New England Fishery Management Council

MID-ATLANTIC FISHERY MANAGEMENT COUNCIL

October 4, 2021

Michelle Morin, 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 Sunrise Wind project

Dear Ms. Morin,

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 Sunrise Wind project off Rhode Island. The COP proposes to install up to 122 turbines and one offshore electrical service platform. Up to 186 miles of alternating current cables would connect the turbines and offshore service platform, and a direct current export cable up to 106 miles long would connect the wind farm with the onshore connection point in Brookhaven, New York.

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 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 the marine fisheries throughout New England and the Mid-Atlantic, including within the Sunrise Wind project area and in surrounding areas, are profoundly important to the social and economic well-being of 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. There are currently 14 lease areas in the COP development and review phase, 3 lease areas in the site assessment phase, and multiple additional areas in the New York Bight are

[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.

planned to be leased[2]. Eight projects, including this one, entered the DEIS development phase through issuance of NOIs between March and September, and one additional NOI is expected later this year. Consulting and coordinating on these projects are already taxing available resources in the fishing, fishery management, and fishery science communities, and we expect at BOEM as well. 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.

The PDF "posters" in the online scoping page[3] are very valuable for providing a summary of the project at a glance in a more easily accessible format than searching for the relevant sections of the over 1,000-page COP. We appreciate that posters on commercial and recreational fishing were included. We hope this approach can be used for other wind projects as well.

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. In addition, 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.

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 understand and provide input on 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 and include a list of the specific changes.

Along these lines, we appreciate any steps that BOEM can take to make this COP and future COPs easier to navigate. For example, we find the page/section naming convention somewhat confusing and suggest not referring to individual pages as sections in the footers. Also, grouping the references by document section seems unnecessarily complicated; providing them in alphabetical order would be more useful, especially if the reader loses track of which section they were reviewing when a particular study was cited.

Alternatives to consider in the EIS

The Sunrise Wind project has a maximum capacity of 1,300 MW. Sunrise has a contract with New York for 880 MW, and up to 44 MW (5%) can be added to this contract without an amendment, for a total of 924 MW. The remaining 376 MW have not yet been contracted for. It is challenging to accurately understand the impacts when the most likely project capacity is yet to be determined. It is also unclear if the impacts assessed in the COP are based on 924 MW or 1,300 MW. A uniform East-West/North-South 1nm x 1nm grid layout is described as the preferred alternative in the COP to be consistent with adjacent projects. Based on the rationale

[2] https://www.boem.gov/renewable-energy/state-activities

[3] https://www.boem.gov/renewable-energy/state-activities/sunrise-wind-scoping-virtual-meetings

that this uniform layout allows for transit in multiple directions, an additional designated transit lane is not included in the COP. The project design envelope considers turbines ranging from 8-15 MW. The number of turbine locations needed will depend on the size of turbines selected and the amount of power to be generated. Given the large range of parameters in the project design envelope, the number of turbine locations could vary widely. For example, an 880 MW project using 15 MW turbines would only require 59 turbine locations, while a 1,300 MW project with 12 MW turbines would require 109 turbine locations.

The EIS should analyze multiple distinct alternatives associated with smallest, largest, and one or more intermediary potential scales of the project in terms of the number of turbines which might be installed. When describing alternatives for fewer than the full 122 turbines, the EIS should outline how it will be determined which of the 122 possible locations may not be used. These choices have implications for habitat, fisheries, and other environmental impacts. It will be important to clearly outline a wide range of possible scenarios, especially if the project size is unknown at the time of EIS completion.

A mix of bottom types exist at the project site, including along the cable corridor. We recommend that BOEM develop a habitat minimization alternative which would micro-site inter-array and export cables and exclude potential turbine or substation locations with the goal of minimizing impacts to sensitive habitats including eelgrass, hard bottom, and complex topography. The COP states that the export cable "will be sited to avoid and minimize impacts to sensitive habitats (e.g., hard bottom habitats) to the extent practicable"; however, it is not clear how this determination will be made and the amount of flexibility there is with turbine micrositing (Section 4-217). Because benthic data are not provided in the COP or appendices, we are unable to recommend specific areas to be avoided.

