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Program Manager
Office of Renewable Energy Programs
Bureau of Ocean Energy Management
45600 Woodland Road
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Submitted Electronically

Re: Comments on Notice of Intent (NOI) to Prepare an Environmental Impact Statement for the review of a construction and operations plan (COP) for Atlantic Shores Offshore Wind, LLC, for its proposed Atlantic Shores Offshore Wind Projects, Bureau of Ocean Energy Management, Docket No. BOEM–2021–0057

Dear Program Manager,

Clean Ocean Action (COA) is a regional, broad-based coalition of conservation, environmental, fishing, boating, diving, student, surfing, women's, business, civic and community groups with a mission to protect and enhance the degraded water quality of the marine waters off the New Jersey/New York coast. We submit the following comments on the Bureau of Ocean Energy Management (BOEM) Notice of Intent to prepare an Environmental Impact Statement (EIS) for the review of a Construction and Operation Plan (COP) for Atlantic Shores Offshore Wind, LLC, for its proposed Atlantic Shores Offshore Wind Projects (Docket No. BOEM–2021–0057).

The Proposed Action is to develop two electrically distinct, offshore wind energy generation projects in the Lease Area to provide clean, renewable energy to the New Jersey electrical grid. According to the September 30, 2021, Federal Register:

The Projects would include up to 200 total wind turbine generators (WTGs) (between 105–136 WTGs for Project 1 and between 64–95 WTGs for Project 2), up to 10 offshore substations (up to five in each project), one permanent meteorological (met) tower, up to four temporary meteorological and oceanographic (metocean) buoys (one met tower and up to three metocean buoys in Project 1 and one metocean buoy in Project 2), inter-array and inter-link

*cables, up to two onshore substations, one operations and maintenance facility, and up to eight transmission cables making landfall at up to two New Jersey locations: The Atlantic Landfall site in Atlantic City, New Jersey, Monmouth Landfall site in Sea Girt, New Jersey, or both.*¹

BOEM will determine whether to approve, approve with modifications, or disapprove Atlantic Shores' COP.

For over 37 years, COA has been the leading coalition successfully campaigning to improve and protect the waters in the region known as the New York/New Jersey Bight (hereafter, "the NY/NJ Bight"). These shared waters have a long history. COA's campaigns have ended ocean dumping, resulting in the closing of eight disposal sites, blocked five offshore liquefied natural gas export/import facilities, and prevented commercial seafloor strip-mining for aggregate, offshore oil and gas drilling proposals and associated seismic activities, and other industrialization activities that threaten the marine ecosystem. Thus, COA speaks from this extensive experience and commitment to the region.

Despite the progress made in improving the ocean off the NY/NJ coast, the ocean remains threatened, especially due to climate change. The ocean has already done so much to regulate climate change impacts after enduring years of industrialization and its impacts. Climate change is an existential threat, and all efforts must be made to reduce the causes, particularly the reduction of carbon emissions. **To be clear from the outset, COA supports responsible and reasonable offshore wind energy development; this includes operation, management, and decommissioning, as well as the associated onshore infrastructure support.** However, this new, uncertain industry requires additional investigation of areas with a focus on comprehensive, inclusive assessments of all offshore and onshore wind energy life-cycle impacts. Clean Ocean Action has concerns and questions about the Atlantic Shores projects and submits the following comments for the scoping of information for BOEM to prepare an EIS on these proposed projects.

The EIS process is critical here as the Proposed Action has a litany of expected impacts that are germane to COA's interest. The expected impacts include, without limitation:

*Air quality, water quality, bats, benthic habitat, essential fish habitat, invertebrates, finfish, birds, marine mammals, terrestrial and coastal habitats and fauna, sea turtles, wetlands and other waters of the United States, commercial fisheries and for-hire recreational fishing, cultural resources, demographics, employment, economics, environmental justice, land use and coastal infrastructure, navigation and vessel traffic, other marine uses, recreation and tourism, and visual resources.*²

While offshore wind energy represents a long overdue progression from fossil fuels, the Proposed Action threatens many serious consequences that must be carefully and diligently reviewed through the EIS process.

¹ Federal Register, Vol. 86, No. 187, September 30, 2021, page 54231.

² Federal Register, Vol. 86, No. 187, September 30, 2021, page 54233.

