

The Town of Fenwick Island

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February 22, 2025

The Honorable Sarah McBride Mr. Bryon Short House of Representatives VIA: <u>Bryon.Short@mail.house.gov</u>

Dear Representative McBride and Mr. Short:

Thank you for arranging a meeting with the coastal communities' leadership groups to discuss our challenges and opportunities. Your willingness to engage in such a way was a welcomed approach and hopefully will assist you in enhancing Delaware's presence in Congress. I applaud your actions in starting your term with such an inclusive effort.

I also appreciate your willingness to listen to the concerns of the Fenwick Island community regarding the proposed Maryland Offshore Wind Project. While I recognize that Fenwick Island is one of the smallest towns in Delaware, the Maryland Offshore Wind Project, if completed, would have a negative generational impact on Fenwick Island as well as all of Delaware.

Like you, I was initially intrigued by the concept of offshore windfarms which the wind energy proponents marketed to the public as "green clean energy." I believe in green energy and have installed solar panels on my roof and an electric charging station that I use to power my hybrid Jeep. Like you, I was interested in ascertaining whether we could safely expand the use of renewable green energy.

In the spring of 2022 Fenwick Island hosted the first offshore wind symposium in our coastal region and invited speakers from all sides of the debate to speak about the issues. Initially, our understanding was that the wind turbines were slated to be 350 feet tall and outside of the ocean viewshed. Fenwick Island has continued to take the lead in the Delaware coastal communities to learn and sponsor robust public debate. We have read all that we can locate on the subject, listened to presentations conducted by industry experts, asked questions, attended BOEM sponsored events and tried to understand exactly what offshore wind energy would mean and do to and for Delaware.

Much has changed since Fenwick Island's symposium in 2022. U.S. Wind, an offshore wind energy company owned by funds managed by Apollo Global Management and Renexia SpA, an Italian company, has pursued the permits to build the Maryland Offshore Project, we have had the opportunity to attend more public presentations and witness a change in the in the size and scope of the proposed Maryland Offshore Project as well as review the environmental and economic impacts expected. One company, Orsted, has paused their interest in developing wind energy along Delaware's coast and grassroots organizations in New Jersey have effectively convinced their lawmakers to forgo wind energy while Ocean City, MD has fought to prevent the project as well.

After undertaking a thorough review of the research and permitting process, I believe with clarity and scientific basis that the Maryland Offshore Wind Project is not green, clean or economically beneficial for Delaware. I implore you to review the Maryland Offshore Project in detail and join in the effort to bring an end to offshore wind in Delaware.

BOEM Maryland Offshore Wind Environmental Impact Statement

Despite public opposition and acknowledgement of environmental and economic negative impacts, on September 4,2024, BOEM filed the Record of Decision, approving the Maryland Offshore Project. The construction plan for the Maryland Offshore Wind Project calls for 114 turbines with the western edge of the project 10.1 miles off our shore with up to 4 offshore substations that stand 938 feet above sea level (for context the tallest building in Ocean City, MD is 241 feet) with a blade diameter of 820 feet.

While the BOEM report is lengthy, I hope you will take the time to digest the findings as the acknowledged negative environmental, economic and navigational safety/national security impacts will forever change our coast and communities. See: Maryland Offshore Wind Final Environmental Impact Statement (EIS) | Bureau of Ocean Energy Management (boem.gov). For a quick reference, Table ES-1 provides a summary (ES-9 through ES-14) of the expected negative adverse environmental impacts, including impacts to the marine environment/marine life/birds, recreational and commercial fisheries and expected loss of radar and sonar capabilities as well as detrimental economic impacts on land values and tourism¹

BOEM's Expected Viewshed Impacts

Appendix H depicts simulations of the expected MAJOR change to Visual Resources predicted by BOEM. The simulation closest to Fenwick is the 84th Street view in Ocean City, MD: <u>https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/Maryland%20Offshore%20Wind%20Final%20EIS_AppH%20Attachments-6_Sims_0.pdf</u>.

¹ BOEM uses four levels of classification to describe the impacts: negligible, minor, moderate or major.

There is also a 24-hour simulated view (although this view does not show the blinking red lights which would be seen at night when operational): <u>https://www.boem.gov/renewable-energy/state-activities/us-wind-time-lapse-video-visual-simulation</u>.