Provision of high-resolution benthic habitat maps early in the process is important. These data are needed for NMFS to conduct essential fish habitat consultations. This consultation process is designed to avoid impacts wherever possible and determine mitigation measures where impacts cannot be avoided. These data should be included in the COP. We are also concerned that there seems to be a disconnect between complex seabed in an engineering and construction context vs. the level of complexity that provides shelter for fishery species, especially during their early life history. While features less than 0.5 meters in size may not constitute complex hazards from a cable or turbine installation standpoint, pebbles and cobbles on centimeter scales can offer refuge from flow and predation and provide feeding opportunities for juvenile fish. Reworking and removing epifauna from these sediments during cable and turbine installation will affect the fish that use these habitats. The New England Council has worked to protect complex habitats at these spatial scales from the impacts of fishing, for example, on Nantucket Shoals. The analyses prepared for the Council's Clam Dredge Exemption Framework articulate what we consider complex seabed in a fisheries context, and the types of areas we would seek avoidance of wind development[4].

The EIS should also consider an alternative which would minimize impacts to commercial and recreational fisheries. Similar to a habitat alternative, this could include reducing the number of turbines installed and excluding locations that have greater overlaps with fishing activity. We

[4] See Appendix A at https://www.nefmc.org/library/clam-dredge-framework.

recommend working with affected fishermen to understand the locations of greatest concern. In addition, we recommend time of year construction restrictions as mitigation measures to reduce impacts to fishery species. Offshore, pile driving restrictions between November and January would help minimize impacts on spawning Atlantic cod. Nearshore, activities that result in sedimentation, including cable laying, should be avoided in times and areas when vulnerable life history stages are present on or near the seabed. For winter flounder, considering eggs, larvae, and early juveniles, times of greatest vulnerability occur between January and May. Longfin squid spawn in the project area during between May and August, and their eggs are vulnerable to as little as 3-4 mm of sedimentation. Overall, the habitat conservation recommendations provided by NMFS in June 2021 for South Fork Wind are appropriate to consider for Sunrise Wind as well. Further justification for these recommendations is provided in the following section.

Sunrise Wind considers the use of monopile foundations for wind turbine generators and piled jacket foundations for the DC conversion station. The different impacts associated with these two foundation types should be clearly identified in the EIS. We also recommend considering a closed loop cooling system alternative for the DC conversion station, in addition to the proposed open loop approach.

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 not be considered environmental protection measures (Section 4-227) as monitoring is not equivalent to mitigation. 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. Avoidance should be the first priority.

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. The EIS should clearly and repeatedly acknowledge the limitations of each data set and should include recent data and should analyze multiple years of data to capture variations in fisheries and environmental conditions. Important data limitations, including but not limited to the location of private recreational fishing effort, should be supplemented with stakeholder input. 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).

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 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).

Turbine foundations and their associated fouling communities will create artificial reefs, which 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). 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. Secondary, cascading effects should be evaluated in the impacts analyses because community composition could change within and beyond the project area through the introduction of predators, re-distribution of juveniles, etc.

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 some fishermen may have experience fishing near the five turbines off Block Island, this may not prepare them for fishing safely within the Sunrise Wind project, which could include up to 122 turbines. The EIS should evaluate these safety considerations and their potential variations across different fisheries. In addition, if fishermen 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.

Fishing vessels utilize certain fishing grounds based on where target species are located and where management regulations allow; thus, vessels cannot necessarily relocate to a different area to avoid the windfarm without socioeconomic impacts. The COP suggests that there will be direct, long-term impacts on fishing, but these impacts will be minimal because commercial fishermen will still be permitted to fish within the area and there will likely be a 1nm x 1nm layout (Section 4-613). We do not agree with this conclusion as some fishermen may choose not to fish within the wind energy area for navigation safety reasons and may not be able to recoup the loss of landings and revenue by shifting effort elsewhere.

In addition, relocation of boulders for cable laying, as described in the COP, will cause disruptions in private and for-hire recreational fishing activity, as some boulders are targeted by recreational fishermen and it could take several trips to find their new locations. While the relocated boulders may continue to attract recreational fishery species, relocation is not a negligible impact on the fleet. Detailed reporting on where boulders are moved to should be required as a mitigation strategy. In addition, if boulders are aggregated as suggested in the COP, this could result in potential hangs for commercial mobile bottom-tending gears, which is another important reason to widely disseminate the new locations.

