

January 19, 2024

Hon. Deb Haaland
Secretary of the Department of the Interior
1849 C Street NW
Washington, DC 20240

Hon. Liz Klein
Director of the Bureau of Ocean Energy Management
1849 C Street NW
Washington, DC 20240

Hon. Christine Wormuth
Secretary of the U.S Army
U.S. Department of the Army
101 Army Pentagon
Washington, DC 20310

Hon. Janet Coit
Administrator of the National Marine Fisheries Service
1315 East-West Highway
Silver Spring, MD 20910

Gen. Scott A. Spellmon
Chief of Engineers/Commanding General
U.S. Army Corps of Engineers
441 G. Street NW
Washington, DC 20314

Re: Revolution Wind Project/Sixty-Day Notice of Intent to Sue Under the Outer
Continental Shelf Lands Act, Clean Water Act, and Endangered Species Act

Dear Secretaries Haaland and Wormuth, General Spellmon, Director Klein, and
Administrator Coit:

This letter brings to your attention the violations of law committed by the federal agencies in approving the lease and easement, permits, approvals, and Construction and Operations Plan for the Revolution Wind Project, with emphasis on the injuries those violations of law will cause to coastal communities, tourism, recreation, commercial and recreational fishing, sailing, historic preservation, indigenous people and the benthic

organisms, finfish, shellfish, whales, and other marine mammals that live in the area to be occupied by the Revolution Wind Project, and the additional thousands of square miles slated to be transformed into offshore wind farms in the near future.

In its haste to implement a massive new program to generate electric energy by constructing thousands of wind turbines along the eastern seaboard, laying hundreds of miles of high-tension electrical cables undersea, and destroying hundreds of thousands of acres of seabed, the United States has undercut the statutory and regulatory requirements that Congress enacted to protect our nation's environmental and natural resources, its industries, and its people.

Should these statutory and regulatory violations not be remedied within the next 60 days, the signers of this notice letter will sue under the citizens' suit provisions of the Outer Continental Shelf Lands Act, Clean Water Act, and Endangered Species Act to require your departments and agencies to meet their legal obligations.

The Revolution Wind Project

On August 21, 2023, acting under the authority of the Outer Continental Shelf Lands Act,¹ the United States Bureau of Ocean Energy Management (BOEM) issued its Record of Decision approving the Construction and Operations Plan for the Revolution Wind Project, an 83,798-acre wind farm to be constructed by Revolution Wind LLC offshore of Rhode Island. Revolution Wind, as approved, includes 65 turbines, two offshore substations, and two export cables within a 42-mile-long cable corridor.² On November 17, 2023, BOEM issued a letter approving the Construction and Operations Plan.³

The Revolution Wind Project is only one of thirty-five enormous offshore wind facilities that the Government has authorized or plans to authorize under its plan to produce 30,000 megawatts of wind energy by 2030, covering millions of acres of ocean.⁴ Each of these turbines will stand more than 800 feet above the ocean surface and require

¹ 43 U.S.C. § 1349(a)(2)(A).

² Bureau of Ocean Energy Management, *Record of Decision* (Aug. 21, 2023), https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/Revolution-Wind-Record-of-Decision-OCS-A-0486_3.pdf (Record of Decision).

³ Bureau of Ocean Energy Management, *Revolution Wind COP Approval Letter* (Nov. 17, 2023), https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/COP%20Appv%20Ltr_REV%20OCS-A%200486.pdf.

⁴ *Tackling the Climate Crisis at Home and Abroad*, Exec. Order 14008, 86 Fed. Reg. 7619, 7624 (Jan. 27, 2021).

four acres of granite boulders covering the seabed at each turbine foundation, plus the installation of materials for cable protection, electric substations, and more.

The Project, as approved, falls far short of the statutory and regulatory provisions enacted to protect state and national interests and violates many important environmental protection requirements.

Green Oceans

Green Oceans is a Rhode Island non-profit corporation comprised of citizens dedicated to combating climate change without sacrificing the ocean's biodiversity and health. Green Oceans strives "to protect the ocean by informing the public about imminent threats, including the impact of offshore wind on the marine ecosystem. Protecting the ocean and biodiversity ensures our own survival. A healthy ocean is one of our best defenses against climate change."⁵ Green Oceans is actively organizing opposition to the Revolution Wind Project and all offshore development on Cox Ledge by engaging with local stakeholders and spearheading a petition to stop offshore development on Cox Ledge and off the coasts of Rhode Island and Massachusetts. Green Oceans aims to prevent irreversible damage to the marine ecosystem and impacted communities through active engagement with local stakeholders. Green Oceans believes that the Federal Government's rushed environmental review process is sacrificing the health of our nation's oceans, biodiversity, safety, and local economies.

The Responsible Offshore Development Alliance

The Responsible Offshore Development Alliance (the Alliance) is a membership-based coalition of fishing industry associations and fishing companies interested in improving the compatibility of new offshore development with their businesses.⁶ The Alliance works to ensure that offshore wind development is compatible with fishing and primary food production and does not significantly impact marine habitats, biodiversity, and physical oceanography. The Alliance's Board of Directors consists of representatives of commercial fishing businesses and vessels from federally and state-permitted Atlantic fisheries from North Carolina to Maine.⁷ The Alliance's membership includes major Atlantic fishing associations, dealers, seafood processors, affiliated businesses, and over 120 vessels operating in about 30 fisheries across nine states.⁸ The Alliance does not advocate for or represent any one fishery; rather, it actively promotes positions common

⁵ Green Oceans, *About Us*, <https://green-oceans.org/> (last visited Dec. 1, 2023).

⁶ Responsible Offshore Development Alliance, *About Us* (last visited Nov. 28, 2023), <https://rodafisheries.org/who-we-are/>.

⁷ *Id.*

⁸ *Id.*

among commercial fishing industry participants.⁹ The Alliance also offers a platform for input from a broad range of fishery representatives.¹⁰

Save the Right Whales Coalition

Save the Right Whales Coalition is an alliance of grassroots environmental and community organizations, scientists, and conservationists working to protect the North Atlantic right whale and other marine life from threats, including the industrialization of the ocean habitat through large-scale offshore wind energy development. Their members consist of Deep Sea Defenders, Defend Brigantine Beach, Fenwick Island Environmental Committee, Green Oceans, Environmental Progress, Keep Our Oceans Ocean, Kent Conservation and Preservation Alliance, Nantucket Residents Against Turbines, Protect Our Coast NJ, Save the Horseshoe Crab, Wind Action, and thirteen individuals. Save the Right Whales Coalition engages with local stakeholders to advocate for preserving and conserving the North Atlantic right whale.

New England Fishermen's Stewardship Association

The New England Fishermen's Stewardship Association is a bipartisan, nonprofit organization committed to preserving seafood resources in the waters of New England. The Association is an alliance of commercial fishermen and seafood harvesters dedicated to advocacy and education on how to manage seafood resources through sound science and best conservation practices and how to protect the fishing industry from overregulation and over-industrialization of the ocean.

Additionally, this sixty-day notice is sent on behalf of Chris Brown, Ralph Craft, Murray Danforth, Rich Hittinger, Lauren Knight, Jerry Leeman III, Gary Mataronas, Eric Philippi, Benjamin Riggs, and Alan Shinn.

Statutory and Regulatory Violations

1. The Department of the Interior and BOEM Have Violated the Outer Continental Shelf Lands Act

In the Energy Policy Act of 2005,¹¹ Congress amended the Outer Continental Shelf Lands Act (which previously allowed seabed leasing only for oil and gas production) to expand the program to include renewable energy leasing. In amending the statute, Congress stated the policy intended to inform the implementation of the Act:

It is hereby declared to be the policy of the United States that . . . this subchapter shall be construed in such a manner that the character of the

⁹ *Id.*

¹⁰ *Id.*

¹¹ Pub. L. No. 109-58, § 388(a), 119 Stat. 594, 744.

waters above the outer Continental Shelf as high seas and the right to navigation and fishing therein shall not be affected; . . . the outer Continental Shelf is a vital national resource reserve held by the Federal Government for the public, which should be made available for expeditious and orderly development, subject to environmental safeguards, in a manner which is consistent with the maintenance of competition and other national needs; . . . since exploration, development, and production of the minerals of the outer Continental Shelf will have significant impacts on coastal and non-coastal areas of the coastal States, and on other affected States, and, in recognition of the national interest in the effective management of the marine, coastal, and human environments¹²

To implement its policy, Congress added Section 1337(p)(4) to the Outer Continental Shelf Lands Act, which contains a list of requirements the Secretary must ensure compliance with before approving any proposed Outer Continental Shelf offshore wind lease:

The Secretary shall ensure that any activity under this subsection is carried out in a manner that provides for—

- (A) safety;
- (B) protection of the environment;
- (C) prevention of waste;
- (D) conservation of the natural resources of the outer Continental Shelf;
- (E) coordination with relevant Federal agencies;
- (F) protection of national security interests of the United States;
- (G) protection of correlative rights in the outer Continental Shelf;
- (H) a fair return to the United States for any lease, easement, or right-of-way under this subsection;
- (I) prevention of interference with reasonable uses (as determined by the Secretary) of the exclusive economic zone, the high seas, and the territorial seas;
- (J) consideration of—
 - i. the location of, and any schedule relating to, a lease, easement, or right-of-way for an area of the outer Continental Shelf; and
 - ii. any other use of the sea or seabed, including use for a fishery, a sea lane, a potential site of a deepwater port, or navigation;
- (K) public notice and comment on any proposal submitted for a lease, easement, or right-of-way under this subsection; and

¹² 43 U.S.C. § 1332.

- (L) oversight, inspection, research, monitoring, and enforcement relating to a lease, easement, or right-of-way under this subsection.¹³

The Bureau of Ocean Energy Management (BOEM) has promulgated binding regulations governing “renewable” energy production development on the outer continental shelf.¹⁴ The Bureau’s regulations also ensure compliance with all applicable laws: “[BOEM] will require compliance with all applicable laws, regulations, other requirements, and the terms of your lease or grant under this part and approved plans. [BOEM] will approve, disapprove, or approve with conditions any plans, applications, or other documents submitted . . . for approval under the provisions of this part.”¹⁵

Your August 21, 2023 Record of Decision approving the Construction and Operations Plan for the Revolution Wind Project and November 17, 2023 approval of that plan fail to comply with the requirements of the Outer Continental Shelf Lands Act and implementing regulations in numerous respects:

1.1 BOEM’s Approval Fails to Ensure that the Activities Will Be Carried Out Safely

OCSLA requires BOEM to ensure that the activities it approves on the Outer Continental Shelf will be carried out in a manner that provides for safety. By approving Revolution Wind, a project that endangers the safety of all vessels traveling in the lease area, BOEM violated Section 1337(p)(4)(A) of OCSLA because it failed to ensure the safety of the lease area when approving the Project.

As approved, the Revolution Wind Project will have long-term adverse impacts on navigation and vessel safety, making the lease area more dangerous for boats, ships, and vessels traveling through it.¹⁶ Project construction will increase vessel traffic in the lease area, outside of the lease area, and in nearby ports, obstructing navigation, delaying travel, increasing navigational complexity, changing navigation patterns, detouring offshore travel and port approaches, and increasing risks of collisions between vessels

¹³ 43 U.S.C. § 1337(p)(4).

¹⁴ See 30 C.F.R. §§ 585.100–585.118 (“Renewable Energy and Alternate Uses of Existing Facilities on the Outer Continental Shelf”).

¹⁵ 30 C.F.R. § 585.102.

¹⁶ Bureau of Ocean Energy Management, *Final Environmental Impact Statement* August 21, 2023) at 3.16-7, https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/Revolution_Wind_FEIS_Vol1_0.pdf (Final Environmental Impact Statement).

and collisions with construction equipment and turbines.¹⁷ The increased navigational complexity will force deep draft, tug, ferries, and towing vessels to reroute around the Project during construction, causing longer routes and creating additional safety issues.¹⁸ Smaller vessels that choose to go around the Project will reroute closer to shore, creating an increased risk of grounding.¹⁹ The construction vessels and turbines will increase congestion in the lease area and will create space conflicts and navigation risks in the lease area, making traveling through—or even around it—dangerous.²⁰

Revolution Wind and its 65 turbines will also interfere with navigation systems and search and rescue operations by causing radar reflection and clutter, which further endangers vessels operating in the lease area and nearby. The turbines “reduce the effectiveness of both magnetron-based and Doppler-based MVR radar[,]”²¹ which creates navigational complexity and safety issues because “[m]arine vessels radars are not presently optimized to operate” in areas with turbines.²² Without working navigation systems and radars, vessels will have issues identifying when other vessels are nearby or close to an obstacle, such as a turbine. And at times, with low visibility or bad weather, the radar interference from the Project will endanger vessels further.

The turbine-caused radar interference raises additional safety concerns because it will hinder search and rescue operations. Without reliable radar technology, searching for vessels will become more difficult, and the Coast Guard and other rescue operators will have less success finding missing or damaged vessels and missing individuals. The turbines and their interference with radar will require the Coast Guard to adjust search and rescue patterns, leading to “[a] less-optimized search pattern and a lower probability of success for lost or hurt recreationists.”²³ Furthermore, as the Final Environmental Impact Statement states, the compromised ability to conduct search and rescue operations could result in “otherwise *avoidable loss of life* due to maritime incidents.”²⁴

¹⁷ *Id.* at 3.16-18.

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ *Id.* at 3.18-30.

²¹ National Academies of Sciences, Engineering, and Medicine, *Wind Turbine Generator Impacts on Marine Vessel Radar* at 5 (2022), <https://nap.nationalacademies.org/catalog/26430/wind-turbine-generator-impacts-to-marine-vessel-radar>.

²² *Id.*

²³ *Id.* at Appendix E-2, 3.18-25.

²⁴ *Id.* at 3.17-20 (emphasis added).

