New England Fishery Management Council

MID-ATLANTIC FISHERY MANAGEMENT COUNCIL

February 14, 2023

Jessica Stromberg
BOEM Office of Renewable Energy Programs
45600 Woodland Road
Sterling, Virginia 20166

Re: Draft Environmental Impact Statement for Coastal Virginia Offshore Wind Project

Dear Ms. Stromberg,

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 draft environmental impact statement (DEIS) for the Coastal Virginia Offshore Wind (CVOW) Project. The DEIS analyzes the potential environmental impacts of five alternatives, including a no action alternative, the project as described in the Constructions and Operations Plan (COP) submitted by Dominion Energy (i.e., the proposed action), and three alternatives to the proposed action. After considering comments received through this comment period, BOEM will publish a final environmental impact statement (FEIS). The FEIS will inform BOEM's decision to approve, approve with modifications, or disapprove the COP.

The Mid-Atlantic Council manages commercial and recreational fisheries for 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). 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 habitat (EFH), protect deep sea corals, and sustainably manage fisheries for forage species. 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 Empire 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.

Given the current pace of offshore wind energy development in this region and workload constraints, we are unable to provide a detailed review of this project and the DEIS. For example, this comment period overlaps with comment periods on DEIS documents for three other wind projects in our region, BOEM's Renewable Energy Modernization Rule, and a draft Port Access Route Study. The analysis in the DEIS has important ramifications for terms and conditions which may be implemented through final project approval, including fisheries mitigation and compensation measures. With this in mind, we strongly encourage BOEM to consider the recommendations listed in the wind energy policies adopted by both Councils, which apply across all projects.[1] Our two Councils worked together on and adopted the same wording for these policies. We also urge BOEM to adopt the recommendations provided by NOAA Fisheries for this project, including recommendations regarding data

[1] Available at https://www.mafmc.org/s/MAFMC_wind_policy_Dec2021.pdf

considerations, impacts analysis, and ways to minimize the negative impacts of this project on marine habitats, commercial and recreational fisheries, and fishery species.

Our key recommendations are as follows. Additional details are provided below.

- Clarify in the purpose and need section that BOEM is not bound to consider approval only of projects that can produce a certain amount of electricity.
- Describe the importance of sand ridge habitats, the locations of sand ridges, and potential impacts to sand ridges in greater detail.
- Consider impacts to private recreational fishing in addition to for-hire recreational fishing.
- Always state if impacts are beneficial or adverse.
- Under No Action, compare to both scenarios, i.e., where all other wind projects are constructed and where no other projects are constructed.
- Expand on discussion of potential impacts to the Mid-Atlantic Cold Pool.
- Identify which mitigation measures are assumed for the purpose of impacts determinations.

Purpose and Need

The National Environmental Policy Act requires consideration of a range of alternatives which could meet the defined purpose and need for the action. Section 1.2 of the DEIS (Purpose and Need of the Proposed Action) notes that "Dominion Energy's goal is to develop a commercial-scale offshore wind energy facility in the Lease Area, to provide between 2,500 and 3,000 MW of energy… Dominion Energy's goal of 2,500 to 3,000 MW of offshore wind energy in service by 2028 is mandated for Dominion Energy under the 2020 Virginia Clean Economy Act." This section also notes that BOEM's purpose is to prepare the EIS to support review of Dominion Energy's proposal, and that the agency's need is to further U.S. policy goals related to renewable energy generation.

Dominion Energy's and Virginia's "need" to generate 2,500 MW of wind energy is referenced throughout the section describing alternatives considered but not analyzed in detail (pages 2-3, 2-25, 2-27). The use of the term "need" in these contexts is concerning given the very specific meaning of the term under NEPA as it implies that the EIS will not consider smaller scale projects in order to reduce environmental and socioeconomic impacts. It also implies that a state law – the 2020 Virginia Clean Economy Act – can constrain federal decisions outside of the state's jurisdiction.

Furthermore, the minimum number of turbines that would meet BOEM's DEIS purpose and need is unclear given that it is implied but not directly stated that 2,500 MW is the minimum electrical output for the project. This poses challenges for determining which final configurations of the alternatives (or additional modified alternatives) could also meet BOEM's purpose and need, while reducing the negative environmental and socioeconomic impacts of the project.

