In the Matter of the Opening of New Jersey's Third Solicitation for Offshore Wind Renewable Energy Certificates (OREC)	**)**	**Docket No. QO22080481**

COMMENTS OF
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ON BEHALF OF AFFORDABLE ENERGY FOR NEW JERSEY

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Introduction and Purpose

My name is Jonathan A. Lesser. I am the president of Continental Economics, Inc., an economic and regulatory consulting firm. I have researched and written extensively about OSW generation and the economic, financial, and reliability issues it poses.[1] I hold M.A. and Ph.D. degrees in Economics from the University of Washington, and a B.Sc. in Mathematics and Economics from the University of New Mexico. I am the co-author of three textbooks – *Environmental Economics and Policy* (1997), *Principles of Utility Corporate Finance* (2013), and *Fundamentals of Energy Regulation* (3rd. ed. 2019) – and also the author of numerous peer-reviewed and trade press articles. I have also testified on behalf of the Board of Public Utilities ("BPU") Staff in several proceedings before the BPU.

I have been asked by Affordable Energy for New Jersey ("AENJ") to provide comments regarding the BPU's proposed third solicitation for between 1,200 MW and 4,000 MW of offshore wind ("OSW") generation.

The first OSW solicitation began in September 2018 and sought 1,100 MW of OSW. Ocean Wind 1, a joint development of Ørsted and PSE&G, won that solicitation. The second solicitation began

[1] *See, e.g.*, Jonathan Lesser, "Out to Sea: The Dismal Economics of Offshore Wind," Manhattan Institute, August 24, 2020; "A Quiet Reckoning over Offshore Wind," *Newsweek*, December 9, 2022.

two years later in September 2020, seeking between 1,200 NW and 2,400 MW of OSW. That solicitation resulted in in two projects being selected: Ocean Wind 2, a 1,148 MW project to be developed by Ørsted and PSE&G, and Atlantic Shores Wind, a 1,510 MW project to be developed by Shell New Energies and EDF Renewables North America.

Easily Anticipated Problems of the First and Second Solicitations

Construction of Ocean Wind 1, which initially was to be online next year, has yet to begin. The project remains mired in controversy because of potential impacts on the endangered North American right whale, as well as sturgeon. The project lacks an approved site for the offshore cable needed to deliver electricity from the project onshore to the transmission grid.

Proponents have long claimed that OSW costs will decrease rapidly because of economies of scale and technological improvements, as larger turbines, and the infrastructure to support their construction and maintenance, are developed. That this claim could be contradicted by other economic fundamentals – notably the impacts of increased demand and higher materials costs - seems not to have ever been considered.

Although economies of scale may reduce the cost to manufacture turbines, there are no economies of scale to be exploited in the mining of raw materials that are used to manufacture turbines, as well as the costs to process those materials – including rare earths, steel, concrete, and undersea cable. The materials requirements for OSW, solar photovoltaics, and the battery storage that will be needed to compensate for those generation resources' inherent intermittency are far greater than for conventional gas-fired generators.

Increased worldwide demand for these materials, along with increased production costs brought on by, ironically, higher prices for the fossil fuels needed to process them, has raised prices for those materials and the resulting finished inputs required for manufacturing and installing OSW turbines and related infrastructure. This upward price pressure will only increase with the numerous state, federal, and international goals for OSW development. Financing costs have increased dramatically because central banks, including the U.S. Federal Reserve, have responded to growing inflationary pressures by raising interest rates. Higher interest rates are likely to

increase the overall costs of the Ocean Wind and Atlantic Shores Wind projects by several billion dollars over the projects' anticipated lifetimes.

Economies of scale, meanwhile, are unlikely to have any significant downward pressure on prices. Wind turbine size is already at the limit for wind turbine installation vessels. While there are designs for even larger turbines, the practicalities of their manufacture and construction are daunting.