The Construction and Operation Plan should be modified to prohibit micro-siting. Micro-siting will disrupt the expected one nautical mile by one nautical mile uniform grid, allowing a turbine to deviate from its expected position on a uniform grid by as much as 500 feet in any direction, compromising radar returns and navigation safety.²⁵ The uniformity of the grid layout is “a key means to mitigate effects on safe navigation and Coast Guard missions is the adoption of a uniform grid pattern across the entire MA/RI wind energy area.”²⁶ BOEM should require modification of the Construction and Operations Plan to require compliance with the 1x1 grid pattern, eliminating the micro-siting option for turbine construction.

Revolution Wind’s construction and installation of cables and cable protection also creates serious hazards to fishermen, leading to increased risks of gear entanglement, collisions, allisions, and injury. Revolution Wind’s transmission cables will only be buried four to six feet deep. At that depth, there is a high likelihood that fishing vessels using lines, nets, and trawling gear will get hooked on the transmission cables. The cable protection used to cover the cables, in the form of rock berms, concrete mattresses, fronded mattresses, and rock bags, also creates safety hazards should fishing gear and equipment snag or hook on the structures.²⁷

As approved, the Revolution Wind Project creates major, long-term safety issues for vessels. The Secretary should revise the Construction and Operations Plan to increase the distance between turbines to ensure there will not be vessel congestion and collisions in the lease area. BOEM should reduce the number of turbines and require the installation of higher-capacity turbines to reduce turbine-caused radar interference. BOEM should require the creation of sea lanes in and around the Project area. BOEM should require cables to be buried a minimum of 8 to 10 feet and require remote monitoring of buried cables to ensure the cables stay buried at all times.

BOEM’s approval of the Revolution Wind Project fails to ensure that the operation of the Project provides for safety. Even though the Project creates complex, long-term navigational risks, heightened risks for collisions, and reduces the reliability and efficacy of radar systems for vessels, BOEM approved the Project anyway. In doing so, BOEM fails to ensure safety, violating Section 1337(p)(4)(A) of OCSLA. BOEM should rescind

²⁵ Revolution Wind, Construction and Operations Plan (March 2023) at Appendix R, https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/App_R_NSRA%20Rev%20F.pdf.

²⁶ United States Coast Guard, Comments on Revolution Wind Draft Environmental Impact Statement (Oct. 14, 2022) at 77, https://downloads.regulations.gov/BOEM-2022-0045-0058/attachment_1.pdf.

²⁷ *Id.* at 3.9-61.

its approval of Revolution Wind’s Construction and Operations Plan and require the additional measures discussed to ensure that the Project will be carried out in a manner that provides for safety.

1.2 BOEM’s Approval Fails to Ensure Protection of the Environment

BOEM is required to ensure that any project it approves is carried out in a manner that protects the environment.²⁸ In approving Revolution Wind, a project marred by significant adverse impacts, BOEM violated Section 1337(p)(4)(B) because it failed to ensure that this Project will be carried out in a manner that protects the environment when approving the Project. In fact, the Project, as approved, does just the opposite—it significantly degrades the marine environment and creates significant adverse impacts.

Every decision BOEM approved—the size of the lease, the Project’s location on the lease, the number of turbines, the size of turbines, the spacing of turbines, cable routes, and mitigation measures—will have a negative impact on the environment, whether that be to marine mammals, fish, benthic resources and habitats, coastal flora and fauna, water quality, and bats and birds. Not only will the damage to the environmental resources be detrimental to the marine environment in the leasing area, but it will also have long-term impacts on industries and communities that utilize the area, which include commercial fishing, recreational fishing, and tourism. Alone, BOEM’s failure to protect each of these categories of environmental resources is enough to constitute a violation of OCSLA. Combined, these failures highlight BOEM’s systematic failure to protect the environment when approving offshore wind projects and its conscious choice to neglect its statutory duty so that it can advance the federal Government’s offshore wind energy goal—a result that OCSLA prohibits. Among the adverse environmental impacts BOEM could have protected against but failed to do so are:

1.2.1 BOEM Fails to Protect Endangered and Other Bats

The turbine size and placement in the lease area and the construction on land for the cables will cause “[d]isplacement and avoidance behavior due to habitat loss and alteration, equipment noise, and vessel traffic.”²⁹ The turbines’ lights, beacons, and color will attract bats and their prey (insects can fly for a distance of 50 km, well into the Project area),³⁰ resulting in increased collisions and deaths from bats flying into the turbine propellers.

²⁸ 43 U.S.C. § 1337(p)(4)(B).

²⁹ *Id.* at I-10.

³⁰ Verdonschot and Besse-Lototskaya, *Flight Distance of Mosquitoes (Culicidae): A Metadata Analysis to Support the Management of Barrier Zones Around Rewetted and*

The area is home to eight species of bat, five of which are year-round residents.³¹ One species, the northern long-eared bat, is protected under the Endangered Species Act.³² The Project's turbines will cause "[i]ndividual mortality due to collisions with operating wind turbine generators."³³ Pile driving, lighting, and noise from construction vessels will adversely affect bats.³⁴ Onshore, cable transmission and installation will cause "injury or mortality of individual bats, particularly juveniles as they are unable to flush from a roost if occupied by bats at the time of the [disturbance]."³⁵ Almost six acres of mixed oak/white pine forest will be removed during onshore construction, resulting in the loss of "suitable roosting and/or foraging habitat for bats."³⁶ And bats will collide with vehicles and construction equipment, causing injury and even mortality.³⁷

BOEM should revise the Construction and Operations Plan to require improved turbine lighting to reduce bats' attraction to the structures. BOEM should require cables to be installed in areas other than where bats roost and live. BOEM should prohibit the removal of acres of forest and select an alternate location for onshore construction. In approving Revolution Wind without ensuring that bats would be protected, BOEM fails to ensure the protection of the environment and violated Section 1337(p)(4)(B) of OCSLA.

1.2.2 BOEM Fails to Protect Migratory and Other Birds

The turbines' size and placement in the lease area and the construction on land for the cables will cause bird species "[d]isplacement and avoidance behavior due to habitat loss and alteration, equipment noise, and vessel traffic."³⁸ In addition, the turbines' lights, beacons, and color will attract birds, resulting in increased collisions and deaths from birds flying into the turbine propellers.

The lease area sits within the Atlantic Flyway, which "is an important migratory pathway for up to 164 species of waterbirds."³⁹ Over 55 species of birds will encounter

Newly Constructed Wetlands (Aug. 13, 2012),
<https://www.sciencedirect.com/science/article/pii/S0075951113001011>

³¹ *Id.* at 3.5-1.

³² *Id.*

³³ *Id.* at I-1.

³⁴ *See id.* at 3.5-19.

³⁵ *Id.*

³⁶ *Id.* at 3.5-24.

³⁷ *Id.* at 3.5-24.

³⁸ *Id.* at I-10.

³⁹ *Id.* at 3.7-20.

turbines in the lease area, causing increases in bird mortality, decreases in fitness, and other adverse health effects through the “the accidental release of fuel, hazmat, and trash and debris from vessels associated with construction and installation.”⁴⁰ The presence of structures and onshore and offshore construction noises will “flush birds in the path of vessels,”⁴¹ creating more opportunities for birds to be injured or killed. Further, “[t]he presence and operation of the offshore facilities may result in displacement of waterbirds, waterfowl, seabirds, and phalaropes that use the area for foraging, resting, or nighttime roosting.”⁴² Onshore noise and land disturbances from construction will alter habitats, causing injury and mortality.⁴³ There is also an increased risk of collisions with construction equipment and other onshore structures, causing injury and mortality.⁴⁴ The Project’s onshore and offshore construction will impact birds’ food sources.⁴⁵

The negative environmental impacts of Revolution Wind on birds within the Atlantic Flyway, lease area, and onshore should have been prevented. BOEM should revise the Construction and Operations Plan and its Conditions for Approval to include measures to protect birds. BOEM should require the turbines to be placed in areas where birds do not hunt or forage for food. BOEM should require the turbines’ lighting to be changed to reduce birds’ attraction to the structures. BOEM should require stricter measures to be implemented to protect against the release of fuel, trash, and debris from construction and installation vessels and equipment. BOEM should also require onshore construction and equipment storage to be in areas that are not crucial habitats for birds or food supplies. In approving Revolution Wind without ensuring birds would be protected, BOEM fails to ensure the protection of the environment and violated Section 1337(p)(4)(B) of OCSLA.

1.2.3 BOEM Fails to Protect Benthic Organisms and Benthic Habitats

Benthic resources and organisms (corals, bivalves, sea urchins, and crabs) are crucial to the health of the marine environment in the lease area. Revolution Wind’s lease area includes Cox Ledge, “an area of complex benthic habitat that supports several commercially and recreationally important species.”⁴⁶ Cox Ledge’s benthic habitat is vital to the egg, juvenile, and adult life stages of Atlantic cod, herring, scallops, monkfish,

⁴⁰ *Id.* at 3.7-25.

⁴¹ *Id.* at 3.7-26.

⁴² *Id.* at 3.7-29.

⁴³ *Id.* at 3.7-13.

⁴⁴ *Id.* at 3.7-28.

⁴⁵ *Id.*

⁴⁶ *Id.* at 3.13-75; *see also id.* at 3.13-61 (“Cox Ledge, is known to support cod spawning aggregations.”).

skates, winter flounder, and red hake.⁴⁷ Revolution Wind is also only one of two federal offshore wind projects slated to be built on areas of Cox Ledge.

Federal agencies have recognized the importance of Cox Ledge’s benthic habitat. The New England Fishery Council designated Cox Ledge as a habitat management area in 2021. More recently, the National Marine Fisheries Service and the National Oceanic Atmospheric Administration have designated Cox Ledge as a Habitat Area of Particular Concern,⁴⁸ which is an area “particularly vulnerable to human impact”⁴⁹ that has an important ecological function, is sensitive to human-induced environmental degradation, will undergo stress from development activities, or is a rare habitat.⁵⁰ BOEM’s approval of the Project—with its significant adverse impacts on benthic organisms and habitats—runs counter to these federal designations, allowing for the significant degradation of benthic habitats that are vital to the marine environment.

Revolution Wind, as approved, will cause “regional-scale adverse impacts to [in]habitants on Cox Ledge [,] population-level impacts. . .⁵¹ and “(1) [i]ncrease[s] in suspended sediments and seafloor disturbance; (2) habitat quality impacts, including a reduction in habitat due to seafloor surface alterations; (3) displacement, disturbance, and avoidance behavior due to habitat loss and alteration, equipment noise, vessel traffic, increased turbidity, sediment deposition, and electromagnetic fields; (4) individual mortality due to construction and installation, operations and maintenance, and decommissioning; and (5) conversion of soft-bottom habitat to new hard-bottom habitat.”⁵² BOEM’s own study found that the full buildout of the Rhode Island and Massachusetts wind farms will decrease current magnitude, wave height, and temperature

⁴⁷ *Id.* at Appendix L, Comments BOEM-2022-0045-0110 (National Wildlife Federation, Natural Resources Defense Council, Conservation Law Foundation, and National Audubon Society Comments).

⁴⁸ *Fisheries of the Northeastern United States Framework Adjustments to Northeast Multispecies, Atlantic Sea Scallop, Monkfish, Northeast Skate Complex, and Atlantic Herring Fisheries; Southern New England Habitat Area of Particular Concern Designation*, 88 Fed. R. 65944 (Sept. 26, 2023).

⁴⁹ *Id.*

⁵⁰ *Id.*

⁵¹ *Id.* at Appendix L-164, Comment BOEM-2022-0045-0100 (National Marine Fisheries Service Comment).

⁵² *Id.* at I-1.

stratification.⁵³ These changes will have detrimental and long-term impacts on primary productivity, fisheries, and marine mammal survival.

Revolution Wind’s construction, operations and maintenance, and decommissioning will “result in the direct disturbance of benthic habitats,”⁵⁴ and those disturbances will occur throughout the 35-year lifespan of the Project, if not longer. Revolution Wind’s construction, operations and maintenance, and decommissioning will disturb “soft-bottom benthic habitat [and] [will] flatten sand ripples, pits, and depressions and kill or displace habitat-forming invertebrates living on and in the seafloor within the impact footprint.”⁵⁵ The Project will cause widespread, permanent disturbances across 1,740 acres “of large-grained complex and complex habitats from vessel anchoring, cable installation, and cable protection, seafloor preparation for foundation installation, and the presence of foundation and scour protection.”⁵⁶

BOEM approved Revolution Wind without even knowing the full extent of the Project’s impacts on benthic organisms. BOEM admits that there is “uncertainty regarding the temporal distribution of benthic resources and periods during which they might be especially vulnerable to disturbance”⁵⁷ and that “the nature, extent, and significance of potential spillover effects on broader ecosystem functions, such as larval dispersal, are not fully understood (van Berkel et al. 2020).”⁵⁸ Before any construction on Cox Ledge, BOEM should require additional surveys and studies to determine the Project’s full impacts on the complex benthic habitat in the lease area.

The presence of these structures will add 107,500 square meters of vertical artificial structures to the lease area, resulting in the colonization of filter feeders that will biofoul the structures.⁵⁹ This biofouling of marine urbanization damages primary productivity and is “associated with negative ecological and economic impacts, including declines in water quality and habitat productivity, spread of invasive species, and proliferation of jellyfish and toxic algal blooms.”⁶⁰

⁵³ Bureau of Ocean Energy Management, *Hydrodynamic Modeling, Particle Tracking and Agent-Based Modeling of Larvae in the U.S. Mid-Atlantic Bight* at 90 (June 2021), https://espis.boem.gov/final%20reports/BOEM_2021-049.pdf.

⁵⁴ *Id.* 3.6-36.

⁵⁵ *Id.* at 3.6-37.

