

# Union Calendar No. 254

109<sup>TH</sup> CONGRESS  
2<sup>D</sup> SESSION

# H. R. 5143

[Report No. 109-456]

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

MAY 9, 2006

Additional sponsors: Mr. ISSA, Mr. BARRETT of South Carolina, Mr. MCHENRY, Mr. CALVERT, Mr. WELDON of Pennsylvania, Mrs. JOHNSON of Connecticut, Mr. FEENEY, Mr. WICKER, Mr. DOOLITTLE, Ms. LORETTA SANCHEZ of California, Mr. REICHERT, and Mr. JOHNSON of Illinois

MAY 9, 2006

Reported with an amendment, committed to the Committee of the Whole House on the State of the Union, and ordered to be printed

[Strike out all after the enacting clause and insert the part printed in italic]

[For text of introduced bill, see copy of bill as introduced on April 6, 2006]

---

## 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:*

7           (1) *ADMINISTERING ENTITY.*—*The term “admin-*  
8 *istering entity” means the entity with which the Sec-*  
9 *retary enters into an agreement under section 3(c).*

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

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

14 **SEC. 3. PRIZE AUTHORITY.**

15       (a) *IN GENERAL.*—*The Secretary shall carry out a*  
16 *program to competitively award cash prizes only in con-*  
17 *formity with this Act to advance the research, development,*  
18 *demonstration, and commercial application of hydrogen en-*  
19 *ergy technologies.*

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

22           (1) *ADVERTISING.*—*The Secretary shall widely*  
23 *advertise prize competitions to encourage broad par-*  
24 *ticipation, including by individuals, universities (in-*

1 *cluding historically Black colleges and universities*  
2 *and other minority serving institutions), and large*  
3 *and small businesses (including businesses owned or*  
4 *controlled by socially and economically disadvantaged*  
5 *persons).*

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

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

20 (1) *advertising prize competitions and their re-*  
21 *sults;*

22 (2) *raising funds from private entities and indi-*  
23 *viduals to pay for administrative costs and to con-*  
24 *tribute to cash prizes;*

1           (3) *working with the Secretary to develop the*  
2           *criteria for selecting winners in prize competitions,*  
3           *based on goals provided by the Secretary;*

4           (4) *determining, in consultation with the Sec-*  
5           *retary, the appropriate amount for each prize to be*  
6           *awarded under section 4(b)(3); and*

7           (5) *selecting judges in accordance with section*  
8           *4(d), using criteria developed in consultation with the*  
9           *Secretary.*

10          (d) *FUNDING SOURCES.—Prizes under this Act may*  
11          *consist of Federal appropriated funds and funds provided*  
12          *by the administering entity (including funds raised pursu-*  
13          *ant to subsection (c)(2)) for such cash prizes. The Secretary*  
14          *may accept funds from other Federal agencies for such cash*  
15          *prizes. The Secretary may not give any special consider-*  
16          *ation to any private sector entity or individual in return*  
17          *for a donation to the administering entity.*

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

1           (1) *notice of the increase is provided in the same*  
2           *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 prizes*  
11          *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 exceed*  
20               *objective performance criteria, such as completion of*  
21               *a race over a certain distance or terrain or genera-*  
22               *tion of energy at certain levels of efficiency; and*

23               (3) *transformational changes in technologies for*  
24               *the distribution or production of hydrogen that meet*  
25               *or exceed far-reaching objective criteria, which shall*

1 *include minimal carbon emissions and which may in-*  
2 *clude cost criteria designed to facilitate the eventual*  
3 *market success of a winning technology.*

4 *(b) AWARDS.—*

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

19 *(2) PROTOTYPES.—To the extent permitted*  
20 *under section 3(e), prizes authorized under subsection*  
21 *(a)(2) shall be awarded biennially in alternate years*  
22 *from the prizes authorized under subsection (a)(1).*  
23 *The Secretary is authorized to award up to one prize*  
24 *in this category in each 2-year period. No such prize*  
25 *may exceed \$4,000,000. If no registered participants*

1 *meet the objective performance criteria established*  
2 *pursuant to subsection (c) for a competition under*  
3 *this paragraph, the Secretary shall not award a*  
4 *prize.*

5 (3) *TRANSFORMATIONAL TECHNOLOGIES.—To*  
6 *the extent permitted under section 3(e), the Secretary*  
7 *shall announce at least one prize competition author-*  
8 *ized under subsection (a)(3) as soon after the date of*  
9 *enactment of this Act as is practicable. To the extent*  
10 *permitted under section 3(e), the Secretary may an-*  
11 *ounce additional prize competitions authorized*  
12 *under subsection (a)(3) as appropriate to accelerate*  
13 *the development and adoption of hydrogen tech-*  
14 *nologies. A prize offered under this paragraph shall be*  
15 *not less than \$10,000,000, paid to the winner in a*  
16 *lump sum, and an additional amount paid to the*  
17 *winner as a match for each dollar of private funding*  
18 *raised by the winner for the hydrogen technology be-*  
19 *ginning on the date the winner was named. The*  
20 *match shall be provided for 3 years after the date the*  
21 *prize winner is named or until the full amount of the*  
22 *prize has been paid out, whichever occurs first. A*  
23 *prize winner may elect to have the match amount*  
24 *paid to another entity that is continuing the develop-*  
25 *ment of the winning technology. The Secretary shall*

