



July 8, 2022

Brian Krevor
BOEM Office of Renewable Energy Programs
45600 Woodland Road
Sterling, Virginia 20166

Re: Notice of intent to prepare an environmental impact statement for US Wind project off Maryland

Dear Mr. Krevor,

Please accept these comments from the Mid-Atlantic Fishery Management Council (Mid-Atlantic Council) and the New England Fishery Management Council (New England Council) regarding the notice of intent (NOI) to prepare an environmental impact statement (EIS) for the review of a construction and operations plan (COP) submitted by US Wind, Inc., (US Wind). The COP proposes construction and operation of a wind energy facility offshore of Maryland with interconnection locations in Sussex County, Delaware. The project comprises as many as 121 wind turbine generators, up to 4 offshore substations, up to 4 offshore export cables, and 1 meteorological tower. A 0.77 NM east-west and 1.02 NM north-south grid array pattern is planned for the turbines and substations.

The Mid-Atlantic Council manages commercial and recreational fisheries for more than 65 marine species¹ in federal waters and is composed of members from the coastal states of New York to North Carolina (including Pennsylvania). The New England Council manages over 28 marine fishery species in federal waters and is composed of members from the coastal states of Maine to Connecticut. In addition to managing these fisheries, both Councils have enacted measures to identify and conserve essential fish habitats, protect deep sea corals, and sustainably manage forage fisheries. The Councils 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, we note that marine fisheries throughout the Mid-Atlantic and New England, including within the US Wind project area and in surrounding areas, 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.

This letter builds off the wind energy policies adopted by both Councils.² Our two Councils worked together on these policies and adopted the same policy language. Given the current pace of offshore wind energy development in this region, we are unable to provide a thorough and detailed review of each individual project. Therefore, it is especially important that BOEM consider the many recommendations in our wind energy policy which apply across projects.

General process concerns

Consistency in approaches, while adopting lessons learned from one project to the next will benefit stakeholders who engage in the review process for these complex projects. As we have stated in

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.

² Available at https://www.mafmc.org/s/MAFMC_wind_policy_Dec2021.pdf

several previous comment letters to BOEM, 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. As you are well aware, more than 25 offshore wind energy projects along the east coast are in various stages of planning and environmental review. Consulting and coordinating on these projects are already taxing available resources in the fishing, fishery management, and fishery science communities, and we expect within BOEM as well. We have found it challenging to effectively engage in this process at the current pace while fulfilling our existing fisheries management missions. We know many other stakeholders have also found it challenging to track recent developments and provide input into the process.

Purpose and need and alternatives in the EIS

The purpose and need as defined in the EIS for US Wind should be tied to realistic renewable energy goals, considering state targets, constraints of the onshore power grid, and other considerations. The purpose and need should include a specific MW capacity and should not be overly broad. This is necessary to inform development of alternatives to meet the purpose and need while minimizing negative impacts to the environment and human communities, including impacts to fisheries and fishery species.

The NOI states that the project to be analyzed in the EIS encompasses the full lease area, which may be built as at least three different projects: MarWin, Momentum Wind, and additional projects which may be planned for the remainder of the lease area. The state of Maryland has awarded offshore wind renewable energy credits (ORECs) to MarWin and Momentum Wind which, according to the NOI, could generate about 303 MW and 808 MW of energy, respectively. The COP suggests that the full lease area could generate up to 2,000 MW, which suggests that 889 MW, or about 44% of the potential full capacity of the lease, has not yet been procured or planned for. The distinction between the multiple projects within the lease area (i.e., MarWin, Momentum Wind, and additional future projects) should be clarified in the EIS and should inform development of alternatives to be analyzed. For example, which sections of the lease area are planned for MarWin, Momentum Wind, or potential future projects? Clarifying these differences will allow for consideration of how the scope of the project could be modified to reduce the potential for negative impacts to fisheries, fishery species, and marine habitats, for example, by using fewer turbine and offshore substation locations than the full 121 turbines suggested in the NOI, and/or by using one offshore export cable route rather than two.

The EIS should analyze alternatives that minimize negative impacts to fisheries, fishery species, and marine habitats. Negative impacts could be minimized by reducing the number of turbines and substations installed; using the shortest offshore cable corridor possible; maximizing cable burial depths; seasonal restrictions on construction activities; and excluding turbine, substation, and cable locations with the greatest overlap with fishing activity and sensitive habitats. These alternatives should include details on which locations may be removed, which other modifications are likely, and how these determinations were made.

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. Monitoring studies should be described in the EIS and in the COP but should not be considered environmental protection measures as monitoring is not equivalent to mitigation. Avoidance, minimization, mitigation, and compensation for negative impacts

should all be considered, with compensation thoroughly planned for and used if avoidance, minimization, or mitigation are not possible or are not achieved. Avoidance should be the first priority.

We will provide an additional comment letter on the draft BOEM guidance for mitigating impacts of wind energy on commercial and recreational fisheries. The US Wind EIS should reflect the final version of this guidance. For example, the current US Wind project design envelope includes a target burial depth of 3.3 to 9.8 feet for inter-array cables, while the draft guidance recommends a minimum burial depth of 6 feet.

