New England Fishery Management Council

MID-ATLANTIC FISHERY MANAGEMENT COUNCIL

June 1, 2021

Program Manager, Bureau of Ocean Energy Management
Office of Renewable Energy Programs
45600 Woodland Road (VAM-OREP)
Sterling, Virginia 20166

Re: Notice of Intent to Prepare an EIS for the Ocean Wind project

Dear Sir/Madam,

Please accept these comments from the New England Fishery Management Council (New England Council) and Mid-Atlantic Fishery Management Council (Mid-Atlantic Council) regarding the Notice of Intent to prepare an Environmental Impact Statement (EIS) for the Construction and Operations Plan (COP) for the Revolution Wind Farm and Revolution Wind Export Cable project off Rhode Island. The COP proposes to install up to 100 turbines, up to two offshore substations, one onshore connection point at Quonset Point, and up to two submarine export cables through one corridor. Up to 205 miles of cables (155 miles inter-array, 50 miles export) would connect the turbines, substations, and onshore connection points.

The New England Council has primary management jurisdiction over 28 marine fishery species in federal waters and is composed of members from Maine to Connecticut. The Mid-Atlantic Council manages more than 65 marine species[1] in federal waters and is composed of members from the coastal states of New York to North Carolina (including Pennsylvania). In addition to managing these fisheries, both Councils have enacted measures to identify and conserve essential fish habitats (EFH), protect deep sea corals, and sustainably manage forage fisheries. The Councils also support policies for U.S. wind energy development and operations that will sustain the health of marine ecosystems and fisheries resources. While the Councils recognize the importance of domestic energy development to U.S. economic security, the marine fisheries throughout New England and the Mid-Atlantic, including within the Revolution Wind project area and in surrounding areas, are extremely important to the social and economic well-being of coastal communities in the Northeast U.S. and provide numerous benefits to the nation, including domestic food security.

General Comments

The pace and number of offshore wind projects in development in our region pose challenges for thorough analysis of potential impacts, informed public input, and adopting lessons learned from each project. Surveys, design work, and environmental reviews are already occurring for over a dozen projects and multiple additional areas in the New York Bight are planned to be leased. Work on these projects is already taxing available resources in the fishing, fishery management, and fishery science communities, and we expect at BOEM as well. Consistency in approaches

[1] Fifteen species are managed with specific Fishery Management Plans, and over 50 forage species are managed as "ecosystem components" within the Mid-Atlantic Council's FMPs.

and adopting lessons learned from one project to the next would benefit stakeholders who seek to engage in the review process for these complex projects.

We have significant concerns about the suitability of this specific lease area for offshore wind energy development given the amount of complex habitat found throughout the area and the potential for negative impacts to those habitats during construction of the turbines and cables. These concerns are described in more detail below.

Section 1.4 of the COP (Regulatory Framework) is useful for understanding permitting and environmental review requirements at the federal, state, and local levels. This section should be revised as appropriate to ensure that current federal frameworks are referenced (e.g., One Federal Decision has been rescinded).

As the impacts analysis is developed, clear terminology will be important for readers to understand the complexity of the alternatives considered and the large number of impact-producing factors and environmental resources evaluated. It also would be useful to specify both magnitude and direction when characterizing impacts, and for the EIS to define short and long term in the context of impacts. The COP appears to do an effective job of distinguishing between the two timeframes.

Purpose and Need and Alternatives

The maximum operating capacity is identified in the COP as 704-880 MW and Rhode Island and Connecticut have procured 704 MW total from the Revolution Wind project. The project design envelope considers turbines ranging from 8-12 MW. We assume that turbines on the upper end of this range will be used, given recent advances in the industry. This suggests that 59 turbines are needed to fulfill the existing procurements and that 74 turbines would be needed to achieve 880 MW. We are concerned that this wide range of maximum operating capacities combined with multiple possible turbine sizes will make it difficult for the meaningful consideration of impacts within the EIS. For example, 74 turbines could have a much different impact than 59 turbines. If this wide of a range is considered in the EIS, it may be helpful to analyze separate alternatives for the lower and higher realistic bounds for the maximum operating capacity, expected turbine size, and number of turbines. This will allow the Councils and other interested parties to provide better informed comments on which alternatives may best minimize impacts to habitat, marine species, and fisheries, while still meeting the purpose and need of the action, as the impacts will scale with the location and number of turbines installed.

