

104TH CONGRESS
1ST SESSION

H. R. 655

IN THE SENATE OF THE UNITED STATES

MAY 3 (legislative day, MAY 1), 1995

Received; read twice and referred to the Committee on Energy and Natural
Resources

AN ACT

To authorize basic research, development, and demonstration
on hydrogen as a fuel, 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

1 development of new and better energy sources and
2 enabling technologies;

3 (3) hydrogen holds tremendous promise as a
4 fuel, because it can be extracted from water and can
5 be burned much more cleanly than conventional
6 fuels;

7 (4) hydrogen production efficiency is a major
8 technical barrier to society collectively benefiting
9 from one of the great energy sources of the future;

10 (5) an aggressive, results-oriented, multiyear re-
11 search initiative on efficient hydrogen fuel produc-
12 tion and use should continue; and

13 (6) the current Federal effort to develop hydro-
14 gen as a fuel is inadequate.

15 **SEC. 3. PURPOSES.**

16 The purposes of this Act are—

17 (1) to provide for a basic research, develop-
18 ment, and demonstration program leading to the
19 production, storage, transport, and use of hydrogen
20 for industrial, residential, transportation, and utility
21 applications; and

22 (2) to provide for advice from academia and the
23 private sector in the implementation of the Depart-
24 ment of Energy hydrogen research, development,

1 and demonstration program to ensure that economic
2 benefits of the program accrue to the United States.

3 **SEC. 4. DEFINITIONS.**

4 For purposes of this Act—

5 (1) the term “demonstration” means a valida-
6 tion of the technical feasibility of a theory or proc-
7 ess;

8 (2) the term “Department” means the Depart-
9 ment of Energy; and

10 (3) the term “Secretary” means the Secretary
11 of Energy.

12 **SEC. 5. RESEARCH AND DEVELOPMENT.**

13 (a) AUTHORIZED ACTIVITIES.—Pursuant to this sec-
14 tion, the Spark M. Matsunaga Hydrogen Research, Devel-
15 opment, and Demonstration Act of 1990 and the Energy
16 Policy Act of 1992, and in accordance with the purposes
17 of this Act, the Secretary shall provide for a hydrogen en-
18 ergy basic research, development, and demonstration pro-
19 gram relating to production, storage, transportation, and
20 use of hydrogen, with the goal of enabling the private sec-
21 tor to demonstrate the technical feasibility of using hydro-
22 gen for industrial, residential, transportation, and utility
23 applications. In establishing priorities for Federal funding
24 under this section, the Secretary shall survey private sec-
25 tor hydrogen activities and take steps to ensure that ac-

1 tivities under this section do not displace or compete with
2 the privately funded hydrogen activities of United States
3 industry.

4 (b) SCHEDULE.—Within 180 days after the date of
5 the enactment of the later of this Act or an Act providing
6 appropriations for programs authorized by this Act, the
7 Secretary shall solicit proposals from all interested parties
8 for carrying out the research, development, and dem-
9 onstration activities authorized under this section. The
10 Secretary may consider a proposal from a contractor who
11 manages and operates a Department facility under con-
12 tract with the Department, and the contractor may per-
13 form the work at that facility or any other facility. Within
14 180 days after such solicitation, if the Secretary identifies
15 proposals worthy of Federal assistance, financial assist-
16 ance shall be awarded under this section competitively,
17 using peer review of proposals with appropriate protection
18 of proprietary information. The Secretary shall use appro-
19 priations authorized by this Act that are not allocated for
20 such awards to carry out research, development, and dem-
21 onstration activities in accordance with the purposes of
22 this Act.

23 (c) COST SHARING.—(1) Except as otherwise pro-
24 vided in section 6, for research proposals funded under
25 this Act, the Secretary shall require a commitment from

1 non-Federal sources of at least 25 percent of the cost of
2 the proposed program. The Secretary may reduce or elimi-
3 nate the non-Federal requirement under this paragraph
4 if the Secretary determines that the research is of such
5 a purely basic or fundamental nature that a non-Federal
6 commitment is not obtainable.

