

Public Law 104-271  
104th Congress

An Act

Oct. 9, 1996  
[H.R. 4138]

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

Hydrogen Future  
Act of 1996.  
42 USC 12401  
note.

*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 "Hydrogen Future Act of 1996".

42 USC 7238  
note.

**SEC. 2. DEFINITIONS.**

For purposes of titles II and III—

(1) the term "Department" means the Department of Energy; and

(2) the term "Secretary" means the Secretary of Energy.

**TITLE I—HYDROGEN**

**SEC. 101. PURPOSES AND DEFINITIONS.**

(a) Section 102(b)(1) of Public Law 101-566 (42 U.S.C. 12401(b)(1)) is amended to read as follows:

"(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;"

(b) Section 102(c) of Public Law 101-566 (42 U.S.C. 12401(c)) is amended—

(1) in subsection (1) by striking "; and" inserting ";;";

(2) by redesignating subsection (2) as subsection (3); and

(3) by inserting before subsection (3) (as redesignated) the following new subsection:

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

**SEC. 102. REPORTS TO CONGRESS.**

(a) Section 103 of Public Law 101-566 (42 U.S.C. 12402) is amended to read as follows:

**"§ 103. 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 Act.

"(b) A report under subsection (a) 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 108 of this Act; and

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

(b) Section 108(d) of Public Law 101-566 (42 U.S.C. 12407(d)) is amended—

- (1) by adding “and” at the end of paragraph (1);
- (2) by striking “; and” at the end of paragraph (2) and inserting a period; and
- (3) by striking paragraph (3).

#### **SEC. 103. HYDROGEN RESEARCH AND DEVELOPMENT.**

(a) Section 104 of Public Law 101-566 (42 U.S.C. 12403) is amended to read as follows:

##### **“§ 104. Hydrogen research and development**

“(a) 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) 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) 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) 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) 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 106 of this Act.

“(f) 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, United States Code).

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

(b)(1) Section 2026(a) of the Energy Policy Act of 1992 (42 U.S.C. 13436(a)) is amended by striking “, in accordance with sections 3001 and 3002 of this Act,”.

(2) Effective October 1, 1998, section 2026 of the Energy Policy Act of 1992 (42 U.S.C. 13436) is repealed.

#### **SEC. 104. DEMONSTRATIONS.**

Section 105 of Public Law 101-566 (42 U.S.C. 12404) is amended by adding at the end the following new subsection:

“(c) 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.”

#### **SEC. 105. TECHNOLOGY TRANSFER.**

Section 106(b) of Public Law 101-566 (42 U.S.C. 12405(b)) is amended by adding to the end of the subsection the following: “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.”

#### **SEC. 106. AUTHORIZATION OF APPROPRIATIONS.**

Section 109 of Public Law 101-566 (42 U.S.C. 12408) is amended—

(1) by striking “to other Acts” and inserting “under other Acts”;

(2) by striking “and” from the end of paragraph (2);

(3) by striking the period from the end of paragraph (3) and inserting “;”;

(4) by adding at the end of the section the following:

“(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.”.

## TITLE II—FUEL CELLS

42 USC 12403  
note.

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

(a) Not later than 180 days after the date of enactment of this section, 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 basis using peer review. The Secretary is not required to make an award under this section in the absence of a meritorious proposal.

(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, a total of \$50,000,000 for fiscal years 1997 and 1998, to remain available until September 30, 1999.

## TITLE III—DOE SCIENTIFIC AND TECHNICAL PROGRAM QUALITY

42 USC 7238.

### SEC. 301. TEMPORARY APPOINTMENTS FOR SCIENTIFIC AND TECHNICAL EXPERTS IN DEPARTMENT OF ENERGY RESEARCH AND DEVELOPMENT PROGRAMS.

(a) The Secretary, utilizing authority under other applicable law and the authority of this section, may appoint for a limited term, or on a temporary basis, scientists, engineers, and other technical and professional personnel on leave of absence from academic, industrial, or research institutions to work for the Department.

(b) The Department may pay, to the extent authorized for certain other Federal employees by section 5723 of title 5, United States Code, travel expenses for any individual appointed for a limited term or on a temporary basis and transportation expenses of his or her immediate family and his or her household goods and personal effects from that individual's residence at the time of selection or assignment to his or her duty station. The Department may pay such travel expenses to the same extent for such an individual's return to the former place of residence from his or her duty station, upon separation from the Federal service following an agreed period of service. The Department may also pay a per diem allowance at a rate not to exceed the daily amounts prescribed under section 5702 of title 5 to such an individual, in lieu of transportation expenses of the immediate family and household goods and personal effects, for the period of his or her employment with the Department. Notwithstanding any other provision of law, the employer's contribution to any retirement, life insurance, or health benefit plan for an individual appointed for a term of one year or less, which could be extended for no more than one additional year, may be made or reimbursed from appropriations available to the Department.

Approved October 9, 1996.

---

LEGISLATIVE HISTORY—H.R. 4138:

CONGRESSIONAL RECORD, Vol. 142 (1996):

Sept. 26, considered and passed House.

Sept. 28, considered and passed Senate.