We recommend that the FEIS for this project, as well as future DEIS and FEIS documents for other wind projects, more clearly indicate that BOEM is not bound to considering approval only of projects that can produce a certain amount of electricity. BOEM should consider federal and state renewable energy targets and mandates as well as existing procurements when preparing an EIS and determining whether to approve a project. However, it should be made clearer that BOEM retains the ability to reduce the potential negative environmental and socioeconomic impacts of the project by approving a smaller project than that proposed by the developer or that has been procured.

We suggest expanding on this to make it clear that the project will avoid risks to the health of marine ecosystems, ecologically and economically sustainable fisheries, and ocean habitats. BOEM should clearly acknowledge that if these risks cannot be avoided, they should be minimized, mitigated, and compensated for.

Alternatives to Meet the Purpose and Need

The DEIS analyzes multiple alternatives and states that BOEM may "mix and match" these alternatives "to develop the preferred alternative provided that the design parameters are compatible, and the preferred alternative would still meet the purpose of and need for the Proposed Action" (page 2-1). As described above, the threshold for meeting the purpose and need (e.g., a minimum total MW or a different metric) is not clear. This poses challenges for providing comments on which specific configurations of the alternatives may be preferred.

The proposed action (Alternative A) for an up to 3,000-MW facility includes up to 205 wind turbine generators on monopile foundations, up to 3 offshore high voltage substations on piled jacket foundations, and up to 9 buried high voltage offshore export cables. As such, this is the largest proposed project along the Atlantic coast to reach the DEIS stage to date. Turbine capacities of 14-16 MW are considered, which would allow between 176 and 205 turbines to generate the full 3,000 MW, depending on the size selected. Export cable landfall would use trenchless installation, where the cable is run below the beach and dunes.

Under Alternative A, the three offshore substations would be placed in offset positions between the gridded turbine layout. This offset position is not considered for any other wind energy projects that we are aware of, and we recommend that it be removed from consideration due to navigational impacts. Alternative A-1 is the same as Alternative A but would place the offshore substations within the gridded turbine layout, taking the place of three turbines and reducing the total maximum number of turbines to 202.

Alternative B is the same as Alternative A-1 except that no project infrastructure would be placed in the area referred to as the fish haven or in the area of a proposed vessel traffic fairway, reducing the total number of turbines from 202 to 176 and resulting in a 2,587 MW facility. Under this alternative, only 14 MW turbines are under consideration.

Alternative C includes the same layout as Alternative B, avoiding the fish haven area and the proposed vessel traffic fairway, and also removes four additional turbines to avoid sand ridge habitat. This would result in a maximum total number of 172 turbines and a 2,528 MW facility. Only 14 MW turbines are under consideration for this alternative. The description of this alternative is very brief and does not provide enough details on the importance of sand ridge habitat. Additional information on the data used to define these areas should be provided to help readers understand why these four specific locations were chosen for removal.

As shown in the figure below, we compared the distribution of sand ridge features identified via BOEM and NOAA's shoalMATE analysis (Pickens and Taylor 2020)[2] to the priority sand ridge areas

[2] Pickens, BA, Taylor JC, editors. 2020. Regional Essential Fish Habitat geospatial assessment and framework for offshore sand features. Sterling (VA): US Department of the Interior, Bureau of Ocean Energy Management. OCS Study BOEM 2020-002 and NOAA NCCOS Technical Memorandum 270. https://doi.org/10.25923/akzd-8556. 362 pp.

and the overall lease area. Based on this data set, there are many sand ridges outside of the exclusion areas identified in Alternative C, including within the export cable corridors. Even under Alternative C, these additional sand ridges will be affected by placement of turbine foundations, site preparation, and trenching for interarray and export cables. Our understanding is that when installing cables in areas with larger sand bedforms (waves or shoals), the bedforms are first removed, and then trenching occurs below this baseline depth. These activities will have substantial impacts on sand ridges occurring throughout the project area.

