DEFEND BRIGANTINE BEACH, INC AND DOWNBEACH
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RE NJ Board of Public Utilities
Docket No. QO23020109
COMMENTS ON THE PBU FOURTH OFFSHORE WIND SOLICIATION

The Defend Brigantine Beach, Inc and Downbeach organization represents thousands of beach goers, renters, homeowners, owners and employees of tourist industry related businesses, artists, photographers, owners and employees of businesses related to real estate, owners and employees of fisheries, water sports enthusiasts, recreational fishermen and women and many others who have a vested interested in the health and well-being of our ocean, coastal ecology and environment and social and economic conditions in our coastal communities. Our representation spans all along the New Jersey Coast but is mostly concentrated in Atlantic County, namely the island of Brigantine and the ocean front communities of Absecon Island as well as bay front communities.

The NJPBU's solicitation process and energy policies run the risk of saddling New Jersey with both a less reliable electrical grid and rules across the entire economy that impose enormous expense. The NJBPU should pause awards for offshore wind developers amid exploding costs. Instead of critically evaluating the Governor's executive orders' untenable clean energy goals, NJBPU is blindly pushing the offshore wind energy projects through without thoroughly considering the damages. Under the NJBPU's watch, the process has been marred by a lack of transparency, the costs remain undefined and are rising without restriction and New Jersey is unlikely to be able to reach its goals without sacrificing the reliability of electricity service. Do the employees, consultants and board members have little understanding of the consequences of these projects or are they are purposely misrepresenting the facts and lying by omission? Either way, the NJBPU is failing in its mission and failing the hardworking citizens of the state who pay their salaries. The NJPBU is on a path that will lead to failure in achieving its mission of insuring energy reliability and maintaining a competitive marketplace. The Board Orders have created a monopoly for offshore wind which violates the intention of the 1999 Electric Discount and Energy Competition Act (EDECA). In essence, the NJPBU is distorting the energy marketplace in favor of offshore wind when there are other readily available, reliable, less expensive sources of energy.

In December of 2022 the NJPBU ignored the Division of Rate Counsel's advice to scale back how much new offshore wind capacity is approved because of economic and financial uncertainties. During a stakeholder meeting, Rate Counsel Director Brian Lipman stated that "ratepayers simply cannot afford drastically higher electric bills." Instead, the NJPBU went ahead with its solicitation, awarded contracts to Attentive Energy LLC and Leading Light Wind LLC, and entitled them to receive payments average more the 15 cents/kwh for 3742 MW of power over 20 years, compared with the 6 cents/kwh wholesale price of power available to state utilities. The residents throughout the state could pay up to $20 billion extra for power and see their already high bills increase by up to 20% or more.

Besides the cost to residents, the rate impacts to commercial and industrial users will be severe, up to 20% and 30% respectively.

The NJPBU should pause awards for offshore wind developers until it gets its house in order related to grid reliability. For the first time ever, NERC has identified energy policy as a risk priority for grid reliability. This risk was added because of mandates regarding decarbonization, decentralization and electrification. NERC is now encouraging legislators and engineers to find new approaches to assess and ensure energy sufficiency for all hours throughout the year. NERC's Long Term Reliability's Assessment shows the neighboring MISO grid is at risk of rolling blackouts in the near future due to thermal plant closures. PJM is a major supplier of power to MISO. If MISO has blackouts, PJM states may be asked to share the blackout burden. The shift from reliable dispatchable energy to intermittent weather dependent energy will compromise the grid. The reliability issue will add even more costs onto the back of ratepayers as well as possible forced energy curtailment by customers. States, not PJM, have the responsibility to maintain resource adequacy on their electric systems. In contrast, it appears that the NJPBU believes that it can blindly carry out the Governor's Executive Orders and impose whatever carbon free policies they want, and the regional grid operator will just need to make the system work. Has the NJPBU examined the reasons for the increase in consumer energy curtailment in the jurisdictions that have the heaviest reliance on wind and solar: California and Texas?

