

109TH CONGRESS
1ST SESSION

S. 665

To reauthorize and improve the Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990 to establish a program to commercialize hydrogen and fuel cell technology, and for other purposes.

IN THE SENATE OF THE UNITED STATES

MARCH 17, 2005

Mr. DORGAN (for himself, Mr. GRAHAM, and Mr. AKAKA) introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

A BILL

To reauthorize and improve the Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990 to establish a program to commercialize hydrogen and fuel cell technology, 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; TABLE OF CONTENTS.**

4 (a) **SHORT TITLE.**—This Act may be cited as the
5 “Hydrogen and Fuel Cell Technology Act of 2005”.

6 (b) **TABLE OF CONTENTS.**—The table of contents of
7 this Act is as follows:

- Sec. 1. Short title; table of contents.
 Sec. 2. Hydrogen and fuel cell technology authorization.
 Sec. 3. Public utilities.
 Sec. 4. Tax incentives to build the hydrogen economy.

1 **SEC. 2. HYDROGEN AND FUEL CELL TECHNOLOGY AU-**
 2 **THORIZATION.**

3 The Spark M. Matsunaga Hydrogen Research, Devel-
 4 opment, and Demonstration Act of 1990 (42 U.S.C.
 5 12401 et seq.) is amended to read as follows:

6 **“SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

7 “(a) **SHORT TITLE.**—This Act may be cited as the
 8 ‘Spark M. Matsunaga Hydrogen Research, Development,
 9 and Demonstration Act of 1990.’.

10 “(b) **TABLE OF CONTENTS.**—The table of contents
 11 of this Act is as follows:

- “Sec. 1. Short title; table of contents.
 “Sec. 2. Definitions.
 “Sec. 3. Findings.
 “Sec. 4. Purposes.

“TITLE I—HYDROGEN AND FUEL CELLS

- “Sec. 101. Hydrogen and fuel cell technology research and development.
 “Sec. 102. Task Force.
 “Sec. 103. Technology transfer.
 “Sec. 104. Authorization of appropriations.

“TITLE II—HYDROGEN AND FUEL CELL DEMONSTRATION

- “Sec. 201. Hydrogen supply and fuel cell demonstration program.
 “Sec. 202. Authorization of appropriations.

“TITLE III—TRANSITION TO MARKET

- “Sec. 301. Federal procurement of fuel cell vehicles and hydrogen energy
 systems.
 “Sec. 302. Federal procurement of stationary and micro fuel cells.

“TITLE IV—REGULATORY MANAGEMENT

- “Sec. 401. Codes and standards.
 “Sec. 402. Authorization of appropriations.

“TITLE V—REPORTS

“Sec. 501. Deployment of hydrogen technology.

“Sec. 502. Authorization of appropriations.

“TITLE VI—TERMINATION OF AUTHORITY

“Sec. 601. Termination of authority.

1 **“SEC. 2. DEFINITIONS.**

2 “In this Act:

3 “(1) CARBON FOOTPRINT.—The term ‘carbon
4 footprint’ means the sum of carbon equivalent emis-
5 sions from all energy conversion processes occurring
6 from raw material through hydrogen production, dis-
7 tribution, and use.

8 “(2) DEPARTMENT.—The term ‘Department’
9 means the Department of Energy.

10 “(3) FUEL CELL.—The term ‘fuel cell’ means a
11 device that directly converts the chemical energy of
12 a fuel and an oxidant into electricity by electro-
13 chemical processes occurring at separate electrodes
14 in the device.

15 “(4) INFRASTRUCTURE.—The term ‘infrastruc-
16 ture’ means the equipment, systems, or facilities
17 used to produce, distribute, deliver, or store hydro-
18 gen (except for onboard storage).

19 “(5) SECRETARY.—The term ‘Secretary’ means
20 the Secretary of Energy.

1 “(6) STATIONARY; PORTABLE.—The terms ‘sta-
2 tionary’ and ‘portable’, when used in reference to a
3 fuel cell, include—

4 “(A) continuous electric power; and

5 “(B) backup electric power.

6 “(7) TASK FORCE.—The term ‘Task Force’
7 means the Hydrogen and Fuel Cell Technical Task
8 Force established under section 102(a).

9 “(8) TECHNICAL ADVISORY COMMITTEE.—The
10 term ‘Technical Advisory Committee’ means the
11 independent Technical Advisory Committee of the
12 Task Force selected under section 102(d).