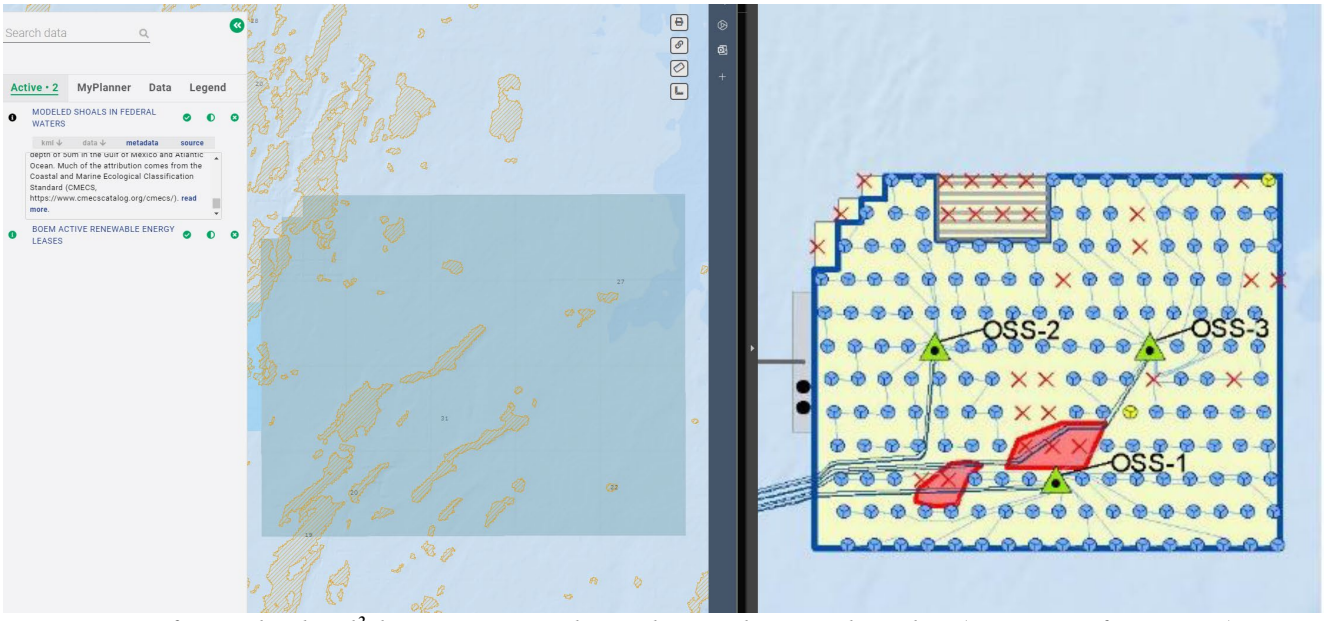

Figure 1: Left panel: Shoal[3] locations as indicated in Pickens and Taylor (2020; see footnote 2) as shown on the MARCO data portal. Right panel: Illustration of Alternative C in the CVOW DEIS, with areas identified as sand ridge habitat indicated in red polygons.

Alternatives A-C would place the turbines in a 0.93- by 0.75-nautical-mile offset grid pattern, with an allowance for up to 500 feet around each location for micrositing.

Alternative D aims to minimize impacts to sensitive onshore habitats, including wetlands, by allowing only two of the six onshore interconnection routes proposed in the COP. These two interconnection routes are represented by Alternatives D-1 and D-2, each of which "may be individually selected or combined with any or all other alternatives or sub-alternatives, subject to the combination meeting the Project's purpose and need" (page 2-4).

The DEIS also considers a no action alternative (Alternative E), under which BOEM would not approve the COP and no construction would occur.

Additional information should be provided regarding why 14-16 MW turbines are considered under Alternative A, but only 14 MW turbines are considered under Alternatives B and C. The DEIS states that "Dominion Energy would use only 14 MW WTGs, each capable of generating up to 14.7 MW using power boost capability, to avoid impacts due to construction and operation of WTGs" (page 2-

[3] Pickens and Taylor describe Linear Shelf Sand Ridges along the mid-Atlantic coast as a specific sub-type of sand shoals identified in the shoalMATE analysis.

