By E-Mail

April 8, 2021 Bureau of Ocean Energy Management Michelle Morin, BOEM Office of Renewable Energy Programs 45600 Woodland Road Sterling, VA 20166 <u>Michelle.morin@boem.gov</u>

Re: Comments on Final Supplement to EIS for Vineyard Wind 1 COP, BOEM-2018-0069

Dear Ms. Morin:

This is a follow up to my comments on the SEIS in June, 2020. My interest in this project is it will be a prototype for additional commercial-scale projects all along the east coast, and consequently a decision to approve the Ørsted Construction & Operation Plan (COP) will set a precedent for further offshore wind development. We represent over 1,400 individuals who have expressed concerns about offshore wind development to the Caesar Rodney Institute, and through the website Save Our Beach View. BOEM has not properly followed all the requirements of the National Environmental Policy Act, the Administrative Procedures Act, and the Outer Continental Shelf Lands Act. An approval of the proposed Final Supplement to the EIS for the Vineyard Wind 1 COP threatens the endangered Northern Right Whales, fisheries providing food security, vessel collisions, the ability of the Coast Guard to conduct Search & Rescue operations, scientific research, and pristine ocean views. Details follow below.

Sincerely,

David T. Stevenson Director, Center for Energy & Environment Caesar Rodney Institute 420 Corporate Blvd. Newark, DE 19702

Detailed comments

1. The FEIS presents a new Preferred Alternative which had not been previously identified or characterized. Changes associated with the Preferred Alternative are of such scope and magnitude that the need for additional public scoping meetings and attendant new public comment period is warranted.

Between the issuance of the Supplemental Environmental Impact Statement (SEIS) and FEIS, Ørsted has devised a new preferred alternative which incorporates fewer, although significantly larger turbines; excludes turbines in the northernmost section of the lease; and expands the space between turbines. This newly-designed alternative further includes a new commitment from Ørsted to install an Aircraft Detection Lighting System (ADLS), and a program to compensate fisherman for lost gear. This latter topic is further discussed in Item 2 below. Changes of this scope and magnitude must be subject to rigorous public review. Even Ørsted recognizes this need. On December 1, 2020, Ørsted withdrew their COP to make changes to the planned turbine size and project timing, and stated they expected a restarted EIS could delay the project six to twelve months.

Obviously Ørsted recognizes the significance of changes the Preferred Alternative. BOEM must be equally committed.

2. Within the newly-devised Preferred Alternative, two compensating actions were added without the benefit of required public comment. However, Preferred Alternative compensating options require public comment, and do not cure interference.

As stated, Ørsted now plans to add ADLS to limit night time visibility from aircraft warning lights, but there is no remediation for navigation lights visible from the beach to 16.2 miles, and daytime visibility is not addressed. A compensation fund is to be set up for lost commercial and sports fishing gear to drop the negative impact from major to moderate, but no such fund exists at this point and the fishermen state it will not cause them to continue to fish in an area with turbines. It appears the compensating options are unlikely to relieve the primary negative impacts.

A copy of a December 14, 2020 letter from the Department of the Interior Solicitor to Interior Secretary David Bernhardt is attached as a separate document. The letter discusses the Secretary's duty to prevent interference with reasonable historic uses in federal waters, such as fishing, of offshore wind projects in accordance with the Outer Continental Shelf Lands Act Subsection 8(p). A statement on Page 12 summarizes that a compensating process does not cure an impact:

"It is important to observe that any compensation system established by a lease to make users of the lease area whole financially does not negate interference – indeed the creation Of such a system <u>presumes</u> interference. As such, any proposed compensation process should not be viewed as 'curing' any 8(p)(4(I) interference since the statute does not provide for such a cure."

This provides further justification for additional public review.

- 3. A number of impacts were casually recharacterized in the FEIS without adequate backup in fact.
 - The impact on commercial and for-hire fisheries was reclassified from Major to Moderate,
 - The impact on vessel traffic was similarly reclassified from Major to Moderate,
 - Finally, the impact on US Coast Guard Search and Rescue Operations was also reclassified from Major to Moderate.