⁵⁶ *Id.* at 3.6-83.

⁵⁷ *Id.* at C-2.

⁵⁸ *Id.* at C-3.

⁵⁹ *Id.* at 3.6-39

⁶⁰ Malerba, M et al., *The Outsized Trophic Footprint of Marine Urbanization* (July 2, 2019), <https://esajournals.onlinelibrary.wiley.com/doi/abs/10.1002/fee.2074>.

To properly protect Cox Ledge, BOEM must revise the Construction and Operations Plan to require that the Project be moved to an alternate location—one that avoids Cox Ledge—either within the lease area or outside of it. BOEM should reduce the number of turbines, which will reduce the disturbance to complex habitats within the lease area and require the use of higher-capacity turbines to meet the Project’s megawatt requirement. BOEM approved the Project, knowing full well that the benthic habitats and the fish, mammals, and organisms that thrive in those habitats would be adversely impacted and disturbed. In doing so, BOEM fails to ensure the protection of the environment and violated Section 1337(p)(4)(B) of OCSLA.

1.2.4 BOEM Fails to Protect Coastal Habitat and Fauna

The Project will cause several adverse impacts on coastal habitats and fauna: (1) Displacement and avoidance behavior from habitat loss and alteration and equipment noise, (2) mortality from collisions with vehicles and equipment, and (3) temporary habitat alteration and increased invasive species risk.⁶¹ The Project will “create habitat loss when forested upland is cleared and replaced with hard structures and crushed gravel yards that are not capable of supporting plants or wildlife.”⁶² Onshore construction will destroy 5.4 acres of mixed oak/white pine forest.⁶³ The onshore structures will have 5.6 acres of construction footprint, creating habitats that are not capable of supporting life.⁶⁴

BOEM should revise the Construction and Operations Plan to require less forest to be cleared and destroyed. BOEM should also require that the onshore structures have less construction footprint, to minimize habitat destruction. In approving the Project and approving the clearing and destruction of acres of forest, BOEM failed to protect the environment and violated Section 1337(p)(4)(B) of OCSLA.

1.2.5 BOEM Fails to Protect Finfish, Invertebrates, and Essential Fish Habitat

Revolution Wind will adversely impact fish, invertebrates, and essential fish habitats, and BOEM’s approval of the Project with these impacts violates Section 1337(p)(4)(B) of OCSLA because it fails to ensure the protection of vital species within

⁶¹ Bureau of Ocean Energy Management, *Final Environmental Impact Statement* August 21, 2023) at 3.16-7, https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/Revolution_Wind_FEIS_Vol1_0.pdf (Final Environmental Impact Statement), at I-1.

⁶² *Id.* at 3.8-8.

⁶³ *Id.*

⁶⁴ *Id.* at 3.8-11.

the marine environment. Construction of Revolution Wind and its 35-year lifespan will cause “regional-scale adverse impacts to [in]habitants on Cox Ledge and population-level impacts to Atlantic cod in Southern New England,” and the Project will “not protect Atlantic cod spawning” and other species of fish within the lease area.⁶⁵

The lease area, which sits on top of Cox Ledge, is home to one of the last spawning locations for the Atlantic Cod and a vital complex benthic habitat that supports fish and marine mammals. This spawning cod stock is reproductively isolated, vital to cod stocks throughout New England, and is “a species of biological, ecological, economic, and cultural significance to this region.”⁶⁶ Cox Ledge’s habitat is also important to the egg, juvenile, and adult life stages of several species, like herring, scallops, monkfish, skates, winter flounder, and red hake.⁶⁷ Recognizing the area’s importance, the New England Fishery Management Council designated the area as a habitat area of particular concern and the National Marine Fisheries Service has proposed to also designate the area as a habitat area of particular concern.

Revolution Wind will cause “(1) [i]ncrease[s] in suspended sediments and resulting effects due to seafloor disturbance; (2) [h]abitat quality impacts, including a reduction in habitat as a result of seafloor surface alterations; (3) [d]isplacement, disturbance, and avoidance behavior due to habitat loss and alteration, equipment noise, vessel traffic, increased turbidity, sediment deposition, and EMFs; (4) [i]ndividual mortality due to construction and installation, O&M, and decommissioning; and (5) [c]onversion of soft-bottom habitat to new hard-bottom habitat (for some species).”⁶⁸

The Project’s construction and operations will have significant population-level effects on fish through “displacement, crushing, and burial during seafloor preparation of cable corridors, cable installation, placement of cable protection, and vessel anchoring.”⁶⁹ These construction activities will “entrain and kill pelagic fish eggs and larvae that are near the equipment” and “[b]oth the jet and mechanical plow could entrain benthic eggs and larvae present within the seafloor disturbance footprint.”⁷⁰ During construction, more

⁶⁵ *Id.* at Appendix L-164, Comment BOEM-2022-0045-0100 (National Marine Fisheries Service Comment).

⁶⁶ *Id.* at Appendix L-164, Comment BOEM-2022-0045-0100 (National Marine Fisheries Service Comment).

⁶⁷ *Id.* at Appendix L, Comments BOEM-2022-0045-0110 (National Wildlife Federation, Natural Resources Defense Council, Conservation Law Foundation, and National Audubon Society Comments).

⁶⁸ *Id.* at I-2.

⁶⁹ *Id.* at 3.13-50.

⁷⁰ *Id.* at 3.13-54.

than one billion fish eggs will experience entrainment impacts due to the Project's construction,⁷¹ causing long-term habitat alterations.⁷² The long-term impacts on benthic organisms in the lease area from construction activities will impact the fish that rely on the benthic habitats in the area.⁷³

Construction-related noise, particle motion, and vibrations from explosions and pile-driving will have detrimental impacts on fish and prey resources in the lease area.⁷⁴ Pile driving, which is the most intense source of noise from the Project, "will produce the most significant and extensive noise effects on fish."⁷⁵ Pile driving and UXO detonations will "produce injury-level effects on eggs and larvae,"⁷⁶ and these detonations will cause "[d]irect mortality, disturbance of spawning cod aggregations, and extensive damage to complex habitats."⁷⁷ Cable burial and seabed construction will destroy cobble and boulder habitats and impact Atlantic cod spawning.⁷⁸ Noise from construction vessels and the increased vessel traffic will result in fish having negative behavioral responses.⁷⁹

Because this Project will cause permanent damage to Cox Ledge and the organisms, fish, and marine mammals that call it home, BOEM should revise the Construction and Operations Plan and relocate the Project away from the entire area of Cox Ledge. BOEM should restrict pile driving and detonations during spawning periods and place turbines away from areas where fish spawn. BOEM should modify underwater construction to reduce the number of eggs that will be entrained, crushed, and killed. BOEM should require expansive acoustic monitoring, especially during spawning season, to ensure that large groupings of fish are not near construction sites and vessels.

The high voltage alternating current (HVAC) cables that will be used will increase surrounding temperatures by as much as 36 degrees two feet from the cable.⁸⁰ The

⁷¹ *Id.*

⁷² *Id.* at 3.17-78.

⁷³ *Id.* at 3.13-52.

⁷⁴ *Id.* at 3.13-55.

⁷⁵ *Id.* at 3.13-57.

⁷⁶ *Id.* at 3.13-60.

⁷⁷ *Id.* at 3.13-60-61.

⁷⁸ *Id.* at Appendix L-164, Comment BOEM-2022-0045-0100 (National Marine Fisheries Service Comment).

⁷⁹ *Id.* at 3.13-65.

⁸⁰ Bureau of Ocean Energy Management, *Draft Environmental Impact Statement for Revolution Wind* at 3.6-45.

increase in temperature near these cables will have population-level effects on lobsters.⁸¹ BOEM must require the developer to first determine and then bury cables to an adequate depth so that heat and EMFs will not extend to the seabed and affect the benthic habitat.⁸²

BOEM's approval of Revolution Wind—with its significant, population-level, adverse impacts on fish—violates OCSLA because it fails to protect finfish, invertebrates, and essential fish habitats. BOEM must revise the Construction and Operations Plan and its Conditions of Approval to protect fish, invertebrates, and essential fish habitats.

1.2.6 BOEM Fails to Ensure the Environment Will Be Protected from Toxic Chemicals and Waste

Each Revolution Wind turbine requires up to 3,204 gallons of coolants, fuels, oils, and lubricants.⁸³ All 65 of Revolution Wind's turbines will contain a total of 208,260 gallons of coolants, fuels, oils, and lubricants.⁸⁴ Each substation will store an additional 132,400 gallons of fuels, oils, and lubricants.⁸⁵ When looking at the entire federal wind program, “approximately 34 million gallons of coolants, fuels, oils, and lubricants” will be stored in structures on the Outer Continental Shelf.⁸⁶ Should there be any type of release or spill, the result will be devastating, causing mortality and sublethal effects to marine habitats, benthic organisms, fish, marine mammals, birds, and bats.

BOEM should revise the Construction and Operations Plan and its Conditions of Approval to include protocols and mitigation measures for spills and releases and make these protocols available to the public. Without such requirements, BOEM's approval of the Project fails to ensure the protection of the marine environment and violates Section 1337(p)(4)(B) of OCSLA.

⁸¹ Harsanyi et al., *The Effects of Anthropogenic Electromagnetic Fields (EMF) on the Early Development of Two Commercially Important Crustaceans, European Lobster, Homarus Gammarus (L.) and Edible Crab, Cancer Pagurus (L.)*, 10(5) J. Mar. Sci. Eng. 2022, <https://www.mdpi.com/2077-1312/10/5/564>.

⁸² New England Fishery Management Council, *Southern New England Habitat Area of Particular Concern Framework* (Aug. 22, 2022) at 66-71, <https://d23h0vhs26o6d.cloudfront.net/220822-SNE-HAPC-Framework.pdf>.

⁸³ Final Environmental Impact Statement *supra* note 16 at 3.21-15.

⁸⁴ *Id.*

⁸⁵ *Id.*

⁸⁶ *Id.* at 3.6-59.

1.2.7 BOEM Fails to Ensure Protection of Land Use and Coastal Infrastructure

Construction and nighttime lighting of the Project will adversely impact “land and coastal infrastructure by increasing artificial lighting that [will] be seen by residences and businesses nearby.”⁸⁷ During construction, pile driving noise will be audible from coastal towns and will impact residents and businesses.⁸⁸ This pile driving will also occur, at times, up to 24 hours a day, making it impossible for nearby residents to escape the noise.⁸⁹ There will also be “[l]and use disturbance due to construction as well as effects due to noise, vibration, and travel delays.”⁹⁰

BOEM should reduce the number of turbines and require the installation of fewer, higher-capacity turbines to reduce the impact of the turbines’ artificial lighting. BOEM should limit pile driving to 6-to-8-hour intervals and prevent any pile driving at night or during peak times, such as when recreational, for-hire, and commercial vessels utilize the area. BOEM should also require limiting any onshore construction noise to protect nearby residents and tourists from constant noise.

1.2.8 BOEM Fails to Ensure Protection of whales and other Marine Mammals

Revolution Wind will cause significant adverse impacts to marine mammals that will be unavoidable,⁹¹ and BOEM approved the Project, knowing as such, without requiring enough measures to protect the many marine mammals that live within the lease area and travel through it.

More than a dozen species of marine mammals live in or pass through the lease area each year, including the humpback whale and several endangered marine mammals like the blue, fin, sei, sperm, and North Atlantic right whales. The National Marine Fisheries Service authorized the take of 13,929 marine mammals in any one year and 19,301 over five years.⁹² The North Atlantic right whale is incredibly close to extinction, easily susceptible to stress and chronic injuries from construction, vessel strikes, or

⁸⁷ *Id.* at 3.14-7.

⁸⁸ *Id.* at 3.14-12.

⁸⁹ *See id.* at 2-42.

⁹⁰ *Id.* at I-2.

⁹¹ *See id.* at 3.15-9 (“The overall effect determination for each alternative is moderate adverse for marine mammals.”).

⁹² 88 Fed. Reg. 72,628 (Oct. 20, 2023).

entanglements, and has an incredibly low reproductive rate.⁹³ As a species, the North Atlantic right whale’s resilience to perturbations and disturbances is low,⁹⁴ and the maximum number of animals that can be removed annually while allowing the stock to reach a sustainable population level “is less than 1.”⁹⁵

During the first five years of this Project, dozens of protected whales will experience behavioral effects from construction. BOEM estimates that 63 North Atlantic Right Whales, or 18.3% of the entire North Atlantic Right Whale population, will experience behavioral effects from construction-related activities for the Project’s first five years.⁹⁶ Because the North Atlantic Right Whale is “more sensitive to behavioral exposure,” exposure to increased vessel traffic, pile driving, and other construction and operations noises will result in significantly higher adverse impacts.⁹⁷ The conservation status of North Atlantic right whales means that any vessel strike poses an unacceptable risk to the population. BOEM also expects 447 humpback whales, or 32% of the population, to experience behavioral effects from Revolution Wind’s construction-related activities.⁹⁸

Revolution Wind will cause “[d]isplacement, disturbance, and avoidance behavior due to habitat loss and alteration, equipment noise, vessel traffic, increased turbidity, and sediment deposition during construction, and installation and [operations and maintenance],”⁹⁹ and “[t]emporary loss of current ambient acoustic habitat and increased potential for vessel strikes.”¹⁰⁰

Construction-related noise and the increase in vessel traffic will place vulnerable marine mammals at greater risk for behavioral disturbances, injury, and even death. Revolution Wind’s construction will increase vessel traffic by 704 trips per year, increasing the risk of marine mammal collisions and vessel strikes.¹⁰¹ Up to three monopile foundations will be installed within a 24-hour period using pile driving and

⁹³ National Marine Fisheries Service, *Biological Opinion* at 54 (July 21, 2023).