General Comments

First, due to the scope, size, and location of these projects, COA requests an extension to the comment period to review the 4000+ pages of materials. Based on the COP, it is clear that many onshore communities will be affected, and it is likely they are unaware of this proposal. The public had only 30 days to review, assess, affirm, share, consider, absorb, understand, and provide comments. BOEM providing this bare minimum for public comment is not good governance. This process must include meaningful community engagement; therefore, a minimum 30-day extension to the comment period would allow time to properly review the documents and inform the EIS. In the case that BOEM will not look favorably upon an extension to comment period, COA provides the following additional, detailed comments.

The Atlantic Shores projects are massive private, commercial, and industrial facilities that do not exist anywhere else in the world in such size, scale, and scope. Further, the Atlantic Shores projects are among many offshore wind facilities proposed in a 400,000-acre area off New Jersey's Ocean, Atlantic, and Cape May Counties. Given the scope and magnitude of this infrastructure, both on and offshore, it is imperative that not only each project be environmentally responsible, but the cumulative impacts considered and avoided, minimized, or mitigated. Throughout the initiation, cultivation, and promotion of this new industrial development, proponents—especially state and federal leaders—commit to moving forward responsibly. As these offshore wind projects are now moving forward, now is the time for meaningful commitments to meet that standard.

BOEM's Notice requests information on impact-producing factors (IPFs), effects and mitigation measures on significant resources, and reasonable alternatives to the siting and construction of facilities and activities. COA recommends changes to the submitted COP and that BOEM include sufficient avoidance and meaningful mitigation measures. The majority of known effects associated with constructing wind turbine generators and foundations are most severe during the construction and surveying periods of a project's lifecycle. Moreover, there is uncertainty regarding the long-term and onshore impacts associated with this unprecedented scale of offshore development.

COA appreciates the COP's recognition that there *will be* adverse impacts and welcomes the consideration of avoidance, minimization, and mitigation. The possible expected impacts, both short-term and long-term, as well as cumulative, are extensive:

Based on a preliminary evaluation of these resources, BOEM expects impacts on sea turtles and marine mammals from underwater noise caused by construction and from collisions with vessel traffic associated with the Projects. Structures installed for the Projects could permanently change benthic habitat and other fish habitat. Commercial fisheries and for-hire recreational fishing could be impacted. The Projects' structures above the water could affect the visual character defining historic properties and recreational and tourism areas. The Projects' structures also would pose an allision and height hazard to vessels passing close by, and vessels would in turn pose a hazard to the structures. Additionally, the Projects could adversely impact mineral extraction, military use, air traffic, land-based radar services, cables and pipelines, and scientific surveys.

Beneficial impacts are also expected by facilitating achievement of State renewable energy goals, increasing job opportunities, improving air quality, and reducing carbon emissions.³

COA maintains that impacts to marine life, from the benthos to the surface and above, must be avoided and the proposed projects must not create unnecessary harm. Unfortunately, there is not enough science to determine the impacts of this new industry on the ocean off the NY/NJ coast. Indeed, scientists in recent conferences have conceded that the scientific community does not know enough about the cumulative impacts the development of offshore wind energy and its associated infrastructure has on marine resources.

In general, COA's expectation for responsible development of offshore wind energy, including the Atlantic Shores projects, focuses on the following principles, which COA recommends the EIS apply:

- Identifying and assessing cumulative environmental impacts from Atlantic Shores projects as well as the cumulative impacts from all projects being considered in the region. The land use experience over the last 200 years has proven that piecemeal development will lead to mistakes and ecological harm.
- Transparency to the public at all levels of design, construction, operation and maintenance, which means more disclosure of onshore and offshore activities with minimal redaction,
- Meaningful public involvement —not just hosting meetings but actual measurable evidence of project modification to meet public concerns.
- Meeting legal requirements through the lens of maximizing opportunities for environmental protection;
- Fully complying with New Jersey's enforceable policies for purposes of the Coastal Zone Management Act, especially those concerning the protection of endangered and threatened species' habitat and critical wildlife habitat;
- Refraining from soliciting or accepting any state agency approvals for the Atlantic Shores projects which may be arbitrary or capricious under the Administrative Procedures Act by virtue of their issuance prior to all pertinent information being made available to the public and the agencies of decision;
- Implementation of coastal resiliency and adaption for sea level rise and storm surges for all onshore and offshore facilities, especially as the life span of these projects is 35 years;
- Meaningful interagency review is essential at the local, state, and federal levels; this is especially important during the EIS development with natural resource agencies, as well as community and citizen resources agencies to ensure environmental justice, public health, or over-development issues are identified and addressed;
- Protection of submerged lands that fall under the scope of the Public Trust Doctrine, as these facilities are occupying, altering, and obstructing the use of resources that were (and remain) treasured public resources, and habitat for extraordinary marine life; therefore, they must have the utmost respect and care.