The view at 6:22 a.m. at 84th Street in Ocean City, MD, per BOEM's officially sanctioned simulations is as below:



I ask you to consider how your own experience at the beach would be like if this was your view?

How would we explain to the next generation what a natural sunrise at the beach looked like before wind turbines?

Expected Negative Environmental Impacts

The BOEM report also details environmental harm that is anticipated and categorizes the harm as MODERATE for marine mammals, fish and birds except for the North American Right Whale which is expected to be MAJOR.

Of note is the fact that NOAA has declared an "unusual mortality event" for humpback whales along the Atlantic Coast since 2016. The wind companies proclaim that there is no causal connection between the unusually high number of whale deaths and wind energy development activities that were occurring during the same time.

What is not highlighted by offshore wind developers, however, is that per NOAA "acoustic trauma, which could result from close exposure to loud human-produced sounds, is very challenging to assess, particularly with any amount of decomposition. Scientists look for bruising or trauma to the ear and other organs, but certain parts of the ear decompose very

quickly (within hours), and linking findings to a particular sound source is difficult." <u>https://www.fisheries.noaa.gov/national/marine-life-distress/frequent-questions-necropsies-animal-autopsies-marine-mammals</u>. While inner ear dissections and extractions must be conducted within 9 hours of a whale's death in order to collect sampling prior to degradation, there has been at least one documented delay in doing so by a marine rescue group which has reportedly been the recipient of donations from the wind farm companies. The delay in obtaining timely samples by Mystic Aquarium has some questioning whether there is a conflict of interest interfering with collecting accurate data. See:

https://www.eastbayri.com/stories/letter-mystic-aquarium-skipped-a-key-step-in-whalestudy,123691.

Without question, noise associated with offshore wind testing, construction and operation DOES and WILL have a negative impact on whales and other marine life – the noise scares the whales, impedes their own sonar and impacts their food source--hence the "take" or "harassment" numbers that BOEM/NOAA approves with activities associated with offshore wind development. See:

https://www.boem.gov/sites/default/files/documents/environment/BOEM_NMFS_NA RW_OSW_2_1.pdf.

As to the actual cause(s) of the unusual mortality event of the Humpback Whale, NOAA did not support the conclusion that offshore wind activities do not cause whale deaths; rather, NOAA stated that more research is needed to understand why there is an unusual mortality event, leaving open the question of the specific impact offshore wind activities may have had:

Causes of the Humpback Whale UME

Partial or full <u>necropsy examinations</u> were conducted on approximately half of the whales. Of the whales examined (approximately 90), about 40 percent had evidence of human interaction, either ship strike or entanglement. A portion of the whales have shown evidence of pre-mortem vessel strike; however, this finding is not consistent across all whales examined. More research is needed.

2016–2025 Humpback Whale Unusual Mortality Event Along the Atlantic Coast | NOAA Fisheries.

Recent studies are now emerging which establish that the unusual mortality events of whales experienced in the Mid-Atlantic region do have a direct correlation with offshore wind activities. See: <u>Wind Industry Activity Strongly Correlated With Whale Deaths, New Study</u> <u>Finds — Environmental Progress and Professor makes stunning discovery as to why dead</u> <u>whales keep washing up on East Coast beaches | Daily Mail Online</u> as well as <u>https://docs.wind-watch.org/Evidence-wind-whale-deaths.pdf</u>.

The North American Right Whale (NARW) is an endangered species which has been experiencing an unusual mortality event since 2017. In fact, NOAA estimates 25% of the population has died during the unusual mortality event. See:

https://archive.iwc.int/pages/download.php?ref=20029&ext=pdf&alternative=6430&noatt ach=true&k=#:~:text=Additionally%2C%20in%20Fall%202022%2C%20a,body%20condition %20of%20unknown%20cause.

NOAA reports that there are 360 remaining NARW with fewer than 70 reproductively active females. A Joint Report by BOEM and NOAA acknowledged: "Decreased prey abundance, climate-driven changes in habitat, and, potentially, ocean noise, also are contributing to the species decline and could further reduce calving rates and increase susceptibility to disease and predation." Due to the decline of NARW, "the resilience of this population to stressors affecting their distribution, abundance, and reproductive potential is low." Further, "increasing levels of ocean noise due to anthropogenic activities may also cause sublethal effects to NARW." See:

https://www.boem.gov/sites/default/files/documents/environment/BOEM_NMFS_NA RW_OSW_2_1.pdf.