15). The meaning of and rationale for this statement on impacts is unclear. Additionally, later sections of the document (e.g., page 2-26) indicate that 16 MW turbines are not currently commercially or technically available, Dominion Energy has already selected and contracted for 14 MW turbines, and revised layouts based on 16 MW turbines would likely require an additional future NEPA review. This calls into question why a 16 MW turbine is considered in the DEIS at all. Different turbine sizes will have different impacts tradeoffs. For example, fewer larger turbines can produce the same amount of electricity as more smaller turbines. However, installation of larger turbines would generate more pile driving noise per turbine compared to smaller turbines. These tradeoffs are of interest to the Councils. However, the statements in the DEIS call into question the utility of providing comments regarding these tradeoffs if the turbine size has already been determined.

Recommendations for Preferred Alternatives

We recommend approval of a combination of Alternatives C and D to reduce the potential for negative impacts to the area referred to as the fish haven, the proposed vessel traffic fairway, sand ridges, and sensitive onshore habitats. We also recommend that BOEM remove additional locations that overlap with sand ridges, for example as shown in the figure on the previous page. We recommend working with NOAA Fisheries habitat staff to optimize the final turbine and offshore substation locations to minimize impacts to sand ridges.

Affected Environment and Impacts Analysis

Below we outline our concerns with the data used and impacts analysis for commercial and recreational fisheries, fishery species, and habitats.

This project has less overlap with commercial fisheries and hard bottom habitats than many other east coast wind projects. Given data limitations, it is not possible to compare the degree of overlap with recreational fisheries across projects.

We recommend that the FEIS focus on data provided by NOAA Fisheries for this project. The FEIS should more thoroughly describe all data sources used, why each data set was chosen, and the limitations of each dataset. Considerations related to data poor fisheries should also be expanded upon. Some of this information is provided in the COP. Given the importance of this information as context for the conclusions drawn, it should also be included in the FEIS. Unless necessary to protect confidential information, grouping data across fishery management plans is not particularly useful given impacts can differ by fishery and species.

The FEIS should use the most recent data possible. The DEIS includes multiple statements on fisheries based on different data sets and different years, without a clear explanation for this variation. In some cases, the data are quite outdated. For example, estimates of the number of commercial fishing vessels from a 2006 publication (e.g., page 3.9-6) and revenue estimates from a 2014 publication (e.g., page 3.9-10) are of limited value for analyzing the impacts of a project which likely won't begin construction until at least 2024. In addition, the DEIS states that the lowest commercial landings in weight and the lowest commercial fishery value for many species occurred in 2020 without any explanations for why this might be. The FEIS should note that the COVID-19 pandemic had major fisheries impacts in 2020 and not all fisheries were impacted the same way (e.g., widespread restaurant

closures and restrictions on gatherings reduced demand for some seafood products, while demand for frozen seafood increased).

Section 3.9.1 should be broadened to address all types of recreational fishing, not just for-hire fishing. This section currently blurs the distinctions between party boat, charter, and private recreational fishing. There will be many similarities and some differences in terms of how these recreational fishing modes will be impacted by offshore wind energy development. The section purports to focus only on for-hire recreational fishing but also includes some information on private recreational fishing (e.g., shoreside economic impacts, tournaments). The FEIS should more clearly describe the limitations of available recreational fishing data, especially the lack of precise data on fishing locations. For example, data on the locations of fishing effort are not collected for private recreational fisheries and have limited spatial precision for for-hire fisheries. These limitations pose challenges for determining which recreational fisheries will be impacted by this project and how. Rather than ignoring these data poor fisheries, the FEIS should acknowledge the associated uncertainties. For example, the DEIS includes a list of recreational fishing tournaments for highly migratory species (HMS) managed by NOAA Fisheries. The DEIS implies that these are the only tournaments of relevance and fails to acknowledge that many other tournaments exist within the geographic analysis area for this project. The HMS tournaments are simply the only tournaments which require a special permit and for which there is a centralized list. This is an example of a data limitation which should be acknowledged in the FEIS.

The FEIS should more clearly describe which commercial and recreational fisheries are expected to be impacted by activities within the lease area, within the export cable corridor, or both. Some fisheries will be impacted by activities within both the lease area and the export cable corridor, while other fisheries will be primarily impacted by one or the other. It is important to consider the differences in impacts due to the different activities which will occur in the lease area and the cable corridor and the different fisheries that operate in those areas. Different mitigation measures may also be relevant for the two areas. For these reasons, the lease area and export cable corridor should be analyzed separately in terms of their impacts on fisheries, as well as considering their combined impacts.

