



CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

June 25, 2018

H.R. 5905 **Department of Energy Science and Innovation Act of 2018**

*As ordered reported by the House Committee on Science, Space, and Technology
on May 23, 2018*

SUMMARY

H.R. 5905 would authorize appropriations for the Department of Energy's (DOE's) Office of Science and would codify existing activities under that office. CBO estimates that implementing the bill would cost \$6.6 billion over the 2019-2023 period, assuming appropriation of the authorized amounts.

Enacting H.R. 5905 could affect direct spending; therefore, pay-as-you-go procedures apply. The bill would direct DOE to use all available approaches and mechanisms including "alternative financing" to upgrade infrastructure at its national laboratories. CBO considers the costs of alternative financing (that is, financing provided by nonfederal entities and not provided in annual appropriations acts) as direct spending. However, in CBO's view the legislation does not clearly expand DOE's existing alternative financing authority. Enacting the bill would not affect revenues.

CBO estimates that enacting H.R. 5905 would not increase net direct spending or on-budget deficits in any of the four consecutive 10-year periods beginning in 2029.

H.R. 5905 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. 5905 is shown in the following table. The costs of the legislation fall within budget function 250 (general science, space, and technology).

	By Fiscal Year, in Millions of Dollars						2019- 2023
	2018	2019	2020	2021	2022	2023	
INCREASES IN SPENDING SUBJECT TO APPROPRIATION							
Authorization Level	6,260	6,600	0	0	0	0	6,600
Estimated Outlays	0	3,630	1,980	990	0	0	6,600

H.R. 5905 would authorize the appropriation of about \$6.3 billion in 2018 for activities in the Department of Energy’s Office of Science. CBO does not estimate any outlays for that authorization because appropriations for 2018 have already been provided.

BASIS OF ESTIMATE

For this estimate, CBO assumes that H.R. 5905 will be enacted near the end of 2018 and that the authorized amounts will be appropriated.

H.R. 5905 would authorize the appropriation of \$6.6 billion in 2019 for DOE’s Office of Science, which supports basic research in the physical sciences and operates a system of national science user facilities. In 2018, DOE received an appropriation of \$6.3 billion for those programs. Under current law, no specific sums are authorized to be appropriated to DOE for those purposes after 2018. Based on historical spending patterns, CBO estimates that implementing H.R. 5905 would cost \$6.6 billion over the 2019-2023 period.

PAY-AS-YOU-GO CONSIDERATIONS

Section 10 would direct DOE to use all available approaches and mechanisms, including alternative financing, to upgrade infrastructure at the national laboratories. The bill does not define alternative financing; however, CBO expects that such arrangements could include use of funds provided through third-party financing (funds raised by a nonfederal entity). DOE and other federal agencies have existing authority to use certain types of third-party financing mechanisms including energy savings performance contracts, utility energy service contracts, and enhanced-use leases. CBO treats the costs of such transactions as direct spending and believes that the full cost of such long-term commitments that obligate the government to make payments in future years should be recorded in the budget upfront.¹

1. For more information on the budgetary treatment of third-party financing, see Congressional Budget Office, Third-Party Financing of Federal Projects (June 2005), www.cbo.gov/publication/16554.

Under a strict interpretation of the provision in section 10, DOE would continue to use existing authorities that it considers to be alternative financing (which would result in no additional direct spending). However, DOE could interpret section 10 as providing new or expanded authority that would allow the agency to expand its use of third-party financing mechanisms to build and improve facilities at its national laboratories. The 17 national laboratories comprise a large portion of DOE's real property portfolio. In 2015, the agency reported a backlog of \$5.4 billion in maintenance and improvements across its facilities.² Using new alternative financing mechanisms to finance a portion of that backlog of projects would increase direct spending, however, in CBO's view the legislation does not clearly expand DOE's existing authorities.

INCREASE IN LONG-TERM DIRECT SPENDING AND DEFICITS

CBO estimates that enacting H.R. 5905 would not increase net direct spending or on-budget deficits in any of the four consecutive 10-year periods beginning in 2029.

MANDATES

H.R. 5905 contains no intergovernmental or private-sector mandates as defined in UMRA.

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2. U.S. Department of Energy, *Annual Report on the State of the DOE National Laboratories* (January 2017), p.86, www.energy.gov/downloads/annual-report-state-doe-national-laboratories.