³ Federal Register, Vol. 86, No. 187, September 30, 2021, page 54231.

- Identifying and considering true, proper alternatives, such as the onshore production of solar and wind energy.
- Strong measures to protect the North Atlantic right whale, and other species, including but not limited to regional construction calendars to reduce noise from construction, operation, and maintenance.
- Using the best available science to determine and evaluate the environmental impacts of the Atlantic Shores projects to protect marine resources and refraining from accelerating the projects' environmental review process.

Meeting Legal Requirements

The public, policymakers, appropriate research entities, and organizations must be informed of construction, operation, maintenance, and decommissioning details in the draft EIS. BOEM should seek to include impacts associated with onshore and offshore construction, operation, maintenance, and decommissioning in the draft EIS.

Moreover, the BOEM-designed process by which the agency intends to develop an offshore lease proposed by Atlantic Shores requires the State of New Jersey and the public to provide their input on the projects' federal consistency for purposes of the Coastal Zone Management Act ("CZMA") prior to having a comprehensive final account of the operation's potential environmental impacts. To illustrate this point, the state agency responsible for CZMA federal consistency certifications in New Jersey, the Department of Environmental Protection ("the Department"), provided public notice that it received a request for federal consistency certification from Atlantic Shores on October 20, 2021, allowing the public to review Atlantic Shores' application for Federal Consistency Certification only by appointment at the Department's Trenton office or by submitting a request under the Open Public Records Act to the Department.⁴ In addition to the considerable hurdles that an average member of the public must overcome in order to submit an informed comment on Atlantic Shores' proposed Federal Consistency Certification, BOEM slating the CZMA federal consistency review for this stage of the process is arbitrary and an abuse of discretion because, according to BOEM's own regulations, Atlantic Shores will be able to continue amending its COP in later stages of the offshore wind lease issuance process. Soliciting certification of the federal consistency for purposes of the CZMA at this stage of the process unnecessarily precludes the public and the State of New Jersey from ensuring that their comments reflect the most recent and accurate representations of Atlantic Shores' operations and their potential impacts.

Separately, BOEM has asserted the engagement of the public by way of an "Intergovernmental Renewable Energy Task Force" (hereafter "Task Force"). The Task Force's membership roster includes various local officials, many of whom are unaware of the Task Force—much less their appointment to the entity. Additionally, access to Task Force meetings was extended to only a few select public interest groups. Considering its activities, role, and roster, the Task Force appears to be subject to the Federal Advisory Committee Act ("FACA"), but the Task Force has not met all FACA requirements called for by the Atlantic Shores projects.

⁴ N.J. Dept. of Environmental Protection, Notice of Receipt – Federal Consistency Certification, 45 DEP Bulletin 20, 5 (Oct. 20, 2021), https://www.nj.gov/dep/bulletin/bu2021_1020.pdf.

Purpose & Alternatives

The EIS process here must go beyond a cursory action versus “No Action” analysis. First, the clear alternative to offshore wind is onshore wind, which is the same technology located to automatically eliminate most of the “expected impacts” listed in the beginning of this letter. Secondly, the EIS should be looking for best available solutions to climate change and focus on the review of other alternatives (e.g., solar, conservation, efficiency).

Unique to this Proposed Action, however, is the ability (and duty) of BOEM to review the “No Action” alternative in the following additional ways:

1. Project 1 only (105-136 WTGs)
2. Project 2 only (64-95 WTGs)
3. Reduce both Projects 1 and 2 to the minimum number of WTGs, 105 and 64 respectively.

In this way, the EIS can assess the alternatives of 0, 64, 105, and 169 WTGs versus the maximum of 231 WTGs, in addition to the related infrastructure.