13 **“SEC. 3. FINDINGS.**

14 “Congress finds that—

15 “(1) the United States imports 60 percent of all
16 the oil and products that it consumes, most of it
17 used in transportation;

18 “(2) there is little fuel diversity in the transpor-
19 tation sector of the United States, making it ex-
20 tremely sensitive to volatile oil supplies;

21 “(3) rapidly rising energy prices have raised the
22 imported oil bill of the United States to nearly
23 \$250,000,000,000 in 2004, which is a direct off-
24 shore wealth transfer from the U.S. that could oth-

1 erwise be invested in a hydrogen economy to create
2 many new jobs;

3 “(4) although the United States has become a
4 more efficient and cleaner user of energy, total en-
5 ergy use continues to grow as the economy expands,
6 along with total vehicle emissions;

7 “(5) without dramatic action, 68 percent of oil
8 demand will come from imports by 2025;

9 “(6) over the next 10 years, oil imports could
10 cost nearly \$3,000,000,000,000, while protecting
11 foreign supplies adds even more to that cost;

12 “(7) hydrogen and fuel cells offer the best hope
13 of realizing more efficient, cleaner means of regain-
14 ing control of the energy security of the United
15 States, and achieving quality economic growth;

16 “(8) in the spirit of the Apollo project that put
17 us on the Moon, and the practical vision that built
18 the United States interstate highway system, the
19 U.S. needs to commit sufficient public investment to
20 develop and commercialize hydrogen and fuel cell
21 technologies, in partnership with our private sector;
22 and

23 “(9) economies must grow to sustain their
24 health, and strong public investments in research
25 and development will harness the skills of our uni-

1 universities, national laboratories, and innovative pri-
2 vate industry to create the hydrogen economy.

3 **“SEC. 4. PURPOSES.**

4 “The purposes of this Act are—

5 “(1) to enable and promote comprehensive de-
6 velopment, demonstration, and commercialization of
7 hydrogen and fuel cell technology in partnership
8 with industry;

9 “(2) to make critical public investments in
10 building strong links to private industry, univer-
11 sities, national laboratories, and research institutions
12 to expand innovation and industrial growth;

13 “(3) to build a mature hydrogen economy that
14 creates fuel diversity in the massive transportation
15 sector of the United States;

16 “(4) to sharply decrease the dependency of the
17 United States on imported oil, eliminate most emis-
18 sions from the transportation sector, and greatly en-
19 hance our energy security; and

20 “(5) to create, strengthen, and protect a sus-
21 tainable national energy economy.

1 **“TITLE I—HYDROGEN AND FUEL**
2 **CELLS**

3 **“SEC. 101. HYDROGEN AND FUEL CELL TECHNOLOGY RE-**
4 **SEARCH AND DEVELOPMENT.**

5 “(a) IN GENERAL.—The Secretary, in consultation
6 with other Federal agencies and the private sector, shall
7 conduct a research and development program on tech-
8 nologies relating to the production, purification, distribu-
9 tion, storage, and use of hydrogen energy, fuel cells, and
10 related infrastructure.

11 “(b) GOAL.—The goal of the program shall be to
12 demonstrate and commercialize the use of hydrogen for
13 transportation (in light and heavy vehicles), utility, indus-
14 trial, commercial, residential, and defense applications.

15 “(c) FOCUS.—In carrying out activities under this
16 section, the Secretary shall focus on mutually supportive
17 developmental factors that are common to the develop-
18 ment of hydrogen infrastructure and the supply of vehicle
19 and electric power for critical consumer and commercial
20 applications, and that achieve continuous technical evo-
21 lution and cost reduction, particularly for hydrogen pro-
22 duction, the supply of hydrogen, storage of hydrogen, and
23 end uses of hydrogen that—

24 “(1) steadily increase production, distribution,
25 and end use efficiency and reduce carbon footprints;

1 “(2) resolve critical problems relating to cata-
2 lysts, membranes, storage, lightweight materials,
3 electronic controls, and other problems that emerge
4 from research and development;

5 “(3) enhance sources of renewable fuels and
6 biofuels for hydrogen production; and

7 “(4) enable widespread use of distributed elec-
8 tricity generation and storage.

9 “(d) PUBLIC EDUCATION AND RESEARCH.—In car-
10 rying out this section, the Secretary shall support en-
11 hanced public education and university research in funda-
12 mental sciences, application design, and systems concepts
13 (including education and research relating to materials,
14 subsystems, manufacturability, maintenance, and safety)
15 relating to hydrogen and fuel cells.