Documentation and justification for such changes must be clearly delineated.

4. The FEIS lacks clear delineation of criteria used to assess impacts.

FEIS Table ES-3 details 'Impacts by Action Alternative Resource Affected' on page ES-13. That table mirrors Table ES-2 in the SEIS page ES-5 released in June, 2020 for public comment as required by federal Administrative Procedures Act, and the National Environmental Policy Act (NEPA). In both tables, each resource has two lines summarizing the level of projected impact for each studied alternative described as either positively or negatively 'Negligible,' 'Minor,' 'Moderate,' or 'Major.'

In the SEIS, those two lines are labeled 'Direct and Indirect Impacts' of the Vineyard Wind 1 project, and 'Cumulative Impacts' based on the much larger effects of filling neighboring leases with turbines in the future. For example, the Vineyard Wind 1 project considered options of 57 to 100 turbines, but adjacent leases might bring the number to 1,570 to 2,750 turbines. But in the FEIS, the two lines are labeled 'Project Impacts' and 'Planned Actions with Project Impacts' thus eliminating the NEPA terminology 'Cumulative Impacts.' Otherwise both tables list the same level of impacts line-by-line, except for the new Preferred Alternative column.

Further, there is no discussion as to the criteria BOEM employs to reach its determinations for listed levels of impacts related to the cumulative impact of the Preferred Alternative.

Without clearly delineated assessment criteria, the FEIS must be considered incomplete. Attachment 1 presents a few obvious examples wherein a lack of rigorous cumulative impact assessment is evident.

5. Satisfactory Right Whale protections are missing and a robust cumulative impact analysis is needed to determine the full impact on the endangered Right Whale

A report issued by the Responsible Offshore Development Alliance outlining the severe risk the Vineyard Wind project poses to the Northern Right Whale is attached. With a population of only 356 individuals remaining the loss of a single individual could be catastrophic. Over one third of the total population, including up to 30% of known calving females, visited the RI and MA Lease Areas between 2010 and 2015. The presence of NARWs south of Martha's Vineyard and Nantucket, where the Proposed Project is to be located, has been documented as increasing since at least 2016. As recently as March 10, 2021, approximately 10-20% of the estimated remaining NARWs were observed in the MA/RI WEAs; based on available maps they appear to be primarily in the Vineyard Wind I and SFW project areas. There is an ongoing Unusual Mortality Event for the NARW since 2017. NMFS's website lists climate change, vessel strikes, entanglements, and ocean noise as the primary threats to NARWs. Three out of four of these threats will increase as a direct result of offshore wind (OSW) project construction.

The EIS has not completed a cumulative impact analysis in the EIS. The FEIS needs to be delayed to allow for the completion of a cumulative impact analysis.

6. Visibility impacts were based on flawed analyses and severely understated.

The visual impact assessment incorporated data extracted from studies conducted by the University of Delaware (UD) and North Carolina State. However, the UD data have been misinterpreted, and NC State is misquoted. The stated impacts of visible turbines on recreation and tourism are thus grossly understated.

In 2015, the BOEM published the results of a viewshed analysis it did for the New York Outer Continental Shelf Area (Renewable Energy Viewshed Analysis and Visual Simulation for the New York Outer Continental Shelf Call Area: Compendium Report OCS Study, BOEM 2015- 044). It simulated the visual impact of one hundred and fifty-two 6.2 MW wind turbines from 16 observation points in New York and New Jersey. The simulation most relevant to LBI is the Jones Beach observation point because the turbine array was roughly parallel to that shore. The closest point of the turbine array to Jones Beach was 15 miles.

It ranked the visible impact on a scale from 1 to 6. The visual impact from Jones Beach scored a 6, its highest rating. <u>A 6 rating was defined as</u>; "Dominates the view because the study subject fills most of the field for views in its general direction. Strong contrast in form, line, color, texture, luminance, or motion may contribute to view dominance".

