



CONGRESSIONAL BUDGET OFFICE
COST ESTIMATE

June 28, 2011

S. 630
Marine and Hydrokinetic Renewable Energy Promotion Act of 2011

*As ordered reported by the Senate Committee on Energy and Natural Resources
on May 26, 2011*

SUMMARY

S. 630 would authorize appropriations to support a variety of activities aimed at promoting the development of hydropower, particularly marine and hydrokinetic energy devices that produce energy from moving water. Assuming appropriation of the authorized amounts, CBO estimates that implementing S. 630 would have a net discretionary cost of \$87 million over the 2012-2016 period. Enacting S. 630 would not affect direct spending or revenues; therefore, pay-as-you-go procedures do not apply.

S. 630 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA).

ESTIMATED COST TO THE FEDERAL GOVERNMENT

The estimated budgetary impact of S. 630 is shown in the following table. The costs of this legislation fall within budget function 270 (energy).

	By Fiscal Year, in Millions of Dollars					2012- 2016
	2012	2013	2014	2015	2016	
CHANGES IN SPENDING SUBJECT TO APPROPRIATION						
Grants for Marine and Hydrokinetic Energy						
Authorization Level	20	75	0	0	0	95
Estimated Outlays	4	21	29	26	12	92
Grants for Small Hydropower Projects						
Estimated Authorization Level	3	3	3	3	3	15
Estimated Outlays	3	3	3	3	3	15
Reduced Authorizations for Energy Projects						
Authorization Level	-20	0	0	0	0	-20
Estimated Outlays	-2	-6	-6	-4	-2	-20
Total Proposed Changes						
Estimated Authorization Level	3	78	3	3	3	90
Estimated Outlays	5	18	26	25	13	87

BASIS OF ESTIMATE

S. 630 would authorize appropriations to promote the development of marine and hydrokinetic energy as well as authorize the Department of Energy (DOE) to provide grants to pay for half of the cost of constructing small hydropower projects throughout the country. The bill also would eliminate an existing authorization of appropriations to support certain energy projects. Taken as a whole, CBO estimates that implementing S. 630 would result in a net increase in discretionary spending of \$87 million over the 2012-2016 period.

Spending for Marine and Hydrokinetic Energy

S. 630 would authorize appropriations totaling \$145 million over the 2012-2013 period for DOE to carry out a variety of activities to promote research, development, and deployment of marine and hydrokinetic energy devices. According to DOE, the agency has allocated \$20 million to develop marine and hydrokinetic technologies in 2011.

Current law already authorizes the appropriation of \$50 million for activities related to marine and hydrokinetic energy in 2012; therefore, the incremental increase in funding authorized by S. 630 would total \$95 million over the 2012-2013 period. Under the bill, DOE would use authorized amounts to establish facilities to research and test such devices,

develop systems to test and share information on their performance and reliability, and provide grants to support analyses of their impact on the environment. Assuming appropriation of the authorized amounts, CBO estimates that spending for such activities would increase spending by \$92 million over the 2012-2016 period, based on historical spending patterns for existing and similar programs.

Grants for Small Hydropower

S. 630 would amend a provision of current law (42 U.S.C. 17282) that authorizes DOE to provide grants to support the construction of certain renewable energy facilities, including small hydropower facilities with a capacity of 15 megawatts or less. Under current law, DOE can only provide support for hydropower projects located in the state of Alaska; S. 630 would remove that restriction and allow DOE to support projects anywhere in the country.

Based on information from the Federal Energy Regulatory Commission (FERC), which must issue a permit for all hydropower facilities regardless of size, CBO estimates that an average of roughly 3.6 megawatts of new generating capacity has been licensed in each of the past 10 years. Based on information from DOE about current costs to build small hydropower facilities and assuming that investments in future years remain in line with trends over the past decade, CBO estimates that total spending to construct new facilities will average about \$6 million a year over the 2012-2016 period. S. 630 would authorize DOE to provide grants for up to half of that amount; thus, CBO estimates that fully funding this provision would require appropriations of about \$3 million annually over the 2012-2016 period. Assuming appropriation of the estimated amounts, CBO estimates that resulting spending would total \$15 million over that same period.

Reduced Authorization for Energy Projects

To offset a portion of increased discretionary spending, S. 630 would eliminate an existing authorization to appropriate \$20 million in 2012 to support certain energy-related projects in rural areas. Assuming future appropriations are reduced accordingly, CBO estimates that implementing that provision would result in \$20 million less in discretionary spending over the 2012-2016 period.

S. 630 would also direct that any amounts authorized to be appropriated in 2013 to cover the federal cost of a direct loan to a specific clean coal facility in Alaska be reduced by \$75 million. Consistent with requirements of the Federal Credit Reform Act, current law authorizes the appropriation of whatever amounts are necessary to cover the anticipated subsidy cost of the authorized loans. CBO estimates that this provision of S. 630 would have no impact on spending subject to appropriation because it would make no

corresponding changes to the terms of the authorized loan and would therefore not affect the amount of the subsidy required to support the loan.

PAY-AS-YOU-GO CONSIDERATIONS: None.

INTERGOVERNMENTAL AND PRIVATE-SECTOR IMPACT

S. 630 contains no intergovernmental or private-sector mandates as defined in UMRA. The bill could benefit state and local governments by authorizing grants related to renewable energy generated from marine and hydrokinetic sources. Any costs those entities incur to meet grant requirements would result from complying with the conditions of federal assistance.

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