

109TH CONGRESS
2^D SESSION

H. R. 5143

To authorize the Secretary of Energy to establish monetary prizes for achievements in overcoming scientific and technical barriers associated with hydrogen energy.

IN THE HOUSE OF REPRESENTATIVES

APRIL 6, 2006

Mr. INGLIS of South Carolina (for himself, Mr. LIPINSKI, Mr. KINGSTON, Mr. WAMP, Mr. WOLF, Mr. BOEHLERT, Mr. EHLERS, Mr. BARTLETT of Maryland, Mr. WYNN, Mr. DENT, Mr. LARSON of Connecticut, Mr. McCAUL of Texas, Mr. BROWN of South Carolina, Mr. WILSON of South Carolina, and Mr. TERRY) introduced the following bill; which was referred to the Committee on Science

A BILL

To authorize the Secretary of Energy to establish monetary prizes for achievements in overcoming scientific and technical barriers associated with hydrogen energy.

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 “H-Prize Act of 2006”.

5 **SEC. 2. DEFINITIONS.**

6 In this Act:

1 (1) DEPARTMENT.—The term “Department”
2 means the Department of Energy.

3 (2) SECRETARY.—The term “Secretary” means
4 the Secretary of Energy.

5 **SEC. 3. PRIZE AUTHORITY.**

6 (a) IN GENERAL.—The Secretary shall carry out a
7 program to competitively award cash prizes only in con-
8 formity with this Act to advance the research, develop-
9 ment, demonstration, and commercial application of hy-
10 drogen energy technologies.

11 (b) ADVERTISING AND SOLICITATION OF COMPETI-
12 TORS.—

13 (1) ADVERTISING.—The Secretary shall widely
14 advertise prize competitions to encourage broad par-
15 ticipation, including by individuals, universities, and
16 large and small businesses.

17 (2) ANNOUNCEMENT THROUGH FEDERAL REG-
18 ISTER NOTICE.—The Secretary shall announce each
19 prize competition by publishing a notice in the Fed-
20 eral Register. This notice shall include the subject of
21 the competition, the duration of the competition, the
22 eligibility requirements for participation in the com-
23 petition, the process for participants to register for
24 the competition, the amount of the prize, and the
25 criteria for awarding the prize.

1 (c) ADMINISTERING THE COMPETITIONS.—The Sec-
2 retary shall enter into an agreement with a private, non-
3 profit entity to administer the prize competitions, subject
4 to the provisions of this Act.

5 (d) FUNDING SOURCES.—Prizes under this Act may
6 consist of Federal appropriated funds and funds provided
7 by private entities or individuals for such cash prizes. The
8 Secretary may accept funds from other Federal agencies
9 for such cash prizes. The Secretary may not give any spe-
10 cial consideration to any private sector entity or individual
11 in return for a donation.

12 (e) ANNOUNCEMENT OF PRIZES.—The Secretary
13 may not issue a notice required by subsection (b)(2) until
14 all the funds needed to pay out the announced amount
15 of the prize have been appropriated or committed in writ-
16 ing by a private source. The Secretary may increase the
17 amount of a prize after an initial announcement is made
18 under subsection (b)(2) if—

19 (1) notice of the increase is provided in the
20 same manner as the initial notice of the prize; and

21 (2) the funds needed to pay out the announced
22 amount of the increase have been appropriated or
23 committed in writing by a private source.

1 (f) SUNSET.—The authority to announce prize com-
2 petitions under this Act shall terminate on September 30,
3 2017.