Since the height of a 6.2 MW turbine is two-thirds that of a 12 MW, that visual impact would be equivalent to a 12 MW turbine at 23 miles. So even placing 12 MW turbines at the outer most points of the current lease area would still register a major visual impact, based on the BOEM study.

The direct project impacts are listed as negligible to moderate, and the cumulative impacts are listed as moderate when they should be considered major. Additional detail on visibility analyses are provided in Attachment 2.

This careless attribution leads to the disingenuous and highly misleading conclusion that visibility impacts are likely to be not more than moderate.

7. Project alternatives should consider lease area locations farther offshore. These may be more palatable to public concerned with degradation to the viewshed.

The FEIS fails to include an alternative which considers lease areas farther out to sea. BOEM established leases farther out in NY, VA, NJ, and NC. Why not this one, and lease areas located off the coast of Delaware, and Maryland? The NC lease lies an average distance from shore of 35 miles to limit visibility specifically from Kitty Hawk National Park. At Virginia Beach the lease area begins 26 miles from shore to limit conflict with military activities at Newport News Naval Base. In southern NJ there are two leased areas about 14 miles from shore, but the alternative Hudson South Call Area lies about 30 miles from shore. New projects in Europe with larger turbines are being planned 50 to 100 miles from shore. Considering a lease area farther out to sea for Vineyard Wind, and neighboring leases seems appropriate, and would require a new comment period.

Conclusion

BOEM has a clear duty to protect historic and future users of the lease area from interference from industrial-sized wind turbines. Major negative impacts will be inflicted especially on commercial and for-hire fisheries, tourist viewshed enjoyment, vessel traffic, Coast Guard search and rescue operations, scientific research, and the endangered Northern Right Whale. Fisheries face not only a direct loss of gear, but also increased risk of collision damage to their vessels, loss of life from hampered search and rescue operations, and loss of the scientific data needed to protect fisheries. Potential loses in tourism will exacerbate social injustice as losses will disproportionately impact lower-wage service workers in restaurants, hotels, and fishing tourism. The project as proposed and assessed similarly shows little regard for the protection of the endangered Northern Right Whale.

These are but a few glaring examples of the danger imposed by the rush to approve the Vineyard Wind COP. What is needed is a clear and thoughtful consideration of the NEPA process. Foremost are the need to identify and determine the impacts of not only the proposed project, but also changes to the project (such as significantly increased turbine size), project alternatives (such as lease area locations further offshore), cumulative impacts (to include neighboring leases) and proposed impact mitigation. These aspects re clearly important to the impacted community and the communities' ability to buy-into a project. The NEPA process is a public process and the public must be afforded its right to be a part of the process. Therefore, project changes should trigger additional public scoping meetings allowing for informed public input on the environmental and socioeconomic evaluations that are at the heart of the NEPA process. Regulatory approvals must not proceed until those impacted have been engaged and given the opportunity to comment on project expectations. Without this opportunity, BOEM needs to restart the EIS process, or simply deny approval of the COP.

Attachment 1

Select examples indicating a lack of rigorous cumulative impact assessment in the FEIS.

Following are examples of wording from summary statements on only the 'Direct' Project Impacts of the Preferred Alternative in the FEIS (the statements BOEM is most likely to focus in issuing the ROD) compared to the SEIS cumulative impacts BOEM was focused on during the Trump Administration.

Commercial & For Hire Fisheries

FEIS page 3-232 - Although mitigated through a gear loss compensation program, the impact of damage or loss of deployed gear as a result of operations and maintenance is expected to have a <u>moderate</u> impact on mobile gear commercial fisheries and for-hire recreational fishing due to striking or hooking on proposed infrastructure.

SEIS page 3-105 - The overall cumulative impacts of any alternative when combined with past, present, and reasonably foreseeable activities on commercial fisheries and for-hire recreational fishing would be <u>major</u>. This impact rating is driven mostly by changes to fish distribution/ availability due to climate change, reduced stock levels due to fishing mortality, and permanent impacts due to the presence of structures (cable protection measures and foundations).

