



July 26, 2018

Aida Camacho-Welch, Secretary
NJ Board of Public Utilities
44 South Clinton Ave.
3rd Fl., Suite 314
P.O. Box 350
Trenton, NJ 08625-0350

Re: Docket No. QX18040466: Comments of Clean Energy Advocates on Board of Public Utilities' Offshore Wind Solicitation of 1,100 Megawatts

“There has been more activity in the first six months of this administration when it comes to achieving our offshore wind goals than there was in the eight years since the signing of the Offshore Wind Economic Development Act,” said Gov. Phil Murphy, July 25, 2018.

We, the undersigned organizations, including Environment New Jersey, the New Jersey Work Environment Council and GreenFaith, representing diverse constituencies, citizens and organizations around New Jersey, are clearly supportive of the aggressive push to develop off-shore wind in the early days of the Murphy Administration, which has started to fulfill some of the most ambitious pledges of Gov. Murphy on the campaign trail. New Jersey has fallen behind our neighboring East Coast states, making it is easy to forget that New Jersey was once poised to become the first state in the nation to build an off-shore wind farm after the passage of OWEDA in August 2010. The delays of the Christie era are clearly over, but as we move forward with off-shore wind, we need to do it in a manner that is both environmentally responsible and promotes a clean energy economy that works for everyone. We need to look at the true benefits of off-shore wind and the true cost of our continued reliance on fossil fuels and acknowledge that off-shore

wind is our clean energy motherlode that will allow us to achieve our Renewable Portfolio Standard mandates of 35% clean, renewably energy by 2025, and 50% by 2035.

True Environmental Benefits: The BPU's commitment to moving forward with OWEDA should include all parts of the act, which includes both a net economic benefits test and an environmental benefits test, which were referenced in BPU's solicitation for comments under Question 7. There are three direct net environmental benefits of the transition to off-shore wind:

1) The net economic and environmental benefits of the reduction in traditional fossil fuel pollution across the electric grid and in New Jersey and its improvement of air quality,

2) the net economic and environmental benefits in the reduction of carbon pollution created by the installation of off-shore wind projects, as measured through the true social cost of carbon, and

3) the net economic and environmental benefits to reduce the potential impacts of the inexorable increase in sea level rise across New Jersey on our coastal communities and around the state.

Air Quality: We urge the NJBPU to work to quantify the net environmental benefits of the expected reduction in air pollution by using the current EPA data sets that draw on state air monitoring data collection to show the level of ozone and particulate pollution in the air on days throughout the year. We urge you to use both the American Lung Association report, [State of the Air 2018](#), which documents the level of air quality grade on a county by county basis, as well as the number of adults and children that suffer from air pollution on a county by county basis, as a base-line document, as well as Environment New Jersey Research & Policy Center's recent

report, [Trouble in the Air](#), that documented the number of unhealthy air days across six major metropolitan areas that span the region and New Jersey, using the same EPA data points. We would urge the NJBPU to look at the economic impacts of even moderate air pollution days, which have shown a direct link to the increase in the number of premature deaths. We would urge the NJBPU to pay particular attention to the level of the number of premature deaths per county and state-wide, and work to use public health modeling on the economic impacts of loss days of work, health care impacts and the economic costs of premature deaths to work to put a price tag on the impacts of air pollution across the state. Obviously, this work can be quite intensive, but using basic modeling on economic costs, this could provide a sobering analysis on the impacts of air pollution. Also, note that while New Jersey certainly suffers from out-of-state air pollution, especially particulate pollution, the power produced by off-shore wind will go into the PJM grid, which will help green the entire region's electricity grid, but New Jersey would reap the benefits because of our population density and the prevailing wind patterns.

Social Cost of Carbon: While it is critical to measure the economic and environmental impacts of air pollution, those measurements don't get at the global warming emissions components and costs of fossil fuel production. The social cost of carbon methodology is a way to attempt to capture the true cost of carbon emissions on our planet and our region, and we would strongly recommend the NJBPU reference the [ground-breaking research](#) conducted by Rutgers University Professor Robert Kopp. Professor Kopp put in best in describing how the social cost of carbon pollution can be used and what the National Academies report assessed:

“When the U.S. government estimates the costs and benefits of proposed regulations, it uses the

social cost of carbon dioxide to translate reductions of carbon dioxide emissions into monetary benefits that can be compared with the costs and non-climate benefits of implementing the regulations. Currently, the U.S. government's central estimate of the social cost of carbon dioxide is [about \\$40 per ton](#). That corresponds to about 30 cents per gallon of gasoline burned or, in New Jersey, to about 1.5 cents per kilowatt hour on the electric bill.