The likely extent of impacts to all types of fishing will be important to understand in the context of developing mitigation agreements for affected fishing industry members. Fishing effort can change based on management actions such as a change in access areas, changes in quota allocations, and other management changes. It is important to account for the dynamic nature of fishing effort over time when evaluating impacts to fishermen and fishing communities. This is an area of the EIS where cumulative considerations are especially critical and this project cannot be considered in a vacuum; many other wind farms are proposed within the Massachusetts, Rhode Island, and New York wind energy areas, and fishing will be affected over a large area if all these projects are installed.

The impacts of the project will not be felt only by fishermen from nearby ports, and 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 ports most impacted in terms of revenue in the project area include New Bedford, MA ($7.6 M), Point Judith, RI ($5.3 M), Little Compton, RI ($2.3 M), and Newport, RI ($1.4 M) (NMFS 2021). Table 4.4.3-1 summarizes information on species of economic or ecological importance; however, this was determined by landings information, not revenue, an important economic metric. Based on NMFS 2021 analysis, monkfish is one of the most impacted fisheries both in terms of landings and revenue; however, this species was not called out in the text in Section 4-232. Atlantic herring is listed as a species that may be present in the project area (Section 4-233). The EIS should give special consideration to Atlantic herring, given its overfished status. Ocean quahogs are harvested in and around this area; however, confidentiality precludes including fishery-level data within the COP and appendices due to the small number of vessels. It is nonetheless important to monitor impacts as we have concerns about the individual and cumulative effects of wind development on this fishery.

Commercial and recreational fisheries provide a wide range of benefits to coastal communities; not all 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, the project area is very important to the skate fishery, which supplies bait for other fisheries including lobster, Jonah crab, red crab, and others. The EIS should address indirect effects, such as impacts on a fishery which does not occur in the area but relies on bait harvested from the area.

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 which will be challenging to accurately quantify. Furthermore, updated data should be used to the greatest extent possible to estimate impacts from the project.

Neither the COP nor any of the appendices, including the Fisheries Communication Plan (Appendix B), specify the availability of mitigation funds if impacts such as fishing gear loss occur. Mitigation funds must be available to all affected vessels and ocean users who rely on this project area for revenue. The availability of such funds and their influence on impacts determinations should be explained in detail in the EIS.

The COP notes that “The SRWF is located adjacent to, and south of, a terminal glacial moraine—a high boulder hazard area Section 4-67”. It is unclear how many boulders will be encountered along the inter-array and export cable routes (Section 4-205), but some boulders will be relocated and may be placed in new configurations on the seabed prior to construction and installation activities. A loss of attached fauna is expected when boulders are moved. The COP asserts that function will be restored in less than one year due to recolonization (Section 4-9 and

4-205). Two studies done at the Block Island Wind Farm[5] are referenced to support this one-year timeframe. We were unable to locate a copy of the 2016 report, but we disagree that Guarinello and Carey (2020) provides evidence for one-year recovery of benthic epifauna. This study notes a progression from bare cobble and rock (March 2016) towards moderate epifaunal cover (August 2016), mostly an invasive tunicate, *Didemnum vexillum*. The authors noted that they could only hypothesize, based on this initial colonization, that affected cobbles and boulders would eventually host a more diverse array of attached fauna and associated mobile taxa, which is the endpoint we would argue constitutes benthic recovery. This partial recovery in a less than one year timeframe should not be used as rationale to suggest minimal benthic impacts are associated with boulder relocation. These concerns also apply to impacts of anchoring, which were considered as part of the Guarinello and Carey study.

The EIS should describe the potential amount of external cable armoring that may be required if sufficient cable burial depth cannot be achieved. The COP suggests a target burial depth 3-7 ft (Section 4-217). We recommend a 7-foot burial depth because we are concerned that given the amount of dredge activity in the project area, there is a risk the cable will become unburied. 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. The EIS should acknowledge that the addition of new complex habitat due to cable armoring will replace existing habitat types and the impacts of such a change should be analyzed. In addition, the fishing industry is especially concerned with the use of concrete mattresses due to the potential for hanging/snagging mobile gears.

The COP (page 4-617) states that cable protection will have minimal impacts on fisheries as it will be used in areas that are not likely currently trawled or dredged. Sufficient information has not been provided to support this statement and this conflicts with concerns we have heard from fishermen. It should also be considered that natural snags are already well known to fishermen, and in many cases are charted, but that it will take time for fishermen to learn the locations of the cable protection materials. The EIS and COP should provide maps of benthic features so that readers can use these maps to evaluate conclusions reached regarding both habitat and fisheries effects of development.