Vessel Traffic

FEIS page 3-250 - Operations and maintenance under the Preferred Alternative would have moderate impacts on non-Project vessels operating near or within the WDA. Based on these considerations, the impacts of construction, installation, operation and maintenance, and decommissioning under the Preferred Alternative would be similar to Alternative A, but to a lesser extent. Therefore, BOEM anticipates the Preferred Alternative would have negligible to moderate impacts on navigation and vessel traffic.

SEIS page 3-117 - The overall cumulative impacts of any alternative when combined with past, present, and reasonably foreseeable activities on navigation and vessel traffic would be <u>major</u>, (except for Alternative D2 or Alternative F with the Alternative D2 layout: moderate) which is primarily driven by the construction, installation, and presence of offshore wind structures, and the increased risk of vessel allision and collision and associated threat to human health.

Military & National Security

FEIS page 3-280 - Compared to Alternative A, none of these changes would change the overall level of impact, and impacts of the Preferred Alternative on military and national security uses are anticipated to be minor for most military and national security uses, and <u>moderate</u> for USCG SAR activities.

SEIS page 3-125 - BOEM anticipates that the cumulative impacts associated with the Proposed Action and past, present, and reasonably foreseeable activities would result in <u>major</u> impacts on military and national security uses in the geographic analysis area. The main drivers for this impact rating are installation of structures, primarily WTGs, within the RI and MA Lease Areas that would hinder USCG SAR operations, leading to increased loss of life.

Scientific Research

FEIS page 3-280 - Relocating the six northernmost WTG positions to the south of the WDA as proposed in Alternative C, revising the layout as proposed in alternative D2, and implementing the design envelope contemplated for Alternative E would not meaningfully alter impacts on scientific research and surveys, which would remain <u>major</u> because impacts on vessel-based and aerial NOAA and NMFS surveys would remain the same as described for Alternative A.

SEIS page 3-128 - Overall, the Proposed Action would have <u>major</u> effects on scientific research and surveys, potentially leading to indirect impacts on fishery participants and communities (Sections 3.7.2 and 3.11.2); as well as potential major impacts on monitoring and assessment activities associated with recovery and conservation programs for protected species.

Attachment 2 Comments Regarding the Visibility Assessment

The impacts of visible turbines on recreation and tourism are understated based on the misuse of the university studies used to determine the impacts. The direct project impacts are listed as negligible to moderate, and the cumulative impacts are listed as moderate when they should be considered major.

The FEIS makes the following statements with regard to the University of Delaware study:

"A University of Delaware study evaluating the impacts of visible offshore WTGs on beach use found that WTGs visible more than 15 miles (24.1 kilometers) from the viewer would have negligible impacts on businesses dependent on recreation and tourism activity (Parsons and Firestone 2018). The study participants viewed visual simulations of WTGs in clear, hazy, and nighttime conditions (without ADLS). More than 95 percent of the WTG positions envisioned in the geographic analysis area would be more than 15 miles (24.1 kilometers) from coastal locations with views of the WTGs." FEIS Page 3-179

"The study Affected Environment and Environmental Consequences found that for prospective offshore wind facilities (based on visual simulations), proximity of WTGs to shore is correlated to the share of respondents who would expect a worsened experience visiting the coast (Parsons and Firestone 2018).

-At a distance of 15 miles (24.1 kilometers), the percentage of respondents who reported that their beach experience would be worsened by the visibility of WTGs was about the same as the percentage of those who reported that their experience would be improved (e.g., by knowledge of the benefits of offshore wind).

-About 68 percent of respondents indicated that the visibility of WTGs would neither improve nor worsen their experience.

-Reported trip loss (respondents who stated that they would visit a different beach without offshore wind) averaged 8 percent when wind projects were 12.5 miles (20 kilometers) offshore, 6 percent when 15 miles (24.1 kilometers) offshore, and 5 percent when 20 miles (32 kilometers) offshore.