Environmental Impacts from Offshore Wind Development

The NY/NJ Bight is rich with diverse species and extraordinary natural features. Species diversity in the NY/NJ Bight include over 30 species of whales and dolphins, including the endangered Northern Atlantic right whale; 5 species of sea turtles; 300 species of fish; 350 species of birds; 4 species of seals; hundreds of invertebrates⁵ eels and other species; and 20 threatened and endangered species.

The NY/NJ Bight experiences intense ocean mixing, called a “Cold Pool” effect, that stimulates massive phytoplankton blooms central to the structure of all NY/NJ Bight ecosystems. Due to its relative warmth, heavy flows of freshwater and inland nutrients from the Hudson River, and unique bathymetry, the NY-NJ Bight holds rich habitat for whales and other species. Ocean currents wash over these bottom features and stir up nutrients that are absorbed by phytoplankton. In essence, the NY/NJ Bight has unique features that are ideal for a vast variety of ocean life, ranging from deep sea corals to over 300 fish species.⁶

The Cold Pool in the Mid-Atlantic Bight supports some of the richest ecosystems and fisheries in the nation, including the most profitable shellfish fisheries and “second-most lucrative single-species fishery, sea scallops, in the western Atlantic.”⁷ The Bight is also vital to

⁵ Hutchison *et al.*, The Interaction Between Resource Species and Electromagnetic Fields Associated with Electricity Production by Offshore Wind Farms, 96 *Oceanography* Vol. 33, No. 4 (December 2020).

⁶ New York Ocean Action Plan, Department of Environmental Conservation (2016-2026), *available at* https://www.dec.ny.gov/docs/fish_marine_pdf/nyoceanactionplan_final.pdf

⁷ Travis Miles, Josh Kohut, and Daphne Munroe *et al.*, Could federal wind farms influence continental shelf oceanography and alter associated ecological processes? A literature review, Rutgers University and Science Center for Marine Fisheries (SCMFIS) (Dec. 1, 2020), *available at* <https://scmfis.org/wp-content/uploads/2021/01/ColdPoolReview.pdf>

the migratory patterns of many different species, ranging from deep sea corals to invertebrates.⁸ The Atlantic sea scallop (*Placopecten magellanicu*), Atlantic surfclam (*Spisula solidissima*), and ocean quahog (*Arctica islandica*) habitat along the Mid-Atlantic Bight is consistently among the most profitable fisheries in the world.⁹

Further, water column stratification could affect a number of species vital to fisheries and local ecosystem health, including summer flounder.¹⁰ The health of the habitat for these and other species is closely associated with Mid-Atlantic Ocean conditions. Further, increased mortality and reduced reproductive success of shellfish and other species has been associated with warming-induced shifts to the stratification of cycles in oceanographic conditions.¹¹ This indicates that further alterations to ocean mixing may lead to changes in vital species activities across the board. Turbine arrays may directly or indirectly affect seasonal processes that dictate water column nutrient transfer among ecosystems and species.¹²

Many species in the waters and migratory corridors surrounding and within the project area could be vulnerable to interruptions in foraging, migration, or other effects of the foundations, cables, and all submerged gear. With these abundant and diverse marine resources and wildlife in mind, the ecological and socioeconomic impacts to include, assess, and address in Atlantic Shores' COP EIS are described in the following sub-sections.

Impacts to Marine Mammals

(1) Noise Pollution from Construction

- a. Studies have shown that construction noise related to offshore wind farms (especially pile driving) may cause behavioral changes and negative impacts in seals, porpoises, dolphins, and whales.
- b. Disruption effects have been measured up to 20 miles from the construction site.

(2) Noise from Operation

- a. This includes both the noise from the turbines themselves which emit a constant low-frequency noise and also the increased vessel traffic from operations and maintenance (O&M) activities.
- b. The operational noise stems from vibrations in the tower caused by the gearbox mesh in addition to the generator, causing underwater noise.

(3) Vessel Strikes

⁸ New York Ocean Action Plan, Department of Environmental Conservation (2016-2026), available at https://www.dec.ny.gov/docs/fish_marine_pdf/nyoceanactionplan_final.pdf

⁹ National Marine Fisheries Service, 2020: Fisheries of the United States, 2018. U.S. Department of Commerce, NOAA Current Fishery Statistics No. 2018.

