

109TH CONGRESS  
2D SESSION

# H. R. 5143

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IN THE SENATE OF THE UNITED STATES

MAY 11, 2006

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

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## AN ACT

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,*

1 **SECTION 1. SHORT TITLE.**

2 This Act may be cited as the “H-Prize Act of 2006”.

3 **SEC. 2. DEFINITIONS.**

4 In this Act:

5 (1) ADMINISTERING ENTITY.—The term “ad-  
6 ministering entity” means the entity with which the  
7 Secretary enters into an agreement under section  
8 3(c).

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

11 (3) SECRETARY.—The term “Secretary” means  
12 the Secretary of Energy.

13 **SEC. 3. PRIZE AUTHORITY.**

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

19 (b) ADVERTISING AND SOLICITATION OF COMPETI-  
20 TORS.—

21 (1) ADVERTISING.—The Secretary shall widely  
22 advertise prize competitions to encourage broad par-  
23 ticipation, including by individuals, universities (in-  
24 cluding historically Black colleges and universities  
25 and other minority serving institutions), and large  
26 and small businesses (including businesses owned or

1 controlled by socially and economically disadvan-  
2 tagged persons).

3 (2) ANNOUNCEMENT THROUGH FEDERAL REG-  
4 ISTER NOTICE.—The Secretary shall announce each  
5 prize competition by publishing a notice in the Fed-  
6 eral Register. This notice shall include the subject of  
7 the competition, the duration of the competition, the  
8 eligibility requirements for participation in the com-  
9 petition, the process for participants to register for  
10 the competition, the amount of the prize, and the  
11 criteria for awarding the prize.

12 (c) ADMINISTERING THE COMPETITIONS.—The Sec-  
13 retary shall enter into an agreement with a private, non-  
14 profit entity to administer the prize competitions, subject  
15 to the provisions of this Act. The duties of the admin-  
16 istering entity under the agreement shall include—

17 (1) advertising prize competitions and their re-  
18 sults;

19 (2) raising funds from private entities and indi-  
20 viduals to pay for administrative costs and to con-  
21 tribute to cash prizes;

22 (3) working with the Secretary to develop the  
23 criteria for selecting winners in prize competitions,  
24 based on goals provided by the Secretary;

1           (4) determining, in consultation with the Sec-  
2       retary, the appropriate amount for each prize to be  
3       awarded;

4           (5) selecting judges in accordance with section  
5       4(d), using criteria developed in consultation with  
6       the Secretary; and

7           (6) preventing the unauthorized use or disclo-  
8       sure of a registered participant's intellectual prop-  
9       erty, trade secrets, and confidential business infor-  
10      mation.

11       (d) FUNDING SOURCES.—Prizes under this Act shall  
12      consist of Federal appropriated funds and any funds pro-  
13      vided by the administering entity (including funds raised  
14      pursuant to subsection (c)(2)) for such cash prizes. The  
15      Secretary may accept funds from other Federal agencies  
16      for such cash prizes. The Secretary may not give any spe-  
17      cial consideration to any private sector entity or individual  
18      in return for a donation to the administering entity.

19       (e) ANNOUNCEMENT OF PRIZES.—The Secretary  
20      may not issue a notice required by subsection (b)(2) until  
21      all the funds needed to pay out the announced amount  
22      of the prize have been appropriated or committed in writ-  
23      ing by the administering entity. The Secretary may in-  
24      crease the amount of a prize after an initial announcement  
25      is made under subsection (b)(2) if—

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

3           (2) the funds needed to pay out the announced  
4           amount of the increase have been appropriated or  
5           committed in writing by the administering entity.

6           (f) SUNSET.—The authority to announce prize com-  
7           petitions under this Act shall terminate on September 30,  
8           2017.

9   **SEC. 4. PRIZE CATEGORIES.**

10          (a) CATEGORIES.—The Secretary shall establish  
11          prizes for—

12               (1) advancements in components or systems re-  
13               lated to—

14                       (A) hydrogen production;

15                       (B) hydrogen storage;

16                       (C) hydrogen distribution; and

17                       (D) hydrogen utilization;

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

24               (3) transformational changes in technologies for  
25               the distribution or production of hydrogen that meet

1 or exceed far-reaching objective criteria, which shall  
2 include minimal carbon emissions and which may in-  
3 clude cost criteria designed to facilitate the eventual  
4 market success of a winning technology.

