

110TH CONGRESS  
1ST SESSION

# H. R. 632

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IN THE SENATE OF THE UNITED STATES

JUNE 7, 2007

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 2007”.

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 in conformity  
16 with this Act to advance the research, development, dem-  
17 onstration, and commercial application of hydrogen energy  
18 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 essential ele-  
7 ments of the competition such as the subject of the  
8 competition, the duration of the competition, the eli-  
9 gibility requirements for participation in the com-  
10 petition, the process for participants to register for  
11 the competition, the amount of the prize, and the  
12 criteria for awarding the prize.

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

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

20 (2) raising funds from private entities and indi-  
21 viduals to pay for administrative costs and to con-  
22 tribute to cash prizes, including funds provided in  
23 exchange for the right to name a prize awarded  
24 under this section;

1           (3) developing, in consultation with and subject  
2           to the final approval of the Secretary, the criteria  
3           for selecting winners in prize competitions, based on  
4           goals provided by the Secretary;

5           (4) determining, in consultation with the Sec-  
6           retary, the appropriate amount and funding sources  
7           for each prize to be awarded, subject to the final ap-  
8           proval of the Secretary with respect to Federal fund-  
9           ing;

10          (5) providing advice and consultation to the  
11          Secretary on the selection of judges in accordance  
12          with section 4(d), using criteria developed in con-  
13          sultation with and subject to the final approval of  
14          the Secretary; and

15          (6) protecting against the entity's unauthorized  
16          use or disclosure of a registered participant's trade  
17          secrets and confidential business information. Any  
18          information properly identified as trade secrets or  
19          confidential business information that is submitted  
20          by a participant as part of a competitive program  
21          under this Act may be withheld from public disclo-  
22          sure.

23          (d) FUNDING SOURCES.—Prizes under this Act shall  
24          consist of Federal appropriated funds and any funds pro-  
25          vided by the administering entity (including funds raised

1 pursuant to subsection (c)(2)) for such cash prize pro-  
2 grams. The Secretary may accept funds from other Fed-  
3 eral agencies for such cash prizes and, notwithstanding  
4 section 3302(b) of title 31, United States Code, may use  
5 such funds for the cash prize program. Other than publi-  
6 cation of the names of prize sponsors, the Secretary may  
7 not give any special consideration to any private sector  
8 entity or individual in return for a donation to the Sec-  
9 retary or administering entity.

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

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

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

22 (f) SUNSET.—The authority to announce prize com-  
23 petitions under this Act shall terminate on September 30,  
24 2018.

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

2 (a) CATEGORIES.—The Secretary shall establish  
3 prizes for—

4 (1) advancements in technologies, components,  
5 or systems related to—

6 (A) hydrogen production;

7 (B) hydrogen storage;

8 (C) hydrogen distribution; and

9 (D) hydrogen utilization;

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

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

22 (b) AWARDS.—

23 (1) ADVANCEMENTS.—To the extent permitted  
24 under section 3(e), the prizes authorized under sub-  
25 section (a)(1) shall be awarded biennially to the  
26 most significant advance made in each of the four

1 subcategories described in subparagraphs (A)  
2 through (D) of subsection (a)(1) since the submis-  
3 sion deadline of the previous prize competition in the  
4 same category under subsection (a)(1) or the date of  
5 enactment of this Act, whichever is later, unless no  
6 such advance is significant enough to merit an  
7 award. No one such prize may exceed \$1,000,000. If  
8 less than \$4,000,000 is available for a prize competi-  
9 tion under subsection (a)(1), the Secretary may omit  
10 one or more subcategories, reduce the amount of the  
11 prizes, or not hold a prize competition.

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

23 (3) TRANSFORMATIONAL TECHNOLOGIES.—To  
24 the extent permitted under section 3(e), the Sec-  
25 retary shall announce one prize competition author-

1        ized under subsection (a)(3) as soon after the date  
2        of enactment of this Act as is practicable. A prize  
3        offered under this paragraph shall be not less than  
4        \$10,000,000, paid to the winner in a lump sum, and  
5        an additional amount paid to the winner as a match  
6        for each dollar of private funding raised by the win-  
7        ner for the hydrogen technology beginning on the  
8        date the winner was named. The match shall be pro-  
9        vided for 3 years after the date the prize winner is  
10       named or until the full amount of the prize has been  
11       paid out, whichever occurs first. A prize winner may  
12       elect to have the match amount paid to another enti-  
13       ty that is continuing the development of the winning  
14       technology. The Secretary shall announce the rules  
15       for receiving the match in the notice required by sec-  
16       tion 3(b)(2). The Secretary shall award a prize  
17       under this paragraph only when a registered partici-  
18       pant has met the objective criteria established for  
19       the prize pursuant to subsection (c) and announced  
20       pursuant to section 3(b)(2). Not more than  
21       \$10,000,000 in Federal funds may be used for the  
22       prize award under this paragraph. The admin-  
23       istering entity shall seek to raise \$40,000,000 to-  
24       ward the matching award under this paragraph.



