

## 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

Pub. L. 104-271, § 1, Oct. 9, 1996, 110 Stat. 3304, 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

Pub. L. 101-566, title I, § 101, Nov. 15, 1990, 104 Stat. 2797, 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 dupli-