¹⁰ T.M. Grothues and E. A. Bochenek, 2011: Fine scale spawning habitat delineation for winter flounder (*Pseudopleuronectes americanus*) to mitigate dredging effects –Phase II (Cycle 8), 2/2011.

¹¹ D. A. Narvaez, D. M. Munroe, E. E. Hofmann, J. M. Klinck, and E. N. Powell, 2015: Long-term dynamics in Atlantic surfclam (*Spisula solidissima*) populations: the role of bottom water temperature. *Journal of Marine Systems*, 141, 136-148.

¹² Travis Miles, Josh Kohut, and Daphne Munroe *et al.*, Could federal wind farms influence continental shelf oceanography and alter associated ecological processes? A literature review. Rutgers University and Science Center for Marine Fisheries (SCEMFIS) (Dec. 1, 2020), available at <https://scemfis.org/wp-content/uploads/2021/01/ColdPoolReview.pdf>

- a. Increased vessel activities may result in increased strikes with marine mammals, such as the Northern Atlantic right whale. This includes from construction and O&M.
 - b. There is also concern that the wind farms will displace other marine commerce and transit, funneling those vessels into narrower lanes which may increase strikes.
 - c. The COP EIS must account for competing uses and navigation impacts of offshore wind facilities. With increased or altered traffic patterns, the risk of collisions and spills of gas, oil, and chemicals may increase, with negative effects to water quality and marine life. Exposure to oil and other hydrocarbons from oil spills can drastically affect marine mammals and ecosystems.
 - d. Further, vessel strike mitigation is vital to reducing collision between both commercial and noncommercial vessels and North Atlantic right whales.¹⁰ The COP EIS should also consider increased spacing between offshore wind turbines and high-traffic areas through either increased spacing or based on consultation with the National Marine Fisheries Service and the United States Coast Guard.
- (4) More Protective Consideration of the North Atlantic Right Whale
- a. This highly endangered species is exceptionally vulnerable to additional barriers in its migratory patterns and prime foraging habitat. While BOEM requires mandatory minimization procedures and marine mammal observers for construction and operation of offshore wind farms, it is not enough. Current minimization measures, including passive acoustic monitoring (PAM) via glider¹³ do not account for when marine mammals are not vocalizing. Right whales vocalize frequently. But these vocalizations tend to be “irregular and non-repetitive” and based on activity level.¹⁴ Further, it is likely that most known marine mammal mortalities occur via ship-strike.¹⁵ While PAM, marine mammal observers, shut-down procedures, and other mitigation measures can be useful during construction and building spatio-temporal baseline data, there is uncertainty regarding right whale behavior and offshore wind foundations and vessel activity. The COP EIS needs to address this problem.
 - b. A recent report released by North Atlantic Right Whale Consortium confirmed the population of North Atlantic right whales continues to decline. According to the report,

The North Atlantic Right Whale Consortium announced that the North Atlantic right whale population dropped to 336 in 2020, an eight percent

¹³ Moscrop *et al.*, Vocalization rates of the North Atlantic right whale, *J. CETACEAN RES. MANAGE.* 3(3):271–282, 2001, available at

https://www.researchgate.net/publication/268273193_Vocalisation_rates_of_the_North_Atlantic_right_whale

¹⁴ *Id.*

¹⁵ Ship Strikes and Right Whales, Marine Mammal Commission (last accessed 4/28/2012), available at <https://www.mmc.gov/priority-topics/species-of-concern/north-atlantic-right-whale/ship-strikes/>

*decrease from 2019... the population estimate is the lowest number for the species in nearly 20 years.*¹⁶

The report shows that despite measures to protect the species, the population continues to decline, and urgent actions to prevent further harm, including from collisions and allisions, is critical in the short and long term. Hundreds of wind turbines in the ocean from the Atlantic Shores projects, as well as the others in various stages of development in the NY/NJ region, will provide an obstacle course for the competing uses of the ocean, thereby putting this critically endangered species, as well as other species, at risk. According to the Chair of the North Atlantic Right Whale Consortium,

“There is no question that human activities are driving this species toward extinction. There is also no question that North Atlantic right whales are an incredibly resilient species. No one engaged in right whale work believes that the species cannot recover from this. They absolutely can, if we stop killing them and allow them to allocate energy to finding food, mates, and habitats that aren’t marred with deadly obstacles,” said Dr. Scott Kraus, chair of the Consortium.