16 “(e) FUNDING.—

17 “(1) IN GENERAL.—The Secretary shall carry
18 out the activities under this section through a com-
19 petitive, merit-based review process consistent with
20 any generally applicable Federal law (including regu-
21 lations) that applies to an award of financial assist-
22 ance, a contract, or another agreement.

23 “(2) RESEARCH CENTERS.—The Secretary may
24 provide funds to a university-based or Federal lab-

1 oratory or research center in accordance with para-
2 graph (1) to carry out an activity under this section.

3 “(f) COST SHARING.—

4 “(1) IN GENERAL.—Except as provided in para-
5 graph (2), the Federal share of the cost of carrying
6 out any project or activity under this section shall be
7 80 percent.

8 “(2) WAIVER OF NON-FEDERAL SHARE.—The
9 Secretary may waive the non-Federal share of the
10 cost of carrying out a project or activity under this
11 section if the non-Federal share would otherwise be
12 paid by a small business or an institution of higher
13 education (as defined in section 102 of the Higher
14 Education Act of 1965 (20 U.S.C. 1002)), as deter-
15 mined by the Secretary.

16 **“SEC. 102. TASK FORCE.**

17 “(a) ESTABLISHMENT.—The Secretary, in coopera-
18 tion with the Secretary of Defense, the Secretary of
19 Transportation, and the Secretary of Commerce, shall es-
20 tablish an interagency Task Force, to be known as the
21 ‘Hydrogen and Fuel Cell Technical Task Force’ to advise
22 the Secretary in carrying out programs under this Act.

23 “(b) MEMBERSHIP.—

24 “(1) IN GENERAL.—The Task Force shall be
25 comprised of such representatives of the Council on

1 Environmental Quality, the Office of Science and
2 Technology Policy, the Council of Economic Advi-
3 sors, the Environmental Protection Agency, and the
4 National Security Council, and such other represent-
5 atives of Federal agencies, conferences of governors,
6 and regional organizations, as the Secretary, Sec-
7 retary of Defense, Secretary of Transportation, and
8 Secretary of Commerce determine to be appropriate.

9 “(2) VOTING.—A member of the Task Force
10 that does not represent a Federal agency shall serve
11 on the Task Force only in a nonvoting, advisory ca-
12 pacity.

13 “(c) DUTIES.—The Task Force shall review and
14 make any necessary recommendations to the Secretary on
15 implementation and conduct of programs under this Act.

16 “(d) TECHNICAL ADVISORY COMMITTEE.—

17 “(1) IN GENERAL.—The Secretary shall select
18 such number of members as the Secretary considers
19 to be appropriate to form an independent, non-
20 political Technical Advisory Committee.

21 “(2) MEMBERSHIP.—

22 “(A) IN GENERAL.—Each member of the
23 Technical Advisory Committee shall have sci-
24 entific, technical, or industrial expertise, as de-
25 termined by the Secretary.

1 “(B) NATIONAL LABORATORIES.—At least
2 1 member of the Technical Advisory Committee
3 shall represent a national laboratory.

4 “(3) DUTIES.—The Technical Advisory Com-
5 mittee shall provide technical advice and assistance
6 to the Task Force and the Secretary.

7 **“SEC. 103. TECHNOLOGY TRANSFER.**

8 “‘In carrying out this Act, the Secretary shall carry
9 out programs that—

10 “(1) provide for the transfer of critical hydro-
11 gen and fuel cell technologies to the private sector;

12 “(2) accelerate wider application of those tech-
13 nologies in the global market;

14 “(3) foster the exchange of generic, nonpropri-
15 etary information; and

16 “(4) assess technical and commercial viability
17 of technologies relating to the production, distribu-
18 tion, storage, and use of hydrogen energy and fuel
19 cells.

20 **“SEC. 104. AUTHORIZATION OF APPROPRIATIONS.**

21 “(a) HYDROGEN SUPPLY.—There are authorized to
22 be appropriated to carry out projects and activities relat-
23 ing to hydrogen production, storage, distribution and dis-
24 pensing, transport, education and coordination, and tech-
25 nology transfer under this title—

- 1 “(1) \$200,000,000 for fiscal year 2006;
2 “(2) \$210,000,000 for fiscal year 2007;
3 “(3) \$220,000,000 for fiscal year 2008;
4 “(4) \$230,000,000 for fiscal year 2009;
5 “(5) \$250,000,000 for fiscal year 2010;
6 “(6) \$240,000,000 for fiscal year 2011;
7 “(7) \$230,000,000 for fiscal year 2012;
8 “(8) \$220,000,000 for fiscal year 2013;
9 “(9) \$180,000,000 for fiscal year 2014; and
10 “(10) \$120,000,000 for fiscal year 2015.