The COP states that sediment suspension and deposition are likely to affect water quality, benthic and shellfish resources, finfish and EFH, marine mammals, sea turtles, and commercial and recreational fisheries (Table 4.2-2). During installation of the export cable, sediment is anticipated to be suspended into the water column "with limited transport" and is "expected to settle out onto the seafloor" when construction is complete (Section 4-16). Effects of cable installation through jet plowing generate both noise and sediment plumes, which may affect

---

[5] Guarinello, M. L., & Carey, D. A. 2020. Multi-modal Approach for Benthic Impact Assessments in Moraine Habitats: a Case Study at the Block Island Wind Farm. *Estuaries and Coasts*. doi:10.1007/s12237-020-00818-w.

INSPIRE Environmental. 2016. Hard Bottom Baseline and Post-Construction Surveys, Year 0 Report for 2015 Baseline and 2016 Post-Construction Surveys to Characterize Potential Impacts and Response of Hard Bottom Habitats to Anchor Placement at the Block Island Wind Farm (BIWF). Prepared by INSPIRE Environmental, Middletown, RI for Deepwater Wind Block Island, LLC, Providence, RI. 98 pp.

biological processes for fishes, for example Atlantic cod, an acoustically sensitive species that relies on particular spawning grounds, or squid, which lay their egg mops on the seabed and could be materially impacted by sediment deposition, which will occur along a broad geographic area along the 292 miles of cable routing. It will be important for the impacts analysis, including the EFH assessment, to consider how installation during different seasons will affect particular species and life stages during spawning, juvenile settlement, etc. The nature of these repeated effects over time should be accounted for in the analysis of impacts to habitats and fishes.

Water entrainment occurs during jet plowing as cables are installed, and also occurs at the AC/DC conversion station for the purposes of cooling the DC cable. Entrainment at the conversion station could have substantial and sustained impacts on important forage fish species like sand lance and on ichthyoplankton and zooplankton, including fish eggs and larval stage fish and invertebrates, with a discharge volume of 8.1 million gallons of water per day for the life of the project (Section 4-103). While "the total estimated losses of zooplankton and ichthyoplankton from jet plow entrainment were less than 0.001 percent of the total zooplankton and ichthyoplankton abundance present in the study area" and will be temporary during construction (Section 4-205), entrainment volumes at the AC/DC conversion station are larger and will continue for many years. In a cumulative effects context, the magnitude of entrainment impacts will likely increase as additional lease areas are developed further offshore, using DC transmission cables, and requiring AC/DC conversion stations. The cumulative effects from loss of zooplankton include the potential loss of food source for the endangered North Atlantic Right Whale. The EIS should estimate the numbers of eggs, larvae, and zooplankton that may be entrained annually due to the conversion station. The EPA finalized a rule in 2014 establishing a set of best technology available standards for entrainment for existing facilities that withdraw > 2 million gallons of water per day, 25%+ of which is used for cooling purposes.[6] The EIS should consider the impact associated with applying these standards. Given entrainment issues are new in the context of offshore wind, BOEM should further evaluate these issues in closed and open loop systems to better understand impacts and any potential mitigation measures that could help offset impacts.

The importance of protecting cod spawning aggregations in the Sunrise project area cannot be overstated. The COP states that that "Atlantic cod has spawning habitat within localized regions near the SRWF" (Section 4-232), and "an active Atlantic cod winter spawning grounding (that) has been identified in a broad geographical area that includes Cox Ledge and surrounding locations" (Section 4-258). The Atlantic Cod Stock Structure Working Group concluded there are more than two stocks of Atlantic cod, including a likely separate Southern New England stock, which overlaps with the Cox Ledge EFH Area (Peer Review of the Atlantic Cod Stock Structure Working Group Report 2020[7]). 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. Because cod are shown to have high spawning site fidelity, if NEFMC delineates a separate Southern New England stock, there could be population

---

[6] https://www.nsenergybusiness.com/features/featureepas-new-water-intake-rule-what-does-it-mean-for-power-plants-4311140/

[7] Kritzer, J. 2020. Peer Review of the Atlantic Cod Stock Structure Working Group Report. Presented to the NEFMC Scientific and Statistical Committee. June 4, 2020. Available at https://s3.amazonaws.com/nefmc.org/PresentationACSSWG-Review-Panel-Report.pdf.