What measures will BOEM require to ensure offshore wind projects do not contribute further to the decline of North Atlantic right whales? Will those measures be enough? How will these measures coordinate with measures used in other local and regional offshore wind projects?

Impacts to Birds

(1) Displacement of Habitat

- a. Behavioral responses to offshore wind farms may cause birds to avoid previously used habitats. This phenomenon has been dubbed displacement. At Robin Rigg offshore wind farm in Scotland, the monitoring program showed evidence of a decrease in the number of common scoter (*Melanitta nigra*) one year after construction.

(2) Risk of Collision

- a. There is concern for birds colliding with wind turbines. This has been a big issue with onshore wind projects, specifically in the middle of the country.
- b. Weather increases the risk of collision, and the ocean is an area with some of the harshest weather conditions, which will only increase due to climate change impacts.

(3) Migration Barriers

- a. The barrier effect may have a negative impact of birds. The birds’ behavioral avoidance response to the wind farm may lead to detours circumventing the structures, ultimately extending the total flying distance and energy use. This

¹⁶ New England Aquarium, “Population of North Atlantic right whales continues its downward trajectory.” <https://www.neaq.org/about-us/news-media/press-kit/press-releases/population-of-north-atlantic-right-whales-continues-its-downward-trajectory/> as seen 10/29/2021.

energy loss is critical for birds experiencing other stressing factors to their populations.

- b. Furthermore, for species such as the common eider (*Somateria mollissima*) the reproductive success is related to the females' body reserves during the breeding period. By increasing the energy use for common eiders their body mass may drop, thus affecting the breeding output.
- c. Results from the monitoring programs at Nysted and Horns Rev offshore wind farms in Europe showed that all birds generally avoid wind farms if they block migration pathways. The specific level of avoidance depends on the species with some going further out of their way to avoid the area. Over 50 percent of the birds avoided passing through the wind farms at half a mile to a mile.

Impacts on Fish / Benthic Species

(1) Electromagnetic Fields

- a. Up to eight export cables, including offshore export, inter-array, and possibly inter-link, are expected with the Atlantic Shores projects. The orientation of fish may be impaired by the magnetic fields surrounding electric cables and thus impact migration patterns.
- b. Electricity produced at offshore wind farms is usually transmitted to shore through high voltage alternating or direct current cables. The current in these cables creates electric and magnetic fields (EMF). While the electric field generated by the current is isolated within the cable, the magnetic field is measurable around the cable.
- c. There has been significant concern about the impact on crustaceans and their sensibility to EMF as it can impact their ability to locate food and may cause avoidance or large areas.
- d. Fish species that employ electrical currents for orientation such as sharks and rays, eels and electric fish are the most sensitive. It has been suggested that many such species may be able to detect EMF at a distance over 1,000 ft.

(2) Habitat Change

- a. Introducing hard substructures into the marine environment creates artificial reefs leading to the settlement of marine organisms in the area. This can be positive, as well as negative. It increases biodiversity but can also potentially introduce new harmful species (including invasive species) and disrupt food chains.
- b. The creation of these large homogenous changes to the sea floor will change the environment and the impact it has on the marine life is uncertain but could result in displacement.

Impacts to Competing Ocean Uses

The ocean is already home to numerous industries and activities. The Atlantic Shores' COP EIS must consider and address the following:

(1) Navigation Impacts – Funneling Navigation into Narrow Corridors

In addition to the many potential impacts to wildlife and marine and coastal resources, Atlantic Shores' COP EIS should consider the top-down impacts of the increased vessel activity, increased onshore activity, shifts in recreational and commercial ocean uses, and the foundation, cabling, and interconnection infrastructure associated with the projects. In

sum, the Atlantic Shores COP EIS must consider changing traffic patterns, navigational safety, and port access conflicts. More specifically:

