



**CONGRESSIONAL BUDGET OFFICE  
COST ESTIMATE**

April 10, 2018

**S. 1563  
Rare Earth Element Advanced Coal Technologies Act**

*As ordered reported by the Senate Committee on Energy and Natural Resources  
on March 8, 2018*

**SUMMARY**

S. 1563 would authorize appropriations for the Department of Energy (DOE) to develop technologies to lower the cost of recovering rare earth elements and other materials from coal and coal byproducts.

Assuming appropriation of the authorized amounts, CBO estimates that implementing S. 1563 would cost \$60 million over the 2018-2023 period. Enacting the bill would not affect direct spending or revenues; therefore, pay-as-you-go procedures do not apply.

CBO estimates that enacting S. 1563 would not increase net direct spending or on-budget deficits in any of the four consecutive 10-year periods beginning in 2029.

S. 1563 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 S. 1563 is shown in the following table. The costs of the legislation fall within budget function 270 (energy).

	By Fiscal Year, in Millions of Dollars						2018-2023
	2018	2019	2020	2021	2022	2023	
<b>INCREASES IN SPENDING SUBJECT TO APPROPRIATION</b>							
Authorization Level	20	20	20	20	20	20	120
Estimated Outlays	0	3	9	14	16	18	60

The bill would authorize the appropriation of \$20 million in 2018. CBO does not estimate any outlays for that authorization because appropriations for 2018 have already been enacted.

## **BASIS OF ESTIMATE**

For this estimate, CBO assumes that S. 1563 will be enacted near the start of fiscal year 2019 and that authorized amounts will be provided each year beginning in 2019.

S. 1563 would authorize the appropriation of \$20 million annually over the 2018-2025 period for DOE to carry out research related to rare earth elements and minerals and to develop advanced technologies to improve the economic viability of separating, extracting, and recovering those materials from coal and coal byproducts. The bill also would require DOE to assess the importance of rare earth elements and minerals to U.S. consumers, evaluate technologies developed under the bill, and analyze other factors related to the costs and economic effects of implementing such technologies.

For 2018, the Congress has provided \$15 million for DOE’s research activities related to rare earth elements and minerals; for this estimate, CBO assumes no further funding will be provided this year. Assuming appropriation of the authorized amounts over the 2019-2025 period, CBO estimates that outlays would total \$60 million over the 2018-2023 period covered by this estimate. (Additional outlays after 2023 would total \$80 million.) That estimate is based on historical spending patterns for existing activities.

**PAY-AS-YOU-GO CONSIDERATIONS:** None.

## **INCREASE IN LONG-TERM DIRECT SPENDING AND DEFICITS**

CBO estimates that enacting S. 1563 would not increase net direct spending or on-budget deficits in any of the four consecutive 10-year periods beginning in 2029.

## **MANDATES**

S. 1563 contains no intergovernmental or private-sector mandates as defined in UMRA.

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