At the same time as reducing the reliability of the grid by adding intermittent energy, a double whammy is going to occur because of the growing demand for energy. New Jersey is included in the multi-state Pa/NJ/MD ISO (PJM). The 2024 PJM Load Forecast Report states that the total annual energy use throughout the PJM footprint is expected to increase nearly 40% by 2039, from the current 813,328 GWh to 1,021,955 million GWh. Of that, about 30,000 GWh of additional demand is identified as coming from NJ utility areas. According to the US Department of Energy's Energy Information Agency (EIA), NJ plants of all types produced 65,061 GWh of electricity in 2022, of which 33,394 GWh came from natural gas production. The mandated 11,000 MW of OSW installed capacity could only produce about 39,000 GWh. This means that NJ's separated planned 11,000 of OSW can displace natural gas use in NJ, or cover the additive load demand from data centers and EVs, but not both. It is hard to conceive how the purpose of the NJBPU's orders, to make the NJ grid emission-free – is satisfied by the disclosed levels of OSW wind construction. In August of 2022, the NJPBU released its Grid Modernization Study. Does this report reflect the escalation in energy demands and when will the NJPBU release the costs of its Grid Modernization Study?

The NJPBU should halt its Offshore Wind Solicitation process until the state is prepared to deal with the environmental issues related to offshore wind development. The current massive OSW industrialization in this region is too much, too fast. New Jersey has shown that it is ill-prepared to manage, enforce, and control the impacts from the current offshore wind impacts. In fact, even NJDEP knows they are unprepared, publicly describing their process repeatedly as "building the plane as we fly it," and "learning as we go" when it comes to offshore wind. These are unacceptable statements to ensure protection of New Jersey's natural resources. Further, it is clear that the monitoring and response systems in place are insufficient or not functioning. The current unprecedented wave of whale deaths along the NY/NJ coastline is an example. This occurrence is VERY rare, if ever. It is even more tragic that there are endangered species mortalities and represent the future survival of their species. The response to these deaths from state and federal agencies is lacking. Meanwhile, there are currently numerous federal harassment authorizations issued by the National Marine Fisheries Service to harm and harass thousands of marine mammals off the NY/NJ coast. These unprecedented whale deaths may be due to the ongoing preconstruction activities for offshore wind development that is disturbing the marine environment with noise.

In response to this wave of whale deaths, Defend Brigantine Beach Inc and Downbeach is demanding:

1.) A thorough, transparent investigation of these whale deaths performed by federal agencies with independent, third-party scientist oversight. The public must have access to all reports from the investigation every step of the way.

2.) A hard stop to all current in-water activity by the offshore wind industry, until the investigation is complete.

3.) A hard stop to all new, pending, or planned offshore wind projects.

In this regard, Defend Brigantine Beach Inc. and Downbeach strongly urges NJBPU to halt the solicitation process until an investigation is completed and the cause of these whale deaths are determined. It is clear from the state and federal response, or lack thereof, to the dead whales that federal and state agencies have not met their legal obligation nor the commitments in incidental harassment authorizations to provide monitoring and protection of whales in the NY/NJ region. Groups charged with responding to stranding have not been given the funds, staff, and means to provide the required necropsy to help determine cause of death. This is unacceptable and portends the future --- the protection of marine life on paper, not in reality. Where is the robust whale monitoring system now? Where is the stranding system response, recovery, and evaluation processes for any injured or dead whales? Without such a system, death of these whales will go unsolved. This is not good governance or what the law requires – especially for endangered species.

In addition to the marine mammal mortality issues during the surveying construction and operation of the offshore wind project, the lack of experience with and rigorous and relevant studies on wind turbine hurricane resilience , radar interference, microclimate changes, bird and bat mortalities, cold pool, deoxygenation, possible damage to freshwater aquifer further demonstrates the lack of preparedness of the state. These deficiencies reinforce our recommendation to halt the solicitation process.