Offshore wind development is proposed throughout the NARW's vital areas of habitat critical to their survival, including their reproductive and foraging grounds, and is expected to introduce additional stressors challenging their survival, including: (1) exposure to noise and/or pressure which could result in hearing impairment, behavioral disturbance; (2) entanglement related to offshore wind development; (3) increased risk of strikes from vessels involved in offshore wind development; (4) changes to habitat which would impact the abundance or quality of prey (e.g. changes in ocean circulation from turbines and foundations and impact on prey in cooling water intakes associated with High Voltage cable systems; and (5) sublethal effects including offshore wind development occurring in foraging areas, changing currents from the turbines that could affect the NARW as well as the zooplankton that the NARW needs for feeding, displacement from calving grounds, increased energy costs due to displacement from foraging grounds and more severe consequences from other stressors due to the added burden of offshore wind energy effects. Highlighting the negative effects, NOAA and BOEM noted: "Effects to NARWs could result from stressors generated from a single project; there is potential for these effects to be compounded by exposure to multiple projects." See:

https://www.boem.gov/sites/default/files/documents/environment/BOEM_NMFS_NA RW_OSW_2_1.pdf.

There are other questions regarding the negative impacts to our marine environment that have raised. For instance, the incidental "take" of the North American Right Whale among all approved projects exceeds the total known population. How can that approved by BOEM, given their finding that negative effects on NARWs can be compounded by exposure to multiple projects? The negative effects on horseshoe crabs, so important to our medical

industry and to which there is a horseshoe crab sanctuary off our shores, also lacked focus in the BOEM report. What will happen to them?

Ocean City Mayor Rick Meehan has said: "When it comes to our ocean, we only get one opportunity to get it right." We should strive to "get it right" and not be "guessing" when it comes to understanding the impacts on our ocean environment. We should know exactly what we are doing if we are to introduce wind turbines in our ocean before we move forward with a project that has so many serious, and potentially, devastating environmental impacts.

Recreation, Tourism, and Scientific Research Expected Negative Impacts

BOEM anticipates a MODERATE negative impact on recreation and tourism but a MAJOR impact on commercial and recreational fisheries, even with mitigation (paying fishermen), as well as a MAJOR impact on scientific research.

As for recreation and tourism, a 2018 University of Delaware study found that 20% of respondents said wind turbines would make their experience "worse" with turbines placed (at a height less than the current planned size) within 15 miles of shore resulting in trip loss as well as a reduction in property values. See: <u>"Atlantic Offshore Wind Energy Development:</u> <u>Values and Implications for Recreation and Tourism" by George R Parsons</u>. Others have opined that a loss of tourism of 1.5% would wipe out any financial benefit to Delaware and the resulting loss of property values would have a direct effect on tax revenue. See: <u>VIEWPOINT: Fact Checking the US Wind Delaware Benefits Claims</u>.

As for the commercial and recreational fishing industry, how do we measure the full impact? The mitigation plan focuses on compensating the fishermen; however, the trickle-down effect of a loss of our fishing industries would include marina workers, truck drivers delivering products, restaurant workers, hotels and many more Delawareans who rely on a robust fishing industry.

Our coastal economy employs 74,030 people, distributes \$4.1 billion in employee income and generates \$14.2 billion in total revenues which amounts to \$8.3 billion in annual statewide revenue. See: <u>https://www.deseagrant.org/hazards#seaside-statewide</u>. We should be protecting this important asset to the Delaware economy.

Finally, if there is an expected MAJOR disruption to scientific research in the area, how are we to monitor the true effects caused by the wind turbines?

