



CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

June 18, 2007

H.R. 2313 **Marine Renewable Energy Research and Development Act of 2007**

*As ordered reported by the House Committee on Science and Technology
on June 13, 2007*

SUMMARY

H.R. 2313 would authorize the appropriation of \$250 million over the 2008-2012 period for the Department of Energy (DOE) to support research and development programs that expand the production of marine renewable energy. Marine renewable energy includes energy derived from waves, tidal flows, ocean currents, and ocean thermal energy conversion. Additionally, funds authorized to be appropriated under the bill would be used to make grants to institutions of higher education to establish National Marine Renewable Energy Research, Development, and Demonstration Centers that would advance research on marine renewable energy and act as an information clearinghouse for industry. CBO estimates that implementing H.R. 2313 would cost \$220 million over the 2008-2012 period, assuming the appropriation of the specified funds. Enacting H.R. 2313 would have no effect on direct spending or revenues.

H.R. 2313 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA) and would benefit public institutions of higher education.

ESTIMATED COST TO THE FEDERAL GOVERNMENT

The estimated budgetary impact of H.R. 2313 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					
Authorization Level	50	50	50	50	50
Estimated Outlays	28	42	50	50	50

BASIS OF ESTIMATE

For this estimate, CBO assumes that the bill will be enacted near the end of fiscal year 2007 and that the amounts authorized by the bill will be appropriated for each fiscal year.

H.R. 2313 would authorize the appropriation of \$50 million for each of fiscal years 2008 through 2012 for the research and development of marine renewable energy, including energy derived from waves, tidal flows, ocean currents, and ocean thermal energy conversion. The legislation would direct the Secretary of Energy to support programs studying existing and potential marine energy technologies, including potential environmental impacts, as well as methods to reduce manufacturing costs, increase reliability and survivability, and integrate such technologies into the existing utility grid. Based on information from DOE, CBO expects that funds authorized by the bill would be used to establish new programs within the department for these activities.

H.R. 2313 would also award grants to institutions of higher education to establish National Marine Renewable Energy Research, Development, and Demonstration Centers. Such centers would research and develop marine renewable energy technologies, including their demonstration and commercial application. The centers also would serve as information clearinghouses by collecting and disseminating information on best practices to develop and manage marine renewable energy resources.

Based on the historical spending patterns of DOE research and development programs, CBO estimates that implementing H.R. 2313 would cost \$28 million in 2008 and \$220 million over the 2008-2012 period. Such costs would be subject to appropriation of the specified funds.

INTERGOVERNMENTAL AND PRIVATE-SECTOR IMPACT

H.R. 2313 contains no intergovernmental or private-sector mandates as defined in UMRA and would benefit participating public institutions of higher education. The bill would authorize grants for establishing one or more national centers for researching and developing marine renewable energy. These centers would serve as information clearinghouses for the marine renewable energy industry and would be located at institutions of higher education. Any costs incurred by public entities, as conditions of receiving assistance, would be incurred voluntarily.

ESTIMATE PREPARED BY:

Federal Costs: Daniel Hoople

Impact on State, Local, and Tribal Governments: Neil Hood

Impact on the Private Sector: Amy Petz

ESTIMATE APPROVED BY:

Peter H. Fontaine

Deputy Assistant Director for Budget Analysis