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The lack of NJPBU's transparency is demonstrated by the overuse of redaction of its analysis of the solicitations, Board Orders and the Rate Counsel's memorandums. The use of individual so called "proprietary" models means lawmakers and citizens have no way to verify that measures actually are, as presented by your agency, the most cost-effective or otherwise the most practical. The NJPBU Energy Master Plan is another failure in which the NJBPU has chosen to hide, obfuscate and obscure the process when it should have been open and deliberative. Again, artificial deadlines have created policies that do not work or squeeze out more cost-effective options. Instead of coming clean with the public by showing a cost benefit analysis for the plan, the NJBPU has segmented the impact of the EMP by giving only glimpses of its costs such as the opaque analysis of individual solicitations of offshore wind instead of preparing cumulative impact of the costs for all projects.

The offshore wind solicitation process should be halted until the NJPBU adopts a balanced method for analyzing the costs and benefits of the wind energy developments. For example, the NJBPU uses a controversial and outdated model filled with a multitude of hypothetical assumptions to calculate the highly questionable future economic damage from climate change to inflate the benefit of the offshore wind project but fails to use any modeling to show economic costs of offshore wind to the environment, jobs and GDP impact from higher electric costs, fishing industry and housing values and tourism resulting from documented disturbing visual impacts by BOEM. This is a suspicious indication that NJBPU is using hocus pocus to back into a predetermined result in its cost/benefit analysis.

Having stated our position in regard to the pause of the Offshore Wind Solicitation Process, at a minimum, below are specific changes that must be made for NJPBU's analysis of the proposals to have any chance of credibility, consistency with its mission and responsibilities to the NJ ratepayers, and compliance with federal, state and local statutes.

- The NJBPU must use the correct model for the Social Cost of Climate Change

  The calculation of "Net Cost/ Benefit" includes EPA's Social Cost of Climate Change calculation which relies on the discredited IPCC RCP8.5 model. This greatly biases SCC estimates. According to the EPA, "damage functions translate changes in temperature and other physical impacts of climate change into monetized estimate of net economic damages." This is simply a curve that equates temperature changes with expected damages. The damage functions include a subnational-scale, sectoral damage function; a country scale, sectoral damage function; and a meta analysis-based function. These damage functions use the outdated climate projection model, RCP8.5 and not EPA's emissions scenarios or climate projections. All literature used for the Greenhouse Gas Value Impact Estimator (GIVE) for Rennert et all 2022 employ RCP8.5. More than 75% of the DSCIM SCC results from mortality due to extreme heat driven by RCP8.5. The meta-analysis relies on papers published 2015 and earlier and use RCP 8.5 (or its antecedents) as the basis for calculating the SCC. The New Jersey BPU is using flawed, unrealistic, outdated and erroneous science to support its conclusions. It is the NJ BPU's responsibility to verify the validity of models used in the net cost/benefit analysis instead of blindly using fictional ones.

The SLR scenario derived from Shared Socioeconomic Pathway (SSP) scenario 2-4.5 (SSP2-4.5), represents the current emissions trajectory according to the Intergovernmental Panel on Climate Change (IPCC). Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (eds Portner, H.-O, et al.) (Cambridge Univ. Press, 2022). If the Social Cost of Climate does not use this trajectory, the calculation is invalid.

In addition, the NJPBU routinely frames its analysis in terms of costs to the state vs. "global" benefits, meaning the financial effects of lower greenhouse gas emissions for the world population. The size of these social benefits can sometimes exceed the gross costs, creating the appearance of net benefits, even though only a tiny portion of the benefits would be realized by New Jersey.

- The New Jersey BPU must consider that the Shell Company, which may participate in this solicitation has changed direction and reduced its investment in green energy because of Board pressure, and the replacement of its previous pro green energy CEO with a CEO whose intent is to expand its fossil fuel investments and limit the company's exposure to profit losses due to green energy investments. According to Seeking Alpha Research Firm, in June, the new CEO stated that the company would shift back to an emphasis on oil and gas production while cutting back investments in renewable energy and in July the company was weighing selling a stake in its renewable power business. Also, in July, their slide presentation showing their future of their renewables strategy has no mention of offshore wind (see table below from Shell Oil). Most recently, Shell sold its stake in South Coast Wind Energy.