⁹⁴ See BOEM and NOAA’s Draft Strategy on the North Atlantic Right Whale and Offshore Wind,

https://www.boem.gov/sites/default/files/documents/environment/BOEM_NMFS_DRAFT_NARW_OSW_Strategy.pdf.

⁹⁵ *Id.* at 5.

⁹⁶ *Id.* at 3.15-37.

⁹⁷ *Id.* at 3.15-40.

⁹⁸ *Id.* at 3.15-37.

⁹⁹ *Id.*

¹⁰⁰ *Id.*

¹⁰¹ *Id.* at 3.15-43.

detonations.¹⁰² This means that Project construction will occur at night during low visibility, increasing the likelihood that whales near construction areas will not be seen and increasing the likelihood of vessel strikes. The turbines and construction equipment will create more opportunities for marine mammals to become entangled. For North Atlantic right whales, the increased likelihood of entanglements poses “a significant risk as injury or mortality that removes even one juvenile or reproductive age individual from the population would constitute a greater than moderate effect.”¹⁰³

Construction-related noise from Revolution Wind’s construction, like pile driving, UXO detonation, construction vessels, helicopters, and fixed-wing aircraft, poses additional significant dangers for marine mammals.¹⁰⁴ Monopile installation and UXO detonation—both of which will occur during construction—“are the most likely sources of permanent hearing injury” for marine mammals.¹⁰⁵ While BOEM purports to require mitigation measures to combat the impacts of the Project and its construction, those measures fall far short of actually protecting marine mammals from construction-related noise.

BOEM’s primary mitigation measure, Passive Acoustic Monitoring, will not be effective in identifying nearby whales. As currently approved, Revolution Wind will deploy Passive Acoustic Monitoring in the construction area one hour before commencing pile-driving activities to determine whether marine mammals are in the area. However, a recent study found that detections of marine mammals, in particular the North Atlantic right whale, decrease as monitoring time decreases.¹⁰⁶ In particular, the study found that monitoring only one hour before pile driving provides “only a 4% likelihood of hearing” a North Atlantic right whale.¹⁰⁷ This same study found that when passive monitoring is used for extended periods of time before pile driving, there is a higher likelihood of hearing a North Atlantic right whale: 100% when monitoring for 24 hours prior and 74% when monitoring for 18 hours prior.¹⁰⁸ One hour of Passive Acoustic Monitoring is not enough to spot a North Atlantic right whale or other marine mammal, and without longer monitoring periods, BOEM is putting these animals at risk for injury

¹⁰² *Id.* at 2-42.

¹⁰³ *Id.* at 3.15-58.

¹⁰⁴ *Id.* at 3.15-26.

¹⁰⁵ *Id.* at 3.15-33.

¹⁰⁶ Davis et al., *Upcalling Behavior and Patterns in North Atlantic Right Whales, Implications for Monitoring Protocols During Wind Energy Development*, ICES Journal of Marine Science (Nov. 3, 2023), <https://academic.oup.com/icesjms/advance-article/doi/10.1093/icesjms/fsad174/7341838?login=false>.

¹⁰⁷ *Id.* at 12.

¹⁰⁸ *Id.*

and even death. BOEM must reconsider its approval and require longer periods of acoustic monitoring before Project construction starts.

Another mitigation measure—the use of bubble curtains—will also fail at protecting marine mammals because they do not work. A bubble curtain is a grouping of artificially made bubbles created around a source of underwater noise, such as a pile driver. But these bubble curtains only work on high-frequency noises and do not reduce low-frequency sounds below 200 Hz.¹⁰⁹ While reducing noises some whales find harmful, bubble curtains do not reduce noises that baleen whales, such as the North Atlantic right whale, find harmful. BOEM’s reliance on this one-size-fits-all mitigation measure is faulty, leaving some incredibly vulnerable species unprotected. BOEM should require additional mitigation measures to reduce low-frequency sounds to minimize impacts to marine mammals.

BOEM should revise its Construction and Operations Plan and require a redesign of the Project to ensure that fewer marine mammals will be taken/harassed by the Project. BOEM should limit pile driving to intervals of 8 hours or less and prohibit pile driving at night or during times of low visibility. BOEM should provide for more distance between turbines to limit opportunities for whales to become entangled in construction and fishing vessels. BOEM should require Passive Acoustic Monitoring for at least 18 hours before pile driving. BOEM should require bubble curtains to reduce high-frequency sounds and require additional mitigation measures to protect against low-frequency sounds that bubble curtains cannot reduce. As the Chief of Protected Species at NOAA advised BOEM, “[h]owever, unlike vessel traffic and noise, which can be mitigated to some extent, oceanographic impacts from installed and operating turbines cannot be mitigated for the 30-year lifespan of the project, unless they are decommissioned.”¹¹⁰

BOEM’s approval of the Revolution Wind Project highlights its systematic failure to protect marine mammals. Even though the Project lacks proper mitigation measures to protect highly endangered species, BOEM approved the Project anyway, taking a one-size-fits-all approach to protect marine mammals. In doing so, BOEM is essentially

¹⁰⁹ BOEM, *Renewable Energy Program Update: Briefing for the Mid-Atlantic Fisheries Management Council* at 21 (February 11, 2021), https://static1.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/602d7bbd49ee2d06d9db12c4/1613593539206/05a_BOEM+Renewables+Program+Update+2021-02.pdf.

¹¹⁰ Sean Hayes, *Letter from Sean A. Hayes, PhD, Chief of Protected Species, NOAA NEFSC to Brian R. Hooker, Lead Biologist of Bureau of Ocean Energy management, Office of Renewable Energy Programs* (May 13, 2022), https://www.noaa.gov/sites/default/files/2022-11/North_Atlantic_Right_Whale_NARW_112022_0.pdf.

guaranteeing that marine mammals, including the humpback whale and the endangered North Atlantic right whale, will be disturbed, injured, and even killed by this Project. In doing so, it fails to protect marine mammals and violates OCSLA.

1.3 BOEM Fails to Prevent Waste and Fails to Conserve the Natural Resources of the Outer Continental Shelf

The Secretary of the Interior and the Director of BOEM have violated OCSLA by failing to prevent waste¹¹¹ or to take measures to conserve the natural resources of the Outer Continental Shelf.¹¹² The Final Environmental Impact Statement recognizes that construction activities—the installation of large turbines, pile driving, and increased vessels in the area—operation and maintenance, and decommissioning will have harmful adverse impacts on marine mammals, including the North Atlantic Right Whale, finfish and invertebrates, benthic resources, fishery habitats, and birds and bats. Yet, the Construction and Operations Plan as approved, and the mitigation measures in the Record of Decision, do little or nothing to mitigate the impacts to these natural resources.

BOEM fails to prevent waste and fails to conserve the natural resources of the Outer Continental Shelf because it fails to include protocols and protections for when spills or accidental releases occur. There will be a maximum of 471,006 gallons of coolants, oils, lubricants, and fuels in Revolution Wind’s lease area. Yet, neither the Final Environmental Impact Statement, the Record of Decision, nor the Construction and Operations Plan actually contemplate the likelihood of these chemicals being released into the water and affecting the organisms and the habitats within it. Instead, BOEM opts to minimize the risk, asserting that spills are not anticipated, and redact all clean-up plans from public view and comment. BOEM should revise its approval to include the clean-up plans for any spills or accidental releases and make those plans available to the public.

BOEM must also require that all Project components and debris be removed from the Outer Continental Shelf and onshore after the Project’s 35-year lifespan. Without any clear requirements and conditions, there is no guarantee that the lease area will ever be restored to its natural state. To ensure the conservation of the lease area, BOEM must require the removal of all Project components, including a bond from the developer sufficient to cover all costs of future removal and restoration—a bond far larger than BOEM has now approved for the Revolution Wind Project.

¹¹¹ 43 U.S.C. 1337(p)(4)(C).

¹¹² 43 U.S.C. § 1337(p)(4)(D).

1.4 BOEM Fails to Ensure a Fair Return to the United States for the Lease

Section 1337(p)(2)(a) of the Outer Continental Shelf Lands Act requires that in granting a lease, easement, or right-of-way for offshore wind energy production “[t]he Secretary shall establish royalties, fees, rentals, bonuses, or other payments to ensure a fair return to the United States for any lease, easement, or right-of-way granted under this subsection.”¹¹³ Section 1337(p)(4)(H) similarly requires that “the Secretary shall ensure . . . a fair return to the United States for any lease, easement, or right-of-way under this subsection[.]”¹¹⁴

The Secretary of the Interior has violated these provisions by granting Revolution Wind an 83,798-acre annual lease at an annual rental rate of \$3.00 per acre or \$251,394.¹¹⁵ BOEM is only requiring an annual payment of \$3.00 per acre until the Project becomes commercially viable, and then the rent diminishes dramatically once it begins producing electricity. Over the lifespan of this Project, the United States will receive less than \$7 million for the lease of the Project area, in stark contrast to the hundreds of millions, if not billions, this Project will generate in revenue.¹¹⁶

Additionally, BOEM has not required Revolution Wind to pay royalties from offshore wind energy production. In sharp contrast, in oil and gas leases, also subject to the Outer Continental Shelf Lands Act, the United States requires royalties to be paid to it from the production of wells.¹¹⁷

BOEM should revise the terms of Revolution Wind’s lease to require larger lease payments and the payment of royalties from the production of wind energy. Both these

¹¹³ 43 U.S.C. § 1337(p)(2)(A).

¹¹⁴ 43 U.S.C. § 1337(p)(4)(H).

¹¹⁵ Department of the Interior and Deepwater Wind New England, LLC, *Commercial Lease of Submerged Lands for Renewable Energy on the Outer Continental Shelf* (Oct. 1, 2013) at B-2, <https://www.boem.gov/sites/default/files/documents/oil-gas-energy/Lease-Issued.pdf>.

¹¹⁶ *Revolution Wind Project*, NS ENERGY, <https://www.nsenergybusiness.com/projects/revolution-wind-project/> (last visited Nov. 20, 2023).

¹¹⁷ See U.S. Dep’t of Interior, *Natural Resources Revenue Data* (last visited Oct. 5, 2021), available at <https://revenuedata.doi.gov/how-revenue-works/offshore-oil-gas/>; see, e.g., Thomson Reuters, *U.S. lawmakers ask Interior to cut offshore oil royalty rates due to market slump* (Mar. 20, 2020), available at <https://www.reuters.com/article/us-global-oil-usa-royalties/u-s-lawmakers-ask-interior-to-cut-offshore-oil-royalty-rates-due-to-market-slump-idUSKBN2173GO> (“There is a 12.5% royalty rate for leases in-water depths of less than 200 meters and a royalty rate of 18.75% for all other leases.”).

requirements would ensure that the United States receives a fair return for its lease of 83,798 acres of pristine ocean.

BOEM should also require financial assurances for the decommissioning of the turbines, just as it does for offshore oil and gas wells. BOEM's new "modernization rule" allows the agency to not require financial assurances from renewable energy companies for the decommissioning of a project, which, in the case of bankruptcy or other financial issue, means American taxpayers would be on the hook for the costs of decommissioning.¹¹⁸ BOEM looks at a developer's credit ratings (and provides Oil and Gas companies as an analogy) as justification for this.¹¹⁹ In writing off the financial assurance requirement for offshore wind developers, BOEM disregarded critical differences in how offshore wind developers and oil and gas developers structure their companies and prepare for potential risks. Oil and gas developers retain ownership and responsibility for their offshore rigs; offshore wind developers offload ownership and responsibility by creating Limited Liability Companies. Thus, the credit rating of the developer has no relevance to the liability the US is assuming by allowing for the construction of offshore wind projects without financial assurances. One paper from Europe estimates that the cost of decommissioning could be 70% of the construction costs.¹²⁰ BOEM should require bonds from the developer that equals 70% of the construction cost. Without such an assurance, BOEM will fail in its duty to protect this vital resource.

1.5 BOEM Fails to Prevent Interference with Reasonable Uses of the Outer Continental Shelf

Revolution Wind will interfere with almost all other reasonable uses of the Outer Continental Shelf. BOEM's approval of a Project that guts fishing in the area, degrades a vital habitat for fish, adversely impacts recreation and tourism, interferes with navigation and radar systems, interferes with national security and military uses, and destroys pristine visual and scenic resources is proof that BOEM violated Section 1337(p)(4)(I) of OCSLA.¹²¹

¹¹⁸ 88 Fed. Reg. 5968 (Jan. 30, 2023).

¹¹⁹ *Id.*

¹²⁰ Jadali et al., *A Multi-Attribute Review Toward Effective Planning of End-of-Life Strategies for Offshore Wind Farms*, Energy Sources, Part B: Economics, Planning, and Policy, 16:6 (June 28, 2021), <https://www.tandfonline.com/doi/full/10.1080/15567249.2021.1941434?scroll=top&needAccess=true>.

¹²¹ 43 U.S.C. § 1337(p)(4)(I).

1.5.1 Revolution Wind Interferes with Fishing of All Kinds

Rhode Island and Massachusetts have deeply rooted histories with commercial and recreational fishing, spanning hundreds of years.¹²² Commercial fishing is a massive industry in Rhode Island, and in 2021 and 2022, commercial fishing generated \$103.3 million and \$100.6 million, respectively.¹²³ With 22 active fishing ports, Rhode Island is home to some of the highest-producing and highest-value ports on the East Coast,¹²⁴ and a significant portion of the landings and harvesting come into Rhode Island from federal waters.¹²⁵ Commercial fisheries harvest dozens of species each year, including longfin squid, shortfin squid, Atlantic sea scallop, American lobster, quahog, scup, summer flounder, black sea bass, whelk, silver hake, Atlantic herring, little skate, winter skate, and Atlantic mackerel.¹²⁶ Commercial fishing vessels in Rhode Island are diverse and include trawl, rod/reel, pot, gill net, fix net, dredge, and other gear types. These commercial vessels take around 30,000 trips into Rhode Island and federal waters from Rhode Island ports.¹²⁷

Recreational and for-hire fishing are also incredibly popular in Rhode Island, with the state issuing over 35,000 licenses in 2022.¹²⁸ In 2022 alone, 2,732,516 recreational fishing trips were taken into Rhode Island and federal waters from Rhode Island ports. These trips consisted of trips from the shore, party boats, charter boats, and private/rental boats. Recreational fishermen caught millions of fish in 2022, and the top species of interest were scup, black sea bass, tautog, striped bass, fluke, bluefish, cod, and winter flounder.