National Military Security Negative Impacts

BOEM also expects a MODERATE negative impact on military and national security due to radar and sonar interference caused by the wind turbines as well as a MODERATE negative impact on navigational safety with an increased possibility of marine accidents and more difficulty with search and rescue operations. Many countries that had previously endorsed offshore wind alternatives are now abandoning the projects due to national security concerns and for good reason—the height of the wind turbines and rotation of the blades impedes radar and sonar capabilities making it difficult to employ early detection systems and to use weapons to defend from attacks. These same concerns have been raised in the United States, particularly in the Mid-Atlantic region. Please consider:

https://thehill.com/policy/energy-environment/3957656-military-raises-concerns-aboutpotential-locations-for-mid-atlantic-offshore-wind/ (United States – Pentagon raises alarm about offshore wind in Mid-Atlantic region in areas east and southeast of the Chesapeake Bay (2023));

https://www.bloomberg.com/news/articles/2023-04-17/pentagon-calls-biden-wind-farmplans-problematic-for-us-military (United States (2023));

https://chrissmith.house.gov/news/documentsingle.aspx?DocumentID=413397#:~:text=L ast%20year%2C%20Smith%20introduced%20legislation,Aviation%20Administration%20or %20the%20Armed (United States—Representative Chris Smith raises questions regarding offshore wind projects degrading national security and approvals being rushed through without proper vetting from the Department of Defense (2024));

https://english.kyodonews.net/news/2022/06/c34f7cb8e5c9-wind-power-infrastructurehindering-japan-defense-radars-sources.html#google_vignette (Japan calls for changes to planned windfarms because wind energy infrastructures were found to be interfering with radars for detecting missiles (2022));

https://www.theguardian.com/world/2024/nov/04/sweden-scraps-plans-for-13offshore-windfarms-over-russia-security-fears (Sweden vetoes plans for offshore windfarms in the Baltic Sea due to unacceptable security risks because wind power makes it harder to detect submarines and attacks from the air (2024));

https://www.barrons.com/news/baltic-sea-wind-farms-impair-sweden-s-defence-saysmilitary-65ce1dd7 (Sweden-Baltic wind farms found to be impairing national defense capabilities (2024));

https://news.err.ee/1609535089/defense-forces-wind-farms-reduce-estonia-s-defensecapacity#:~:text=When%20we%20talk%20about%20early,signal%2Dto%2Dnoise%20ratio (Estonia – wind farms reduce Estonia's defense capacity by interfering with radar and sonar early detection systems used to detect missiles, drones and aircraft as well as affecting the use of anti-ship missiles, severely reducing NATO's collective defense capabilities (2024)); and <u>https://www.dailymail.co.uk/news/article-13320703/RAF-fears-fighter-jets-flying-low-250ft-hit-650ft-wind-farm.html</u> (United Kingdom – military objects to extending Scottish windfarms extending 650 feet high due to risk to pilots and radar interference (2024)).

We live in a dangerous world where radar and sonar systems are our primary defense. Drone and missile strikes are the arsenal of modern warfare. Minutes matter. We should not be introducing infrastructure that interferes with our ability to identify and respond to these very real threats.

Impact on the Indian River Bay

As part of the approved plan, BOEM was anticipating that the Maryland Offshore Wind Project would secure access for the cables to come onshore in Delaware as well as the ability to connect to a transmission station. In January 2025 on his last day in office, Governor Carney signed an agreement with US Wind to allow cable access onto 3 R's Beach. This coincides with DNREC issuing coastal construction permits to allow for cable access at 3 R's Beach as well as cable construction permits for crossing across wetlands and into and under the Indian River Bay.

The coastal construction permits issued by DNREC call for jet-plowing through 10 miles of the bottom habitat of the Indian River Bay to connect to a proposed substation in Millsboro. See: <u>https://documents.dnrec.delaware.gov/Admin/Orders/Secretarys-Order-No-2024-W-0051.pdf</u>. DNREC acknowledges that the construction activity planned in the and around the Indian River Bay and surrounding wetlands has the potential for disrupting fisheries and wildlife in the impacted area.

The National Marine Fisheries Service was even more clear and opined: "Given the significance of both inshore and offshore habitats to the ecology of the area, and because these sensitive habitats cannot be easily replaced when degraded by construction activity, we suggest that terrestrial cables be used."

