



CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

May 31, 2007

H.R. 632 **H-Prize Act of 2007**

*As ordered reported by the House Committee on Science and Technology
on May 23, 2007*

SUMMARY

H.R. 632 would authorize the appropriation of \$54 million over the 2008-2017 period to the Department of Energy (DOE) to award cash prizes to individuals, universities, and businesses that make significant advances in the field of hydrogen energy. Based on goals set forth by DOE, prizes would be awarded every two years for the most significant advancements in hydrogen production, storage, distribution, and utilization as well as the development of a prototype for a hydrogen-powered vehicle or hydrogen-based product. CBO estimates that implementing H.R. 632 would cost \$30 million over the 2008-2012 period, assuming the appropriation of the necessary funds. An additional \$24 million would be spent after 2012. Enacting H.R. 632 would have no effect on direct spending or revenues.

H.R. 632 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA); any costs to public institutions of higher education would be incurred voluntarily.

ESTIMATED COST TO THE FEDERAL GOVERNMENT

The estimated budgetary impact of H.R. 632 is shown in the following table. The costs of this legislation fall within budget function 250 (general science, space, and technology).

	By Fiscal Year, in Millions of Dollars				
	2008	2009	2010	2011	2012
CHANGES IN SPENDING SUBJECT TO APPROPRIATION					
Estimated Authorization Level	16	6	4	4	4
Estimated Outlays	2	16	4	4	4

BASIS OF ESTIMATE

H.R. 632 would authorize the appropriation of \$54 million over the 2008-2017 period for the Department of Energy (DOE) to award cash prizes for achievements in the development of hydrogen energy technologies. Such amounts include \$50 million for cash prizes, and \$4 million for DOE to enter into an agreement with a private, nonprofit entity to administer the program. For this estimate, CBO assumes that the bill will be enacted in fiscal year 2007 and that the amounts authorized by the bill will be appropriated over 10 years, beginning with fiscal year 2008.

Under the bill, prize competitions would be held over the next 10 years to encourage hydrogen energy research and development. Individuals, private, nonprofit organizations, and businesses would be eligible to compete for separate prizes of up to \$1 million for demonstrating a significant advancement in hydrogen production, storage, distribution, or utilization, or up to \$4 million for developing a prototype of a hydrogen-powered vehicle or hydrogen-based product. Competitions in these areas would be held every two years up until 2018, when the authority to make such awards would expire. A separate one-time competition would be held to award \$10 million for an innovation that transforms the distribution or production of hydrogen.

For this estimate, CBO expects that prize announcements would be made in the year funds are appropriated and that final awards would be made in the following year. We expect that \$2 million in administrative costs would be incurred in each of fiscal years 2008 and 2009. This estimate also assumes that the \$10 million prize will be awarded in 2009. CBO estimates that implementing H.R. 632 would cost \$2 million in 2008 and \$30 million over the 2008-2012 period, assuming the appropriation of the necessary funds. An additional \$24 million would be spent after 2012.

INTERGOVERNMENTAL AND PRIVATE-SECTOR IMPACT

H.R. 632 contains no intergovernmental or private-sector mandates as defined in UMRA. Funding authorized in the bill may benefit public institutions of higher education that compete for funds in connection with hydrogen research. Any costs to comply with the requirements of the competition, including obtaining liability insurance, would be incurred voluntarily.

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