

S. 1821, Marine Energy Research and Development Act of 2019

As ordered reported by the Senate Committee on Energy and Natural Resources on September 25, 2019

By Fiscal Year, Millions of Dollars	2020	2020-2024	2020-2029
Direct Spending (Outlays)	0	0	0
Revenues	0	0	0
Increase in the Deficit	0	0	0
Spending Subject to Appropriation (Outlays)	32	299	320
Statutory pay-as-you-go procedures apply?	No	Mandate Effects	
Increases on-budget deficits in any of the four consecutive 10-year periods beginning in 2030?	No	Contains intergovernmental mandate?	No
		Contains private-sector mandate?	No

S. 1821 would reauthorize a Department of Energy (DOE) program aimed at accelerating the introduction of marine energy into the U.S. energy supply and fostering the research, development, and testing of marine energy technologies. Sources of marine energy include energy from waves, tides, currents, free-flowing hydrokinetic water, and differentials in ocean temperature. The bill also would expand a DOE-sponsored grant program that provides funding to institutions of higher education for performing research, development, and testing activities at National Marine Energy Centers. For those programs, S. 1821 would authorize the appropriation of \$160 million annually for fiscal years 2020 and 2021. In 2019 the Congress appropriated \$70 million to research marine and hydrokinetic technologies.

Based on historical spending for similar activities, and assuming the appropriation of the authorized amounts, CBO estimates that implementing S. 1821 would cost \$299 million over the 2020-2024 period and \$21 million after 2024. The costs of the legislation (detailed in Table 1) would fall within budget function 270 (energy).

**Table 1.
Estimated Increases in Spending Subject to Appropriation Under S. 1821**

	By Fiscal Year, Millions of Dollars										2020-2024	2020-2029
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029		
Authorization	160	160	0	0	0	0	0	0	0	0	320	320
Estimated Outlays	32	80	88	64	35	16	5	0	0	0	299	320

The CBO staff contact for this estimate is Aaron Krupkin. The estimate was reviewed by H. Samuel Papenfuss, Deputy Assistant Director for Budget Analysis.