- a. The Port of New York and New Jersey is a massive economic enterprise that is a hub for vessel traffic. There are four container terminals in the port, whose combined volume makes it the largest on the East Coast, the third busiest in the United States.
- b. A large area of the Outer Continental Shelf (OCS) has been leased for offshore wind development without any comprehensive analysis of the fishing industry's need for safe transit or how the installation of large numbers of offshore structures will impact the operations of fishing vessels.
- c. The port imports petroleum, plastics, chemicals, oils and perfumes, pharmaceuticals, and other materials that if spilled into the ocean would be devastating. The port of NY/NJ is the largest U.S. petroleum product port.
- d. There is also concern that the development of these wind projects in close proximity will displace transit corridors and create narrow lanes where vessels are expected to travel. This could lead to increase accidents and spills.
- e. One danger is that vessel density – ships operating within the same sea space – would be increased by the funneling effect of constricting traffic between turbine arrays.
- f. Another consideration is the radar shadow effect of rotating turbine blades that can affect navigation radars.
- g. Consider these port statistics: 577,649 vehicles • 6.3 Million TEUs of containerized cargo • 730,617 cruise ship passengers • 8,596 deep-sea vessel transits • Over 4,000,000 smaller vessel harbor transits.
- h. Another consideration is the speed and agility of large ships maneuvering a small, competitive space. For example, it can take an ultra large 2.5 miles of full astern to brake to a halt.

Coastal Development and Industrialization

Another area of consideration is the onshore infrastructure necessary to manage this new coastal-dependent industry. Each offshore wind energy project will need operation and maintenance facilities. Further, there is the need for larger manufacturing centers and marshalling ports.

In Volume 1, Section 4.10, the COP gives an inadequate description of necessary onshore facilities. The EIS must include specific and clear descriptions of the potential onshore facilities. The COP EIS must account for all potential port activities at the various proposed locations. The COP EIS must also include the following for operation and maintenance:

- a. Type of maintenance approach (ship-based, air support);
- b. Land use requirements;
- c. Proximity to the offshore wind farm;
- d. Storage capabilities for spare components;
- e. Wharf area required bearing capacity;
- f. Ship depth requirements; and
- g. Secondary impacts from influx of workers and support services.

Specifically, COA advocates that the COP-EIS include land-based facilities that are or may be used for development of wind turbine generators as well as operation and management. These are:

1. To reduce the overall footprint; and
2. To be climate resilient; and
3. To be as energy efficient as possible; and
4. Sited in environmentally friendly locations.

Mitigation Measures Needed

Working to avoid and minimize impacts on the ocean and coastal environment is essential and must be a main goal of offshore wind energy development, as it is with any offshore or onshore activity. Therefore, the COP EIS must identify measurable, meaningful, and actionable effective mitigation measures for when impacts cannot be avoided or minimized.

For example, the COP asserts that Atlantic Shores may need to mitigate cable exposure by re-burying multiple cables over the lifetime of the projects. The COP also indicates that impacts to onshore and coastal ecosystems is likely. Specific mitigation of impacts to wetlands, seagrass beds, and other habitat should be specifically analyzed in the EIS. Particular attention should be paid to the seasonality of seagrass beds. Further, analysis of the impacts to seagrass beds should be analyzed beyond turbidity. The spatio-temporal variability in the distribution of vulnerable species should also be considered.

Atlantic Shores' COP states that they will be applying for authorizations under the Endangered Species Act, Magnuson-Stevens Fishery Conservation and Management Act, Marine Mammal Protection Act, Rivers and Harbors Act, Clean Water Act, Coastal Zone Management Act, and more. COA will provide feedback on these permitting decisions to the relevant authority as they become available.

Atlantic Shores Projects and Expanding Cumulative Impacts Analysis

In an alternative analysis, BOEM should utilize an extensive cumulative impact analysis based on the potential harm to sensitive areas in the NY/NJ Bight, especially in light of the unprecedented footprint for offshore wind energy proposed across the East Coast. During the leasing and planning phases of offshore wind development, BOEM only reviews impacts that are “reasonably foreseeable.”¹⁷ As a result, cumulative effects and extensive, precautionary steps have taken a back seat. Even though BOEM expanded the scope of their cumulative impact analysis during the Vineyard Wind programmatic review, there could still be cascading effects to vulnerable New Jersey and New York ecosystems, wildlife, and communities along the Mid-Atlantic Bight. Siting offshore wind turbines in the WEAs may affect these species, many of which are already “on the brink.”

Echoed in COA and other organization's prior comments, the siloed nature of BOEM's approach to Section 102 of the National Environmental Policy Act (NEPA) could prevent proper siting, construction, and analysis. Section 102 states simply that a “detailed statement be prepared by the responsible official” when appropriate for “actions significantly affecting”¹⁸.