4 **SEC. 4. PRIZE CATEGORIES.**

5 (a) CATEGORIES.—The Secretary shall establish
6 prizes for—

7 (1) advancements in components or systems re-
8 lated to—

9 (A) hydrogen production;

10 (B) hydrogen storage;

11 (C) hydrogen distribution; and

12 (D) hydrogen utilization;

13 (2) prototypes of hydrogen-powered vehicles or
14 other hydrogen-based products that best meet or ex-
15 ceed objective performance criteria, such as comple-
16 tion of a race over a certain distance or terrain or
17 generation of energy at certain levels of efficiency;
18 and

19 (3) transformational changes in technologies for
20 the distribution or production of hydrogen that meet
21 or exceed far-reaching objective criteria, which shall
22 include minimal carbon emissions and which may in-
23 clude cost criteria designed to facilitate the eventual
24 market success of a winning technology.

25 (b) AWARDS.—

1 (1) ADVANCEMENTS.—To the extent permitted
2 under section 3(e), the prizes authorized under sub-
3 section (a)(1) shall be awarded biennially to the
4 most significant advance made in each of the four
5 subcategories described in subparagraphs (A)
6 through (D) of subsection (a)(1) since the submis-
7 sion deadline of the previous prize competition in the
8 same category under subsection (a)(1) or the date of
9 enactment of this Act, whichever is later. No one
10 such prize may exceed \$1,000,000. If less than
11 \$4,000,000 is available for a prize competition under
12 subsection (a)(1), the Secretary may omit one or
13 more subcategories, reduce the amount of the prizes,
14 or not hold a prize competition.

15 (2) PROTOTYPES.—To the extent permitted
16 under section 3(e), prizes authorized under sub-
17 section (a)(2) shall be awarded biennially in alter-
18 nate years from the prizes authorized under sub-
19 section (a)(1). The Secretary is authorized to award
20 up to one prize in this category in each 2-year pe-
21 riod. No such prize may exceed \$4,000,000. If no
22 registered participants meet the objective perform-
23 ance criteria established pursuant to subsection (c)
24 for a competition under this paragraph, the Sec-
25 retary shall not award a prize.

1 (3) TRANSFORMATIONAL TECHNOLOGIES.—To
2 the extent permitted under section 3(e), the Sec-
3 retary shall announce at least one prize competition
4 authorized under subsection (a)(3) as soon after the
5 date of enactment of this Act as is practicable. To
6 the extent permitted under section 3(e), the Sec-
7 retary may announce additional prize competitions
8 authorized under subsection (a)(3) as appropriate to
9 accelerate the development and adoption of hydrogen
10 technologies. A prize offered under this paragraph
11 shall be in the amount of \$100,000,000. The Sec-
12 retary may allow the winner of a prize under this
13 paragraph to receive up to \$10,000,000 of the prize
14 in a lump sum as cash. Any portion of the prize not
15 received as a lump sum in cash shall be paid to the
16 winner as a Federal match for each dollar of private
17 funding raised by the winner for the hydrogen tech-
18 nology beginning on the date the winner was named.
19 The match shall be provided for 3 years after the
20 date the prize winner is named or until the full
21 amount of the prize has been paid out, whichever oc-
22 curs first. A prize winner may elect to have the Fed-
23 eral match amount paid to another entity that is
24 continuing the development of the winning tech-
25 nology. The Secretary shall announce how much of

1 a prize will be available as a lump sum and the rules
2 for receiving the Federal match in the notice re-
3 quired by section 3(b)(2). The Secretary shall award
4 a prize under this paragraph only when a registered
5 participant has met the objective criteria established
6 for the prize pursuant to subsection (c) and an-
7 nounced pursuant to section 3(b)(2).

8 (c) CRITERIA.—In establishing the criteria required
9 by this Act, the Secretary shall consult with—

10 (1) the Department’s Hydrogen Technical and
11 Fuel Cell Advisory Committee;

12 (2) other Federal agencies, including the Na-
13 tional Science Foundation; and

14 (3) private organizations, including professional
15 societies, industry associations, and the National
16 Academy of Sciences and the National Academy of
17 Engineering.