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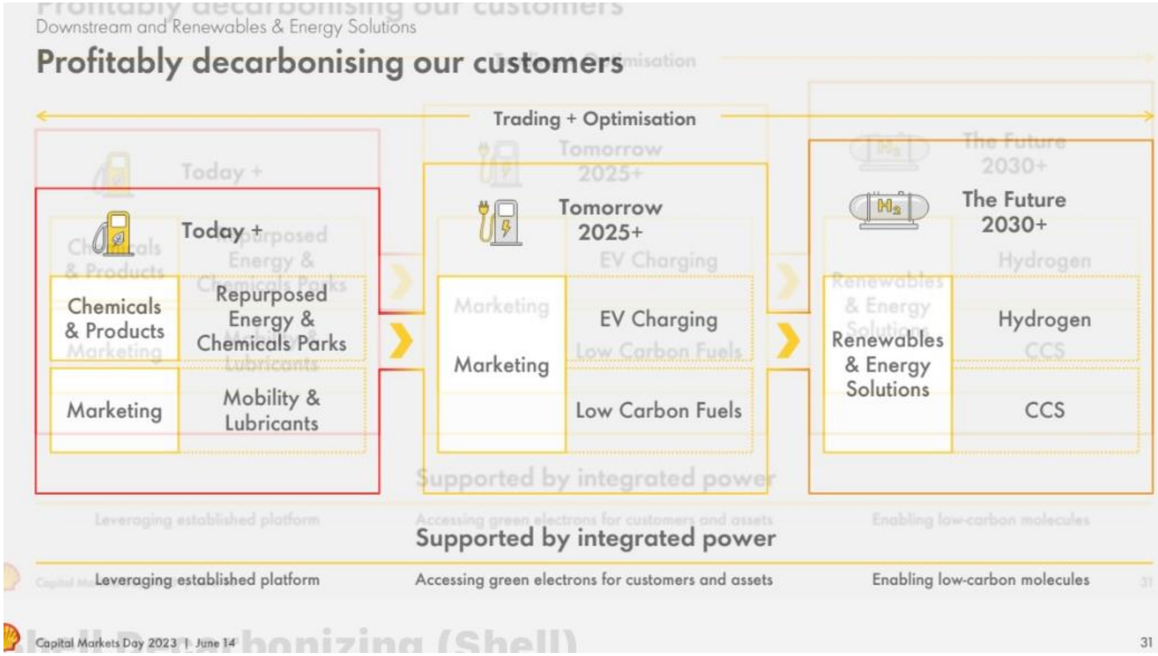


Meanwhile, the NJ BPU is cowering to the Shell Company at the expense of NJ ratepayers by allowing them to rebid. Is the NJ PBU so desperate that it has to chase down and give special favors to a company that is reluctant in investing its money in offshore wind? At what price will the NJPBU pay to get into bed with this company whose business strategy relies on turning its disappointing profits around by increasing its investments in fossil fuels in lieu of lossmaking renewables such offshore wind.

- The New Jersey BPU must include in its Cost/Benefit analysis the loss of jobs because of higher energy costs. Not unlike taxes, higher electricity prices produce negative effects on economic activity since one is paying a higher price for electricity without an increase in the value of that electricity. Prosperity and economic growth are dependent upon access to reliable and competitively priced energy. Consumers will have limited opportunity to avoid these costs. The state's ratepayers will face higher electricity prices which will increase the cost of living and doing business in the state. The decrease in labor demand will cause gross wages to fall. Job losses and price increases will reduce real incomes as firms, households and governments are forced to allocate more resources to purchase electricity and less to purchase other items. Investment will fall but will be offset by large investments required to build offshore wind power plants, transmission lines and reconfigurations to the electricity grid. However, these investments are not as productive as the ones based on conventional energy. The renewable mandate works its way through the production methods less efficiently because the investment will not increase productivity in the economy.

- The New Jersey BPU must include in its Cost/Benefit analysis the increased energy cost burden on hospitals, schools, municipal governments and other institutions along with their increased assessments on taxpayers and customers necessary to pay these increased costs.