1        *announce the rules for receiving the match in the no-*  
2        *tice required by section 3(b)(2). The Secretary shall*  
3        *award a prize under this paragraph only when a reg-*  
4        *istered participant has met the objective criteria es-*  
5        *tablished for the prize pursuant to subsection (c) and*  
6        *announced pursuant to section 3(b)(2). Not more than*  
7        *\$10,000,000 in Federal funds may be used for each*  
8        *prize award under this paragraph. The administering*  
9        *entity shall seek to raise \$40,000,000 toward each*  
10       *matching award under this paragraph.*

11       *(c) CRITERIA.—In establishing the criteria required by*  
12       *this Act, the Secretary shall consult with—*

13                *(1) the Department’s Hydrogen Technical and*  
14                *Fuel Cell Advisory Committee;*

15                *(2) other Federal agencies, including the Na-*  
16                *tional Science Foundation; and*

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

21        *(d) JUDGES.—For each prize competition, the Sec-*  
22        *retary shall assemble a panel of qualified judges to select*  
23        *the winner or winners on the basis of the criteria established*  
24        *under subsection (c). Judges for each prize competition shall*

1 *include individuals from outside the Department, including*  
2 *from the private sector. A judge may not—*

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

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

11 **SEC. 5. ELIGIBILITY.**

12 *To be eligible to win a prize under this Act, an indi-*  
13 *vidual or entity—*

14 *(1) shall have complied with all the requirements*  
15 *in accordance with the Federal Register notice re-*  
16 *quired under section 3(b)(2);*

17 *(2) in the case of a private entity, shall be incor-*  
18 *porated in and maintain a primary place of business*  
19 *in the United States, and in the case of an indi-*  
20 *vidual, whether participating singly or in a group,*  
21 *shall be a citizen of, or an alien lawfully admitted for*  
22 *permanent residence in, the United States; and*

23 *(3) shall not be a Federal entity, a Federal em-*  
24 *ployee acting within the scope of his employment, or*

1        *an employee of a national laboratory acting within*  
2        *the scope of his employment.*

3        **SEC. 6. INTELLECTUAL PROPERTY.**

4        *The Federal Government shall not, by virtue of offering*  
5        *or awarding a prize under this Act, be entitled to any intel-*  
6        *lectual property rights derived as a consequence of, or direct*  
7        *relation to, the participation by a registered participant*  
8        *in a competition authorized by this Act. This section shall*  
9        *not be construed to prevent the Federal Government from*  
10       *negotiating a license for the use of intellectual property de-*  
11       *veloped for a prize competition under this Act.*

12       **SEC. 7. LIABILITY.**

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

25       *(b) LIABILITY INSURANCE.—*

1           (1) *REQUIREMENTS.*—Registered participants  
2 shall be required to obtain liability insurance or dem-  
3 onstrate financial responsibility, in amounts deter-  
4 mined by the Secretary, for claims by—

5           (A) a third party for death, bodily injury,  
6 or property damage or loss resulting from an ac-  
7 tivity 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 such  
11 an activity.

12           (2) *FEDERAL GOVERNMENT INSURED.*—The Fed-  
13 eral Government shall be named as an additional in-  
14 sured under a registered participant’s insurance pol-  
15 icy required under paragraph (1)(A), and registered  
16 participants shall be required to agree to indemnify  
17 the Federal Government against third party claims  
18 for damages arising from or related to competition  
19 activities.

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

21           (a) *AUTHORIZATION OF APPROPRIATIONS.*—There are  
22 authorized to be appropriated to the Secretary for carrying  
23 out this Act \$11,000,000 for each of the fiscal years 2007  
24 through 2016, of which no more than \$2,000,000 for any  
25 fiscal year may be used for administrative expenses.

1       (b) *CARRYOVER OF FUNDS.*—*Funds appropriated for*  
2 *prize awards under this Act shall remain available until*  
3 *expended, and may be transferred, reprogrammed, or ex-*  
4 *pended for other purposes only after the expiration of 10*  
5 *fiscal years after the fiscal year for which the funds were*  
6 *originally appropriated. No provision in this Act permits*  
7 *obligation or payment of funds in violation of section 1341*  
8 *of title 31 of the United States Code (commonly referred*  
9 *to as the Anti-Deficiency Act).*

10 **SEC. 9. NONSUBSTITUTION.**

11       *The programs created under this Act shall not be con-*  
12 *sidered a substitute for Federal research and development*  
13 *programs.*



Union Calendar No. 254

109<sup>TH</sup> CONGRESS  
2<sup>D</sup> SESSION

**H. R. 5143**

[Report No. 109-456]

---

---

## **A BILL**

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

---

---

MAY 9, 2006

Reported with an amendment, committed to the Committee of the Whole House on the State of the Union, and ordered to be printed