

SB1161; HB1296F Offshore Wind Projects - Alterations Unfavorable

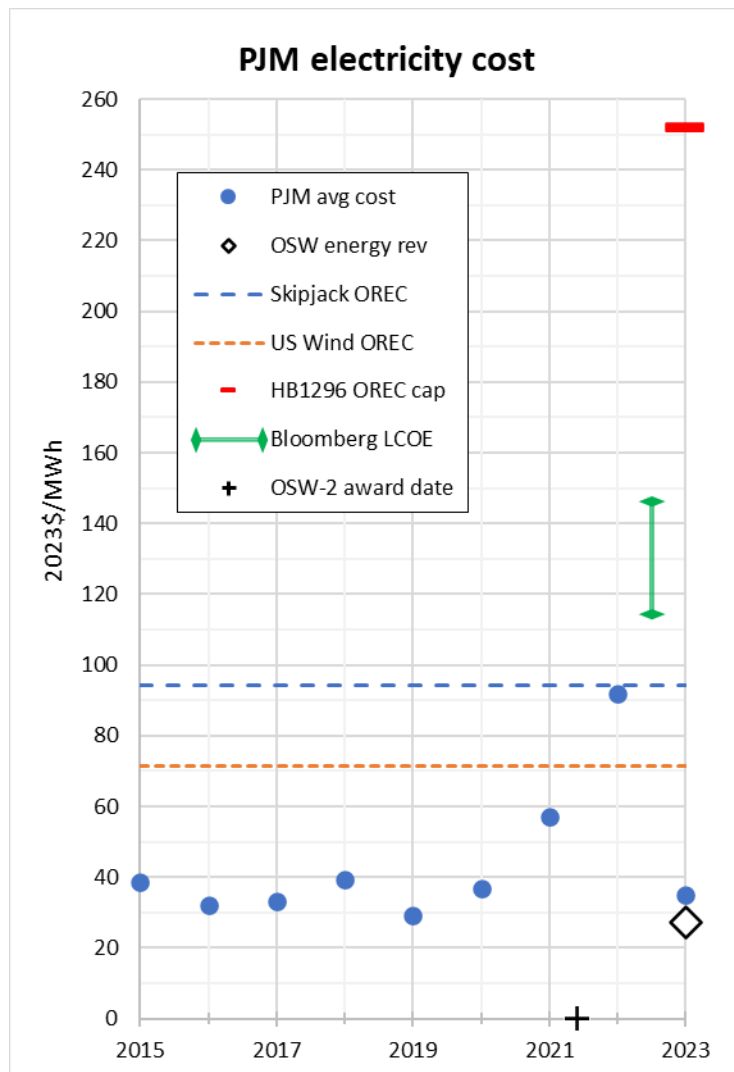
This Bill triples OSW-2 OREC price caps to 10x PJM market prices with no evidence of value. The OSW-1 price cap and the POWER Act discounts to \$120 billion, \$6 billion/year. Prudent stewards should slow down and think, do nothing now, reconsider goals, plan a disciplined sequence of smaller steps.

The embedded chart attempts to put the numbers in perspective. The vertical axis is the PJM cost of electricity. It is how much the PJM market pays to generators for electricity. The units are \$/MWh, dollars per million watt-hours. For laymen thinking of ¢/kWh on their electric bill, slip the decimal one digit to the left. \$35/MWh is the same as 3.5 ¢/kWh. PJM electricity cost is marked up for transmission, distribution, admin, social costs, and other services and currently sold to Maryland residential users for 16 ¢/kWh.

The blue dots are PJM cost, the annual average of what the PJM market paid to generators for electricity ([Table 10, v1, of the PJM som](#)) in inflation adjusted 2023\$. It is the annual average of PJM energy + capacity market prices. Costs started to rise in 2021 before the OSW-2 award, peaked in 2022 with the Ukrainian disruption of global natural gas supplies. In 2023 costs have reverted to the norm ~\$35/MWh. If ratepayers are complaining about high electricity prices, it is not because of high electricity cost.

The open diamond is the PJM market monitor's estimate (\$27/MWh) of what PJM's energy market would have paid an OSW developer to deliver electricity to the Delaware grid in 2023. It is based on PJM historical economic dispatch ([Table 7.11 of the 3Q, 2022 PJM som](#)). It remains unclear what if any capacity value would be credited to OSW.

Mature fair markets that align price with cost will not reward intermittent generators as much as dependable generators. And who pays for electricity generated by OSW and curtailed by the marketplace? We observe that in Ontario Canada today 50% of generated wind energy is curtailed in some fashion.



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The horizontal dashed lines are the two Maryland 2021 OREC-2 award prices in 2023\$. The blended average OREC price is \$84/MWh guaranteed by the State of Maryland. This is offset by electricity sales at \$27/MWh. The difference, \$57/MWh, is Maryland's subsidy commitment. OSW-2 awarded 5,792,959 ORECs/yr. The discounted present value of the Maryland subsidy is \$5.7 billion.

However, the awarded OSW-2 OREC prices proved inadequate. The vertical green line shows [Bloomberg's current estimate](#) of today's OSW cost, both with and without federal tax incentives (bottom/top). Since the cost to build OSW-2 with federal incentives is greater than both OREC awards, both contractors would lose money. On January 25th Skipjack joined other east coast OSW developers [announcing](#) that it was withdrawing from its Maryland contract because the OSW-2 OREC price was insufficient.

Maryland has responded with HB1296F which increases the OREC-1 cap to \$190/MWh (2012\$) or \$252/MWh 2023\$. This price is the short red line at the top of the chart. ***It is 10 times PJM market value.*** Also, HB1296F authorizes an increase in the number of OSW-1 ORECs without a cap and discusses the Maryland goal of 8,500 MW of OSW. If ORECs were awarded for all 8,500 MW at the OSW-1 price cap the discounted present value would be \$117 billion, roughly \$6 billion/yr.

The Maryland Public Service Commission (MPSC) Order 90111 shows that ratepayer protection does not work. The calculations require subjective (political) judgments, the most important being then future retail price of electricity. In a 2022 [Washington Post OpEd](#) one of us complained that the OSW-2 OREC awards exceeded Maryland's statutory ratepayer cap by a factor of 4. OSW was good politics.

Our judgment is that for the next two decades, electricity costs will remain flat and low. This is supported by 1) historical cost in the preceding chart shows no upward trend; and 2) cost reverted to \$35/MWh in 2023; and 3) PJM electricity cost is largely determined by natural gas prices and EIA reference scenario forecasts natural gas prices to remain almost constant ([Figure 25 of its 2022 Annual Energy Outlook](#)); and 4) the concurrent judgment during the OSW-2 evaluation of the ICF (MPSC's independent consultant), the Maryland Office of People's counsel, and one of the contractors consultants.

Maryland could expedite its decarbonization progress with more discipline, by adopting a slower pace, exploring all options including new nuclear, and thinking more thoroughly and independently. Before committing tens of \$billions on OSW, it is prudent to spend some time and effort up front to develop evidence that OSW is a durable technology. Under what conditions is OSW-2 a useful component on zero carbon PJM system? The main challenge is intermittency. There is no affordable clean backup technology and Intermittent generators have little/no dependable capacity credit.

Building OSW-1 (368 MW or smaller), as a limited pilot program for the purpose of acquiring OSW data on system performance, costs, design and environmental impact (Whales) is not unreasonable. Do nothing now (unfavorable on SB1161; HB1296F) should allow OSW-1 contractors to perform.

Vote unfavorable SB1161; HB1269F.