Massachusetts is home to some of the nation's most productive commercial fishing ports, including New Bedford, Gloucester, Provincetown-Chatham, Barnstable,

¹²² Rhode Island Department of Environmental Management Division of Marine Fisheries, *Rhode Island Annual Fisheries Report 2022* (June 30, 2023), at 5, https://dem.ecms.ri.gov/sites/g/files/xkgbur861/files/2023-07/AnnualRpt_2022.pdf; see also Nesi, *New Bedford is America's Most Lucrative Fishing Port for the 20th Straight Year*, WPRI.Com (May 20, 2021), <https://www.wpri.com/news/local-news/se-mass/new-bedford-is-americas-most-lucrative-fishing-port-for-20th-straight-year/>.

¹²³ See *id.* at 3; see also Rhode Island Department of Environmental Management Division of Marine Fisheries, *Rhode Island Annual Fisheries Report 2021* (May 2022) at 2, https://dem.ri.gov/sites/g/files/xkgbur861/files/2022-08/AnnualRpt_2021.pdf.

¹²⁴ *Id.* (citing NOAA 2022 Report).

¹²⁵ *Id.*

¹²⁶ *Id.*

¹²⁷ *Id.* at 30.

¹²⁸ *Id.* at 45.

and Boston.¹²⁹ In 2018, those five ports had a combined ex-vessel value of \$536,614,748.¹³⁰ Commercial fisheries in Massachusetts harvest dozens of species each year, including sea scallop, the American lobster, eastern oyster, Atlantic surf clam, Jonah crab, haddock, ocean quahog, monkfish, soft shell clam, winter flounder, Atlantic sea herring, bluefin tuna, Acadian redfish, northern quahog, channeled whelk, silver hake, Atlantic cod, American plaice, pollock, and striped bass.¹³¹

Revolution Wind will cause several unavoidable impacts on commercial fishing, fore-hire fishing, and recreational fishing, including “(1) disruption to access or temporary restriction in port access or harvesting activities due to construction of offshore Project elements, (2) disruption to harvesting activities during operations of offshore wind facility, (3) changes in vessel transit and fishing patterns, (4) changes in risk of gear entanglement or target species.”¹³² The turbines, construction vessels, and offshore substations will cause space conflicts, navigational hazards, increased risks of collisions and allisions, and gear loss and damage for fishing vessels of all types.¹³³

Construction-related activities will create navigation hazards for fishing vessels in the lease area and supply issues. Anchoring, which involves anchoring vessels to the Project and attaching structures to the sea bottom, will pose a navigation hazard to commercial fisheries and for-hire recreational fishing vessels in the lease area.¹³⁴ Installing offshore cables and turbines will restrict transit and harvesting activities in the lease area.¹³⁵ Noise, vibrations, and high-frequency emissions generated during construction, maintenance, operation, and decommissioning will result in fewer fish being caught and a decrease in revenues.¹³⁶ If fewer fish are in the lease area, vessels will start to fish in other areas, which will strain areas not normally fished and create higher competition for certain industries. Lobster fishing, for example, will experience higher levels of competition because there are regulations that constrain where they can fish.¹³⁷

¹²⁹ Massachusetts Division of Marine Fisheries, *Port by Port: Profiles and Analysis of the Massachusetts Commercial Fishery* (April 2021) at 5, <https://www.mass.gov/doc/port-by-port-profiles-and-analysis-of-the-massachusetts-commercial-fishery/download>.

¹³⁰ *Id.*

¹³¹ *Id.* at 4.

¹³² Final Environmental Impact Statement *supra* note 16 at Appendix I-1.

¹³³ *Id.* at 3.9-88.

¹³⁴ *Id.* at 3.9-57.

¹³⁵ *Id.* at 3.9-66.

¹³⁶ *Id.*

¹³⁷ *Id.* at 3.9-67.

The Revolution Wind Project will also cause permanent or temporary habitat alterations to fish habitats like Cox Ledge in the lease area. The Project sits atop Cox Ledge, “an area of complex benthic habitat that supports several commercially and recreationally important species.”¹³⁸ The New England Fishery Management Council has designated Cox Ledge as a habitat management area to help protect the high-value cod habitat in the area. The National Marine Fisheries Service and the National Oceanic Atmospheric Administration recently recognized the importance of Cox Ledge for cod spawning habitats and complex habitats in its proposed rule to designate Cox Ledge as a Habitat Area of Particular Concern.¹³⁹ When an area receives this status, special attention is paid to the potential “adverse effects on habitats within areas of particular concern from various activities (e.g., fishing, offshore wind energy.)”¹⁴⁰ Revolution Wind will create long-term, permanent, regional-scale effects on the complex benthic organisms and habitats within Cox Ledge.¹⁴¹ The Project will entrain and kill over 1 billion fish eggs in the lease area and destroy critical spawning habitats and complex benthic organism habitats.¹⁴²

BOEM must ensure the protection of all types of fishing. BOEM should revise the Construction and Operations Plan and require that the Project be moved to an alternate location—one that avoids Cox Ledge, in its entirety, and traditional fishing grounds—either within the lease area or outside of it. BOEM should reduce the number of turbines, which will reduce the disturbance to complex habitats within the lease area and require the use of higher-capacity turbines to meet the Project’s megawatt requirement. In doing so, BOEM will be protecting against navigational issues and increased risks of collisions and allisions for fishing vessels. BOEM should require the addition of sea lanes to the Project to allow vessels to pass through the lease area easily. BOEM should also require more space between turbines. In approving the Project without ensuring that the lease area could still be used for fishing, BOEM violated OCSLA.

¹³⁸ *Id.* at 3.13-75; *see also id.* at 3.13-61 (“Cox Ledge, is known to support cod spawning aggregations.”).

¹³⁹ *Fisheries of the Northeastern United States Framework Adjustments to Northeast Multispecies, Atlantic Sea Scallop, Monkfish, Northeast Skate Complex, and Atlantic Herring Fisheries; Southern New England Habitat Area of Particular Concern Designation*, 88 Fed. R. 65944 (Sept. 26, 2023).

¹⁴⁰ *Id.*

¹⁴¹ Final Environmental Impact Statement *supra* note 16 at Appendix L-68, Comment 0100.

¹⁴² *Id.* at 3.13-55.

1.5.2 Revolution Wind Interferes with Recreation and Tourism

The Project substantially interferes with recreation and tourism and will cause (1) “[d]isruption of coastal recreation activities during onshore construction, such as beach access, (2) viewshed effects from the [turbines] altering enjoyment of marine and coastal recreation and tourism activities, (3) [d]isruption to access or temporary restriction of in-water recreational activities from the construction of offshore Project elements, and (4) [h]indrances to some types of recreational fishing from the [turbines] during operation.”¹⁴³ Light from offshore activities will also affect cultural resources “including views of the night sky and ocean that are important to Native American tribes.”¹⁴⁴

Recreational and tourism vessels traveling through the lease area to sail, whale watch, and fish will experience navigational issues, safety hazards, and vessel congestion due to the construction and placement of the turbines. The 65 turbines and the presence of up to 59 construction vessels each day will “increase navigation complexity for recreational vessels, requiring individual boats to navigate around Project vessels and work areas.”¹⁴⁵ During cable installation, vessels will be restricted from the lease area, and recreation vessels will be required to navigate around the cables and around construction vessels. Once the Project is operational, large sailboats and other vessels will need to navigate around the turbines, as the blades will provide only 94 feet of clearance from the surface of the water.¹⁴⁶ The presence of the turbines will also require the Coast Guard to adjust search and rescue patterns, which will create “[a] less-optimized search pattern and a lower probability of success for lost or hurt recreationists.”¹⁴⁷

Construction-related noise will also negatively impact recreationists who visit the area to fish or watch wildlife because the noise will displace various species.¹⁴⁸ The spacing of the turbines will impact recreational anglers who fish for tunas, sharks, and billfish, and fishermen will most likely have to avoid the lease area.¹⁴⁹ Recreational anglers and subsistence fishermen who continue to fish in the lease area will need to change their methods because they will be prohibited from drifting near turbines.¹⁵⁰

¹⁴³ *Id.* at I-2.

¹⁴⁴ *Id.* at 3.12-33.

¹⁴⁵ *Id.* at Appendix E-2, 3.18-20.

¹⁴⁶ *Id.* at Appendix E-2, 3.18-3.24.

¹⁴⁷ *Id.* at Appendix E-2, 3.18-25.

¹⁴⁸ *Id.* at Appendix E-2, 3.18-21.

¹⁴⁹ *Id.*

¹⁵⁰ *Id.*

Revolution Wind will have major impacts on visual resources that recreationists and tourists rely on. Lights from each turbine will cause visual clutter on the horizon.¹⁵¹ And on clear, visible days, the turbines will “add a developed/industrial visual element to ocean views that were previously characterized by open ocean. . . .”¹⁵² The visual impacts will influence tourists’ decision to visit Rhode Island communities, which could devastate the tourism industry. Rhode Island’s beaches host 21 million tourists every year and tourism provides 11% of Rhode Island’s jobs and supplies the state with 1.3 billion dollars of tax revenue.¹⁵³

During the environmental review process, Revolution Wind and BOEM misrepresented the Project’s visual impact by releasing two versions of the visual simulations, leaving the public with confusion regarding the visual impacts of the Project. BOEM should have ensured that the public had access to the correct visual simulations. Additionally, BOEM has allowed Revolution Wind to restrict public access to Appendix CC, which is an assessment of the economic development benefits of the Project, leaving communities and individuals in the dark about how this Project will impact their local economics. Given the importance of tourism and the fishing industry to Rhode Island, BOEM should allow the public access to these files and require additional mitigation measures to protect recreation and tourism.

The Secretary should reduce the number of turbines to reduce the Project’s visual impact. BOEM should require more space between turbines to ensure there would not be vessel congestion and space conflicts or implement sea lanes to alleviate any congestion and navigation issues. BOEM should prohibit construction during tourist season when many vessels utilize the lease area to fish and watch marine life. BOEM should require offshore cables to be located in areas where recreational and tourist vessels do not travel. BOEM should minimize the visual clutter and light pollution that the turbines project.

1.5.3 Revolution Wind Interferes with National Security and Military Uses on the Outer Continental Shelf

The Project interferes with national security and military uses of the Outer Continental Shelf. Project construction will result in increased vessel traffic, which will

¹⁵¹ *Id.* at Appendix E-2, 3.18-21.

¹⁵² *Id.*

¹⁵³ Tourism Economics, *Economic Impact of Visitors in Rhode Island 2020 Prepared for Rhode Island Commerce Corporation*, https://assets.simpleviewinc.com/simpleview/image/upload/v1/clients/rhodeisland/Rhode_Island_Tourism_Economic_Impact_2020_CLIENT_fd8551a8-16e4-4ae5-b33a-49dae4e4dcc9.pdf (last visited Jan. 2, 2024).

impact “military and national security uses by increasing the number of vessels within” the area.¹⁵⁴ Up to 19,976 acres will be impacted during anchoring and construction due to an increase in vessel traffic, which will lead to “course changes of military vessels [and] increas[e] navigational complexity and risk of collisions.”¹⁵⁵ The addition of 65 turbines will “increase the risk of allisions for military vessels for up to 35 years during Project operations, particularly in bad weather or low visibility.”¹⁵⁶ And “[t]he presence of construction-related vessels and additional recreational vessels” will “add to conflict or collision risks for military and national security vessels and could increase demand for SAR operations.”¹⁵⁷

BOEM should revise the Construction and Operations Plan and reduce the number of turbines in the lease area. Doing so will reduce the navigational complexity and risk of collisions and allisions. Reducing the number of turbines could also reduce the interference with radar.

1.5.4 Revolution Wind Interferes with Aviation, Air Traffic, and Radar Systems

The Project substantially interferes with aviation, air traffic, and radar systems. The presence of turbines “near or in direct line-of-sight to land-based radar systems” will “interfere with the radar signal by causing shadows or clutter.”¹⁵⁸ The construction of the 65 turbines will have significant impacts on radar systems. Studies referenced in the Final Environmental Impact Statement concluded that without mitigation, the Project “could result in measurable effects on radar systems within their study area, including clutter in the vicinity of line-of-sight turbines and possibly in the vicinity of wind turbines beyond line-of-sight due to the propagation of HF electromagnetic waves over the ocean surface.”¹⁵⁹ Additionally, the increase in vessel traffic will create long-term impacts on land-based radar.¹⁶⁰

The addition of 65 structures on the outer continental shelf will cause significant interference with radar and navigation systems. It is also important to note that “[m]arine vessel radars are not presently optimized to operate in a [wind turbine] environment.”¹⁶¹

¹⁵⁴ *Id.* at 3.17-10.

¹⁵⁵ *Id.* at 3.17-18.

¹⁵⁶ *Id.* at 3.17-33.

¹⁵⁷ *Id.*

¹⁵⁸ *Id.* at 3.17-29.

¹⁵⁹ *Id.* at 3.17-30.

¹⁶⁰ *Id.* at 3.17-31.