Similarly, the Center for Inland Bay's ("CIB") Scientific & Technical Advisory Committee ("STAC") reported in their February 9, 2024, minutes that "BOEM has gotten several comments of interest was the sending cable through the Indian River Bay.US Wind has not done enough homework using the current modeling and data. The CIB's comments suggest they do a better job or use a land route." In June 2023 the notes from the Center for the Inland Bay's STAC meeting with U.S. Wind detailed that U.S. Wind's representative Horst Moll stated that jet plowing was the "worst option" while other participants confirmed that arsenic and nickel had been found in testing and raised questions about the effects that electromagnetic fields would have on humans, blue crabs, horseshoe crabs, finfish and birds.

Yet, despite the warnings and risks identified by the National Marine Fisheries Service, the Center for Inland Bays and the concession by U.S. Wind's own representative, DNREC approved the permits, including jet plowing through the Indian River Bay.

As the totality of the Maryland Offshore Wind Project plan stands now, not only would the Maryland Offshore Wind Project disrupt and degrade the ocean environment surrounding us, cable access into Delaware would also disrupt and degrade the Indian River Bay and surrounding wetlands putting the marine life that the estuary supports at significant risk.

Opposition and Legal Challenges

The Sussex County Commissioners voted to deny the zoning approval necessary for the transmission station and Worcester County, MD is in the process of taking a pier in Ocean City that U.S. Wind was seeking to launch their marine activities via eminent domain. U.S. Wind is or has filed legal challenges against Sussex County and Worcester County with threats to seek damages individually against the Commissioners of Worcester County.

There are also legal challenges pending relating to BOEM's permit approval, DNREC's coastal construction permits as well as Governor Carney's signed agreement.

President Trump signed an Executive Order mandating a review of BOEM's approval of the offshore wind projects including the Maryland Offshore Wind Project.

We are hopeful that the legal challenges and/or a another review by BOEM will halt the Maryland Offshore Project; however, we also hope that those who have conceptually supported offshore wind will immerse themselves in the science so that they can learn the damage the project would do to our communities as well as the risk to our national security.

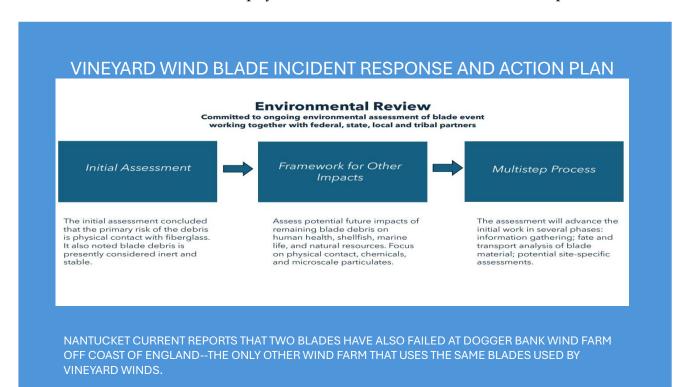
The Nantucket Experience

It is important to note that the size and scope of the turbines proposed in the Maryland Offshore Wind Project is an innovative technology (the European turbines are much smaller in size). The potential for catastrophic failure is real and exacerbated by the sheer size of the planned turbines.

Please consider the impact of a blade failure in Nantucket, just months after coming online. The blade failure caused officials to close the beaches at the height of the summer season due to sharp fiberglass material washing up on shore. According to press reports, shards of fiberglass are still washing up on the beaches, over six months after the initial event. Beachgoers are warned to wear appropriate footwear while walking on the beach and to leave their pets at home.

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Vineyard Wind, the owner of the failed wind turbine, does not know what the full environmental impact will be, despite the known risk of blade failures, and plans to "assess potential future impacts of remaining blade debris on human health, shellfish, marine life, and natural resources. Focus on physical contact, chemicals, and microscale particulates."



Nantucket's Select Board (governing board) is in the process of sorting through the damages which resulted from the blade failure which "contaminated our coastal waters, restricted access to our beaches, negatively impacted our local businesses, and has required months of focused attention to the aftermath which continues unabated." Nantucket's Select Board announced that they will be holding "companies and federal and state government leaders accountable for the damage they caused" including pursuing litigation to "address the unwelcome threats posed by offshore wind energy development to Nantucket's irreplaceable natural and cultural heritage." See:

https://nantucketcurrent.com/opinion/select-board-chair-issues-new-statement-on-towns-response-to-vineyard-wind-turbine-blade-failure.

