CONGRESSIONAL BUDGET OFFICE
COST ESTIMATE

November 14, 2018

H.R. 6665
Offshore Wind for Territories Act

As ordered reported by the House Committee on Natural Resources on September 5, 2018

SUMMARY

H.R. 6665 would authorize the Department of the Interior (DOI) to auction leases for developing energy and mineral resources off the coast of certain U.S. territories and possessions, subject to certain conditions. In particular, the bill would direct DOI to study the potential for developing offshore wind resources within the territorial jurisdiction of American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, and the U.S. Virgin Islands, and to offer leases in areas where such development is feasible. Under the bill, 37.5 percent of the income from such leases could be spent without further appropriation for payments to the affected jurisdictions.

CBO estimates that implementing H.R. 6665 would reduce net direct spending by $14 million over the 2019-2028 period, primarily as a result of new leasing activity for offshore wind resources. In addition, CBO estimates that it would cost $3 million over the 2019-2023 period to complete the studies and planning activities required by the bill; any spending would be subject to the availability of appropriated funds.

Because enacting H.R. 6665 would affect direct spending; therefore, pay-as-you-go procedures apply. The bill would not affect revenues.

CBO estimates that enacting H.R. 6665 would not increase net direct spending or on-budget deficits in any of the four consecutive 10-year periods beginning in 2029.

H.R. 6665 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA) and would benefit U.S. territories through the sharing of royalties generated from offshore wind leases.

ESTIMATED COST TO THE FEDERAL GOVERNMENT

The estimated budgetary effect of H.R. 6665 is shown in the following table. The costs of the legislation fall within budget functions 300 (natural resources and the environment and 950 (undistributed offsetting receipts).

	By Fiscal Year, in Millions of Dollars										
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2019-2023	2019-2028
DECREASES IN DIRECT SPENDING											
Estimated Budget Authority	0	0	0	0	0	-4	-3	-3	-3	-3	0	-14
Estimated Outlays	0	0	0	0	0	-4	-3	-3	-3	-3	0	-14
INCREASES IN SPENDING SUBJECT TO APPROPRIATION											
Estimated Authorization Level	0	1	1	1	1	1	1	1	1	1	3	9
Estimated Outlays	0	1	1	1	1	1	1	1	1	1	3	9

Components may not sum to totals because of rounding.

BASIS OF ESTIMATE

For this estimate, CBO assumes that H.R. 6665 will be enacted by the end of 2018. Estimated spending is based on historical patterns.

Direct Spending

Based on the prices paid for leases of offshore wind resources in the Atlantic and the characteristics of the electricity markets in the Caribbean and the South Pacific, CBO estimates that implementing H.R. 6665 would increase net offsetting receipts (which are recorded as reductions in direct spending) by $14 million over the 2019-2028 period. That estimate reflects estimated gross proceeds of $20 million and direct spending of $6 million for payments to the affected jurisdictions.

Since 2013, DOI has conducted seven auctions of leases for offshore wind resources along the Atlantic coast, generating offsetting receipts of almost $70 million. Taken together, the 12 existing leases cover nearly 1.4 million acres, with individual leases ranging in size from less than 70,000 acres to almost 190,000 acres each.[1] The prices paid for individual leases also have varied widely, ranging from less than $1 million to $42 million each, which is equivalent to less than $1 per acre to more than $500 per acre.

Several factors suggest that receipts from auctions in the Caribbean and South Pacific regions may be considerably lower, at least for the next few years. For example, technological advances are needed to deploy systems that can withstand category 5 hurricane strength winds. Similarly, current technologies for producing electricity from offshore wind may not be economically viable for the comparatively small markets in these regions.[2] On the other hand, the cost of conventional fuels in those regions is much higher than on the U.S. mainland, which may increase the relative value of offshore wind to utilities or large customers like the Department of Defense.

CBO expects that any such auctions would occur toward the end of the 10-year period because of the time needed to resolve such technical and economic issues. CBO estimates that few leases would be issued by 2028 because of the small size of the electricity markets in the Caribbean and South Pacific regions, but that the value of those leases would be similar to those paid for leases in the Atlantic because of the high cost of other fuel supplies. Thus, CBO estimates that gross proceeds would range from less than $1 million to over $40 million, with a midpoint of $20 million. For this estimate, CBO assumes that payments to the affected jurisdictions would be made the year after proceeds are collected and would total $6 million over the 2019-2028 period.