11 “(b) FUEL CELL TECHNOLOGIES.—There are au-
12 thorized to be appropriated to carry out projects and ac-
13 tivities relating to fuel cell technologies under this title—

- 14 “(1) \$160,000,000 for fiscal year 2006;
15 “(2) \$170,000,000 for fiscal year 2007;
16 “(3) \$180,000,000 for fiscal year 2008;
17 “(4) \$200,000,000 for fiscal year 2009;
18 “(5) \$210,000,000 for fiscal year 2010;
19 “(6) \$200,000,000 for fiscal year 2011;
20 “(7) \$190,000,000 for fiscal year 2012;
21 “(8) \$170,000,000 for fiscal year 2013;
22 “(9) \$150,000,000 for fiscal year 2014; and
23 “(10) \$100,000,000 for fiscal year 2015.

1 **“TITLE II—HYDROGEN AND**
2 **FUEL CELL DEMONSTRATION**

3 **“SEC. 201. HYDROGEN SUPPLY AND FUEL CELL DEM-**
4 **ONSTRATION PROGRAM.**

5 “(a) IN GENERAL.—The Secretary, in consultation
6 with the Task Force and the Technical Advisory Com-
7 mittee, shall carry out a program to demonstrate develop-
8 mental hydrogen and fuel cell systems for mobile, portable,
9 and stationary uses, using improved versions of the learn-
10 ing demonstrations program concept of the Department,
11 including demonstrations involving—

12 “(1) light duty vehicles;

13 “(2) fleet delivery vans;

14 “(3) heavier duty vehicles;

15 “(4) specialty industrial and farm vehicles; and

16 “(5) commercial and residential portable, con-
17 tinuous, and backup electric power generation.

18 “(b) OTHER DEMONSTRATION PROGRAMS.—To de-
19 velop widespread hydrogen supply and use options, and
20 assist evolution of technology, the Secretary shall—

21 “(1) carry out demonstrations of evolving hy-
22 drogen and fuel cell technologies in national parks,
23 remote island areas, and on Indian tribal land, as
24 selected by the Secretary;

1 “(2) in accordance with any code or standards
2 developed in a region, fund prototype, pilot fleet,
3 and infrastructure regional hydrogen supply cor-
4 ridors along the interstate highway system in varied
5 climates across the United States; and

6 “(3) fund demonstration programs that explore
7 the use of hydrogen blends, hybrid hydrogen, and
8 hydrogen reformed from renewable agricultural
9 fuels, including the use of hydrogen in hybrid elec-
10 tric, heavier duty, and advanced internal combus-
11 tion-powered vehicles.

12 “(c) SYSTEM DEMONSTRATIONS.—

13 “(1) IN GENERAL.—As a component of the
14 demonstration program under this section, the Sec-
15 retary shall provide grants, on a cost share basis as
16 appropriate, to eligible entities (as determined by the
17 Secretary) for use in—

18 “(A) devising system design concepts that
19 provide for the use of advanced composite vehi-
20 cles in programs under title III that—

21 “(i) have as a primary goal the reduc-
22 tion of drive energy requirements;

23 “(ii) after 2010, add another research
24 and development phase to the vehicle and
25 infrastructure partnerships developed

1 under the learning demonstrations pro-
2 gram concept of the Department; and

3 “(iii) are managed through an en-
4 hanced FreedomCAR program within the
5 Department that encourages involvement
6 in cost-shared projects by domestic and
7 international manufacturers and govern-
8 ments; and

9 “(B) designing a local distributed energy
10 system that—

11 “(i) incorporates renewable hydrogen
12 production, off-grid electricity production,
13 and fleet applications in industrial or com-
14 mercial service;

15 “(ii) integrates energy or applications
16 described in clause (i), such as stationary,
17 portable, micro, and mobile fuel cells, into
18 a high-density commercial or residential
19 building complex or agricultural commu-
20 nity; and

21 “(iii) is managed in cooperation with
22 industry, State, tribal, and local govern-
23 ments, agricultural organizations, and non-
24 profit generators and distributors of elec-
25 tricity.

1 “(2) COST SHARING.—The Federal share of the
2 cost of a project or activity carried out using funds
3 from a grant under paragraph (1) shall not exceed
4 50% percent, as determined by the Secretary.