We appreciate that the DEIS considers the potential impacts of offshore wind energy development on fisheries management, including impacts to spatial management measures and increased scientific uncertainty due to impacts on fisheries-independent surveys. However, some corrections and additional details are needed regarding these topics. For example, there are many errors in Table 3.9-1, which lists species by managing agency. Rather than correcting this table for the FEIS, we recommend removing it as it does not add value to the document. The management agency for each species is not of great relevance when determining which fisheries will be impacted and how they will be impacted. In addition, the rationale behind including some, but not all, state fishery independent surveys in Table 3.9-2 is unclear. Many additional state surveys are included in stock assessments for our managed species.

The DEIS does not provide data or figures on the locations of sand ridges. This makes it challenging for readers to consider the impacts of turbines, offshore substations, and cables on sand ridges. The EFH impacts analysis in section 3.13.6 notes that 17 turbine positions overlap sand ridges; however, only four locations are proposed for removal under Alternative C. Our understanding is that the locations flagged for removal overlap the largest ridges in the project area, but that the entire southwestern corner of the project contains ridge and trough features. The FEIS should provide

information on the locations of sand ridges relative to the locations of turbines, offshore substations, interarray cables, and the offshore export cables so the public can evaluate the impacts determinations fully.

The FEIS and COP should fully analyze the impacts of cable installation on sand ridge habitats and associated benthic communities, including a more detailed description of expected recovery times. This is especially important because the export cable corridors converge in the southwestern corner of the lease area where these habitats occur. The ridges and troughs run roughly north to south, and the cable corridors run east to west and have the potential to crosscut the ridges. A variety of cable installation methods (jet plowing, mechanical plowing, etc., COP, Section 3, page 3-14) are under consideration and the specific methods used will influence the impacts and recovery times. The DEIS also indicates that pre-sweeping to smooth the seafloor by removing ridges and edges may be required in areas of the submarine export cable corridor with sand waves (page 2-12). The DEIS states that "any impacts would likely be short term, considering the natural mobility of sand waves in the Project area and offshore export cable corridor, although full recovery of the benthic faunal assemblage may require several years…Recovery rates of these disturbed surfaces would depend on species present and their recovery capabilities, the extent of disturbance, and the nature of the protection material" (pages 3.6-20 and 3.6-21). The DEIS also states that "The impacts related to jet-plowing would be very localized and temporary and would recover completely without mitigation" (page 3.13-28) and that "secondary minimization will develop by extending the cross-cutting trenching activities between two summer construction seasons. Separating the construction seasons with a 6-month recovery period will allow the ridge habitats to recover and reestablish their unique sand ridge benthic invertebrate and finfish assemblages" (page 3.13-31).

We are concerned about the ability of sand ridges to reform if bisected by cable installation. The ridges and troughs exist as a system and have distinct biological communities (Slacum et al., 2010)[4]. The FEIS should provide more details on the range of anticipated impacts to sand ridge habitats including specific recovery times, and should note where uncertainty exists (e.g., if previous studies are based on methods or habitats that are not directly analogous to this project). The FEIS should also consider whether removal or substantial changes to one ridge might affect the maintenance of adjacent ridges. Information to support the 6-month recovery period referenced in the Finfish, Invertebrates, and EFH analysis should be provided. Some studies referenced in the COP are not relevant for evaluating the impacts of these methods of cable installation to large-scale bedforms and associated fauna; we disagree that fishing gear impacts are analogous to cable installation impacts.

The DEIS considers future offshore wind energy activities in other lease areas as part of future baseline conditions against which the impacts of this project are compared. It appears that the areas off New York/New Jersey which were leased in 2022 are not included (e.g., Figure 3.6-4). This should be corrected in the FEIS. As we understand it, the DEIS has two baseline conditions, one with other planned, but not yet approved, wind projects and one without. The alternatives should be compared against both sets of conditions in a consistent way to better describe the expected magnitude of project's impacts.