Fisheries and habitat data

The PDF “posters” in the online virtual page provide a useful summary of the project in a more easily accessible format than the 455-page COP (not including appendices). Posters on commercial and recreational fishing should also have been provided to allow the public to more easily understand and provide comments on the potential impacts of the project on commercial and recreational fisheries, as well as to comment on potential alternatives to reduce negative impacts to fisheries. As stated in multiple comment letters to BOEM in 2021, we recommend consistency in the information provided in these posters across projects and we recommend that posters on both commercial and recreational fishing be provided for all projects.

We defer to the National Marine Fisheries Service (NMFS) on the most appropriate data for considering overlap of the project area with commercial and recreational fisheries, EFH, and fishing vessel transit. The COP may require some updates based on this information (e.g., table 8-3 in Volume II of the COP is an incomplete list). BOEM should also rely on NMFS for guidance on how to analyze the potential impacts of the project on marine species (including species targeted by commercial and recreational fisheries and protected species), marine habitats, and socioeconomic impacts for commercial and recreational fisheries, fishery support businesses, and fishing communities. NMFS should also be consulted to ensure a thorough understanding of the limitations of each data set. Important data limitations should be supplemented with stakeholder input.

Provision of high-resolution benthic habitat maps early in the process is important for evaluating impacts and considering how to best minimize impacts. These data are needed for the essential fish habitat consultation process, which is designed to avoid impacts wherever possible and determine mitigation measures where impacts cannot be avoided.

Impacts to fisheries, fishery species, and habitat

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. Both magnitude and direction of impacts should be specified when characterizing impacts and the EIS should define short and long term in the context of impacts. The EIS should acknowledge the limitations of the current scientific knowledge on environmental effects and should provide justification, including supporting scientific studies, for all conclusions.

The EIS should describe how 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, other artificial reefs, or boulders) and commercial or recreational fishing (including recreational fishing from shore, private vessels, party/charter vessels, and tournaments).

The EIS should explain that the proposed 0.77 x 1.02 nm grid layout of the projects will not eliminate all concerns about safely fishing, maneuvering, drifting, or anchoring near turbines and offshore substations. Safety considerations will vary based on weather, gear type, vessel size, and specific fishing practices which can vary by target species. Although some fishermen may have experience fishing near the two CVOW pilot project turbines off Virginia, this may not prepare them for fishing safely within the US Wind project, which could include up to 121 turbines. In addition, if fishermen shift their effort outside the project area during construction or long-term operations, this could put them in areas of higher vessel traffic and gear conflict. The EIS should evaluate these safety considerations and their potential variations across different fisheries.

Fishermen choose where to fish based on many factors including the location of target species and species they wish to avoid, where regulations allow, where they can fish most efficiently, and where they plan to land their catch based on market and regulatory factors. For these reasons, fishermen cannot easily relocate to different areas to avoid a wind project without socioeconomic impacts. Fishermen who choose to fish outside this project area for safety, economic, or other reasons may not be able to recoup the loss of landings and revenue by shifting effort elsewhere.

As we have stated in past comment letters to BOEM, fisheries importance should not be measured solely based on dollar value or volume of landings. Other factors including, but not limited to, the number of participants, impacted communities, seasonal importance, and use (e.g., a lower value species harvested for bait in a higher value fishery) must also be considered.

The EIS should describe the amount and type of scour protection that may be needed for the turbine and offshore substation foundations, as well as the amount of external cable armoring that may be required if sufficient cable burial depth cannot be achieved and at crossings with other cables. Consideration should be given to materials that reduce the potential for interference with existing fisheries in the area. It should be noted that there are different considerations for different fisheries. For example, the commercial fishing industry is concerned about the use of concrete mattresses due to the potential for hanging/snagging mobile gears. Some recreational fishery stakeholders have noted improved fishing opportunities around the scour protection materials used for the Block Island wind farm off Rhode Island and CVOW pilot project off Virginia.

Turbine and substation foundations, as well as materials used for scour protection and external cable armoring will create substrates for fouling organisms and create artificial reefs. These artificial reefs are expected to attract certain fishery species (e.g., black sea bass). 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, bivalves). 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. The impacts of such changes should be analyzed. In addition, the EIS should evaluate the extent to which impacts may vary based on the characteristics of the materials used. These materials should mimic natural, nearby habitats where possible.

Offshore export cable corridors will impact different habitats and different fisheries than the turbines themselves and warrant a thorough analysis. As we have commented to BOEM in the past, export cables and inter-array cables can damage marine habitats, raise concerns about electromagnetic fields (EMF), and pose a risk to fisheries using mobile bottom-tending gear. The amount of cabling placed in the ocean must be minimized. We support the offshore wind energy transmission planning initiative

undertaken by BOEM and the Department of Energy. However, we assume this work is unlikely inform the US Wind EIS given the expected timing for development of this EIS and the longer time frame for the transmission planning work.