¹⁶¹ National Academies of Sciences, Engineering, and Medicine, *Wind Turbine Generator Impacts on Marine Vessel Radar* at 5 (2022),

Turbines “reduce the effectiveness of both magnetron-based and Doppler-based MVR radar.”¹⁶² The combined effects of the thousands of turbines on the Outer Continental Shelf will create high radar reflectivity, doppler-spread interference, multipath and range ambiguous concerns, and strong reflected signals.¹⁶³ Aircrafts and marine vessels that utilize radar will face incredible interference, and the lease area will not be safe.

BOEM should revise the Construction and Operations Plan to reduce the number of turbines in the lease area, which could reduce radar interference.

1.6 BOEM Failed to Consider the Use of the Sea and the Seabed for Fishing and Recreation When Approving Revolution Wind

One thing is clear from BOEM’s Final Environmental Impact Statement and Record of Decision—Revolution Wind will significantly impact commercial fishing, recreational fishing, and for-hire fishing. The turbines will interfere with navigation and search and rescue operations, making it more dangerous for vessels to travel within and around the lease area. The Project’s impacts on the benthic habitats in Cox Ledge will cause species-level negative impacts on fish, reducing the fish population. Concrete boulders, other cable protections, and even the cables themselves will create safety hazards for fishing boats and increase gear entanglements, collisions, and allisions. Certain types of fishing will be made nearly impossible within the lease area due to turbine spacing, increased vessel traffic, and construction activities, and many fishermen will abandon the area.

Yet, even with those recognized impacts and comments from fisheries and federal agencies on the substantial impacts on fishing, BOEM minimizes the impacts of Revolution Wind on commercial, recreational, and for-hire fishing. Not only did BOEM fail to prevent interference with commercial fishing and recreational for-hire fishing (as discussed previously in Section 1.5), but BOEM failed to seriously and adequately consider Revolution Wind’s impact on the use of the sea for fishing and recreation, violating OCSLA in the process.¹⁶⁴

BOEM’s analysis and consideration of fishing lack consistency throughout its Final Environmental Impact Statement and Record of Decision. BOEM admits that the impacts of this Project on commercial fisheries and navigation are significant. BOEM recognizes that commercial fishing, recreational fishing, and for-hire fishing vessels will

<https://nap.nationalacademies.org/catalog/26430/wind-turbine-generator-impacts-to-marine-vessel-radar>.

¹⁶² *Id.*

¹⁶³ *Id.*

¹⁶⁴ 43 U.S.C. § 1337(p)(4)(J)(ii).

lose their fishing grounds and that certain vessels cannot operate their equipment or maneuver in the area. This Project will include changes in navigation routes, degraded communication and radar signals, and increased difficulty of offshore surveillance missions.¹⁶⁵ BOEM expects that the vessels who want to avoid the project area will cause congestion along the borders and that there will be an increase in accidents that cause injury, loss of life, and property damage.¹⁶⁶ Cables and cable protections, such as rock berms, concrete mattresses, boulders, and other items, will create “a potential safety hazard should gear snag or hood on these seafloor structures.”¹⁶⁷ While BOEM claims safety zones will be created, the duration and location of those zones are unknown.¹⁶⁸ And BOEM expects anglers who continue fishing in the lease area to change their methods and expects some to abandon the area altogether.¹⁶⁹

BOEM’s analysis of Revolution Wind’s impact on fishing falls short because it fails to consider several impacts, all of which would inform BOEM’s analysis of the impacts on fishing and should lead BOEM to alter its approval. Nothing is said about how the destruction of one billion eggs, the damage to the critical Cox Ledge benthic habitat, and the effects of the construction and operations noise on fish will impact the number of fish available in the lease area. There is also no analysis of the hydrodynamic effects on fish or on how the spawning fish in Cox Ledge will react to the construction and operation of the Project and how that reaction could negatively impact fisheries. There is also no “accurate assessment” of the Project’s economic effects on commercial fisheries, recreational fishing, subsistence fishing, and for-hire fishing because such an assessment “would depend on project-specific information that is unknown at this time.”¹⁷⁰ BOEM’s analysis also solely focuses on the impacts of commercial fishing and for-hire recreational fishing and does not consider the impacts on recreational fishing outside of general statements regarding tourism and recreation. There is also a lack of analysis of impacts based on the type of fishing activity. While there are some references to trawl fishing, there is very little information and analysis on the impacts to rod/reel, pot, gill net, fix net, dredge, or other types of fishing.

Without properly weighing the Project’s impacts on fishing and without including vital information about the full impacts on fishing, BOEM failed to consider the use of the sea for fishing and recreation. In approving the Project without additional information

¹⁶⁵ See Final Environmental Impact Statement *supra* note 16 at 3.17-30.

¹⁶⁶ *Id.* at 3.17-17; 3.9-48; 3.9-49; 3.9-75; 3.9-88.

¹⁶⁷ *Id.* at 3.9-60.

¹⁶⁸ *Id.* at 3.9-67.

¹⁶⁹ *Id.*

¹⁷⁰ Final Environmental Impact Statement *supra* note 16 at 3.9-61.

and without weighing the significant, long-term impacts to fishing, BOEM failed to consider the use of the sea and the seabed for fishing, violating OCSLA.

2. The Secretary of the Army and the Army Corps Violated the Clean Water Act by Approving Revolution Wind’s Section 404 Permit

Section 404(a) of the Clean Water Act authorizes the Secretary of the Army, acting through the Army Corps of Engineers, to issue permits for the discharge of dredged or fill material into navigable waters “after notice and opportunity for public hearings.”¹⁷¹ By issuing a permit for the massive discharge of dredge and fill material onto the ocean floor for the Project, the Secretary of the Army, acting through the Corps of Engineers, has violated the Clean Water Act and its applicable regulations in multiple respects.

2.1 Revolution Wind’s Discharge of Dredge and Fill Material Will Cause Unacceptable Adverse Impacts

The Secretary of the Army and the Corps have violated the requirement that “dredged or fill material should not be discharged into the aquatic ecosystem, unless it can be demonstrated that such a discharge will not have an unacceptable adverse impact either individually or in combination with known and/or probable impacts of other activities affecting the ecosystems of concern.”¹⁷² The Corps’ regulations identify losses and damages to fisheries, fish, fish habitat, wildlife habitats, shellfishing, and recreational areas as unacceptable adverse impacts that preclude the issuance of Section 404 permits:

Unacceptable adverse effect means impact on an aquatic or wetland ecosystem which is likely to result in . . . significant loss of or damage to fisheries, shellfishing, or wildlife habitat or recreation areas. In evaluating the unacceptability of such impacts, consideration should be given to the relevant portions of the section 404(b)(1) guidelines.¹⁷³

The Corps adopted the Final Environmental Impact Statement and the Project’s significant adverse environmental impacts—as detailed in Section 1 of this letter—and approved Revolution Wind’s Section 404 permit, violating the requirements in one fell swoop. In addition to BOEM’s findings of significant adverse impacts to nearly all environmental resources, the Corps identified several additional adverse impacts on the environment—all of which fall under the category of unacceptable:

¹⁷¹ 33 U.S.C. § 1344(a).

¹⁷² 40 C.F.R. § 230.1(c).

¹⁷³ *Id.* § 231.2(e).

- 32.5 acres of substrate will be modified due to secondary cable construction;¹⁷⁴
- “32.9 acres of primarily soft bottom [will] be converted to hard bottom habitat as a result of the secondary cable protection placement[;]”¹⁷⁵
- “[I]mpacts to mollusks, fish, and crustaceans in the project area. The discharge of fill in the form of rock, concrete mattresses, fronded mattresses, or rock bags for secondary cable protection would result in the smothering of any sessile species present on the substrate[;]”¹⁷⁶
- “[P]lacement of fill material has the potential to have adverse effects on egg and larval stages of fish and crustaceans that may be present in the area but are unable to avoid smothering due to their inability to relocate[;]”¹⁷⁷
- Direct impacts to fish, crustaceans, and mollusks from secondary cable protection and secondary effects on seals and sea birds; and
- “[A]dverse impacts on recreational and commercial fisheries. Fish may be negatively affected by the discharge of fill, as non-mobile larvae and eggs cannot disperse to avoid smothering.”¹⁷⁸

The Army Corps knew of Revolution Wind’s unacceptable adverse impacts but approved its Section 404 permit anyway, violating the Clean Water Act. The Corps should rescind its approval until the Revolution Wind Project is modified to avoid these unacceptable adverse impacts.

The Corps must require the developer to test core samples along the cable route before allowing any construction to commence. Instead of testing core samples along all the cable routes, Revolution Wind tested only six samples within 1,000 feet from shore in the area where they plan to drill off the shore at Quonset in North Kingston, the location of the onshore substation. Waters off the coast of Rhode Island have historically had high levels of forever chemicals. In fact, North Kingston is one of the most contaminated sites in the US, and the West Passage has been the dumping site for heavy industry since the time of the Industrial Revolution. Currently, the Rhode Island Attorney General is suing

¹⁷⁴ Record of Decision *supra* note 2 at 45.

¹⁷⁵ *Id.* at 46.

¹⁷⁶ *Id.* at 47.

¹⁷⁷ *Id.*

¹⁷⁸ *Id.* at 54.

Dupont for the release of forever chemicals into the waters of Rhode Island, including the Bay and West Passage—the route for the export cables. Revolution Wind’s limited testing did not include testing for forever chemicals, polycyclic aromatic hydrocarbons, DDT and pesticides, hexavalent chromium, sulfur dioxide, dioxins, benzene bisphenol, and azo dyes.

The few samples Revolution Wind tested suggest that the sediments released from dredging and drilling will contaminate the water.¹⁷⁹ Testing demonstrated elevated levels of lead that exceed the “leachability criteria.” Another sample exceeded “beach disposal criteria. The developer’s testing also detected levels that exceeded the “beach criteria” for arsenic, chromium, copper, nickel, and zinc. The Corps should rescind its approval until the developer has tested core samples along the entire extent of the cable route and require testing for PFOAs as well as heavy metals, BPAs, PCPs, and other known contaminants.

2.2 The Secretary of the Army and the Corps Failed to Protect Cox Ledge, a Special Aquatic Site

On September 26, 2023, NOAA Fisheries published the proposal for a formal habitat of particular concern designation around Cox Ledge and wind energy leases in the Federal Register.¹⁸⁰ This designation focuses “on important cod spawning grounds and areas of complex [benthic] habitat that are known to serve important habitat functions to federally managed species within and adjacent to offshore wind development areas.”¹⁸¹ This status “should lead to special attention regarding potential adverse effects on habitats within areas of particular concern from various activities.”¹⁸²

Under Section 404 of the Clean Water Act, when an activity is proposed for a special aquatic site, and that activity does not require access to or siting within the special aquatic site to fulfill its basic purpose, the Corps must presume practicable alternatives are available.¹⁸³ Further, “where a discharge is proposed for a special aquatic site, all practicable alternatives to the proposed discharge which do not involve a discharge into a special aquatic site are presumed to have less adverse impact on the aquatic ecosystem,

¹⁷⁹ See Revolution Wind, *Application for State Water Quality Certification and Marine Dredging and Associated Activities* (July 31, 2021), http://www.crmc.ri.gov/windenergy/revolution/2021-07-005_WQCandMarineDredging.pdf.

¹⁸⁰ See 88 Fed. Reg. 65944 (Sept. 26, 2023).

¹⁸¹ *Id.*

¹⁸² *Id.*

¹⁸³ 40 C.F.R. 230.10(a)(3).

unless clearly demonstrated otherwise.”¹⁸⁴ Special aquatic sites are “geographic areas, large or small, possessing special ecological characteristics of productivity, habitat, wildlife protection, or other important and easily disrupted ecological values.”¹⁸⁵ And the sites are “generally recognized as significantly influencing or positively contributing to the general overall environmental health or vitality of the entire ecosystem of a region.”¹⁸⁶

When the Corps reviewed and analyzed the impacts of the Project and Revolution Wind’s Section 404 permit, the National Marine Fisheries Service had yet to propose the new classification of Cox Ledge. Because it concluded that “the applicant’s proposed activity does not involve discharge into a special aquatic site,”¹⁸⁷ the Corps did not have to review alternatives to the additional alternatives that would exist with a special aquatic site.

The New England Fishery Management Council, the National Marine Fisheries Service, and BOEM have recognized Cox Ledge as an important cod spawning area and crucial, complex benthic habitat. The Project’s impacts due to dredging and discharge during construction will significantly adversely impact Cox Ledge as a whole. The failure of the Corps to identify these major adverse impacts and go beyond BOEM’s limited analysis of the impacts is a significant failure that must be remedied before this Project moves forward. The classification of Cox Ledge as a habitat of particular concern requires the Corps to supplement its analysis and reconsider the Project.

2.3 The Classification of Cox Ledge as a Habitat of Particular Concern Requires the Corps to Conduct a Practicable Alternatives Analysis, and the Corps Must Supplement Its Analysis

As a habitat of particular concern, Cox Ledge is a Special Aquatic Site, triggering the requirement that the Corps conduct a practicable alternatives analysis before issuing a Section 404 permit. When there is a special aquatic site in the permitting area, the Corps’ regulations prohibit the Army Corps from granting a Section 404 permit if there is a practicable alternative: “[N]o discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences.”¹⁸⁸ For this regulation, “practicable alternative” is

¹⁸⁴ Record of Decision *supra* note 2 at 38.

¹⁸⁵ 40 C.F.R. 230.3(m).

¹⁸⁶ *Id.*

¹⁸⁷ Record of Decision *supra* note 2 at 38.

¹⁸⁸ *Id.* § 230.10(a).

defined as “[a]ctivities which do not involve a discharge of dredged or fill material into the waters of the United States or ocean waters,”¹⁸⁹ and

an alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes. If it is otherwise a practicable alternative, an area not presently owned by the applicant that could reasonably be obtained, utilized, expanded, or managed in order to fulfill the basic purpose of the proposed activity may be considered.¹⁹⁰

Under the regulatory definitions, many practicable alternatives to offshore wind production do not require discharges of dredge or fill material into navigable waters. These include traditional fossil fuel plants such as natural gas and, perhaps more important, other forms of renewable energy such as traditional nuclear plants, modular nuclear small-scale generators, onshore wind turbines, and solar panels, and efforts to improve energy efficiency and conservation. As outlined in the Record of Decision, the Corps analyzed no other alternatives outside of the ones in the Final Environmental Impact Statement, all of which involved wind energy projects in the lease area.