5 (b) AWARDS.—

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

21 (2) PROTOTYPES.—To the extent permitted  
22 under section 3(e), prizes authorized under sub-  
23 section (a)(2) shall be awarded biennially in alter-  
24 nate years from the prizes authorized under sub-  
25 section (a)(1). The Secretary is authorized to award

up to one prize in this category in each 2-year period. No such prize may exceed \$4,000,000. If no registered participants meet the objective performance criteria established pursuant to subsection (c) for a competition under this paragraph, the Secretary shall not award a prize.

(3) TRANSFORMATIONAL TECHNOLOGIES.—To the extent permitted under section 3(e), the Secretary shall announce one prize competition authorized under subsection (a)(3) as soon after the date of enactment of this Act as is practicable. A prize offered under this paragraph shall be not less than \$10,000,000, paid to the winner in a lump sum, and an additional amount paid to the winner as a match for each dollar of private funding raised by the winner for the hydrogen technology beginning on the date the winner was named. The match shall be provided for 3 years after the date the prize winner is named or until the full amount of the prize has been paid out, whichever occurs first. A prize winner may elect to have the match amount paid to another entity that is continuing the development of the winning technology. The Secretary shall announce the rules for receiving the match in the notice required by section 3(b)(2). The Secretary shall award a prize

1 under this paragraph only when a registered partici-  
2 pant has met the objective criteria established for  
3 the prize pursuant to subsection (c) and announced  
4 pursuant to section 3(b)(2). Not more than  
5 \$10,000,000 in Federal funds may be used for the  
6 prize award under this paragraph. The admin-  
7 istering entity shall seek to raise \$40,000,000 to-  
8 ward the matching award under this paragraph.

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

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

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

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

19 (d) JUDGES.—For each prize competition, the Sec-  
20 retary shall assemble a panel of qualified judges to select  
21 the winner or winners on the basis of the criteria estab-  
22 lished under subsection (c). Judges for each prize competi-  
23 tion shall include individuals from outside the Depart-  
24 ment, including from the private sector. A judge may  
25 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.**—The Secretary may re-  
12 quire registered participants to waive claims against the  
13 Federal Government and the administering entity (except  
14 claims for willful misconduct) for any injury, death, dam-  
15 age, or loss of property, revenue, or profits arising from  
16 the registered participants' participation in a competition  
17 under this Act. The Secretary shall give notice of any  
18 waiver required under this subsection in the notice re-  
19 quired by section 3(b)(2). The Secretary may not require  
20 a registered participant to waive claims against the admin-  
21 istering entity arising out of the unauthorized use or dis-  
22 closure by the administering entity of the registered par-  
23 ticipant's intellectual property, trade secrets, or confiden-  
24 tial business information.

25       (b) **LIABILITY INSURANCE.**—

1           (1) REQUIREMENTS.—Registered participants  
2       shall be required to obtain liability insurance or  
3       demonstrate financial responsibility, in amounts de-  
4       termined by the Secretary, for claims by—

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

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

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

20   **SEC. 8. AUTHORIZATION OF APPROPRIATIONS.**

21       (a) AUTHORIZATION OF APPROPRIATIONS.—

22           (1) AWARDS.—There are authorized to be ap-  
23      propriated to the Secretary for the period encom-  
24      passing fiscal years 2007 through 2016 for carrying  
25      out this Act—

1 (A) \$20,000,000 for awards described in  
2 section 4(a)(1);

3 (B) \$20,000,000 for awards described in  
4 section 4(a)(2); and

5 (C) \$10,000,000 for the award described  
6 in section 4(a)(3).

7 (2) ADMINISTRATION.—In addition to the  
8 amounts authorized in paragraph (1), there are au-  
9 thorized to be appropriated to the Secretary for each  
10 of fiscal years 2007 through 2016 \$2,000,000 for  
11 the administrative costs of carrying out this Act.

12 (b) CARRYOVER OF FUNDS.—Funds appropriated for  
13 prize awards under this Act shall remain available until  
14 expended, and may be transferred, reprogrammed, or ex-  
15 pended for other purposes only after the expiration of 10  
16 fiscal years after the fiscal year for which the funds were  
17 originally appropriated. No provision in this Act permits  
18 obligation or payment of funds in violation of section 1341  
19 of title 31 of the United States Code (commonly referred  
20 to as the Anti-Deficiency Act).

1 **SEC. 9. NONSUBSTITUTION.**

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

Passed the House of Representatives May 10, 2006.

Attest:

KAREN L. HAAS,  
*Clerk.*