The COP suggests that all 100 potential turbine locations might not be used. As BOEM works with the developer to determine which of the potential 100 turbine locations to drop from the array, we recommend considering at least one habitat impacts minimization alternative, a fisheries impacts minimization alternative, and a transit lane alternative, in addition to the no action alternative and the proposal outlined in the COP. The EIS should clearly state the extent to which a reduction in the proposed number of turbines is feasible, given the segmentation of the lease (leaving less space available to move turbine locations) and existing procurements.

A habitat impacts minimization alternative would identify turbine locations that could be eliminated to minimize the impacts of both turbine placement and installation of inter-array

cabling on complex benthic habitats in the project area, while still meeting the purpose and need of the action. For example, the EIS should consider minimization of impacts on Atlantic cod habitat. The Atlantic Cod Stock Structure Working Group concluded that there are more than two stocks of Atlantic cod, including a likely separate Southern New England stock, which overlaps with the project area and Cox Ledge. This area could be greatly beneficial for stock rebuilding given this and other surrounding complex habitat areas are important for cod spawning and survival of juvenile cod. The EIS should develop alternatives and mitigation measures to minimize impacts to complex fish habitats and fishing grounds, including Cox Ledge. While we recognize the turbines and associated scour protection create structured habitat, we are very concerned about the destruction of natural hard bottom in the project area. We note that the Rhode Island Ocean Special Area Management Plan, which applies within the project area, requires offshore developers to avoid areas of particular concern, namely glacial moraine, and if this is not feasible, developers must minimize and mitigate any impacts to this resource.[2]

We also have concerns about impacts to habitats along the export cable corridor, especially as the COP suggests that the cable corridor crosses a significant amount of structured habitat and many boulders in the corridor may need to be relocated. For clarity, it might be appropriate for the export cable to have its own habitat impacts minimization alternative where alternative routes that avoid complex habitat are considered. Thorough pre-construction survey work will be necessary to accurately assess the habitat types in the cable corridor areas.

Micrositing of both turbines and cables may be useful for minimizing impacts on complex habitats. The EIS should indicate the extent to which micrositing is likely to mitigate negative effects. Where micrositing is insufficient to mitigate impacts, removal of a turbine location or more significant rerouting of the cable should be considered. The EIS should clearly indicate how seafloor habitats are being characterized using available data and include specific criteria that would result in a preferred turbine or cable location being moved or removed to minimize habitat impacts.

A fisheries impacts minimization alternative would use information about the relative importance of different locations to fishing to prioritize potential turbine locations for elimination. All available data on fisheries use patterns in the area, including transiting, should be evaluated. The limitations of each data set should be clearly and repeatedly acknowledged and input from the fishing industry should be sought to gain an understanding of use patterns not captured in the data.

A transit lane alternative would eliminate entire rows or columns of turbines to facilitate transit across the project area for all types of vessels. The location of potential transit lanes should be informed by available data on vessel traffic (which are not available for all fishery vessels) and input from the fishing community. The habitat, fisheries, and transit lane alternatives could be used in combination to minimize impacts associated with the project. We recognize that there may be tradeoffs between these and other objectives in determining the final project design.

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[2] McCann, Jennifer and Sarah Schumann 2013. Ocean SAMP. The Rhode Island Ocean Special Area Management Plan: Managing Ocean Resources Through Coastal and Marine Spatial Planning. http://www.crmc.ri.gov/samp_ocean/reports/Ocean_SAMP_Practioners_Guide.pdf.

For all alternatives, the EIS should also be clear on which mitigation measures will be required as opposed to discretionary. Only required mitigation measures should influence the impact conclusions in the EIS.

Fisheries and Habitat Considerations

BOEM should coordinate early and often with NOAA Fisheries on the most appropriate data for analysis of potential impacts to fisheries, including fishing and transiting locations, as well as socioeconomic impacts. Summary information on Council-managed fisheries is also available on the Council websites, www.mafmc.org, and www.nefmc.org, at fishery management plan-specific links, typically via annual fishery information reports (MAFMC) or recent plan amendment or framework documents (both councils). The EIS should clearly and repeatedly acknowledge the limitations of each data set.

