

**At a Glance**

**H.R. 3607, Fossil Energy Research and Development Act of 2019**

As ordered reported by the House Committee on Science, Space, and Technology on July 24, 2019

By Fiscal Year, Millions of Dollars	2020	2020-2024	2020-2029
Direct Spending (Outlays)	0	*	*
Revenues	0	0	0
Increase or Decrease (-) in the Deficit	0	*	*
<b>Spending Subject to Appropriation (Outlays)</b>	<b>102</b>	<b>2,537</b>	<b>4,484</b>

Statutory pay-as-you-go procedures apply?	Yes	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

\* = between -\$500,000 and zero

**The bill would**

- Authorize appropriations totaling \$4.6 billion over the 2020-2025 period for the Department of Energy's fossil energy research and development activities
- Authorize the appropriation of \$15 million for the department to carry out prize competitions for ideas that reduce carbon emissions from fossil fuel-based energy production

**Estimated budgetary effects would primarily stem from**

- Spending of the authorized appropriations

**Detailed estimate begins on the next page.**

## Bill Summary

H.R. 3607 would authorize appropriations totaling \$4.6 billion over the 2020-2025 period for the Department of Energy’s (DOE’s) fossil energy research and development activities. The bill would recodify existing activities under DOE’s Office of Fossil Energy, and would direct the department to establish research, development, and demonstration programs for carbon removal, carbon utilization, and waste gas utilization. H.R. 3607 also would authorize the appropriation of \$15 million for DOE to carry out prize competitions for ideas to reduce carbon emissions from fossil fuel-based energy production. The bill would permit DOE to collect and spend donations to award prizes.

## Estimated Federal Cost

The estimated budgetary effect of H.R. 3607 is shown in Table 1. The costs of the legislation fall within budget function 270 (energy).

**Table 1.**  
**Estimated Budgetary Effects of H.R. 3607<sup>a</sup>**

	By Fiscal Year, Millions of Dollars										2020-2024	2020-2029
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029		
<b>Increases in Spending Subject to Appropriation</b>												
<b>Fossil Energy Activities</b>												
Authorization	825	866	910	955	1,003	50	0	0	0	0	4,559	4,609
Estimated Outlays	99	335	558	701	827	806	559	322	184	76	2,520	4,467
<b>Prize Competitions</b>												
Authorization	15	0	0	0	0	0	0	0	0	0	15	15
Estimated Outlays	1	2	4	4	4	0	0	0	0	0	15	15
<b>Other Provisions</b>												
Estimated Authorization	2	0	0	0	0	0	0	0	0	0	2	2
Estimated Outlays	2	0	0	0	0	0	0	0	0	0	2	2
<b>Total Changes</b>												
Estimated Authorization	842	866	910	955	1,003	50	0	0	0	0	4,576	4,626
Estimated Outlays	102	337	562	705	831	806	559	322	184	76	2,537	4,484

a. Enacting H.R. 3607 could affect direct spending; however, CBO estimates that the net effect would be negligible over the 2019-2029 period.

## Basis of Estimate

For this estimate, CBO assumes that H.R. 3607 will be enacted near the start of 2020 and that the authorized and necessary amounts will be provided in each year. Estimated outlays are based on historical spending patterns for the affected and similar activities.

H.R. 3607 would authorize appropriations totaling \$4.6 billion over the 2020-2025 period. CBO estimates that implementing the bill would cost \$2.5 billion over the 2020-2024 period.

### **Fossil Energy Activities**

Section 3 would authorize appropriations totaling \$4.6 billion over the 2020-2024 period for activities under DOE's fossil energy program. The bill would direct DOE to carry out research, development, and demonstration programs for carbon capture and storage, carbon use, advanced energy systems, carbon removal, methane hydrates, methane leak detection and mitigation, use of waste gas, and the separation of rare earth elements from coal and coal byproducts. In addition, section 5 would direct DOE to use up to \$50 million in 2025 for research, development, and demonstration projects related to the capture of carbon from natural gas.

CBO estimates that implementing sections 3 and 5 would cost \$2.5 billion over the 2020-2024 period. In 2019, DOE received an appropriation of \$740 million for fossil energy research and development.

### **Prize Competitions**

Section 15 would authorize the appropriation of \$15 million for DOE to carry out prize competitions for ideas and solutions to capture, convert, and reduce carbon emissions from fossil fuel-based energy production. CBO estimates that implementing the prize competitions would cost \$15 million over the 2020-2024 period.

### **Other Provisions**

H.R. 3607 would authorize the Director of the National Energy Technology Laboratory to make appointments to certain positions within the laboratory. The bill would direct DOE to establish mechanisms for the laboratory to allocate a percentage of its funds toward innovative research, technology development, workforce development, and minor construction. In addition, H.R. 3607 would require a report by the Government Accountability Office on demonstration projects for carbon capture technologies, and would direct DOE to enter into an agreement with the National Academies to study the opportunities for and barriers to commercializing carbon dioxide. Based on the costs of similar tasks, CBO estimates that implementing those provisions would cost \$2 million; such spending would be subject to the availability of appropriated funds.

### **Pay-As-You-Go Considerations**

H.R. 3607 would permit DOE to accept donations to award prizes for the prize competitions. CBO estimates that any donations, which would be recorded in the federal budget as offsetting receipts, would be insignificant and offset by an expenditure soon thereafter. Thus, we estimate that the net effect on direct spending would be negligible over the 2020-2029 period.

**Increase in Long-Term Deficits:** None.

**Mandates:** None.

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