level effects in the reasonably foreseeable future from impact pile driving noise that can result in injury up to 8.4 mi for large fish and 10.1 mi for small fish (Section 4-261). This magnitude of sound attenuation impact from wind farm construction noise is consistent with the >40,000-foot impact area stated in the South Fork EFH Assessment[8] and the 8-mile impact radius from each monopile foundation stated in the South Fork DEIS[9]. It is important to note that the impact from pile-driving is very different than the impact from fishing, and fishery management measures may be re-evaluated if NEFMC delineates this new stock based on this new information. Therefore, we do not agree with the conclusion that "Given the availability of similar surrounding habitat, Project activities are not expected to result in measurable impacts on spawning Atlantic cod" (Section 4-258). Overall, any potential positive effects (e.g., potential increased productivity of cod due to the reef effect) are not likely to outweigh the negative effects on juvenile and spawning cod (noise, potential for increase in removals if cod aggregate around artificial reefs); thus, it will be important to evaluate the impacts to these localized spawning aggregations when evaluating where turbines should be sited, and how and when construction activities should be allowed to occur. Turbine siting should be informed by recent and ongoing research including the BOEM funded acoustic telemetry study evaluating the distribution and habitat use of spawning cod on and around Cox Ledge (Section 4-233).

Potential impacts of electromagnetic fields (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[10]. 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.

In addition, piling driving activities and installation of the foundation and inter-array cables are all expected to have more than just "limited impacts on finfish…because they are not expected to be near the seafloor during work activities" (Section 4-259). Pelagic species will likely be impacted by the noise and vibrations generated from these activities and may change their behavior and/or feeding patterns to avoid the impacted area, as suggested in Section 4-262, which is not a negligible impact.

Through modeling work, the physical presence of turbines has been estimated to alter the near-surface and near-bottom temperatures, and thus, the juvenile transport of commercially important species like sea scallop (Chen, et al. 2021). The COP states construction, operations and maintenance, and decommissioning of the wind farm "are not expected to measurably impact oceanographic and meteorological conditions" (Section 4-58). 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 farms on a regional scale. The EIS should also utilize the

[8] South Fork Wind Farm and South Fork Export Cable Essential Fish Habitat Assessment with NOAA Trust Resources, April 2021, For the National Marine Fisheries Service. U.S. Department of the Interior, Bureau of Ocean Energy Management Office of Renewable Energy Programs.

[9] South Fork Wind Farm and South Fork Export Cable Project Draft Environmental Impact Statement, January 2021.

[10] https://greenfinstudio.com/wp-content/uploads/2017/10/GreenFinStudio_EMF_MarineFishes.pdf

findings from ongoing research funded by BOEM in its impact assessment to understand how wind energy facilities will likely affect local and regional physical oceanographic processes (Section 4-59).

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.

The COP states that "Decommissioning will involve removing the structures and foundations in the SRWF to a depth of 15 ft (4.6 m) below the seafloor" (Section 4-9), which is assumed to include the removal of the offshore cable system. It is essential that 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.

The EIS should consider aquaculture separately from commercial and recreational fishing. Aquaculture is distinct from wild capture fisheries in many ways. For example, gear is installed in the water long term, there is a different management and regulatory process, and different environmental impacts.

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. The cumulative effects of the adjacent wind projects should be thoroughly evaluated, especially due to the 106-mile-long export cable corridor and 186-mile inter-array cables of the Sunrise Wind farm. In addition, it will be important to consider that many lease areas 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 many planned projects. As we have commented in the past, there could be multiple benefits to coordinated transmission planning across multiple projects. For example, shared cable corridors could decrease the amount of disturbed habitat. Impacts to sensitive species could also be slightly reduced if multiple cable installations are coordinated in terms of timing to avoid especially sensitive times of year. To help stakeholders better understand the potential cumulative impacts of the offshore export cables planned for all projects, we recommend the creation of information products to show the planned locations of all export cables (e.g., through the Northeast and Mid-Atlantic Ocean Data Portals). We recognize that the 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. As we understand it, this data sharing is planned for projects as they enter the scoping phase/once the COP has been distributed, but only a few projects that are further along in the process (Vineyard Wind 1, South Fork Wind) are available to date.

Cumulative impacts and risks need to be evaluated for species that are widely distributed on 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 will also be 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 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.

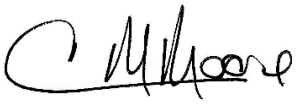
Conclusion

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

Thomas A. Nies
Executive Director, New England Fishery Management Council



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

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