Commercial and recreational fisheries provide a wide range of benefits to coastal communities, and not all of these are captured by looking only at financial metrics. The EIS should not overly rely on ex-vessel value when assessing and weighting impacts across various fisheries. Focusing on ex-vessel value can mask other important considerations such as the number of impacted fishery participants, the use of a low-value species as bait for a high-value species, or a seasonally important fishery. For example, skates are typically a low revenue, high volume fishery that supplies bait to the lobster fishery; however, this level of fishery dependence and impacts on other fisheries are not readily apparent in the COP, though some information is provided in Appendix CC. These types of relationships should be described in the EIS.

Models exist to estimate the amount of fisheries revenue generated from within the project area, but it is important to acknowledge that changes in transit patterns will also have economic impacts and the associated economic impacts will be challenging to accurately quantify.

Multiple aspects of wind farm construction and operations involve noise production, and noise can negatively affect biological processes for many fish, invertebrate, and marine mammal species. The COP (page 145) states that the noise from operation of offshore substation is naturally muted by the ocean; however, no reference or evidence is provided. Given the amount of hard bottom in this area, in particular glacial moraine substrate, pile driving noise impacts could be greater compared to those in sandy habitats, especially if pile driving durations are longer due to geological conditions. If noise impacts affect the biological processes of or temporarily displace species targeted by commercial or recreational fisheries, those fisheries will experience negative impacts. Therefore, if the EIS concludes there is no impact from noise, it should clearly explain why.

The COP translates the US Coast Guard's policy that vessels will have the freedom to navigate in a wind farm into the conclusion that fishing vessels will be successfully able to fish, including with mobile, bottom-tending gears (page 642). This is a superficial conclusion that ignores the differences between transit and fishing. The proposed layout may limit the ability of fishing vessels to operate with some gears, even if they can safely transit through the areas. The COP and the Navigation Safety Risk Assessment (Appendix R) assume that intended cable burial will mitigate certain risks to vessels using mobile, bottom-tending gears, but these conclusions should also draw on the Cable Burial Risk Assessment, which is redacted from the public version of the

COP. If substantial areas of the cable cannot be buried due to seabed conditions, fishing activity may be negatively impacted.

The COP states that electromagnetic fields (EMF) are not likely to affect fishery resources (positively or negatively) (page 644), however, elasmobranchs (namely skates and spiny dogfish) and other species exhibited a strong behavioral response to EFM in a field study conducted by University of Rhode Island and BOEM[3] and are "likely to have more frequent contact with the Project's cable routes" (Appendix Q1). Potential EMF impacts are a concern to the fishing community and the extent to which EMF may or may not impact marine species should be thoroughly described in the EIS. These impacts should be included in the characterization of potential impact tables (e.g., Table 4.6.5-5), given EMF is listed as an impact-producing factor in Figure 4.6.5-1.

Boulders can serve as habitat for certain structure-oriented species. Recreational vessels (private and for-hire) sometimes fish off boulders for this reason. Relocation of boulders for cable laying will cause disruptions in recreational fishing activity, as it could take several trips to find their new locations. While the relocated boulders may continue to attract recreational fishery species and function as a substrate for sessile fauna, relocation is not a negligible impact given the movement will likely damage or destroy the attached fauna. As such, there will be a recovery period for both recreational fishing and habitat impacts associated with relocation of boulders.

In the context of both cable and turbine installation, any place where the bottom sediments will be disturbed must be evaluated for sediment contamination to understand the potential for environmental effects associated with contaminant release. Two obvious sources of contamination are dredged spoils from inshore, nearshore, or harbor maintenance and disposal of onshore materials (including waste). For many years, such disposal was not evaluated carefully and not regulated as it is today. As a result, sediments and other material with unacceptable levels of heavy metals and persistent organic pollutants (POPS) were disposed in ocean waters and may remain in locations where they could be disturbed. These sources of contamination need to be assessed and managed as part of the offshore wind development process.

Commercial, for-hire recreational, and private recreational fishing should be considered separately, but in the same or adjacent sections of the document. It seems that the COP categorizes recreational fishing as charter boat, party boat, private boat, or shore, which is appropriate, and is an improvement on previous offshore wind EIS documents we have reviewed. As the Councils have stated in comment letters on other wind projects, the grouping of private recreational fishing with recreation and tourism, rather than with commercial and for-hire fisheries, is not intuitive and makes it challenging for readers to understand the full picture of potential impacts on all fishery sectors. If fishery species are affected by the project, this will affect both for-hire and private recreational fishing. Describing both types of recreational fishing in the same section of the document would make linkages between biological and fishery conditions easier to explain and understand. Additionally, aquaculture, which is referenced in the COP, is distinct from commercial and recreational fisheries and should be considered separately.