- The New Jersey PBU must include in its Cost/Benefit analysis the loss of spending, GDP, jobs, and taxes based on scientific studies of the visual impact of offshore wind turbines on tourism and property values and the destruction of fishing grounds used by the clamming and scallop industries as well as other fishing industries. The NJ PBU must repeat surveys and studies based on the actual size and number and location of the wind turbine projects instead of relying on outdated and irrelevant studies. The Agencies responsible for these projects have failed to complete studies using surveys with accurate visualizations of wind turbines of the NJ offshore wind projects. It is the NJPBU's responsibility, on behalf of the citizens of NJ to call out BOEM, DEP and other agencies for relying on outdated and irrelevant studies. Without any revised studies the NJPBU's cost/benefit calculation is useless and will do great harm to the citizens of NJ.

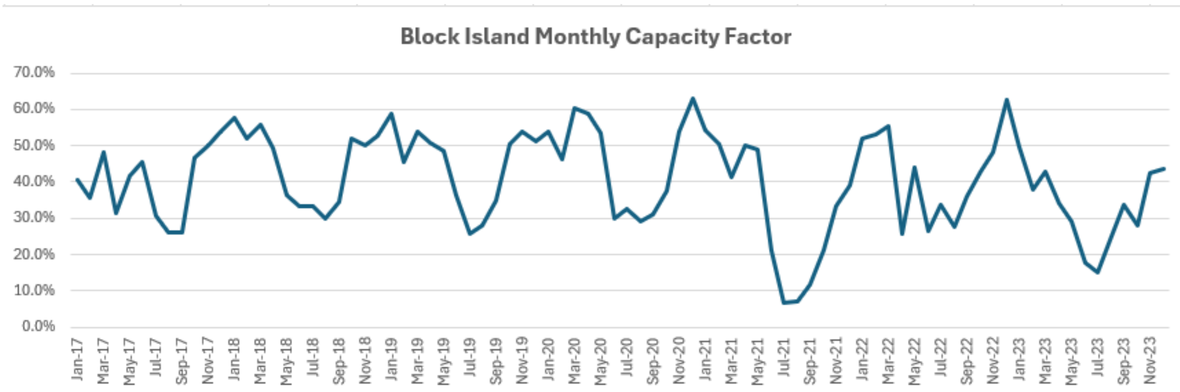
  If the NJPBU and other agencies along with the Offshore Wind developers are so sure that there will be no negative impact on fishing, tourism or real estate, then these claims should be guaranteed in the solicitation along with appropriate penalties if harm to the tourism, fishing and real estate values occurs. The offshore wind developers should have no problem with this language as they believe, according to their COP and EIS documents, this is a risk-free proposition. If this is not done there will be a risk of a number of class action lawsuits in the future.

- The New Jersy PBU must include in the Cost/Benefit analysis, the cost of disruption and noise related to the onshore cabling construction through residential and commercial neighborhoods.

- The New Jersey PBU must include in its Cost/Benefit analysis, the amount of taxes used to fund offshore wind projects and related industry in NJ such as the Paulsboro wind assembly plant and the Wind Port in Salem County. How much are the jobs/GDP costing the taxpayers of New Jersey?

- The NJ PBU must include in the Cost/Benefit analysis the amount and cost of grid balancing, idling fossil fuel back up plants or battery backup needed for intermittent wind energy.

  According to EIA.gov, Block Island Wind Development performance shows extremely variable capacity factors throughout its years of operation. The annual capacity factors range from 46% in 2020 to 32% in 2021. And, the capacity factor is decreasing as the project ages. Of course, these factors are an average over an entire year and do not tell the whole story. When looking at the capacity factors on a monthly basis, they range from 7% to 63% with a mean of 40%. Increased intermittency would be even greater if the output was tracked on a weekly or daily basis. The variation in the output is significant. This unreliability is further complicated in that the output relies on the availability (but not too much) of wind and not the demand for energy by customers. The output unreliability will grow as weather becomes more unpredictable and severe and as more weather dependent energy gets added to the grid.



