



**CONGRESSIONAL BUDGET OFFICE
COST ESTIMATE**

December 4, 2017

H.R. 4378
Nuclear Energy Research Infrastructure Act of 2017
*As ordered reported by the House Committee on Science, Space, and Technology
on November 15, 2017*

SUMMARY

H.R. 4378 would authorize appropriations for the Department of Energy (DOE) to establish a test reactor to support research and development of advanced nuclear reactor technologies. Assuming appropriation of the authorized amounts, CBO estimates that implementing the bill would cost nearly \$2 billion over the 2018-2027 period.

Enacting H.R. 4378 would not affect direct spending or revenues; therefore, pay-as-you-go procedures do not apply. CBO estimates that enacting H.R. 4378 would not increase net direct spending or on-budget deficits in any of the four consecutive 10-year periods beginning in 2028.

H.R. 4378 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 effect of H.R. 4378 is shown in the following table. The costs of this legislation fall within budget function 270 (energy).

	By Fiscal Year, in Millions of Dollars											2018- 2022	2018- 2027
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027			
INCREASES IN SPENDING SUBJECT TO APPROPRIATION													
Authorization Level	35	100	200	260	340	350	350	350	0	0	935	1,985	
Estimated Outlays	11	41	101	172	250	305	338	349	245	140	575	1,952	

BASIS OF ESTIMATE

H.R. 4378 would authorize appropriations totaling nearly \$2 billion for DOE to establish, before calendar year 2026, a nuclear test reactor to support the research and development of advanced nuclear technologies. The bill also would specify technical capabilities that the proposed reactor must provide and would direct DOE to operate it as a national user facility that would be available for external use by nonfederal entities. Finally, the bill would direct DOE to consult the private sector, universities, national laboratories, and other federal agencies when it developed such a facility.

According to DOE, the agency is currently assessing the need for a test reactor similar to the one envisioned under H.R. 4378, the costs of which are uncertain. Assuming appropriation of the specified amounts, CBO estimates that federal spending to support the development of such a facility would total nearly \$2 billion over the 2018-2027 period. That estimate is based on historical spending patterns for similar activities administered by DOE.

PAY-AS-YOU-GO CONSIDERATIONS: None

INCREASE IN LONG-TERM DIRECT SPENDING AND DEFICITS

CBO estimates that enacting the legislation would not increase net direct spending or on-budget deficits in any of the four consecutive 10-year periods beginning in 2028.

MANDATES

H.R. 4378 contains no intergovernmental or private-sector mandates as defined in UMRA.

ESTIMATE PREPARED BY

Federal Costs: Megan Carroll

Mandates: Jon Sperl

ESTIMATE APPROVED BY

H. Samuel Papenfuss

Deputy Assistant Director for Budget Analysis