Blade failures, turbine fires, lightning strikes, oil spills or other catastrophic failures are known and anticipated events of offshore wind turbines. Responding to a catastrophic failure requires time and is more difficult due to the sheer height of the turbines. Boats with equipment to respond to an emergency often lack the capability to reach the upper heights of the turbine.

There is a stark warning here: Nantucket's experience could be ours.

Offshore Wind Is Not Green or Clean

The entire premise in granting the various permits to proceed with the Maryland Offshore Wind Project is that without alternative green energy resources, our planet will not survive climate change and, therefore, the negative impacts created by the windfarms are mitigated by the need to find a clean energy source. However, research regarding wind energy reveals that the technology necessary to harness wind energy is not clean nor will it reverse climate change or sea level rise.

To illustrate the available scientific research, I share with you the work and conclusions undertaken by Indian River High School's Engineering class. While the students are young, they did a deep dive into the science and technology surrounding wind energy and their PowerPoint provides a great summary of the findings: https://www.change.org/p/beaches-ruined-by-offshore-wind-turbines-is-this-just-the-beginning; and https://docs.google.com/presentation/d/1RUk8pPQkOSAGMVTKfljQdugSqGYiUMEVV

MPWPk-weVs/pub?start=false&loop=true&delayms=60000&slide=id.p²

² By way of background, these students were assigned the project of researching the pros and cons of offshore wind development. The teacher had hoped that the assignment would result in a robust debate with sides equally split; however, after completing the research, every student concluded that the introduction of offshore wind would "destroy" our region. The students felt so strongly about their findings that they organized a petition even after the school district barred them from using class time from doing further research or community involvement planning.

The research that the Indian River students located underscored: (1) the carbon footprint of wind technology is greater than Natural Gas because wind technology requires a natural gas backup on land due to the unreliability of wind energy; (2) the cost of wind technology without natural gas backup is \$13.65 per kilowatt versus Natural Gas is \$3.94 per kilowatt; (3) maintaining the wind turbines is difficult due to the large size, supply chain issues and need for specialized marine transportation and equipment (there are only a handful of ships worldwide that have the capability to maintain the equipment); (4) wind turbines use synthetic oil and the oil must be changed every 9-16 months with each turbine using 600-400 gallons; (5) wind turbines are subject to failures including blade failures, structural failures, fires (due to the size fire boats are not able to reach the turbines and the turbine is left to burn) and oil leakage/spillage; (6) wind turbines can fail during a hurricane, particularly if the hurricane is rated a category 3 or greater; (7) wind turbines are not reliable if wind speeds exceed a certain threshold risking blackouts; (8) wind turbine construction and operation causes negative impacts on mammals, fish and other wildlife; and (9) wind turbine operation causes negative impacts on military/national security as well as search and rescue operations by the Coast Guard due to interference with radar and sonar systems.

While the Indian River students are not trained scientists, their research sources the studies in the scientific community that are available. As the Han's Christian Andersen story reminds us, sometimes it takes a truth-telling child to be brave enough to say the Emperor has no clothes and the Indian River students have said it: the negative impacts of offshore wind to Delaware cannot be understated.

Offshore wind is not green, it is not clean and it is not in Delaware's environmental or economic interest to promote or pursue it.

Conclusion

While this letter is not meant to be an exhaustive list of the negative impacts expected by offshore wind, it goes without question that there is great debate in Delaware about the merits, or lack thereof, of the Maryland Offshore Wind Project.

Generations of Delawareans have protected our coast. We must do the same regardless of party politics and I ask you to contemplate what the Delaware coast will be if wind turbines are part of our future.

In doing so, I leave you with one final question to consider: With this much debate surrounding the Maryland Offshore Wind Project, would it not be wise to err on the side environmental protection of our ocean and Indian River Bay than to be on the side whose legacy may be to destroy our Delaware treasures for future generations?

Thank you for reviewing this letter and the citations provided. I would welcome an opportunity to meet with you further to discuss this topic or any other that you believe impacts Fenwick Island and to answer any questions you may have.

In the meantime, I wish you success in Washington.

Sincerely,

Natalie C. Magdeburger

Natalie C. Magdeburger Mayor of the Town of Fenwick Island, DE