(1) *For each of the*
13 *fiscal years 1996, 1997, and 1998, the total amount which*
14 *may be obligated for Energy Supply Research and Develop-*
15 *ment Activities shall not exceed the total amount obligated*
16 *for such activities in fiscal year 1995.*

17 (2) *Paragraph (1) of this subsection does not authorize*
18 *the appropriation of any Federal funds.*

Amend the title to read as follows: “A bill to authorize basic research, development, and demonstration on hydrogen as a fuel, and for other purposes.”.