[4] H. Ward Slacum Jr. , William H. Burton , Elizabeth T. Methratta , Edward D. Weber , Roberto J. Llansó & Jodi Dew-Baxter (2010) Assemblage Structure in Shoal and Flat-Bottom Habitats on the Inner Continental Shelf of the Middle Atlantic Bight, USA, Marine and Coastal Fisheries, 2:1, 277-298, DOI: 10.1577/C09-012.1

The FEIS should more clearly explain the extent to which the nearby Kitty Hawk Wind project is expected to have overlapping impacts with CVOW, especially given that both projects will connect to shore in the Virginia Beach area. The degree of potential overlapping impacts from the offshore export cables for the two projects is not clear in the DEIS. We recommend that the FEIS include a map to show the likely location of the offshore export cable routes for the two projects.

The DEIS suggests that hydrodynamic effects and disturbances on benthic resources will result from the project, however, their extent may be underestimated. We are especially concerned that impacts to the Mid-Atlantic Cold Pool are not referenced in the sections of the DEIS which address potential impacts of the project. Impacts to the Mid-Atlantic Cold Pool could change regional-scale water temperatures, mixing, larval transport of important commercial and recreational fish species, and temperature corridors used for migration for multiple important fishery species. This is an area of ongoing research[5]. The FEIS should clearly document what is known about potential impacts to the Cold Pool and resulting potential impacts to marine species and fisheries. The FEIS should acknowledge data gaps and ongoing research and should fully consider potential impacts resulting from this project, as well as cumulative impacts from all planned wind energy projects throughout the region.

The FEIS, and all future NEPA documents for other wind projects, should always specify if an impact is adverse or beneficial. The DEIS indicates that impacts are adverse unless specified as beneficial. However, some impact producing factors (e.g., presence of structures) are expected have both adverse and beneficial impacts (e.g., adverse for soft bottom species and beneficial for structure-oriented species). The clarity of these descriptions would be improved if "adverse" or "beneficial" were always specified for each impact. This should be done consistently throughout all sections of the document. The evidence and information provided should be consistent with impact determinations.

Mitigation, Terms and Conditions

Mitigation measures are necessary to reduce the potential negative environmental and socioeconomic impacts of the CVOW project. The recommendations outlined in our offshore wind energy policies, referenced above, should be reflected as terms and conditions for approval of the project. We provided a separate comment letter on the draft Guidelines for Mitigating Impacts to Commercial and Recreational Fisheries.[6] These comments supported many of the mitigation measures recommended in that draft guidance. We recommend that all final mitigation guidelines be reflected in terms and conditions for BOEM's approval of this project.

Section 3.9.8 of the DEIS lists three fisheries mitigation measures proposed by BOEM: compensation for gear loss and damage, compensation for lost fishing, and mobile gear-friendly cable protection measures. All these mitigation measures should be implemented. Appendix H describes additional potential mitigation and monitoring measures; however, it is unclear which of these measures are likely to be required by BOEM as opposed to optional. Assumptions about which mitigation measures are required will affect the impact determinations and overall conclusions in the FEIS.

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[5] For example, two 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

[6] Available at https://www.mafmc.org/correspondence.

The Councils are supportive of time of year restrictions to reduce potential impacts to sensitive life stages of fishery species, to reduce impacts to fisheries, and to minimize impacts to important habitats throughout the project area, including the offshore cable route. The DEIS notes that Dominion Energy has committed to restrictions on offshore construction activities from November through April and states that this will allow time for impacted seabed structures such as sand waves to recover between construction periods. The FEIS should include a more detailed description of the expected recovery times for any impacted habitats. The FEIS should also describe how different fisheries may be impacted in different ways by these seasonal construction restrictions. For example, concentrating construction activities during May through October will create the greatest overlap with recreational fishing effort. With 109 days of impact pile driving expected in the first year of construction and 114 in the second year, this could have notable impacts on local recreational and commercial fisheries, especially given that the DEIS suggests fish may travel up to six miles to avoid the greatest area of ensonification (pages 3.9-28 and 3.9-29). These impacts will be temporary but could still be noteworthy for commercial and recreational fishermen who fish in these areas.