There are costs related to the integration of wind power into the regional electricity grid. Since wind power is relatively unpredictable, other units must be available to provide power at very short notice (“regulation”, over a period of 10 minutes to several hours (“load following”), and over a period of several days, (“load commitment”). This imposes fuel and operating costs on other operators to create reliability to accommodate wind power. The grid will first take electricity from offshore wind projects before turning to generating facilities that are further up the “bid stack”. In moving up the bid stack, the grid operators, who run the regional grid, continue to add producers until demand is satisfied. The bid price of the last producer brought online will then be the price paid to all producers by all purchasers. It follows that electricity from the wind development will displace the “marginal” producers. In the case of the New Jersey projects, there is another consideration: peak electricity demand in the region is in the summers, yet this is the time when the wind blows least. This limits the amount of capacity that could be removed from the system when wind comes on stream. Therefore, the amount of fossil fuel saved by offshore wind could be as low as 26% of its rated capacity. This adds significant costs to the cost of energy by having to pay for dual systems.

Based on NJBPU studies and Board Orders, battery backup is in NJ’s future needed to meet clean energy Executive Orders. The addition of battery backup is even more costly, and the technology may not even exist to provide the amount of backup necessary to keep the grid reliable. Whatever the cost, the NJPBU must include it in its Cost/Benefit analysis.

In addition, if the NJBPU includes "global" benefits of the social cost of carbon it must also include the "global" costs of the batteries needed to back up intermittent offshore wind energy. According to the December 2022 report, *Driving Force: Automotive Supply Chains and Forced Labor in the Uyghur Region*, by the Helena Kennedy Centr for International Justice,

> "China processes most of the world's iron into steel, bauxite into aluminum, and lithium and cobalt into battery-grade materials. A large and growing share of that very environmentally damaging and energy-intensive work is undertaken in the repressive environment of the Xinjiang Uyghur Autonomous Region (or XUAR or Uyghur Region)...The PRC government has dedicated significant resources to moving the highly polluting and energy-intensive processing of ....raw materials into the Uyghur Regions, requesting and sometimes requiring public and private companies incorporate state-sponsored forced-labor programs into their "social responsibility commitments."

In Siddharth Kara's book, "Cobalt Red" (Macmillam Publishers, 2023), which describes the ongoing exploitation of workers and the natural environment in the Democratic Republic of the Congo, she states,

> "the DRC is the source of most of the world's supply of mineral cobalt, which is used to manufacture lithium-ion batteries. She describes the extreme human and environmental costs of the euphemistically named 'artisanal mining' occurring in the DRC. Entire regions of the nations, including forests and water sources, have been ravaged and polluted to provide much of the world's cobalt supply. "

- The NJ PBU must include in its Cost/Benefit analysis, the cost of necessary grid integration and upgrades, and other costs related to the offshore wind projects that otherwise would not be needed.

- The NJPBU must remove the inflation adjustment in the guidance document. The Rate Counsel opposed the inclusion of the inflation adjustment in the third solicitation, and it has reappeared in the NJBPU's fourth solicitation.

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According to the Division of Rate Counsel,

"Rate Counsel is particularly concerned about how future OREC prices will be allowed to increase, and the proposed inflation factor offered in the SGD. The SGD, for instance, notes that applicants can offer a fixed initial year OREC price that can be adjusted by a fixed annual escalator, or a fixed schedule of OREC price over time can also be bid.[1] Board Staff also proposes that "submitted OREC

[1] SGD at 5.

pricing for each Project… will be adjusted for inflation" once that Project has a BOEM [Bureau of Ocean and Energy Management]-approved Construction and Operations Plan ("COP"). Staff then provides a specific formula that will be used to assess an inflation-adjustment to initial OREC offers.[2]

Staff's proposed inflation formula uses an index-based approach to adjust OREC prices. The index is comprised of only input cost components that Board Staff has identified. These various components appear to be limited to those broad categories used in OSW project development such as labor costs, fabrication costs, steel costs, and fuel costs. Each component of the index appears to have a weight (called an "F-value") although the source of these weights is not provided. The inflation adjustment also appears to be limited to a one-time adjustment for the time period spanning OREC offer date and BOEM approval of the COP. Last, the SGD provides that the allowed one-time OREC price adjustment will be capped at 15 percent on a symmetric basis, meaning that increases are limited to 15 percent and decreases are also limited to 15 percent.[3] Rate Counsel has a number of observations and concerns about this proposal.