5 “(d) IDENTIFICATION OF NEW RESEARCH AND DE-
6 VELOPMENT REQUIREMENTS.—In carrying out the dem-
7 onstrations under subsection (a), the Secretary, in con-
8 sultation with the Task Force and the Technical Advisory
9 Committee, shall—

10 “(1) after 2008 for stationary and portable ap-
11 plications, and after 2010 for vehicles, identify new
12 research and development requirements that refine
13 technological concepts, planning, and applications;
14 and

15 “(2) during the second phase of the learning
16 demonstrations under subsection (c)(1)(A)(ii), rede-
17 sign subsequent research and development to incor-
18 porate those requirements.

19 **“SEC. 202. AUTHORIZATION OF APPROPRIATIONS.**

20 “There are authorized to be appropriated to carry out
21 this title—

22 “(1) \$185,000,000 for fiscal year 2006;

23 “(2) \$200,000,000 for fiscal year 2007;

24 “(3) \$300,000,000 for fiscal year 2008;

25 “(4) \$350,000,000 for fiscal year 2009;

1 “(5) \$425,000,000 for fiscal year 2010;

2 “(6) \$335,000,000 for fiscal year 2011;

3 “(7) \$310,000,000 for fiscal year 2012;

4 “(8) \$270,000,000 for fiscal year 2013;

5 “(9) \$200,000,000 for fiscal year 2014; and

6 “(10) \$100,000,000 for fiscal year 2015.

7 **“TITLE III—TRANSITION TO**
 8 **MARKET**

9 **“SEC. 301. FEDERAL PROCUREMENT OF FUEL CELL VEHI-**
 10 **CLES AND HYDROGEN ENERGY SYSTEMS.**

11 “(a) PURPOSES.—The purposes of this section are—

12 “(1) to stimulate acceptance by the market of
 13 fuel cell vehicles and hydrogen energy systems;

14 “(2) to support development of technologies re-
 15 lating to fuel cell vehicles, public refueling stations,
 16 and hydrogen energy systems; and

17 “(3) to require the Federal government, which
 18 is the largest single user of energy in the United
 19 States, to adopt those technologies as soon as prac-
 20 ticable after the technologies are developed, in con-
 21 junction with private industry partners.

22 “(b) FEDERAL LEASES AND PURCHASES.—

23 “(1) REQUIREMENT.—

24 “(A) IN GENERAL.—Not later than Janu-
 25 ary 1, 2010, the head of any Federal agency

1 that uses a light-duty or heavy-duty vehicle fleet
2 shall lease or purchase fuel cell vehicles and hy-
3 drogen energy systems to meet any applicable
4 energy savings goal described in subsection (c).

5 “(B) LEARNING DEMONSTRATION VEHI-
6 CLES.—The Secretary may lease or purchase
7 appropriate vehicles developed under the learn-
8 ing demonstrations program concept of the De-
9 partment under title II to meet the requirement
10 in subparagraph (A).

11 “(2) COSTS OF LEASES AND PURCHASES.—

12 “(A) IN GENERAL.—The Secretary, in co-
13 operation with the Task Force and the Tech-
14 nical Advisory Committee, shall pay to Federal
15 agencies (or share the cost under interagency
16 agreements) the difference in cost between—

17 “(i) the cost to the agencies of leasing
18 or purchasing fuel cell vehicles and hydro-
19 gen energy systems under paragraph (1);
20 and

21 “(ii) the cost to the agencies of a fea-
22 sible alternative to leasing or purchasing
23 fuel cell vehicles and hydrogen energy sys-
24 tems, as determined by the Secretary.

1 “(B) COMPETITIVE COSTS AND MANAGE-
2 MENT STRUCTURES.—In carrying out subpara-
3 graph (A), the Secretary, in consultation with
4 the agency, may use the General Services Ad-
5 ministration or any commercial vendor to en-
6 sure—

7 “(i) a cost-effective purchase of a fuel
8 cell vehicle or hydrogen energy system; or

9 “(ii) a cost-effective management
10 structure of the lease of a fuel cell vehicle
11 or hydrogen energy system.

12 “(3) EXCEPTION.—

13 “(A) IN GENERAL.—If the Secretary deter-
14 mines that the head of an agency described in
15 paragraph (1) cannot find an appropriately effi-
16 cient and reliable fuel cell vehicle or hydrogen
17 energy system in accordance with paragraph
18 (1), that agency shall be excepted from compli-
19 ance with paragraph (1).

20 “(B) CONSIDERATION.—In making a de-
21 termination under subparagraph (A), the Sec-
22 retary shall consider—

23 “(i) the needs of the agency; and

24 “(ii) an evaluation performed by—

25 “(I) the Task Force; or

1 “(II) the Technical Advisory
2 Committee.