The FEIS should also explain how the seasonality of construction may impact a variety of species in different ways. For example, the DEIS notes that longfin squid egg mops were found throughout the lease area in greater concentrations that initially expected. The FEIS should expand upon the potential impacts of the project on longfin squid, including impacts based on the seasonality of construction. For example, longfin spawning occurs year-round with seasonal peaks. Construction activities may disproportionately impact the summer cohorts.[7]

The DEIS states that "inter-array cables would be buried to a depth of between 3.9 feet (1.2 meters) and 9.8 feet (3 meters); however, the exact depth would be dependent on the substrate encountered along the route. The offshore export cables would be buried to a target depth of between 3.3 feet (1 meter) and 16.4 feet (5 meters)," with additional measures taken where the export cables cross the Dam Neck Ocean Disposal Site (page 2-11). Burying cables to greater depths decreases the potential for interactions with bottom tending fishing gear, increases the likelihood that the cables will stay buried, and reduces the potential for negative impacts of electromagnetic fields on fisheries. BOEM's draft fisheries mitigation guidelines recommend a minimum cable burial depth of 6 feet. Although the Councils have not endorsed a specific cable burial depth to minimize impacts to fisheries, we strongly support the draft guidance recommending a minimum burial depth of 6 feet. We recommend that BOEM not approve any cable burial depths of less than 6 feet for CVOW or any other wind projects.

The Councils are also concerned with the scour protection measures included within the DEIS (e.g., rock placement, mattress protection, sandbags, and stone bags). Per the Council's offshore wind energy policy, we recommend that if scour protection or cable armoring is needed, the materials should be selected based on value to commercial and recreational fish species. Natural materials, or materials that mimic natural habitats, should be used whenever possible. These materials should not be obtained from existing marine habitats and must not be toxic.[8]

[7] Additional information on longfin squid can be found in the fishery information documents available at https://www.mafmc.org/fishery-performance-reports and the essential fish habitat source document available at https://www.fisheries.noaa.gov/new-england-mid-atlantic/habitat-conservation/essential-fish-habitat-efh-northeast.

[8] For examples, see: Glarou, M., M. Zrust and J. C. Svendsen (2020). "Using Artificial-Reef Knowledge to Enhance the Ecological Function of Offshore Wind Turbine Foundations: Implications for Fish Abundance and Diversity." Journal of

Unlike several other offshore wind projects along the east coast, the CVOW project may require relocation of few, if any, boulders. If boulder location is required, it should be done using whichever method is determined to have the least impact on the seafloor. The new locations of boulders should be widely communicated to commercial and recreational fishery participants to avoid gear damage and safety issues.

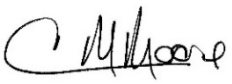
Deliberate mitigation measures that support vessel radar upgrades could help to reduce impacts to fishermen and others navigating through and around the project area. An adaptation fund is included within the mitigation measures identified in the Empire Wind DEIS. We recommend a similar fund for CVOW in order to support vessel radar upgrades and training to help minimize impacts to fisheries and others navigating through and around the project area.

Unexploded ordnances (UXOs) can be uncovered during site preparation activities. Exposed UXO presents a significant risk to mariners, especially those towing mobile gear that could bring UXO to the surface. Offshore wind project construction activities can uncover UXO devices. We recommend that the terms and conditions specify that developers are responsible for the safe disposal of UXO exposed due to construction activities. Our understanding is that some UXOs might be detected via surveys but are not exposed; in such cases, only mariner notification may be sufficient given disposal may present greater risks. Clear, timely, and repeated communication about UXO locations and any changes in the location or status of UXOs is essential and should not rely only on email notifications.

Conclusion

We appreciate the opportunity to provide comments to ensure that issues of social and ecological importance are considered in the final EIS for CVOW. 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

Marine Science and Engineering 8(5). Hermans, A., O. G. Bos and I. Prusina (2020). Nature-Inclusive Design: a catalogue for offshore wind infrastructure. Den Haag, The Netherlands, Wageningen Marine Research: 121p. Lengkeek, W., K. Didderen, M. Teunis, F. Driessen, J. W. P. Coolen, O. G. Bos, S. A. Vergouwen, T. C. Raaijmakers, M. B. de Vries and M. van Koningsveld (2017). "Eco-friendly design of scour protection: potential enhancement of ecological functioning in offshore wind farms. Towards an implementation guide and experimental set-up." (17-001): 87p