The report describes steps the U.S. government can take, both in the near term and over the longer term, to ensure that social cost of carbon dioxide estimates represent the best science available over time. It lays out a framework focused on the scientific basis, transparency, and uncertainty quantification of the analysis. It describes a modular approach for undertaking the four key steps of social cost of carbon dioxide estimation: the projection of future socioeconomics and emissions, the translation of emissions into climate change, the translation of climate change into damages to human welfare, and the discounting of damages over time.”

We strongly recommend that the NJBPU use this analysis as part of the economic and environmental net benefits analysis on the benefits of off-shore wind.

Impacts of Sea Level Rise on New Jersey Coastal Communities:

<https://ucsusa.maps.arcgis.com/apps/MapSeries/index.html?appid=cf07ebe0a4c9439ab2e7e346656cb239>

By 2045, **62,209** of today's homes are at risk of becoming chronically inundated in New Jersey.

Today those homes are worth a collective **\$26,788,098,819**, house an estimated **78,978 people**, and contribute **\$389,955,766** to the local property tax base.

There is a clear economic and environmental impact of sea level rise on coastal communities around New Jersey from Money Island to Mystic Island from Moonachie to Margate. The direct link to increased carbon emissions is irrefutable. What has been less documented are the economic impacts in the short-term for coastal communities --- over the next 15 years, vs. economic and environmental impacts over the course of the century. The recent research released by the Union of Concerned Scientists this year documents both predicted sea level rise and the economic impacts on coastal property using Zillow real estate data. This is a relatively new approach and its analysis should be included in an economic analysis on the impacts of off-shore wind. The report is clear to note that the worst impacts are preventable over the course of century if we start to reduce our carbon emissions aggressively in the coming years. To quote directly from the report's executive summary:

“The results for New Jersey are quite sobering. The analysis finds that without additional measures to adapt to rising seas:

- New Jersey is second in the nation for most homes at risk both in 2045 and by the end of the century. By 2045, more than 62,000 of today's residential properties, currently home to about 80,000 people, are at risk of chronic inundation. Of New Jersey's beach towns, 10 are projected to have at least 1,500 homes at risk by 2045, with Ocean City topping the list at more than 7,200. The total number of at-risk residential properties jumps to about 251,000—currently home to roughly 376,000 people—by 2100.
- Nearly 20 percent of the at-risk homes in New Jersey in 2045 and 2100 were built after the year 2000, which speaks to recent, ongoing development in flood-prone locations. In fact, roughly 2,600 at-risk homes in 2045 were built or rebuilt after Hurricane Sandy devastated the state in 2012.
- The total value, in today's dollars, of New Jersey's at-risk properties is the second largest of any coastal state. By 2045, about \$27 billion-worth of residential properties (based on today's values) are at risk of chronic flooding. The quarter of a million homes that would face this flooding at the end of the century are currently worth more than \$107 billion collectively.
- The New Jersey homes at risk in 2045 currently contribute about \$390 million in annual property tax revenue. The homes at risk by 2100 currently contribute roughly \$1.7 billion

collectively in annual property tax revenue, which places New Jersey second in the U.S. for largest possible hit to its municipal property tax base.

- Many of the New Jersey communities facing chronic inundation in the next 30 years are home to people with fewer resources to adapt. Communities such as Monmouth Beach and West Cape May for instance, which have elderly population rates above the national average, could see more than 15 percent of their homes at risk by 2045. And in communities such as Atlantic City and Wildwood, 40 percent of homes at risk by 2045 and roughly one-third of residents are living below the national poverty line.
- New Jersey ranks first and second in the nation for the most commercial properties at risk by 2045 and 2100 respectively. By 2045, more than 2,600 of today's commercial properties, currently assessed at \$2.1 billion, are expected to experience chronic inundation. In 2100, this number jumps to more than 11,000 properties—assessed at more than \$11 billion today. Nearly all (96 percent) of these properties are retail establishments, a category that includes hotels, restaurants, gas stations, convenience stores and pharmacies.
- If nations adhere to the primary goal of the Paris Agreement—capping warming to below 2 degrees Celsius—and there is limited loss of land-based ice, about 70 percent of New Jersey's at-risk homes would avoid chronic flooding by the end of the century, thus safeguarding the vast majority of property values and annual property tax revenue.”