3 “(c) ENERGY SAVINGS GOALS.—

4 “(1) IN GENERAL.—

5 “(A) REGULATIONS.—Not later than De-
6 cember 31, 2006, the Secretary shall—

7 “(i) in cooperation with the Task
8 Force, promulgate regulations for the pe-
9 riod of 2008 through 2010 that extend and
10 augment energy savings goals for each
11 Federal agency, in accordance with any
12 Executive order issued after March 2000;
13 and

14 “(ii) promulgate regulations to expand
15 the minimum Federal fleet requirement
16 and credit allowances for fuel cell vehicle
17 systems under section 303 of the Energy
18 Policy Act of 1992 (42 U.S.C. 13212).

19 “(B) REVIEW, EVALUATION, AND NEW
20 REGULATIONS.—Not later than December 31,
21 2010, the Secretary shall—

22 “(i) review the regulations promul-
23 gated under subparagraph (A);

1 “(ii) evaluate any progress made to-
2 ward achieving energy savings by Federal
3 agencies; and

4 “(iii) promulgate new regulations for
5 the period of 2011 through 2015 to
6 achieve additional energy savings by Fed-
7 eral agencies relating to technical and cost-
8 performance standards.

9 “(2) OFFSETTING ENERGY SAVINGS GOALS.—
10 An agency that leases or purchases a fuel cell vehicle
11 or hydrogen energy system in accordance with sub-
12 section (b)(1) may use that lease or purchase to
13 count toward an energy savings goal of the agency.

14 “(3) USE OF ENERGY SAVINGS PERFORMANCE
15 CONTRACTS.—An agency that leases or purchases a
16 fuel cell vehicle or hydrogen energy system in ac-
17 cordance with subsection (b)(1) may use any energy
18 savings performance contract under title VIII of the
19 National Energy Conservation Policy Act (42 U.S.C.
20 8287 et seq.) (including a pilot program for mobility
21 uses in an expanded energy savings performance
22 contract) to count toward an energy savings goal of
23 the agency.

24 “(d) AUTHORIZATION OF APPROPRIATIONS.—There
25 is authorized to be appropriated to carry out this section—

- 1 “(1) \$10,000,000 for fiscal year 2008;
2 “(2) \$15,000,000 for fiscal year 2009;
3 “(3) \$50,000,000 for fiscal year 2010;
4 “(4) \$100,000,000 for fiscal year 2011;
5 “(5) \$150,000,000 for fiscal year 2012;
6 “(6) \$165,000,000 for fiscal year 2013;
7 “(7) \$195,000,000 for fiscal year 2014; and
8 “(8) \$200,000,000 for fiscal year 2015.

9 **“SEC. 302. FEDERAL PROCUREMENT OF STATIONARY,
10 PORTABLE, AND MICRO FUEL CELLS.**

11 “(a) PURPOSES.—The purposes of this section are—

12 “(1) to stimulate acceptance by the market of
13 stationary, portable, and micro fuel cells; and

14 “(2) to support development of technologies re-
15 lating to stationary, portable, and micro fuel cells.

16 “(b) FEDERAL LEASES AND PURCHASES.—

17 “(1) IN GENERAL.—Not later than January 1,
18 2006, the head of any Federal agency that uses elec-
19 trical power from stationary, portable, or microport-
20 able devices shall lease or purchase a stationary,
21 portable, or micro fuel cell to meet any applicable
22 energy savings goal described in subsection (c).

23 “(2) COSTS OF LEASES AND PURCHASES.—

24 “(A) IN GENERAL.—The Secretary, in co-
25 operation with the Task Force and the Tech-

1 nical Advisory Committee, shall pay the cost to
2 Federal agencies (or share the cost under inter-
3 agency agreements) of leasing or purchasing
4 stationary, portable, and micro fuel cells under
5 paragraph (1).

6 “(B) COMPETITIVE COSTS AND MANAGE-
7 MENT STRUCTURES.—In carrying out subpara-
8 graph (A), the Secretary, in consultation with
9 the agency, may use the General Services Ad-
10 ministration or any commercial vendor to en-
11 sure—

12 “(i) a cost-effective purchase of a sta-
13 tionary, portable, or micro fuel cell; or

14 “(ii) a cost-effective management
15 structure of the lease of a stationary, port-
16 able, or micro fuel cell.

17 “(3) EXCEPTION.—

18 “(A) IN GENERAL.—If the Secretary deter-
19 mines that the head of an agency described in
20 paragraph (1) cannot find an appropriately effi-
21 cient and reliable stationary, portable, or micro
22 fuel cell in accordance with paragraph (1), that
23 agency shall be excepted from compliance with
24 paragraph (1).