These higher costs, which were easily anticipated based on economic principles but have been purposefully ignored by OSW proponents, now threaten the viability of the three New Jersey OSW projects. PSE&G has informed its shareholders that the company is questioning the financial viability of its stakes in Ocean Wind 1 and 2, and may pull out of the projects.[2] This comes on the heels of developers for two OSW projects in Massachusetts – Commonwealth Wind and Mayflower Wind – telling the Massachusetts Department of Public Utilities that those projects are no longer financially viable given cost increases. This, despite these projects' eligibility for a 30% investment tax credit, on top of the existing production tax credit of $25/MWh. Ocean Wind 2's PPA terms are even lower than Ocean Wind 1. Although Ocean Wind 2 is supposed to use Ocean Wind 1's transmission cable, thus reducing its development costs, the fact that there is no landing site for the cable, coupled with supply-chain issues that are raising offshore cable manufacturing and installation costs, means that Ocean Wind 2's financial viability is also questionable.

The higher costs should not be surprising. If anything, OSW costs will continue to increase, to say nothing of the additional costs for needed generation and battery storage resources required to offset OSW's inherent intermittency. It also means that the current 11,000 MW OSW goal by 2040, which will require installing over 900 turbines – one each week for the next 18 years – is a fantasy that will impose huge costs on New Jersey ratepayers, while providing no measurable environmental benefits. As for claims of economic benefits, the reality is that the resulting higher costs for electricity will impose far greater economic harm in terms of lost jobs, than will be provided through OSW. It is simply not possible to subsidize one's way to economic growth; such a belief is the ultimate in "free-lunch" thinking.

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[2] Tom Johnson, "PSEG may cut offshore wind investment," *NJ Spotlight News*, November 2, 2022.

Long-term Contracts and Moral Hazard

The purpose of the long-term (20-year) OREC purchase agreements ("PPAs") was to provide the necessary certainty that would enable financing of the projects, while protecting New Jersey ratepayers from cost overruns. In economic terms, long-term PPAs are designed to insulate captive ratepayers from moral hazard, whereby the risks of non-performance are not borne by the developer but are instead transferred to ratepayers. This is one of the guiding principles underlying development of competitive wholesale generation markets in PJM and elsewhere.

One often-observed problem with competitive solicitations is called "the winner's curse." In effect, the winner of a solicitation (or auction) bids too low and then cannot recoup their costs. Now, in for its third solicitation, the BPU proposes to address that problem by reintroducing moral hazard and allowing developers to pass along higher than expected costs to captive ratepayers. Doing so simply will encourage aberrant bidding strategies and establish a precedent for allowing OSW developers to "hold hostage" regulators with threats to back out of planned projects or projects in mid-construction unless their compensation is increased. As noted in the comments by Rate Counsel, the proposal to increase OREC prices "[w]ill create a windfall reward for those OSW developers that did nothing more than follow good business practices in securing their materials and equipment under options and other advanced purchases. These developers will not need such an adjustment and could use this margin to offer an even more competitive bid."[3] In other words, the inflation-adjustment proposal increases the incentive to submit below-cost bids.

Recommendations

Ideally, because of the increased costs for OSW development, the BPU should abandon this third solicitation and all subsequent solicitations because OSW is uneconomic, unreliable, will require extensive and costly back-up resources, and will inflict significant economic harm on New Jersey ratepayers and the state economy. The BPU should also allow the developers of Ocean Wind I and II, and Atlantic Shores Wind to withdraw their bids if they consider the terms of the contracts

[3] Comments of the Division of Rate Counsel, January 13, 2023, at 5.

to be uneconomic. Doing so will save New Jersey ratepayers billions of dollars in above-market electricity costs.

Recognizing that this most prudent course of action is not politically feasible under the Murphy Administration, AENJ recommends the following:

1. Do not allow <u>any</u> inflation adjustment mechanisms in future OSW solicitations or allow renegotiation of previously signed long-term contracts.
2. Require participants of all future solicitations to demonstrate complete financial backing for their projects *before* being awarded any contracts. This should also include a demonstration that the projects have secured commitments to be insured fully against catastrophic losses (such as from hurricanes) during construction and throughout the life of the contracts, so that ratepayers are held harmless. It should also include demonstration that the eventual decommissioning costs are fully funded.
3. In future solicitations, impose penalties for contract withdrawal equal to the projected cost of the foregone energy and capacity that will be required to be secured from the wholesale market in lieu of the generation and capacity a bidder claims the OSW development will provide over its contract life. Bidders should be required to provide a financial guarantee to ensure such penalties will be paid in the event of contract withdrawal or non-performance.

On behalf of AENJ, thank you for this opportunity to comment.