-About 2.6 percent of respondents were more likely to visit a beach with visible offshore wind facilities at any distance." FEIS page 3-184

"WTGs visible from some shoreline locations in the geographic analysis area would have adverse impacts on visual resources when discernable due to the introduction of industrial elements in previously undeveloped views. Based on the research cited above on the relationship between visual impacts and impacts on recreational experience, the impact of visible WTGs on recreation would be long-term, continuous, and adverse. Seaside locations on the southern coast of Nantucket and Martha's Vineyard could experience some reduced recreational and tourism activity" FEIS Page 183-4 The University of Delaware study did its survey by showing panning photomontages on a computer screen, respondents were also provided instructions on the distance to the screen from which they should view the images and were asked to view the project at three distances offshore – near, medium and far. After each distance was viewed, respondents were asked whether the presence of the wind power project would have affected their beach experience/enjoyment -- making it worse, somewhat worse, neither worse nor better, somewhat better, or better. If they responded worse or somewhat worse, they were then asked if it would have affected their trip—that is, would they have made the same trip, visited another beach instead (and if so which beach) or done something else. The trip loss contingent-behavior question is followed by a certainty-response question. They used the response to this question to construct a certainty-adjusted trip loss. Note no such certainty adjustment was used for those who favored wind turbines. Results from nighttime views were never released, and the NC state study showed a 45% higher rate of negative reactions from nighttime views.

Data charts follow (Figure 1); however, it must me clear that the views/analyses were based on 579' tall turbines which dwarf the revised 853' turbines as now planned. Adjusting for the larger turbines can be satisfied by substituting 14 mile distance data (the closest Vineyard Wind location) with 9.5 mile data meaning 15% of current visitors will not return compared to only a temporary 2% curiosity trip gain. Trip losses at the lease distances range between 6% to 17% adjusting for larger turbines, while gains range between 2.2% and 3.3%, clearly not a "wash" especially considering curiosity trips are single events while losses are essentially permanent. Also, clearly the FEIS finding the number of respondents who thought their trip would be worse (30%) was not about the same as those who thought their trip would be improved (10%) after adjusting for turbine height. The Parsons/Firestone study sample included people involved in beach activities (65%), and people who simply visited the beach area, but not the beach itself (35%) who would not be expected to oppose visible wind turbines so the study results are diluted.

An FEIS statement regarding the North Carolina State study follows:

"A 2017 visual preference study conducted by North Carolina State University evaluated the impact of offshore wind facilities on vacation rental prices. The study found that nighttime views of aviation hazard lighting (without ADLS) for WTGs close to shore (5 to 8 miles [8 to 13 kilometers]) would adversely impact the rental price of properties with ocean views (Lutzeyer et al. 2017). It did not specifically address the relationship between lighting, nighttime views, and tourism for WTGs 15 or more miles (24.1 or more kilometers) from shore." FEIS page 3-179

The study by Lutzeyer et.al. (2017), "The Amenity Costs of Offshore Wind Farms: Evidence from a Choice Experiment"³ was quite a contrast to the UD study. The Lutzeyer study worked with beach home rental companies, and <u>surveyed only people who had recently rented a house on, or near the beach</u>. The study found 38 percent of beach renters would likely not come back to a beach with daytime visible turbines regardless of the distance as shown in the study quote below with visualizations showing turbines from 5 miles to 18 miles from shore (not the 8 mile limit stated in the FEIS). In addition, others would return only with a rental discount depending on the distance.

Overall, the willingness to accept estimates for the Never View class imply that these respondents would likely exit the local rental market if turbines were present, rather than make intensive margin tradeoffs among rental price and characteristics of the viewshed.

The Lutzeyer study also showed nighttime visualizations of red flashing aircraft warning lights, and respondents stated even higher rates of objection with 54 percent not likely to return to a beach with nighttime visible turbines. The visualizations showed 5 to 7 MW turbines about the same size as the UD study.



Distance in miles





Expected impacts to local tourism of 579' tall wind turbines at varying distances offshore expressed as both % reduction in trips as well as % increases attributable to curiosity seekers