1 “(B) CONSIDERATION.—In making a de-
2 termination under subparagraph (A), the Sec-
3 retary shall consider—

4 “(i) the needs of the agency; and

5 “(ii) an evaluation performed by—

6 “(I) the Task Force; or

7 “(II) the Technical Advisory

8 Committee of the Task Force.

9 “(c) ENERGY SAVINGS GOALS.—

10 “(1) OFFSETTING ENERGY SAVINGS GOALS.—

11 An agency that leases or purchases a stationary,
12 portable, or micro fuel cell in accordance with sub-
13 section (b)(1) may use that lease or purchase to
14 count toward an energy savings goal described in
15 section 301(c)(1) that is applicable to the agency.

16 “(2) USE OF ENERGY SAVINGS PERFORMANCE

17 CONTRACTS.—An agency that leases or purchases a
18 stationary, portable, or micro fuel cell in accordance
19 with subsection (b)(1) may use any energy savings
20 performance contract under title VIII of the Na-
21 tional Energy Conservation Policy Act (42 U.S.C.
22 8287 et seq.) (including a pilot program in an ex-
23 panded energy savings performance contract) to
24 count toward an energy savings goal of the agency.

1 “(d) AUTHORIZATION OF APPROPRIATIONS.—There
2 is authorized to be appropriated to carry out this section—

3 “(1) \$20,000,000 for fiscal year 2006;

4 “(2) \$50,000,000 for fiscal year 2007;

5 “(3) \$75,000,000 for fiscal year 2008;

6 “(4) \$100,000,000 for fiscal year 2009;

7 “(5) \$100,000,000 for fiscal year 2010;

8 “(6) \$100,000,000 for fiscal year 2011;

9 “(7) \$55,000,000 for fiscal year 2012;

10 “(8) \$50,000,000 for fiscal year 2013;

11 “(9) \$50,000,000 for fiscal year 2014; and

12 “(10) \$25,000,000 for fiscal year 2015.

13 **“TITLE IV—REGULATORY**
14 **MANAGEMENT**

15 **“SEC. 401. CODES AND STANDARDS.**

16 “(a) IN GENERAL.—The Secretary, in cooperation
17 with the Task Force, shall provide grants to, or offer to
18 enter into contracts with such professional organizations,
19 public service organizations, and government agencies as
20 the Secretary determines appropriate to support timely
21 and extensive development of safety codes and standards
22 relating to fuel cell vehicles, hydrogen energy systems, and
23 stationary, portable, and micro fuel cells.

24 “(b) EDUCATIONAL EFFORTS.—The Secretary shall
25 support educational efforts by organizations and agencies

1 described in subsection (a) to share information, including
 2 information relating to best practices, among those organi-
 3 zations and agencies.

4 **“SEC. 402. AUTHORIZATION OF APPROPRIATIONS.**

5 “There is authorized to be appropriated to carry out
 6 this title—

7 “(1) \$4,000,000 for fiscal year 2006;

8 “(2) \$7,000,000 for fiscal year 2007;

9 “(3) \$8,000,000 for fiscal year 2008;

10 “(4) \$8,000,000 for fiscal year 2009;

11 “(5) \$10,000,000 for fiscal year 2010;

12 “(6) \$9,000,000 for fiscal year 2011; and

13 “(7) \$9,000,000 for fiscal year 2012.

14 **“TITLE V—REPORTS**

15 **“SEC. 501. DEPLOYMENT OF HYDROGEN TECHNOLOGY.**

16 “(a) SECRETARY.—Subject to subsection (c), not
 17 later than 2 years after the date of enactment of the Hy-
 18 drogen and Fuel Cell Technology Act of 2005, and bian-
 19 nually thereafter, the Secretary shall submit to Con-
 20 gress—

21 “(1) a report describing—

22 “(A) any activity carried out by the De-
 23 partment of Energy under this Act, including a
 24 research, development, demonstration, and com-

1 mercial application program for hydrogen and
2 fuel cell technology;

3 “(B) measures the Secretary has taken
4 during the preceding 2 years to support the
5 transition of primary industry (or a related in-
6 dustry) to a fully-commercialized hydrogen
7 economy;

8 “(C) any change made to a research, devel-
9 opment, or deployment strategy of the Sec-
10 retary relating to hydrogen and fuel cell tech-
11 nology to reflect the results of a learning dem-
12 onstration under title II;

13 “(D) progress, including progress in infra-
14 structure, made toward achieving the goal of
15 producing and deploying not less than—