To comply with the Clean Water Act and its regulations, the Corps must rescind its approval of Revolution Wind’s Section 404 permits and conduct a practicable alternatives analysis.

2.4 The Secretary of the Army and the Corps Failed to Consider Cumulative Effects

Before issuing a Section 404 permit, the Secretary of the Army and the Corps “shall collect information and solicit information from other sources about the cumulative impacts on the aquatic ecosystem.”¹⁹¹ The Corps is supposed to document and consider this information during the decision-making process.¹⁹² In issuing the Section 404 permit for the Project, the Secretary of the Army and the Corps failed to gather or consider information about the cumulative effects of the multiple offshore wind projects that the Government has announced for the East Coast (not to mention the West Coast) of the United States.

As of July 17, 2023, 35 federal offshore wind Projects are in various stages of development off the eastern coast of the United States. Twelve of those are in the Rhode Island and Massachusetts area. Combined, these twelve projects will add hundreds, if not thousands, of turbines to the ocean and will include 2,289 miles of export cables and

¹⁸⁹ *Id.* § 230.10(a)(1)(i).

¹⁹⁰ *Id.* § 230.10(a)(2).

¹⁹¹ *Id.* § 230.11(g).

¹⁹² *Id.*

2,350 miles of inter-array cables.¹⁹³ The dredging and discharge during the construction of these projects will undoubtedly cause far-reaching impacts beyond the footprint of any single project. The Corps analysis in the Record of Decision falls far short in considering the cumulative impacts across the entire East Coast. Instead, the Corps limited its cumulative effects analysis to the deficient one conducted by BOEM and to the cumulative effects on the lease area and Narragansett Bay.¹⁹⁴ Without broader cumulative effects analysis, the Corps' analysis and permitting decision is based on incomplete and inaccurate information, and the Corps should rescind its approval and supplement its analysis.

2.5 The Secretary of the Army and the Corps Approved a Permit that Will Significantly Degrade the Waters of the United States

Clean Water Act regulations flatly prohibit the issuance of a Section 404 permit that would result in significant degradation of the waters of the United States—"no discharge of dredged or fill material shall be permitted which will cause or contribute to significant degradation of the waters of the United States."¹⁹⁵ Significant degradation includes:

- (1) Significantly adverse effects of the discharge of pollutants on human health or welfare, including but not limited to effects on municipal water supplies, plankton, fish, shellfish, wildlife, and special aquatic sites;
- (2) Significantly adverse effects of the discharge of pollutants on life stages of aquatic life and other wildlife dependent on aquatic ecosystems, including the transfer, concentration, and spread of pollutants or their byproducts outside of the disposal site through biological, physical, and chemical processes;
- (3) Significantly adverse effects of the discharge of pollutants on aquatic ecosystem diversity, productivity, and stability. Such effects may include, but are not limited to, loss of fish and wildlife habitat or loss of the capacity of a wetland to assimilate nutrients, purify water, or reduce wave energy. . . .¹⁹⁶

As described in Section 1, the discharges from the Project will significantly and adversely affect the health of the aquatic ecosystem, the marine mammals and fish who habituate in the area, and the fishing and shellfish grounds where the turbines, platforms, cables, and associated structures will be located—and these adverse effects will be

¹⁹³ Final Environmental Impact Statement *supra* note 16 at Appendix E-3.

¹⁹⁴ See Record of Decision *supra* note 2 at 50.

¹⁹⁵ 40 C.F.R. § 230.1.

¹⁹⁶ *Id.* § 230.11(c).

multiplied as new offshore wind projects accumulate up and down the Atlantic Outer Continental Shelf.

2.6 Failure to Mitigate Injury to Waters of the United States

Clean Water Act regulations flatly prohibit the “discharge of dredged or fill material . . . unless appropriate and practicable steps have been taken which will minimize potential adverse impacts of the discharge on the aquatic ecosystem.”¹⁹⁷ The Secretary of the Army and the Corps violated this regulatory requirement by failing to mitigate the impacts of the discharge on the aquatic system. The record lacks any discussion on any efforts to improve the impact on fisheries and mammals or, at the very least, achieve no net loss.

3. The United States and Its Departments and Agencies Have Violated the Endangered Species Act

The Endangered Species Act (ESA) is the most “comprehensive legislation for the preservation of endangered species ever enacted by any nation.”¹⁹⁸ Enacted by Congress in 1973, the ESA provides “a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved . . . [and] to provide a program for the conservation of such endangered species and threatened species.”¹⁹⁹ Congress enacted the Endangered Species Act to implement “[t]he policy of Congress that all Federal departments and agencies shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of the purposes.”²⁰⁰ And, the Supreme Court has concluded that: “The plain intent of Congress in enacting this statute was to halt and reverse the trend toward species extinction, whatever the cost.”²⁰¹

Section 7 of the ESA is specifically applicable to the federal approval of Revolution Wind and requires that

[e]ach Federal agency shall, in consultation with and with the assistance of the Secretary, ensure that any action authorized, funded or carried out by such agency . . . is not likely to jeopardize the continued existence of any

¹⁹⁷ *Id.* § 230.11(d).

¹⁹⁸ *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 180 (1978).

¹⁹⁹ 16 U.S.C. § 1531(b).

²⁰⁰ 16 U.S.C. § 1531(b).

²⁰¹ *Tenn. Valley Auth.*, 437 U.S. at 184.

endangered or threatened species or result in the destruction or adverse modification of habitat of such species²⁰²

This statute is a plain, affirmative command that admits of no exception.²⁰³ As the Supreme Court has explained:

One would be hard-pressed to find a statutory provision whose terms were any plainer than those in § 7 of the Endangered Species Act. Its very words affirmatively command all federal agencies “to ensure that actions authorized, funded, or carried out by them do not jeopardize the continued existence” of an endangered species or “result in the destruction or modification of habitat of such species” This language admits of no exception.²⁰⁴

Section 7’s regulations require that an action agency—here, BOEM—first must determine whether the action “may affect” an endangered or threatened species.²⁰⁵ If so, the action agency must consult with the National Marine Fisheries Service, which has responsibility for marine species under the ESA.²⁰⁶ The Section 7 consultation concludes when the National Marine Fisheries Service issues a Biological Opinion determining whether the proposed action does or does not jeopardize the species.²⁰⁷

The implementing regulations require the Secretary to complete the consultation by issuing a formal Biological Opinion: “[T]he Secretary shall provide to the Federal agency and the applicant, if any, a written statement setting forth the Secretary’s opinion, and a summary of the information on which the opinion is based, detailing how the agency action affects the species or its critical habitat.”⁹⁸ Section 7 requires that a Biological Opinion base its conclusions on the “best scientific and commercial data available.”²⁰⁸ Where the Service finds that the proposed action will jeopardize the species, it must provide an incidental take statement specifying the impacts of the incidental taking to the endangered species and “those reasonable and prudent measures that [the Service] considers necessary or appropriate to minimize such impacts,”²⁰⁹ and setting forth the “terms and conditions (including but not limited to, reporting

²⁰² 16 U.S.C. § 1536(a).

²⁰³ *See Tenn. Valley Auth.*, 437 U.S. at 173.

²⁰⁴ *Tennessee Valley Auth. v. Hill*, 437 U.S. 153, 173 (1978) (quoting 16 U.S.C. § 1536 (1976)).

²⁰⁵ 50 C.F.R. § 402.14(a).

²⁰⁶ *Id.*

²⁰⁷ 16 U.S.C. § 1536(a)(2) & (b)(3)(A).

²⁰⁸ 16 USC §1536(a)(2); 50 CFR § 402.14(g)(8).

²⁰⁹ 16 U.S.C. § 1536(b)(4)(i)-(ii).

requirements) that must be complied with by the Federal agency or applicant (if any), or both, to implement the [reasonable and prudent measures]. . . .”²¹⁰

When the Service issues a Biological Opinion and an Incidental Take Statement outlining the requirements and conditions that must be met, that constitutes a permit authorizing the action agency’s permittee to take the endangered species, provided that it respects and adopts the terms and conditions of the Incidental Take Statement.²¹¹ However, if the action agency fails to incorporate all the requirements outlined in the Biological Opinion and Incidental Take Statement in its final approval of a project, then any incidental take is a prohibited take and in violation of the Endangered Species Act.

3.1 BOEM Failed to Incorporate All Requirements from the Incidental Take Statement in Its Final Approval

On July 21, 2023, the National Marine Fisheries Service issued its Biological Opinion, concluding that

it is our biological Opinion that the proposed action is likely to adversely affect but is not likely to jeopardize the continued existence of blue, fin, sei, sperm, or North Atlantic right whales or the Northwest Atlantic DPS of loggerhead sea turtles, North Atlantic DPS of green sea turtles, Kemp’s ridley or leatherback sea turtles, shortnose sturgeon, or any of the five DPSs of Atlantic sturgeon. The proposed action is not likely to adversely affect giant manta rays, hawksbill sea turtles, Rice’s whale, or critical habitat designated for the New York Bight DPS of Atlantic sturgeon. We have determined that the Project will have no effect on any species of ESA-listed corals, the Gulf of Maine DPS of Atlantic salmon, Gulf sturgeon, Nassau Grouper, the Northeast Atlantic DPS of loggerhead sea turtles, Oceanic whitetip shark, smalltooth sawfish, or critical habitat designated for the North Atlantic right whale, or the Northwest Atlantic DPS of loggerhead sea turtles.²¹²

The Service’s finding of no jeopardy is dependent on an incidental take statement with various mitigation requirements for BOEM and a warning that “[a] failure to implement the proposed action as identified in Section 3 of this Opinion would be a change in the action that may render the conclusions of this Opinion and the take

²¹⁰ 16 U.S.C. § 1536(b)(4)(iv).

²¹¹ See *Bennet v. Spear*, 520 U.S. 154, 170 (1997).

²¹² National Marine Fisheries Service, *Endangered Species Act Section 7 Biological Opinion* at 424 (July 21, 2023), <https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/Rev-Wind-BiOp.pdf>.

exemption inapplicable to the activities carried out and may necessitate reinitiation of consultation.”²¹³ Despite that warning, BOEM failed to incorporate all of the incidental take statement’s requirements into its approval of the Construction and Operations Plan for the Revolution Wind Project,²¹⁴ invalidating the Service’s conclusion that the Project would not jeopardize the North Atlantic right whale and other endangered species. BOEM’s Conditions included in its approved Construction and Operations Plan omitted several incidental take statement requirements of the Biological Opinion, including:

- The Biological Opinion requires Revolution Wind to document and report the number of vessel calls to the Paulsboro Marine Terminal and comply with the conditions of the Paulsboro Biological Opinion.²¹⁵ Neither the Record of Decision’s Conditions of Approval nor BOEM’s final Conditions of Construction and Operations Plan Approval from November 17, 2023, require this requirement as a condition, contrary to the requirement of the ESA.
- The Biological Opinion requires the agencies to “work with the lessee to develop a construction schedule that further reduces potential exposure of North Atlantic right whales to noise from pile driving and UXO/MEC [unexploded ordinance] detonations including expanding the time of year restriction on UXO/MEC detonations to include May and avoiding impact pile driving in May and December.”²¹⁶ BOEM’s final Conditions of Construction and Operations Plan Approval of November 17 prohibits UXO detonation from “December 1 to April 30 to reduce impacts to [North Atlantic right whales],”²¹⁷ but fails to include May in that prohibition, as required by the incidental take statement of the Biological Opinion.

²¹³ *Id.* at 430.

²¹⁴ U.S. Department of the Interior, *Conditions of Construction and Operations Plan Approval Lease Number OCS-A 0486* (Nov. 17, 2023), https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/Cond%20of%20COP%20Appr_REV%20OCS-A%200486_0.pdf.

²¹⁵ National Marine Fisheries Service, *Biological Opinion* at 435 (July 21, 2023).

²¹⁶ *Id.* at 449.

²¹⁷ U.S. Department of the Interior, *Conditions of Construction and Operations Plan Approval Lease Number OCS-A 0486* (Nov. 17, 2023), https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/Cond%20of%20COP%20Appr_REV%20OCS-A%200486_0.pdf.

- The Biological Opinion requires BOEM and Revolution Wind to implement the requirements of RPM 4, and to facilitate monitoring of the incidental take exemption for sea turtles. BOEM, BSEE, USACE, and NMFS must meet twice annually to review sea turtle observation records. These meetings/conference calls will be held in September (to review observations through August of that year) and December (to review observations from September to November) and will use the best available information on sea turtle presence, distribution, and abundance, project vessel activity, and observations to estimate the total number of sea turtle vessel strikes in the action area that are attributable to project operations.²¹⁸
- Neither the Record of Decision's Conditions of Approval nor BOEM's final Conditions of Construction and Operations Plan Approval from November 17, 2023, contains this requirement as a condition, contrary to the ESA.

