CONGRESSIONAL BUDGET OFFICE
COST ESTIMATE

December 7, 2018

H.R. 6511
Strategic Petroleum Reserve Reform Act

As passed by the House of Representatives on September 25, 2018

SUMMARY

H.R. 6511 would authorize the Department of Energy (DOE) to lease certain facilities at the Strategic Petroleum Reserve (SPR) to the private sector, subject to certain conditions. The act would direct DOE to implement a pilot program for leasing storage capacity for up to 200 million barrels of crude oil and authorize the department to use funds appropriated to the Energy Security and Infrastructure Modernization Fund (ESIMF) to make any capital improvements necessary for commercial use. Finally, DOE would be required to charge fees sufficient to fully compensate the government for costs incurred for commercial leasing activities. DOE would be allowed to spend any such proceeds on operating expenses without further appropriation.

Assuming appropriation of the necessary amounts, CBO estimates that implementing H.R. 6511 would cost about $300 million over the next 10 years; however, such spending would have no net effect on discretionary spending because appropriations from the ESIMF are funded by the sale of oil from the SPR. Given the difference in time between when the sale proceeds are realized and spent, CBO estimates that implementing the act would reduce net outlays by $150 million over the 2019-2023 period and increase outlays by $150 million in the subsequent five-year period.

Enacting H.R. 6511 would not affect direct spending or revenues; therefore pay-as-you-go procedures do not apply.

CBO estimates that enacting H.R. 6511would not increase net direct spending or on-budget deficits in any of the four consecutive 10-year periods beginning in 2029.

H.R. 6511 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. 6511 is shown in the following table. The costs of the legislation fall within budget function 270 (energy).

	By Fiscal Year, in Millions of Dollars											
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2019-2023	2019-2028
INCREASES OR DECREASES (-) IN SPENDING SUBJECT TO APPROPRIATION												
Modernization Fund Proceeds												
Estimated Authorization Level	0	-300	0	0	0	0	0	0	0	0	-300	-300
Estimated Outlays	0	-300	0	0	0	0	0	0	0	0	-300	-300
Modernization Fund Spending												
Estimated Authorization Level	0	300	0	0	0	0	0	0	0	0	300	300
Estimated Outlays	0	15	30	45	60	75	70	5	0	0	300	300
Net Authorization												
Estimated Authorization Level	0	0	0	0	0	0	0	0	0	0	0	0
Estimated Outlays	0	-285	30	45	60	75	70	5	0	0	-150	0

BASIS OF ESTIMATE

DOE currently stores over 650 million barrels of crude oil in salt caverns at four sites near the Gulf of Mexico: Bayou Choctaw, Big Hill, Bryan Mound, and West Hackberry. That inventory is projected to decline to approximately 400 million barrels by 2028 as a result of various laws that have directed DOE to sell specific quantities of oil in each of the next 10 years. Under current law, any underused facilities at the SPR sites may be leased to foreign governments. H.R. 6511 would expand that leasing authority to include private entities, subject to certain conditions.

Background

CBO expects that making the SPR available for commercial leasing would require significant changes to its design and operations. The existing infrastructure reflects the SPR's statutory purpose of supplying oil during times of national emergencies, which are infrequent. In contrast, commercial lessees typically move oil in and out of storage several times a year. That operational difference would require DOE to change the method used to withdraw oil from one that relies on water to one that uses salt brine. Commercial leasing also would require other infrastructure improvements, including new pipelines, above ground storage capacity, and related facilities. Finally, DOE would have to implement various managerial and contractual arrangements in order to allow private entities to access and use SPR sites.

Because H.R. 5611 would require such costs to be recovered through fees, CBO assumes that DOE would implement a leasing program only if it determines that market demand and prices would be sufficient to offset its operating and capital costs. Estimates of future income are uncertain for several reasons. For example, market demand would be affected by the facility's connectivity to major pipelines and shipping docks; DOE's ability to store oil from multiple lessees in individual caverns; and whether the facility will be available at a time when lessees need additional storage capacity in that area. Lessees also may need to accept special terms and conditions for joint use of those federal facilities. Finally, DOE's income from leasing activities would depend on market prices for storage capacity, which fluctuate in response to changes in global oil prices and logistical conditions.[1]