16 “(i) 100,000 hydrogen-fueled vehicles
17 in the United States by 2010; and

18 “(ii) 2,500,000 hydrogen-fueled vehi-
19 cles by 2020;

20 “(E) progress made toward achieving the
21 goal of supplying hydrogen at a sufficient num-
22 ber of fueling stations in the United States by
23 2010 can be achieved by integrating—

24 “(i) hydrogen activities; and

1 “(ii) associated targets and timetables
2 for the development of hydrogen tech-
3 nologies;

4 “(F) any problem relating to the design,
5 execution, or funding of a program under this
6 Act; and

7 “(G) progress made toward and goals
8 achieved in carrying out this Act and updates
9 to the developmental roadmap, including the re-
10 sults of the reviews conducted by the National
11 Academy of Sciences under subsection (d) for
12 the fiscal years covered by the report; and

13 “(2) a strategic plan describing—

14 “(A) a remedy for any problems described
15 in paragraph (1)(D); and

16 “(B) any approach by which the Secretary
17 could achieve a substantial decrease in the de-
18 pendence on and consumption of natural gas
19 and imported oil by the Federal Government,
20 including by increasing the use of fuel cell vehi-
21 cles, stationary and portable fuel cells, and hy-
22 drogen energy systems described in title III.

23 “(b) TASK FORCE.—Subject to subsection (c), not
24 later than 3 years after the date of enactment of the Hy-
25 drogen and Fuel Cell Technology Act of 2005, and tri-

1 ennially thereafter, the Task Force shall submit to Con-
2 gress a report describing—

3 “(1) the degree of success of each program
4 under this Act; and

5 “(2) the degree to which the success of pro-
6 grams under this Act has led to evolution of a hy-
7 drogen economy and improved potential for economic
8 growth.

9 “(c) COMBINATION OF REPORTS.—

10 “(1) IN GENERAL.—The Secretary may decide
11 to combine the reports under subsections (a) and (b)
12 before the reports are submitted to Congress, as the
13 Secretary determines appropriate.

14 “(2) REQUIREMENTS.—If the Secretary decides
15 to combine the reports under paragraph (1), the
16 Secretary shall—

17 “(A) not later than 2 years after the date
18 of enactment of the Hydrogen and Fuel Cell
19 Technology Act of 2005, provide notice of the
20 decision to the Task Force; and

21 “(B) not later than 3 years after the date
22 of enactment of the Hydrogen and Fuel Cell
23 Technology Act of 2005, and triennially there-
24 after, submit the combined reports to Congress.

1 “(3) TASK FORCE.—Not later than 180 days
2 after receiving notice from the Secretary under para-
3 graph (2)(A), and triennially thereafter, the Task
4 Force shall submit to the Secretary a report in ac-
5 cordance with subsection (b).

6 “(d) NATIONAL ACADEMY OF SCIENCES.—

7 “(1) IN GENERAL.—Not later than September
8 30, 2007, and triennially thereafter, the National
9 Academy of Sciences shall conduct and submit to the
10 Secretary—

11 “(A) the results of a review of the projects
12 and activities carried out under this Act; and

13 “(B) recommendations for any new au-
14 thorities or resources needed to achieve stra-
15 tegic goals.

16 “(2) REAUTHORIZATION.—The Secretary shall
17 use the results of reviews conducted under para-
18 graph (1) in proposing to Congress any legislative
19 changes relating to reauthorization of this Act.

20 **“SEC. 502. AUTHORIZATION OF APPROPRIATIONS.**

21 “There is authorized to be appropriated to carry out
22 this title \$900,000 for each of fiscal years 2006 through
23 2015.

1 **“TITLE VI—TERMINATION OF**
2 **AUTHORITY**

3 **“SEC. 601. TERMINATION OF AUTHORITY.**

4 “This Act and the authority provided by this Act ter-
5 minate on September 30, 2015.”.

6 **SEC. 3. TAX INCENTIVES TO BUILD THE HYDROGEN ECON-**
7 **OMY.**

8 It is the sense of the Senate that Congress should
9 provide any necessary tax incentives to encourage invest-
10 ment in and production and use of hydrogen and fuel cell
11 systems during critical stages of market growth, includ-
12 ing—

- 13 (1) a hydrogen fuel cell motor vehicle credit;
14 (2) a credit for the installation of hydrogen fuel
15 cell motor vehicle fueling stations;
16 (3) a credit for residential fuel cell property;
17 and
18 (4) a credit for business installation of qualified
19 fuel cells.

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