



Overview on Hydrogen Prizes

HTAC Meeting
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Why Hydrogen Prizes?

Objectives

- Create revolutionary incentives to solve a **critical challenge**, aligned with the President's Hydrogen Fuel Initiative and Advanced Energy Initiative
- Complement existing funded R&D by "incentivizing" researchers outside the current solicitation process
- Support EPACK and OMB initiatives for "cash prizes in recognition of breakthrough research, development, demonstration, and commercial application that have the potential for application to the performance of the mission of the Department." (EPAct 2005, Title X, Sec. 1008)
- Support National Academies recommendations on fostering innovation through prizes

Outcomes

- Stimulates innovation
- Helps overcome critical technology barriers
- Educates, motivates, inspires the public
- Catalyzes public-private partnerships
- Increases return on investment



EPAct 2005

Title X, Sec. 1008: Prizes for Achievement in Grand Challenges of Science and Technology

- (a) Authority-** The Secretary may carry out a program to award cash prizes in recognition of breakthrough achievements in research, development, demonstration, and commercial application that have the potential for application to the performance of the mission of the Department.
- (b) Competition Requirements-** The program under subsection (a) may include prizes for the achievement of goals articulated by the Secretary in a specific area through a widely advertised solicitation of submission of results for research, development, demonstration, or commercial application projects.
- (c) Prizes for Processes and Technologies to Reduce Dependence on Imported Oil-** The Secretary, in cooperation with the Freedom Prize Foundation, shall support a program of awarding prizes, to be known as **Freedom Prizes**, to encourage and recognize the development and deployment of processes and technologies that serve to reduce the dependence of the United States on imported oil.



EPAct 2005, Section 1008 (cont'd)

(d) Relationship to Other Authority- The program under subsection (a) may be carried out in conjunction with or in addition to the exercise of any other authority of the Secretary to acquire, support, or stimulate research, development, demonstration, or commercial application projects.

(e) Authorization of Appropriations- There are authorized to be appropriated--

- (1) \$10,000,000 to carry out the program under subsection (a); and
- (2) \$5,000,000 to carry out the program under subsection (c).

Prize concepts under development for biofuels and hybrid vehicles under section c and hydrogen storage under section a.



Background on H-Prize Bill

[S.365.IS and H.R.632.IH]

Three categories for prizes:

- 1) Technology advances in components or systems for production, storage, distribution, and utilization of hydrogen;
(\$1M maximum for each subcategory prize, every other year)
Total authorization \$20M (2008-2017)
- 2) Prototypes such as vehicles to meet a certain driving range
(\$4M every other year, alternate year to category 1)
Total authorization \$20M (2008-2017)
- 3) “Transformational technologies” for hydrogen production or distribution (\$10M federal share plus private cost share goal of \$40M).
Total authorization \$10M (2008-2017)

Status: Prize concepts being structured to fulfill H-Prize legislation when enacted.



Next Steps

- Continue compiling lessons learned from other Prizes (X Prize, etc.)
- Work with Stakeholders (e.g. FreedomCAR & Fuel Partnership, HTAC, National Academies, etc.) to identify criteria
- Work with GC & procurement to determine processes for implementing H-Prize