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

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

Dear Ms. Morin,

Please accept these comments from the Mid-Atlantic Fishery Management Council (Mid-Atlantic Council) regarding the Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS) for the Construction and Operations Plan (COP) for the Kitty Hawk Wind project. The COP proposes to install up to 69 wind turbine generators and one offshore substation. A combination of foundation types may be used for the wind turbines and substation (i.e., monopile, pile jacket, and up to three suction caisson jacket foundations) and they would be connected by up to 149 miles (240 km) of inter-array cables. The project would be connected to shore by up to two export cables sharing a common cable route corridor with a maximum corridor length of 50 miles (80 km) and making landfall in Virginia Beach, Virginia. Wind turbines would be spaced a minimum of 0.8 miles apart in a north-northeast/south-southwest orientated grid layout.

The Mid-Atlantic Council manages more than 65 marine species 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, the Mid-Atlantic Council has enacted measures to identify and conserve essential fish habitat (EFH), protect deep sea corals, and sustainably manage forage fisheries. The Mid-Atlantic Council supports policies for U.S. wind energy development and operations that will sustain the health of marine ecosystems and fisheries resources. While we recognize the importance of domestic energy development to U.S. economic security, we note that the marine fisheries throughout the Mid-Atlantic, including within and near the Kitty Hawk project area, are profoundly important to the social and economic well-being of communities in this region 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. There are over a dozen projects for which survey, design, and environmental review are already occurring and multiple additional areas in the New York Bight are planned to be leased. For

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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.
example, seven projects, including this one, entered the draft EIS development phase through issuance of NOIs between March and August, and additional NOIs are expected later this year. The planned New York Bight leases have also had multiple comment periods this year. Available resources in the fishing, fishery management, and fishery science communities are already taxed by consulting and coordinating on these projects. Consistency in approaches and adopting lessons learned from one project to the next will benefit stakeholders who engage in the review process for these complex projects.

We understand that the BOEM regulations allow offshore wind project developers to revise their COPs throughout the environmental review process. This poses significant challenges for stakeholders and partner agencies to provide input on and understand the likely impacts of the project. We understand that the final project design must fall within the analyzed project design envelope. The project design envelope approach is logical given the time needed to complete environmental review and continuous advances in technology. However, we are concerned that the desire to allow flexibility in final project design can result in too wide of a design envelope and uncertainty in the actual impacts of the project. To help address this concern, we request that BOEM announce to the public whenever a COP has been revised.

Clear terminology in the EIS 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. The EIS should also specify both magnitude and direction when characterizing impacts and should define both short and long term impacts.

Alternatives considered in the EIS

The COP lists the maximum potential number of turbines, turbine sizes, and cumulative total cable lengths, as well as three potential turbine and/or substation foundation types. We assume this will define the upper bounds of the project design envelope analyzed in the EIS. However, the respective minimum values to define the lower bound of the design envelope are not specified in the COP. The EIS should clearly define both the maximum and minimum realistic number of turbines, turbine sizes, and cumulative cable length which may be used for this project.

The EIS should analyze multiple distinct alternatives associated with smallest, largest, and one or more intermediary potential scales of the project. This will allow for ease of comparison of impacts across different potential scales of the project. The alternatives should allow for different potential numbers of turbines, turbine sizes, and foundation types to be “mixed and matched,” rather than grouped into pre-determined combinations.

We recommend that the EIS include alternatives to minimize impacts to habitats and fisheries. A habitat minimization alternative should minimize impacts to sensitive habitats including eelgrass, hard bottom, and complex topography. This alternative should consider reduced numbers of turbines, restrictions on turbine locations, different turbine foundation types, and various cable routing options. A fisheries mitigation alternative should minimize impacts to commercial and recreational fisheries (including transit) through reduced numbers of turbines, excluded turbine locations, and wide spacing between turbines.
For all alternatives, the EIS should be clear on which measures to avoid, minimize, or mitigate negative impacts will be required as opposed to discretionary. Only required measures should influence the impacts conclusions in the EIS. Avoidance, minimization, and compensation for negative impacts should all be considered, with compensation thoroughly planned for, but used only as a last resort if avoidance or mitigation are not possible or are not achieved.

**Fisheries and habitat considerations**

BOEM should coordinate early and often with NOAA Fisheries (including the Greater Atlantic and Southeast Regional Offices, as well as headquarters) on the most appropriate data for analysis of potential impacts to commercial and recreational fisheries, including fishing and transiting locations, and socioeconomic impacts. The EIS should clearly and repeatedly acknowledge the limitations of each data set. The EIS should include recent data and should analyze multiple years of data to capture variations in fisheries and environmental conditions.

Section 7 of the COP summarizes available data on commercial fishing and their limitations very well. We hope this level of detail is carried forward in the EIS. We also appreciate that the Kitty Hawk Fisheries Liaison Officer and Fisheries Representative have conducted oral history interviews with local fishermen to supplement the available datasets.

Commercial, for-hire recreational, and private recreational fishing will all be impacted by this project in different ways. Therefore, they should be considered separately, but in the same or adjacent sections of the document. The EIS should describe how the impacts may vary by target species, gear type, fishing location (e.g., from shore, mid-water, on different bottom types, near structures such as shipwrecks) and commercial or recreational fishing (including from shore, private vessels, party/charter vessels, and tournaments).