7 (2) The Secretary shall require at least 50 percent
8 of the costs directly and specifically related to any develop-
9 ment or demonstration project under this Act to be pro-
10 vided from non-Federal sources.

11 (d) CERTIFICATIONS AND REQUIREMENTS.—Before
12 financial assistance is provided under this section or the
13 Spark M. Matsunaga Hydrogen Research, Development,
14 and Demonstration Act of 1990—

15 (1) the Secretary must ensure that providing
16 such financial assistance is consistent with the
17 Agreement on Subsidies and Countervailing Meas-
18 ures as approved in section 101 of the Uruguay
19 Round Agreements Act (19 U.S.C. 3511); and

20 (2) industry participants must certify that they
21 have made reasonable efforts to obtain non-Federal
22 funding for the entire cost of the project, and that
23 such non-Federal funding could not be reasonably
24 obtained.

1 (e) DUPLICATION OF PROGRAMS.—The Secretary
2 shall not carry out any activities under this section that
3 unnecessarily duplicate activities carried out elsewhere by
4 the Federal Government or the private sector.

5 **SEC. 6. HIGHLY INNOVATIVE TECHNOLOGIES.**

6 Of the amounts made available for carrying out sec-
7 tion 5, up to 5 percent shall be used to support basic re-
8 search on highly innovative energy technologies. Such
9 amounts shall not be subject to the cost sharing require-
10 ments in section 5(c).

11 **SEC. 7. TECHNOLOGY TRANSFER.**

12 The Secretary shall foster the exchange of generic,
13 nonproprietary information and technology, developed
14 pursuant to section 5, among industry, academia, and the
15 Federal Government. The Secretary shall ensure that eco-
16 nomic benefits of such exchange of information and tech-
17 nology will accrue to the United States economy.

18 **SEC. 8. REPORTS TO CONGRESS.**

19 Within 18 months after the date of the enactment
20 of this Act, and annually thereafter, the Secretary shall
21 transmit to the Congress a detailed report on the status
22 and progress of the Department's hydrogen research and
23 development program, with particular emphasis on activi-
24 ties carried out pursuant to section 7 of this Act. Such
25 report shall include an analysis of the effectiveness of such

1 program, to be prepared and submitted by the Hydrogen
2 Technical Advisory Panel established under section 108
3 of the Spark M. Matsunaga Hydrogen Research, Develop-
4 ment, and Demonstration Act of 1990. Such Panel shall
5 also make recommendations for improvements to such pro-
6 gram if needed, including recommendations for additional
7 legislation.

8 **SEC. 9. COORDINATION AND CONSULTATION.**

9 (a) COORDINATION WITH OTHER FEDERAL AGEN-
10 CIES.—The Secretary shall coordinate all hydrogen re-
11 search and development activities within the Department,
12 and with the activities of other Federal agencies involved
13 in similar research and development, including the De-
14 partment of Defense, the Department of Transportation,
15 and the National Aeronautics and Space Administration.
16 Further, the Secretary shall pursue opportunities for co-
17 operation with such Federal entities.

18 (b) CONSULTATION.—The Secretary shall consult
19 with the Hydrogen Technical Advisory Panel established
20 under section 108 of the Spark M. Matsunaga Hydrogen
21 Research, Development, and Demonstration Act of 1990
22 as necessary in carrying out this Act.

1 **SEC. 10. AUTHORIZATION OF APPROPRIATIONS.**

2 (a) GENERAL AUTHORIZATION.—There are author-
3 ized to be appropriated, to carry out the purposes of this
4 Act—

5 (1) \$25,000,000 for fiscal year 1996;

6 (2) \$35,000,000 for fiscal year 1997; and

7 (3) \$40,000,000 for fiscal year 1998.

8 (b) RELATED AUTHORIZATIONS.—(1) For each of
9 the fiscal years 1996, 1997, and 1998, the total amount
10 which may be obligated for Energy Supply Research and
11 Development Activities shall not exceed the total amount
12 obligated for such activities in fiscal year 1995.

13 (2) Paragraph (1) of this subsection does not author-
14 ize the appropriation of any Federal funds.

Passed the House of Representatives May 2, 1995.

Attest:

ROBIN H. CARLE,

Clerk.