Cables should be buried as much as possible to avoid the concerns listed above regarding external cable armoring materials. We are also concerned about the potential for the cables to become unburied given the dynamic seafloor. Burying the cables as deep as possible will help minimize these risks. For similar reasons, we recommend that, at this stage, all developers plan to remove project components, including cables, from the offshore environment to the extent possible. 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.

Impacts of EMF on fishery species are a concern to the fishing community. For example, studies have suggested that EMF can result in changes in behavior, movement, and migration for some demersal and pelagic fish and shellfish species.³ The extent to which EMF may or may not impact marine species must be thoroughly described in the EIS.

Installation of cables and foundations for turbines and offshore substations will generate both noise and sediment plumes, which may affect biological processes for marine species. The EIS should acknowledge that both demersal and pelagic species may also be impacted by the noise and vibrations generated from construction activities and may change their behavior and/or feeding patterns to avoid the impacted area. This is not a negligible impact even if it may not be a population-scale impact, and it can impact fisheries. The impacts analysis, including the EFH assessment, should consider how installation during different seasons will affect particular species and life stages during spawning, juvenile settlement, etc.

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 material 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 need to be assessed and managed as part of the offshore wind development process.

The turbine and substation foundations may also create a wake effect. This could increase the amount of suspended sediment in the immediate area which could negatively impact filter feeding organisms, including commercially important species such as sea scallops. It could also impact the dispersal of pelagic larvae in the area. These impacts must be thoroughly considered in the EIS.

Modeling work has suggested that the physical presence of turbines can alter near-surface and near-bottom temperatures, and thus, habitat conditions for marine species, as well as juvenile transport of commercially important species like sea scallop.⁴ Potential impacts to the Mid-Atlantic Cold Pool and

³ For example, see the fact sheet prepared by the Virginia Coastal Zone Management Program, available at: https://greenfinstudio.com/wp-content/uploads/2017/10/GreenFinStudio_EMF_MarineFishes.pdf

⁴ For example, see Chen et al. 2021, available at https://s3.us-east-1.amazonaws.com/nefmc.org/Doc.14.a-UMASSD_WHOI_short_report_05_6_12_2021_revison.pdf

resulting impacts on fishery species are also of concern to the Councils and other fishery stakeholders.⁵ The EIS should acknowledge both the individual project's potential to materially affect oceanographic and hydrodynamic conditions based on ongoing research efforts and the project's contribution to cumulative effects from development of several wind projects on a regional scale. The EIS should utilize findings from ongoing research, including research funded by BOEM, in its impact assessment to understand how wind energy facilities may affect local and regional physical oceanographic processes.

Secondary cascading ecosystem effects should also be evaluated as community composition could change within and beyond the project area. For example, the addition of structured habitat may attract bivalve predators such as sea stars and moon snails, which could have negative impacts on shellfish species (e.g., sea scallops) and could result in cascading ecological impacts. In addition, if construction of this project negatively impacts important prey species, this could have cascading impacts on marine food webs.

Cumulative impacts

The EIS must include a meaningful cumulative impacts assessment. We are very concerned about the cumulative impacts of the many planned offshore wind projects off our coast on fisheries, fishery species, and marine habitats. Each individual wind project cannot be considered in isolation. We supported the criteria used in the Vineyard Wind 1 and South Fork EIS for defining the scope of reasonably foreseeable future wind development; however, that scope should be expanded to include additional areas which have since been leased offshore of New York/New Jersey and the Carolinas, as well as Call Area development in the Central Atlantic. The cumulative effects of adjacent wind projects should be thoroughly evaluated.

As stated in previous comment letters to BOEM, we recommend the creation of information products to show the planned locations of export cables for all wind leases (e.g., through the Northeast and Mid-Atlantic Ocean Data Portals) to help stakeholders better understand potential cumulative impacts. We recognize that final precise cable routes have not been determined for most projects and this should be noted in the information products. Earlier dissemination of draft proposals via these platforms would promote better understanding of these projects in relation to each other and to other activities.

Cumulative impacts and risks should be evaluated for species that are widely distributed along the coast. Species such as bluefish, flounders, and others that migrate along the coast could be affected by multiple offshore wind projects, as well as other types of coastal development, at both the individual and population level. Climate change is also an essential consideration in the cumulative effects analysis as 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 projects will occur in this context.

⁵ For example, two recent reports on potential impacts of offshore wind energy development on the Cold Pool are available at the following links:

<https://scemfis.org/wp-content/uploads/2021/01/ColdPoolReview.pdf>

https://rucool.marine.rutgers.edu/wp-content/uploads/2020/10/PartnersWorkshop_WhitePaper_Final.pdf

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 negative impacts for fishery participants and communities. We strongly support efforts to understand and mitigate the negative impacts of offshore wind development on these surveys and provided detailed comments on this topic in May 2022.⁶

Conclusion

We appreciate the opportunity to provide comments to ensure that issues of social and ecological importance are considered in the EIS for US Wind. We look forward to working with BOEM to ensure that 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



Thomas A. Nies

Executive Director, New England Fishery Management Council

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

⁶ Available at <https://www.mafmc.org/s/220506-NEFMC-MAFMC-to-BOEM-re-Survey-Mitigation-zta6.pdf>