First, Rate Counsel does not understand why Board Staff feels compelled to offer such a one-time OREC price increase allowance to bidders. This adjustment included in the SGD suggests that there is a consistent and uniform need by bidders for such an allowance. However, the assumed need for an inflation adjustment has not been proven in any proceeding before the Board nor have stakeholders been given the opportunity to challenge the need for such an adjustment. Rate Counsel is concerned that this proposal will 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. Instead of generating a diversity of bids that include lower-cost bids by more prudent developers, Board Staff's proposal will lead to a "hold-harmless" provision that places all bidders on a common footing by making them whole for changes in input costs and supply chain constraints.

Second, this adjustment assumes that the index is consistent with OSW development costs. Board Staff has provided no evidence that OSW development costs generally follow the same cost inflation trends as those proposed in the OREC price adjustment index. For instance, one component of the index includes BLS PPI Data Series PCU811310811310 (Commercial machinery repair and maintenance) which can include a wide range of activities having nothing to do with power generation, much less OSW development. Further, this index assumes an OSW development cost function that is weighted in the same manner as the index proposed by Staff. Again, there is no evidence that this is the case which could very easily result in Board Staff unnecessarily providing an inflationary windfall to developers at New Jersey ratepayers' expense.
Last, Rate Counsel finds the entire inflation adjustment proposal unfounded and unfair because it affords benefits to developers at ratepayers' expense. While the potential harm of this adjustment is slightly mitigated by the limit to a one-time event and includes a cap, setting the cap at 15 percent is too high. Any cap should not exceed the general rate of inflation, which is now below eight percent.[4] Furthermore, Rate Counsel sees no reason why the caps should be symmetrical. Instead, they should allow OREC price decreases to move to the full level of the observed cost index. There is simply no justification for offering developers a "floor" on downward OREC price adjustments. This is nothing more than a free asset value floor created by the Board at New Jersey ratepayers' expense.

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[2] Ibid.
[3] Id. at 6.
[4] "Consumer Price Index up 7.1 percent over the year ended November 2022," U.S. Bureau Of Labor Statistics, December 16, 2022.

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> The one-time price adjustment being proposed by Board Staff is of significant importance and value. For example, in the Board's approval of Ocean Wind II ("OW2") in the Second OSW Solicitation, had this project been allowed to increase its first year OREC price on a basis similar to the index being proposed in this solicitation then the initial year OREC prices, and all the subsequent year OREC prices would have been considerably higher. Ratepayers could have been exposed to as much as a 15 percent increase in the entire OREC price schedule and paid an additional $1.4 billion in total OREC revenues (nominal dollars) over 20 years or $689 million in net present value terms relative to what was originally approved by the Board. Likewise, the inclusion of a similar adjustment applied to the Board's approval of Atlantic Shores Offshore Wind Project ("ASOW") in the same solicitation would have exposed ratepayers to an additional $1.9 billion in total OREC revenues (nominal dollars) over 20 years or $912 million in net present value terms relative to what was originally approved by the Board."

In conclusion, Defend Brigantine Beach INC and Downbeach supports environmentally responsible and reasonable renewable energy projects. However, the current scale, scope, magnitude and pace of this massive industrial development off the NY/NJ coast is reckless. Our conclusion is based not only on our comments, but comments also submitted by SAveLBI, Clean Ocean Action, Whitestrand Consulting LLC for the Forth Solicitation for Offshore Wind Energy Development in which we are in agreement and request to incorporate into our comments. Based on existing offshore wind energy development already in process, the lack of need, lack of scientific baseline data, adverse environmental impacts, and economic costs, Defend Brigantine Beach, INC and Downbeach strongly urges the New Jersey Board of Public Utilities <u>not to</u> move forward with the Forth Solicitation for Offshore Wind Energy Development.

Respectfully submitted,

Defend Brigantine Beach INC and Downbeach

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Cynthia Pekarick, Board Member
Sherri Lilienfeld, Downbeach Representative