Turbine and substation foundations and scour protection materials (depending on the specific materials used) will create artificial reefs. Their associated fouling communities will likely attract some fishery species (e.g., black sea bass), as evidenced by the five turbines off Block Island and the two research turbines off Virginia. However, the addition of new structured habitat in this area will replace existing habitat types and could displace other species which prefer soft sediments (e.g., flatfish). The EIS should acknowledge that, although the artificial reef effect will be beneficial for some species, it will not be universally beneficial for all species.

Commercial and recreational fishermen may not be able to take full advantage of any increased availability of target species due to concerns about safely maneuvering, drifting, or anchoring near turbines. Safety considerations will vary based on weather, gear type, vessel size, and specific fishing practices which can vary by target species. Although fishermen in the CVOW area to the north of this project already have experience fishing near the two research turbines installed in 2020, this may not prepare them for fishing safely within the Kitty Hawk project, which could include up to 69 turbines. The EIS should evaluate these safety considerations and their potential variations across different fisheries.

Commercial and recreational fisheries provide a wide range of benefits to local communities and to the nation. These benefits cannot be fully characterized with financial metrics. The EIS should not overly rely on ex-vessel value when assessing and weighting impacts across 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.

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

Commercial and recreational fishermen choose where to fish based on many factors, including, but not limited to, where target species are located, where regulations allow, market factors, and weather considerations; thus, they cannot always easily relocate to a different area to avoid a windfarm without socioeconomic impacts. Similarly, an increase in target species within the project area will not necessarily result in a predictable shift in fishing effort into that area. The EIS should explore this issue in detail. The likely extent of impacts will be important to understand in the context of developing mitigation agreements for affected fishing industry members. As we have stated in previous comment letters, we strongly urge mitigation funds be provided to all affected vessels regardless of homeport.

The positive and negative impacts of the project will not be felt only by fishermen from nearby ports; the EIS should consider commercial and recreational fisheries over a wide geographic area that may be impacted by the project. For example, vessels traveling from ports north and south of the project area may transit through and/or fish in the area.

The EIS should account for the dynamic nature of fishing effort over time when evaluating impacts to fishermen and fishing communities. Fishing effort can change based on multiple factors including, but not limited to, management actions (e.g., a change in access areas, changes in allocations to different fishery sectors or states), changing species distributions, and changing market and economic conditions.

The EIS should describe the potential amount of external cable armoring that may be required if sufficient cable burial depth cannot be achieved. The EIS should also describe the characteristics of the cable protection materials which may be used. These materials should mimic natural, nearby habitats where possible. These materials will contribute to the net amount of complex habitat that would exist in the area once the project is constructed. As noted above for turbine and substation foundations, the EIS should acknowledge that the addition of new complex habitat due to scour protection will replace existing habitat types and the impacts of such a change should be analyzed.

The COP proposes that up to two export cables will share a common cable route. We support the use of shared cable routes as it can reduce the number of cable installations required and the amount of impacted habitat and fishery areas. Effects of cable installation include both noise and sediment plumes, which may affect biological processes for fishery species. Cables can also pose an entanglement risk for certain fishery gear types, especially if sufficient burial depth is not achieved and maintained. The EIS should consider whether the two cables will be installed at the same time or sequentially during different times of year as these two scenarios could have different impacts on habitats, marine species, and fisheries.

Potential impacts of electromagnetic fields (EMF) on fishery species 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. The EIS should acknowledge the limitations of the current scientific knowledge
in this area and should provide justification, including supporting scientific studies, for all conclusions regarding EMF.

It is essential that all cables be removed during decommissioning. Abandoned, unmonitored cables could pose a significant safety risk for fisheries that use bottom-tending gear and the long-term risks to marine habitats are unknown.

In the context of both cable and turbine installation, any place where 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 materials with unacceptable levels of heavy metals and persistent organic pollutants were disposed in ocean waters and may remain in locations where they could be disturbed. These sources of contamination must be assessed and managed as part of the offshore wind development process.

**Cumulative impacts**

The EIS must include a meaningful cumulative impacts assessment. We supported the criteria used in the Vineyard Wind 1 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. In addition, it will be important to consider that many lease areas (including this one) are not proposed to be developed through a single project, but rather will be developed in stages through multiple projects. The cumulative effects analysis should also consider the impacts of cables from the many planned projects.

Cumulative impacts and risks should be evaluated for species whose populations are widely distributed on the coast. Mid-Atlantic Council managed species such as bluefish, summer flounder, and others that migrate along the coast could be affected by multiple offshore wind projects, and well as other types of coastal development, at both the individual and population levels.

Climate change will also be an essential consideration in the cumulative effects analysis for all species. The distributions and abundance of many species are changing (some increasing, some decreasing) due to climate change and other factors. The EIS should acknowledge that impacts from the construction of wind farms will occur in this context.

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.
Conclusion

We appreciate the opportunity to provide comments to ensure that issues of social and ecological importance are considered in the forthcoming EIS for the Kitty Hawk 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,

Dr. Christopher M. Moore
Executive Director, Mid-Atlantic Fishery Management Council

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