18 (d) JUDGES.—For each prize competition, the Sec-
19 retary, through an agreement under section 3(c), shall as-
20 semble a panel of qualified judges to select the winner or
21 winners on the basis of the criteria established under sub-
22 section (c). Judges for each prize competition shall include
23 individuals from outside the Department, including from
24 the private sector. A judge may not—

1 (1) have personal or financial interests in, or be
2 an employee, officer, director, or agent of, any entity
3 that is a registered participant in the prize competi-
4 tion for which he or she will serve as a judge; or

5 (2) have a familial or financial relationship with
6 an individual who is a registered participant in the
7 prize competition for which he or she will serve as
8 a judge.

9 **SEC. 5. ELIGIBILITY.**

10 To be eligible to win a prize under this Act, an indi-
11 vidual or entity—

12 (1) shall have complied with all the require-
13 ments in accordance with the Federal Register no-
14 tice required under section 3(b)(2);

15 (2) in the case of a private entity, shall be in-
16 corporated in and maintain a primary place of busi-
17 ness in the United States, and in the case of an in-
18 dividual, whether participating singly or in a group,
19 shall be a citizen of, or an alien lawfully admitted
20 for permanent residence in, the United States; and

21 (3) shall not be a Federal entity, a Federal em-
22 ployee acting within the scope of his employment, or
23 an employee of a national laboratory acting within
24 the scope of his employment.

1 **SEC. 6. INTELLECTUAL PROPERTY.**

2 The Federal Government shall not, by virtue of offer-
3 ing or awarding a prize under this Act, be entitled to any
4 intellectual property rights derived as a consequence of,
5 or direct relation to, the participation by a registered par-
6 ticipant in a competition authorized by this Act. This sec-
7 tion shall not be construed to prevent the Federal Govern-
8 ment from negotiating a license for the use of intellectual
9 property developed for a prize competition under this Act.

10 **SEC. 7. LIABILITY.**

11 (a) **WAIVER OF LIABILITY.**—Registered participants
12 shall be required to agree to assume any and all risks,
13 and waive claims against the Federal Government and its
14 related entities, except in the case of willful misconduct,
15 for, any injury, death, damage, or loss of property, rev-
16 enue, or profits, whether direct, indirect, or consequential,
17 arising from their participation in a competition under
18 this Act, whether such injury, death, damage, or loss
19 arises through negligence or otherwise. For the purposes
20 of this subsection, the term “related entity” means a con-
21 tractor or subcontractor at any tier, and a supplier, user,
22 customer, cooperating party, grantee, investigator, or
23 detailee.

24 (b) **LIABILITY INSURANCE.**—

25 (1) **REQUIREMENTS.**—Participants shall be re-
26 quired to obtain liability insurance or demonstrate

1 financial responsibility, in amounts determined by
2 the Secretary, for claims by—

3 (A) a third party for death, bodily injury,
4 or property damage or loss resulting from an
5 activity carried out in connection with participa-
6 tion in a competition under this Act; and

7 (B) the Federal Government for damage or
8 loss to Government property resulting from
9 such an activity.

10 (2) FEDERAL GOVERNMENT INSURED.—The
11 Federal Government shall be named as an additional
12 insured under a registered participant’s insurance
13 policy required under paragraph (1)(A), and reg-
14 istered participants shall be required to agree to in-
15 demnify the Federal Government against third party
16 claims for damages arising from or related to com-
17 petition activities.

18 **SEC. 8. AUTHORIZATION OF APPROPRIATIONS.**

19 (a) AUTHORIZATION OF APPROPRIATIONS.—There
20 are authorized to be appropriated to the Secretary for car-
21 rying out this Act \$55,000,000 for each of the fiscal years
22 2007 through 2016, of which no more than \$1,000,000
23 for any fiscal year may be used for administrative ex-
24 penses.

1 (b) CARRYOVER OF FUNDS.—Funds appropriated
2 pursuant to this Act shall remain available until expended.

3 **SEC. 9. NONSUBSTITUTION.**

4 The programs created under this Act shall not be
5 considered a substitute for Federal research and develop-
6 ment programs.

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