¹⁷ Vineyard Wind Supplemental Environmental Impact Statement, p 1-2.

¹⁸ *Id.*

For instance, the Supplemental Environmental Impact Statement (SEIS) from Vineyard Wind 1 “assumes that best management practices (BMPs) incorporated from the [Record of Decision] on the 2007 Final Programmatic Environmental Impact Statement for Alternative Energy Development and Production and Alternate Use of Facilities on the Outer Continental Shelf, will be implemented.”¹⁹

BOEM finally shifted their analysis from the 2007 Record of Decision during the Vineyard Wind extended environmental review process.²⁰ In July of 2020, the Bureau of Ocean Energy Management (“BOEM”) published the SEIS, which exclusively focused on cumulative impacts from the project in relation to others in the same geographical area. The results of the SEIS detailed the importance of early planning and a robust cumulative impact analysis. The SEIS concluded that the proposed action, as well as all six alternatives, would result in “major impacts” to both commercial and recreational fishing as well as navigation.²¹ The previous project-specific Environmental Impact Statement found that, individually, Vineyard Wind would only result in “minor” to “moderate” impacts to these industries.²² The SEIS and a cumulative impact approach illustrate how the impacts change when viewed in relation to the surrounding developments. Further, the SEIS outlined why it is essential that regulators engage in increased cumulative impact analyses that focus on the development of the offshore wind industry holistically, as well as on an individual project-by-project basis.

With the Vineyard Wind project, BOEM changed their tiered analysis of “reasonably foreseeable” impacts to include “those proposed offshore wind projects with COPs submitted or approved at the time of analysis.”²³ BOEM expanded their “quantitative cumulative impacts analysis” in their SEIS to include all projects with submitted or approved COPs, all projects with onshore energy awarded, and all announced and future solicitations and lease sales. However, BOEM still did not expand this to apply to transmission, interconnection, or onshore impacts. Nor did they cover the full extent of navigation and transit concerns as “reasonably foreseeable.” COA supports the continued application of BOEM’s “quantitative cumulative impact analysis” and urges BOEM to continue revising their approach to include the aforementioned additional cumulative impacts.

Environmental Justice

Environmental justice (hereafter “EJ”) issues abound with energy proposals, including with renewable energy projects and infrastructure. Considering all of the projects proposed for offshore wind energy development, including Atlantic Shores’ projects, there will be numerous Operations and Maintenance (O&M) facilities that will need to be built in already-burdened communities, including Atlantic City, NJ. At a certain point, all the combined onshore infrastructure needed to bring the energy to land will create new overburdened communities and become burdensome to existing environmental justice communities, despite it being for a

¹⁹ *Id.*

²⁰ Vineyard Wind 1 Offshore Wind Supplemental Environmental Impact Statement, 1-2 (2020).

²¹ Vineyard Wind Supplemental Environmental Impact Statement (2020), p. ES-5.

²² Bureau of Ocean Energy Management, Vineyard Wind – Draft Environmental Impact Statement, Docket No. BOEM 2018-060, at ES-8.

²³ *Id.*

renewable form of energy. Considering this reality, the EIS must review in detail the combined onshore infrastructure required to bring the energy generated offshore to land and identify the burdens to coastal and inland EJ communities that will result.

While we appreciate BOEM's acknowledgement of EJ issues related to the wind projects proposed for offshore sites near the NJ/NY coast, we are concerned with the agency's approach to environmental justice in the present case. First, BOEM must identify where and how it draws its legal authority for collecting and implementing EJ for the Atlantic Shores' wind projects or any of the other wind projects proposed off the NJ/NY coast. Additionally, BOEM has not made clear how it will address EJ issues through the EIS, nor with what criteria these issues will be evaluated.

Conclusion

In conclusion, Clean Ocean Action appreciates the opportunity to submit comments on this notice of BOEM's intent to prepare an EIS. We await your determination on our request concerning the extension of the public comment period. COA seeks to ensure that the draft EIS will provide means to avoid and reduce environmental harm from Atlantic Shores' COP, as well as provide detailed mitigation options. In particular, the EIS must identify criteria for determining environmental impacts. COA will be submitting substantive comments in response to BOEM's modifications to the COP and throughout the EIS process. If you have any questions, feel free to contact COA.

Respectfully Submitted,



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