[3] https://espis.boem.gov/final%20reports/5659.pdf.

We recognize that data on the locations of private angler fishing effort in federal waters are very limited and available data on the locations of for-hire fishing effort (i.e., vessel trip report data) are not precise. Therefore, it will be important to clearly articulate the limitations of the available data and work with local fishermen to understand how the project area is used by recreational fisheries.

Turbine foundations and their associated fouling communities will create artificial reefs, which are expected to attract certain fishery species (e.g., black sea bass). The EIS should acknowledge that the artificial reef effects will have different impacts for different species. In addition, this area already contains a substantial amount of hard bottom habitat. Therefore, the presence of turbine foundations will not create new habitat types and associated benefits to fisheries and marine species to the same extent as they might in an area with less complex habitat. For example, any benefit to anglers targeting highly migratory species (e.g., tunas and sharks) could be offset by the inability to anchor or to drift throughout the area. If operators shift their effort outside the project area during construction or long-term operations, this will potentially put them in areas of higher vessel traffic and gear conflict. Also, depending on operating conditions at sea, commercial and recreational fishermen cannot always reap the benefits of any increased catchability of target species due to safety concerns of fishing in swells around the turbines. These safety considerations will be different than the existing artificial reefs in the Greater Atlantic region which, except for the Block Island Wind Farm turbine foundations, are all submerged structures.

Given the amount of hard bottom in the project area, we assume that burial of both the inter-array and export cables will be challenging. Unburied cables present fisheries concerns, especially for mobile gear fisheries. The effects of cable protection materials on fishing operations should be accounted for when estimating fishery impacts of the project. The New England Council's submarine cables policy recommends that when cable burial is not possible, cables should be protected with materials that mimic natural, nearby habitats where possible. It would be helpful to identify the characteristics of any cable protection materials, should burial depths of 4-6 feet not be achieved, because these materials contribute to the net amount of complex habitat that would exist in the area once the project is constructed.

The COP states that during decommissioning, all facilities will be removed to a depth of 15 ft below the mudline, unless otherwise authorized by BOEM. This should include all cables. Abandoned, unmonitored cables would pose a significant safety risk for fisheries that use bottom-tending gear and the long-term risks to marine habitats are unknown.

Cumulative Impacts

The EIS must include a thorough cumulative impacts assessment. We supported the criteria used in the Vineyard Wind EIS for defining the scope of reasonably foreseeable future wind development; however, that scope should now be expanded to include the anticipated New York Bight lease areas. Several fisheries operate in both the New York Bight and Southern New England.

Cumulative impacts and risks need to be evaluated for species that are widely distributed on the coast. Species such as bluefish, summer flounder, black sea bass, and others that migrate along

the coast could be affected by multiple offshore wind projects, and well as other types of coastal development.

We continue to have significant concerns about the cumulative impacts of offshore wind development on fishery independent surveys. Major negative impacts to these surveys would translate into greater uncertainty in stock assessments, the potential for more conservative fisheries management measures, and resulting impacts on fishery participants and communities. We are encouraged by BOEM's commitment to working with NOAA on long term solutions to this challenge through the regional, programmatic, Federal Survey Mitigation Program, described in the Record of Decision for the Vineyard Wind 1 project.

Coordination Between Adjacent Projects

The Councils are pleased that projects throughout the Southern New England lease areas will be developed using standardized turbine layouts. Coordination and consistency in other regards, including around fisheries surveys before, during, and after construction, between neighboring projects would improve our ability to understand project impacts on fisheries. In addition, using shared or adjacent cable routes to the extent possible would help to minimize impacts to the seabed and potential interactions between cables and bottom-tending fishing gear. Coordination between projects will provide efficiencies for analysis and development and will also help minimize impacts to commercial and recreational fishing, vessel transit, and habitats.

Conclusion

We appreciate the opportunity to provide comments to ensure that issues of social and ecological importance are considered in the EIS for the Revolution Wind COP. We look forward to working with BOEM to ensure that any wind development in our region minimizes impacts on the marine environment and can be developed in a manner that ensures coexistence with our fisheries.

Please contact us if you have any questions.

Sincerely,

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Dr. Christopher M. Moore
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cc: J. Beaty, M. Luisi, W. Townsend, J. Bennett, A. Lefton