We fully support these findings and urge for their inclusion in any net economic and environmental analysis by NJBPU.

Beyond the need to clearly quantify the very real environmental benefits of the expansion of off-shore wind and the very real public health costs of maintaining our continued reliance on fossil fuels, the Board should be commended for moving swiftly to collect comments from stakeholders and provide a public hearing to solicit feedback. The message across multiple stakeholders was loud and clear – the BPU solicitation process for off-shore wind developers is essential to be able to qualify for federal PTC tax credits which will expire in 2019. There is

also an understandable desire to ensure that needed environmental and financial criteria are not skipped over in the process. We urge the BPU to work to balance these competing desires, in the vein of the famous Princeton graduate, F. Scott Fitzgerald: “The sign of an intelligent mind is to be able to hold two opposite and competing ideas in your mind at the same moment.”

This tension is reflected the very first question of the BPU solicitation for public comment. The solicitation is for 1,100 MW, but the stated goal for the Murphy Administration, and now mandate, is to achieve 3,500 MW by 2030. So this process clearly sets the groundwork to reach both goals. With that in mind, we recommend that the BPU treat this process as the sprint that is, and acknowledge that’s only the first leg in a relay race to help us to achieve the 3,500 MW goal by 2030. In that vein, we recommend:

- 1) Build in an orderly, open and transparent schedule of solicitations over the next decade plus to reach the 3,500 MW by 2030, which includes announcing the future solicitation schedule well in advance and to allow for multiple bids to meet the 1,100 MW solicitation at different levels with a baseline of 400 MW per bid to maximize the competition. Developers should be allowed to submit future bids if their initial bids are rejected. The BPU needs to ensure a predictable schedule, an ability to learn from past experiences in time to tweak future installations and to create a robust domestic supply chain for workers and materials.
- 2) Off-shore wind developers will ensure that project viability by participating in a due diligence process that will verify developers are able to provide the necessary scale and cash flow so that New Jersey is not saddled with orphaned or incomplete projects.

- 3) New Jersey should work with neighboring states to create more regional cooperation on off-shore wind in a similar fashion to the [Transportation and Climate Initiative](#) is driving regional partnership in the transportation sector. This cooperation doesn't mean that we can't tout New Jersey as a hub for the off-shore wind supply chain, and we would include requirements for the use of New Jersey ports, supply chain companies and workforce via PLA agreements and prevailing wage. That being said, we need to be careful about making requirements that prohibit supply chain companies from crossing state lines to provide necessary components and services. In time, the supply chain will mature and there will be a more robust state market with a predictable solicitation schedule.
- 4) All off-shore wind developers and bidders must present their plans to minimize impacts on marine mammals and other sensitive species, commercial fishing and navigation, using real-world examples of successful mitigation practices, trigger points where ecological considerations would need to take precedence, and using both real-time data and historical data that is region- and site-specific as well as referencing peer-reviewed and industry accepted practices for mitigation. We support the concerns voiced by our environmental allies on this front.

We are understandably heartened that the BPU has heard the message of stakeholders to move quickly and the release of the OREC financing program and subsequent approval at the July 25 BPU board meeting is a clear sign that the need to move forward on projects by or before December 2019. We encourage the BPU to move forward with its aggressive timeline and believe this can be done while including the necessary environmental reviews, mitigation strategies, and labor considerations to off-set potential environmental and community impacts of the projects. We want to thank the BPU in advance for collecting comments from stakeholders

and being responsive to the various concerns raised by off-shore wind developers, environmental organizations, supply chain organizations and others to finally make off-shore wind a reality in New Jersey and put us on a path to be the national leader on off-shore wind.

Sincerely,

A handwritten signature in black ink, appearing to read "Doug O'Malley". The signature is written in a cursive style with a large, looped initial "D".

Doug O'Malley

Director, Environment New Jersey & Environment New Jersey Research & Policy Center

Deborah Coyle McFadden,

Acting Director, New Jersey Work Environment Council

Rev. Fletcher Harper

Director, GreenFaith