1       (c) CRITERIA.—In establishing the criteria required  
2 by this Act, the Secretary—

3           (1) shall consult with the Department’s Hydro-  
4 gen Technical and Fuel Cell Advisory Committee;

5           (2) shall consult with other Federal agencies,  
6 including the National Science Foundation; and

7           (3) may consult with other experts such as pri-  
8 vate organizations, including professional societies,  
9 industry associations, and the National Academy of  
10 Sciences and the National Academy of Engineering.

11       (d) JUDGES.—For each prize competition, the Sec-  
12 retary in consultation with the administering entity shall  
13 assemble a panel of qualified judges to select the winner  
14 or winners on the basis of the criteria established under  
15 subsection (c). Judges for each prize competition shall in-  
16 clude individuals from outside the Department, including  
17 from the private sector. A judge, spouse, minor children,  
18 and members of the judge’s household may not—

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

23           (2) have a familial or financial relationship with  
24 an individual who is a registered participant in the

1 prize competition for which he or she will serve as  
2 a judge.

3 **SEC. 5. ELIGIBILITY.**

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

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

9 (2) in the case of a private entity, shall be in-  
10 corporated in and maintain a primary place of busi-  
11 ness in the United States, and in the case of an in-  
12 dividual, whether participating singly or in a group,  
13 shall be a citizen of, or an alien lawfully admitted  
14 for permanent residence in, the United States; and

15 (3) shall not be a Federal entity, a Federal em-  
16 ployee acting within the scope of his employment, or  
17 an employee of a national laboratory acting within  
18 the scope of his employment.

19 **SEC. 6. INTELLECTUAL PROPERTY.**

20 The Federal Government shall not, by virtue of offer-  
21 ing or awarding a prize under this Act, be entitled to any  
22 intellectual property rights derived as a consequence of,  
23 or direct relation to, the participation by a registered par-  
24 ticipant in a competition authorized by this Act. This sec-  
25 tion shall not be construed to prevent the Federal Govern-

1 ment from negotiating a license for the use of intellectual  
2 property developed for a prize competition under this Act.

3 **SEC. 7. LIABILITY.**

4 (a) **WAIVER OF LIABILITY.**—The Secretary may re-  
5 quire registered participants to waive claims against the  
6 Federal Government and the administering entity (except  
7 claims for willful misconduct) for any injury, death, dam-  
8 age, or loss of property, revenue, or profits arising from  
9 the registered participants' participation in a competition  
10 under this Act. The Secretary shall give notice of any  
11 waiver required under this subsection in the notice re-  
12 quired by section 3(b)(2). The Secretary may not require  
13 a registered participant to waive claims against the admin-  
14 istering entity arising out of the unauthorized use or dis-  
15 closure by the administering entity of the registered par-  
16 ticipant's trade secrets or confidential business informa-  
17 tion.

18 (b) **LIABILITY INSURANCE.**—

19 (1) **REQUIREMENTS.**—Registered participants  
20 shall be required to obtain liability insurance or  
21 demonstrate financial responsibility, in amounts de-  
22 termined by the Secretary, for claims by—

23 (A) a third party for death, bodily injury,  
24 or property damage or loss resulting from an

1 activity carried out in connection with participa-  
2 tion in a competition under this Act; and

3 (B) the Federal Government for damage or  
4 loss to Government property resulting from  
5 such an activity.

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

14 **SEC. 8. REPORT TO CONGRESS.**

15 Not later than 60 days after the awarding of the first  
16 prize under this Act, and annually thereafter, the Sec-  
17 retary shall transmit to the Congress a report that—

18 (1) identifies each award recipient;

19 (2) describes the technologies developed by each  
20 award recipient; and

21 (3) specifies actions being taken toward com-  
22 mercial application of all technologies with respect to  
23 which a prize has been awarded under this Act.

24 **SEC. 9. AUTHORIZATION OF APPROPRIATIONS.**

25 (a) AUTHORIZATION OF APPROPRIATIONS.—

1           (1) AWARDS.—There are authorized to be ap-  
2           propriated to the Secretary for the period encom-  
3           passing fiscal years 2008 through 2017 for carrying  
4           out this Act—

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

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

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

11           (2) ADMINISTRATION.—In addition to the  
12           amounts authorized in paragraph (1), there are au-  
13           thorized to be appropriated to the Secretary for each  
14           of fiscal years 2008 and 2009 \$2,000,000 for the  
15           administrative costs of carrying out this Act.

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

1 SEC. 10. 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 June 6, 2007.

Attest: LORRAINE C. MILLER,  
*Clerk.*

By DEBORAH M. SPRIGGS,  
*Deputy Clerk.*