Finally, H.R. 6665 would authorize DOI to issue licenses to companies to explore and develop mineral resources other than oil and gas in areas within the exclusive economic zone (EEZ) on the OCS adjacent to any territory or possession of the United States. Based on the available information regarding deep-sea mining opportunities in the South

---

1. According to the Energy Information Administration, the two largest markets, Puerto Rico and Guam, used 20 billion and 2 billion kilowatt-hours (kWh) in 2015, respectively. By comparison, the annual resource potential for individual leases in the Atlantic ranges from about 3 billion kWh to almost 9 billion kWh each, depending on the acreage of the lease. The estimated kilowatt-hour potential assumes an average of 3 megawatts of capacity per square kilometer and an average capacity factor of 45 percent. See Walt Musial, Principal Engineer and Manager of Offshore Wind, National Renewable Energy Laboratory, "Offshore Wind Energy Facility Characteristics," (presentation at BOEM's Offshore Wind and Maritime Industry Knowledge Exchange Workshop, March 5, 2018), https://go.usa.gov/xPfng (PDF, 2.1 MB). For data on electricity production for each jurisdiction, see Energy Information Administration, "U.S. States, State Profiles and Estimates: U.S. Overview" (accessed November 13, 2018), www.eia.gov/state/?sid=US. For more information on wind resources in the jurisdictions, see Frank Oteri and others, *2017 State of Wind Development in the United States by Region,* National Renewable Energy Laboratory, NREL/TP-5000-70738 (April 2018), www.nrel.gov/docs/fy18osti/70738.pdf (6.3 MB).

2. See, for example, World Bank, *Precautionary Management of Deep Sea Mining Potential in Pacific Island Countries* (draft for discussion, accessed November 13, 2018). http://tinyurl.com/y9a81q18 (PDF, 3.4 MB).

Pacific, CBO estimates that any proceeds from issuing licenses for such mining would be negligible over the 2019-2028 period. According to the World Bank and others, the EEZs off the coast of American Samoa and other territories are relatively small and no large nodules of precious metals or minerals have been discovered.

Spending Subject to Appropriation

Based on historical trends in spending for similar activities, CBO estimates that completing the studies and activities related to leasing off the coast of U.S. territories would cost about $3 million over the 2019-2023 period. Most of that spending would be for the technical and environmental assessments of offshore wind and mineral development off the coasts of U.S. territories in the Caribbean and South Pacific. CBO also estimates that conducting lease sales in those areas would cost about $3 million, but expects that such spending would occur after 2023.

Finally, the bill would authorize DOE to deposit 12.5 percent of the proceeds in the Coastal Reef Conservation Fund; any spending of those amounts would be subject to appropriation. CBO estimates that spending from the Coastal Reef Conservation Fund would occur after 2023 and total about $2 million over the 2024-2028 period.

UNCERTAINTY

CBO aims to produce cost estimates that generally reflect the middle of a range of the most likely budgetary outcomes that would result if the legislation was enacted. The estimated reductions in direct spending resulting from the implementation of H.R. 6665 could be higher or lower for several reasons:

- CBO cannot predict the technical or economic feasibility of offshore wind systems in the Caribbean and South Pacific regions over the next 10 years. Proceeds from leasing could be higher if electricity from offshore wind systems becomes less expensive than alternative supplies but could be lower if current technological and market constraints continue; and

- CBO cannot predict the amount that companies would be willing to pay for leases of offshore wind resources. The prices paid for lease off the Atlantic coast have varied widely, reflecting differences in the strategic interests of bidders as well as technical and market conditions.

PAY-AS-YOU-GO CONSIDERATIONS

The Statutory Pay-As-You-Go Act of 2010 establishes budget-reporting and enforcement procedures for legislation affecting direct spending or revenues. The net changes in outlays that are subject to those pay-as-you-go procedures are shown in the following table.

CBO Estimate of Pay-As-You-Go Effects for H.R. 6665 as Ordered Reported by the House Committee on Natural Resources on September 5, 2018.

	By Fiscal Year, in Millions of Dollars											
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2019-2023	2019-2028
NET DECREASE IN THE DEFICIT												
Statutory Pay-As-You-Go Impact	0	0	0	0	0	-4	-3	-3	-3	-3	0	-14

INCREASE IN LONG-TERM DIRECT SPENDING AND DEFICITS

CBO estimates that enacting H.R. 6665 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. 6665 contains no intergovernmental or private-sector mandates as defined in UMRA and would benefit U.S. territories through the sharing of royalties generated from offshore wind leases.

PREVIOUS CBO ESTIMATE

On December 1, 2017, CBO transmitted a cost estimate for H.R. 4239, the SECURE American Energy Act, as ordered reported by the House Committee on Natural Resources on November 8, 2017. Sections 108 and 109 of H.R. 4239 would authorize the leasing of wind resources in similar areas, and the estimates of gross proceeds are similar. However, H.R. 6665 would authorize a larger portion of those proceeds to be spent without further appropriation. Thus, the estimated net decrease in direct spending is smaller than estimated for the similar provisions in H.R. 4239. Differences in the estimated discretionary cost primarily reflect differences between the two bills.

ESTIMATE PREPARED BY

Federal Costs: Kathleen Gramp
Mandates: Jon Sperl

ESTIMATE REVIEWED BY

Kim P. Cawley
Chief, Natural and Physical Resources Cost Estimates Unit

H. Samuel Papenfuss
Deputy Assistant Director for Budget Analysis