Commercial Leasing Program

CBO expects that the size and location of DOE's commercial leasing activities would largely be determined by the siting requirements for salt brine facilities. Such facilities require large tracts of land. For example, the 25 million-barrel salt brine reservoir used by a privately owned facility in Louisiana that uses similar storage caverns is nearly 20 feet deep and covers more than 200 acres. Based on information in DOE's 2007 assessment of the four SPR sites, CBO expects that two government properties—Big Hill and Bayou Choctaw—could be expanded to accommodate a reservoir of that size.[2] For this estimate, CBO assumes that DOE would focus its initial leasing efforts on Big Hill because of marketing and logistical constraints on using the Bayou Choctaw site.

Information in DOE's 2007 study suggests that it could acquire enough land at the Big Hill site for a 20 million barrel salt-brine reservoir. The cost of developing a reservoir, pipelines, and other related infrastructure capacity would depend on several factors, including the cost of acquiring the land and rights-of-way and the engineering specifications for the infrastructure improvements. Depending on the size of the salt brine reservoir, CBO estimates that the cost of the new and modified facilities at Big Hill probably would cost between $250 million and $350 million; for this estimate CBO is using the midpoint of $300 million.

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1. Since 2015, for example, the monthly storage prices at certain locations has ranged from nearly $2 per barrel to less than 5 cents a barrel, averaging approximately 28 cents per barrel (or about $3 per barrel per year) over that period.

2. See Department of Energy, "Record of Decision and Floodplain Statement of Findings; Site Selection for the Expansion of the Strategic Petroleum Reserve," *Federal Register*, (February 22, 2007), vol. 72, no. 35, p. 7964, https://go.usa.gov/xPJ8M (PDF, 77 KB).

CBO assumes that DOE would request funding from the ESIMF in fiscal year 2020, after it has assessed the feasibility of commercial leasing and before the authorization for the ESIMF expires at the end of 2020. Assuming appropriation of the authorized amounts, CBO estimates that DOE would collect approximately $300 million from the sale of oil in 2020 and would spend those proceeds over the next five to seven years on the various studies and construction activities necessary to implement the projects. Thus, CBO estimates that implementing the act would reduce net discretionary outlays by $150 million over the 2019-2023 period and would increase outlays by $150 million over the 2024-2028 period; there would be no net effect on spending subject to appropriation over the 2019-2028 period.

Finally, commercial leasing of unused capacity could reduce DOE's operations and maintenance costs once companies begin leasing the facilities. However, CBO has no basis for estimating any potential savings because DOE has not announced how it will manage the underused sites under current law. Any such savings probably would occur after 2026.

Income from Cost Recovery Fees

H.R. 6511 would require DOE to charge fees that are sufficient to cover the costs of leasing SPR storage capacity to private companies. The act would allow DOE to spend amounts collected for operating expenses, without further appropriation. Any remaining proceeds would be deposited in the Treasury. Any income from cost recovery fees would be contingent on funding provided in future appropriation actions for the changes needed to make storage capacity available for commercial use. Thus, CBO estimates that enacting H.R. 6511 would have no effect on direct spending.

UNCERTAINTY

In estimating the effects of H.R. 6511, CBO had to account for several sources of uncertainty:

- CBO cannot determine the technical suitability of SPR sites for commercial leasing activities. Such determinations would require detailed engineering studies, which are not available at this time. Costs could differ if DOE used a site other than Big Hill for commercial leasing.

- CBO does not know what logistical improvements would be needed to secure contracts with commercial lessees. For example, this estimate assumes oil would be delivered into existing pipeline and shipping networks. If potential lessees required oil to be delivered to alternative locations, costs could be higher or lower than estimated.

- CBO does not know whether the oil industry will need additional storage capacity in the mid-2020s in the areas served by the SPR sites. Estimated costs could be lower than estimated if DOE determined that a leasing program is not economically viable.

INCREASE IN LONG-TERM DIRECT SPENDING AND DEFICITS

CBO estimates that enacting H.R. 6511would not increase net direct spending or on-budget deficits in any of the four consecutive 10-year periods beginning in 2029.

MANDATES

H.R. 6511 contains no intergovernmental or private-sector mandates as defined in UMRA.

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