3.2 The Agencies Have Violated the ESA Because the Construction and Operations Plan, the Conditions of Approval, and the Permits Fail to Protect Endangered Species

The Service's determination that this Project will adversely affect, but not jeopardize, more than a dozen protected endangered species is arbitrary and capricious. The approved location of Revolution Wind falls directly within one of the most densely traveled areas for blue, fin, sei, sperm, and North Atlantic right whales, Northwest Atlantic DPS of loggerhead sea turtles, North Atlantic DPS of green sea turtles, Kemp's ridley sea turtles, leatherback sea turtles, shortnose sturgeon, and all of the five DPSs of Atlantic sturgeon.²¹⁹ These endangered animals live and travel within the area and corridor off the coasts of Rhode Island and Massachusetts, where Revolution Wind and the twelve other offshore wind projects will sit. Many of these animals also travel along the East Coast throughout the year and travel through many of the sites where the other federal offshore wind projects will sit. The construction, pile driving, detonations, underwater noise, increased risk of vessel strikes, collisions, and allisions, and the disruption of habitats and food resources will result in behavioral changes, damage to species, injuries, and death. The Record of Decision and the Biological Opinion violate the Endangered Species Act because they fail to adequately consider the impacts of the Project, the cumulative impacts of the offshore wind program, and the best scientific data.

²¹⁸ *Id.* at 440.

²¹⁹ *See* Biological Opinion *supra* note 209 at 424.

The loss of physical space available to the North Atlantic right whale and other endangered species resulting from the construction and operation of the Project has not been adequately analyzed. Nor have the Project's cumulative effects and the larger plan to develop commercial wind energy projects up and down the coast been evaluated in their totality. Neither BOEM nor the Service can cite any Government-created document that assesses how the thousands of wind turbines along hundreds of miles of migration routes will impact protected species. Without such a document, BOEM and the Service cannot have an adequate and complete understanding of the actual impacts of the Projects and the offshore wind program cumulatively, and it is clear from the lack of information and analysis that the Service has failed to consider how continuous offshore wind projects will impact these creatures and their habitats.

Construction and operations will bring an influx of vessels to the area, including tugboats and barge cranes, many of which would be substantially larger and faster than fishing and recreational vessels. Overall, the National Marine Fisheries Service anticipates that there will be 1,404 vessel trips between ports and Revolution Wind during construction.²²⁰ Very little analysis is included of how this increase in vessels, some hundreds of feet in length, will impact the endangered whale species and other endangered marine species. Nor is there any analysis of how the hundreds of turbines across the twelve Rhode Island and Massachusetts projects will impact these whales' travel patterns and behavioral patterns. If there are wind projects in the surrounding hundreds of thousands of acres of ocean, where will these endangered species retreat to avoid increased vessels, construction noises, explosions, and destruction or displacement of their food and habitats? The Service has yet to provide an answer or any analysis answering that question, which indicates the Service's failure to utilize the best available science and data to formulate its Opinion.

3.3 The Measures Identified in the Biological Opinion and Adopted in BOEM's Approval of the Construction and Operation Plan Do Not Adequately Analyze and Mitigate the Impacts on the Endangered North Atlantic Right Whale

The Service's finding of no jeopardy for the North Atlantic right whale and its decision to authorize the take of 56 right whales in the first five years of this Project²²¹ run counter to its own analyses of the state of the species and the best scientific data and

²²⁰ Biological Opinion *supra* note 209 at 257.

²²¹ 88 Fed. Reg. 72,630 (Oct. 20, 2023).

violates the Endangered Species Act. The Service must re-initiate its Section 7 consultation and revise its analyses of the impacts on the North Atlantic right whale.

The North Atlantic right whale is the most iconic marine mammal on the eastern seaboard of the United States. North Atlantic right whales primarily habituate in Atlantic coastal waters, including the lease area for Revolution Wind. Right whales can be found off the coast of New England at all times of the year, but most travel through New England in the spring, summer, and early fall while they feed and mate.²²² NOAA has designated coastal New England as a critical habitat for North Atlantic right whales. The species is incredibly close to extinction²²³ and there are less than 70 breeding females remaining.²²⁴ And between December 2022 and August 2023, the Service's population estimate decreased from 368 to 338.²²⁵ In recent years, researchers have recorded more deaths among adult females than adult males, contributing to a steady population decline. Females who undergo energetic stress from reproduction may be more susceptible than males to dying from chronic injuries such as those from entanglement or vessel strikes, and there are low reproductive rates.²²⁶

The Service has recognized the dire situation of the North Atlantic right whale and started creating mitigation programs to protect the dwindling population. Unfortunately, these measures have not been enough to stop these endangered creatures from being struck by vessels or entangled in equipment, and there have been several North Atlantic right whale Unusual Mortality Events, which are “stranding[s] that [are] unexpected; involves a significant die-off of any marine mammal population; and demands immediate response.”²²⁷ In 2017, there were 17 observed right whale mortalities, and by July 3, 2023, there were 36 confirmed mortalities, 33 serious injuries, and 29 sublethal injuries or illnesses.²²⁸

²²² *Id.*

²²³ National Oceanic and Atmospheric Administration (NOAA), “North Atlantic Right Whale,” *NOAA Fisheries: Species Directory* (September 14, 2023), <https://www.fisheries.noaa.gov/species/north-atlantic-right-whale>.

²²⁴ *Id.*

²²⁵ National Marine Fisheries Service, *U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments 2022* at 2 (June 2023), <https://media.fisheries.noaa.gov/2023-08/Final-Atlantic-and-Gulf-of-Mexico-SAR.pdf>.

²²⁶ Biological Opinion *supra* note 209 at 54.

²²⁷ 16 U.S.C. § 1361.

²²⁸ Biological Opinion *supra* note 209 at 57.

The Service’s Biological Opinion identifies only a few of the many impacts this Project will have on the North Atlantic right whale:

- “Baleen Whales, such as the North Atlantic right whale, seem generally unresponsive to vessel sounds, making them more susceptible to vessel collisions[;]”²²⁹
- Pile driving and unexploded ordinance will adversely impact 34 individual right whales;²³⁰
- “North Atlantic right whales’ resilience to future perturbations affecting health, reproduction, and survival is expected to be very low.”²³¹

But other than these admissions, the Service minimizes and ignores most of the impacts on the North Atlantic right whale.

Paradoxically, elsewhere, the Service has done what it failed to do in its Biological Opinion for the Revolution Wind Project—admitted that the offshore wind projects pose an enormous risk to North Atlantic right whales. In a published draft “North Atlantic Right Whale and Offshore Wind Strategy,”²³² the Service and BOEM recognized the collective responsibility to protect the North Atlantic right whale and protect these whales from “future perturbations.”²³³ In that Strategy, the agencies made several admissions regarding North Atlantic right whales:

- “The potential biological removal [] level for the species, defined as the maximum number of animals that can be removed annually while allowing the stock to reach or maintain its optimal sustainable population level, is less than 1[.]”²³⁴
- “[V]essels of nearly any size can injure or kill a right whale[.]”²³⁵

²²⁹ *Id.* at 268.

²³⁰ *Id.* at 401.

²³¹ *Id.* at 59.

²³² See BOEM and NOAA’s Draft Strategy on the North Atlantic Right Whale and Offshore Wind,

https://www.boem.gov/sites/default/files/documents/environment/BOEM_NMFS_DRAFT_NARW_OSW_Strategy.pdf.

²³³ *Id.*

²³⁴ *Id.* at 5.

²³⁵ *Id.*

- “In addition to vessel strikes and entanglement in fishing gear, which are the primary causes of NARW mortality and serious injury, modeling indicates that low female survival, a male-biased sex ratio, and low calving rates are contributing to the population’s current decline. The species has low genetic diversity, as would be expected based on its low abundance, and the species’ resilience to future perturbations is expected to be very low.”²³⁶

The Draft Strategy also discusses the Unusual Mortality Events and clarifies vessel strikes and entanglements caused most of the deaths. NOAA examined 23 of the 24 dead whales and found that for these 23, vessel strikes and entanglements caused the death.²³⁷ Additionally, “20 live free-swimming non-stranded whales have been documented with serious injuries from entanglements or vessel strikes, and 36 more have been documented with sublethal injuries.”²³⁸ NOAA and BOEM also concluded that 64% of all mortality is cryptic or unobserved mortality,²³⁹ which is when human activity kills a marine mammal without resulting in an observed carcass.²⁴⁰

Even though these findings are published by BOEM and the Administration overseeing the Service and are widely available, none of Revolution Wind’s environmental documents adequately account for these known impacts and contemplate the severe risks.

Even the mitigation measures fall short of protecting the species. The Service requires vessels to reduce their speed to 10 knots or less in seasonal management areas and dynamic management areas when a right whale is spotted. But that speed reduction is not enough to reduce vessel strike mortality and a study cited by the Service in the Biological Opinion stated that vessel speeds of 8.6 knots or higher increase the probability of a strike being lethal from 21% to 79%.²⁴¹ In another example of a failed mitigation measure, the Biological Opinion requires measures to reduce the potential exposure of North Atlantic right whales to noise from pile driving and UXO/MEC

²³⁶ *Id.* at 5 (internal citations removed).

²³⁷ *Id.* at 6.

²³⁸ *Id.*

²³⁹ *Id.*

²⁴⁰ Pace and Williams, *Cryptic Mortality of North Atlantic Right Whales*, Conservation Science, and Practice (Feb. 2, 2021),

<https://conbio.onlinelibrary.wiley.com/doi/full/10.1111/csp2.346>.

²⁴¹ Biological Opinion *supra* note 209 at 269.

detonations in May and December.²⁴² Yet BOEM's conditions of approval fail to require pile driving or detonation prohibitions in May. A final inadequate mitigation measure is the use of bubble curtains, which only reduce high-frequency sounds and do not reduce low-frequency sounds below 200 Hz,²⁴³ which are the sounds North Atlantic right whales can hear. While the Service requires the lessee to identify additional noise attenuation measures to reduce sounds, the Service provides no examples of measures that reduce these low-frequency sounds—making this so-called mitigation measure futile for North Atlantic right whales.

BOEM and the Service's assertions regarding the fate of the North Atlantic right whale as it relates to the Revolution Wind Project are inconsistent, asserting in one document that this species has a high mortality rate from vessel strikes and entanglements, that numbers are dwindling, and that the biological removal for the species is one individual, and then in another stating that the Project will not jeopardize these whales, even when there is an increased risk of vessel strikes, entanglements, and mortality, destruction of habitats, and obstacles and impediments throughout the migration route. Simply put, the Service's and BOEM's determinations strain credulity and indicate that the Service's Section 7 consultation was flawed and biased toward approving the Revolution Wind Project without any significant modifications or mitigation measures. Without re-initiation of a Section 7 consultation, this Project risks the continued existence of endangered North Atlantic right whale and other endangered species.

The Service and BOEM also failed to consider, in the Biological Opinion, Incidental Take Statement, Incidental Take Regulations, Letter of Authorization, Record of Decision, and Final Environmental Impact Statement, how the Offshore Wind Program in its entirety will risk the continued existence of the North Atlantic right whale. For the planned New Jersey and New York Projects, the Service authorized the take of 179 right whales.²⁴⁴ The other Massachusetts and Rhode Island projects authorize the take of at least 96 additional right whales. In total, that accounts for 81% of the total population.

²⁴² *Id.* At 449.

²⁴³ BOEM, *Renewable Energy Program Update: Briefing for the Mid-Atlantic Fisheries Management Council* at 21 (February 11, 2021), https://static1.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/602d7bbd49ee2d06d9db12c4/1613593539206/05a_BOEM+Renewables+Program+Update+2021-02.pdf.

²⁴⁴ Public Comments Received on Ocean Wind 1 Proposed Action, *Comment from Clean Ocean Action*, <https://www.fisheries.noaa.gov/s3/2023-09/OceanWind1-FinalRule-PubComments-OPR1.pdf> (emphasis added).

The Service must conduct an analysis of how many individuals will be taken as a result of these Projects and produce that analysis to the public.

The Service's and BOEM's flawed analysis of the impacts on the North Atlantic right whale and the "No Jeopardy" finding violate the Endangered Species Act. To remedy the violations, BOEM must re-initiate consultation with the Service to ensure that the impacts of Revolution Wind on the North Atlantic right whale are adequately considered, evaluated, and consistent with NOAA and BOEM's statements regarding the dire state of the species.

3.4 BOEM Must Request to Re-Initiate the Section 7 Consultation, and the Service Must Agree to Prepare a New Biological Opinion

Since the issuance of the Biological Opinion in July 2023, new findings have been made about endangered species in Revolution Wind's lease area and protected habitats: (1) the Service proposed designating Cox Ledge as a habitat area of particular concern and (2) a new study found 60 minutes of Passive Acoustic Monitoring prior to pile driving or UXO detonations insufficient and inadequate in finding nearby whales. Reinitiation "is required and shall be requested" when "new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered."²⁴⁵ Because of this new information, BOEM must request reinitiation and the Service must accept BOEM's request.

The National Marine Fisheries Service and the National Oceanic Atmospheric Administration recently proposed to designate Cox Ledge as a Habitat Area of Particular Concern.²⁴⁶ When an area receives this status, special attention is paid to the potential "adverse effects on habitats within areas of particular concern from various activities (e.g., fishing, offshore wind energy.)"²⁴⁷ Neither the Service nor BOEM's analyses contemplate Cox Ledge as a habitat area of particular concern, and this designation requires reinitiation and additional consultation to ensure the Project and the Project's conditions of approval ensure the protection of this specially designated habitat.

In addition, a November 3, 2023 study found that monitoring for just one hour prior to pile driving provides "only a 4% likelihood" of detecting a North Atlantic right

²⁴⁵ 50 C.F.R. § 402.16.

²⁴⁶ *Fisheries of the Northeastern United States Framework Adjustments to Northeast Multispecies, Atlantic Sea Scallop, Monkfish, Northeast Skate Complex, and Atlantic Herring Fisheries; Southern New England Habitat Area of Particular Concern Designation*, 88 Fed. R. 65944 (Sept. 26, 2023).

²⁴⁷ *Id.*

whale.²⁴⁸ This same study found that when passive monitoring is used for extended periods of time before pile driving, there is a higher likelihood of hearing a North Atlantic right whale: 100% when monitoring for 24 hours prior and 74% when monitoring for 18 hours prior.²⁴⁹ As required by the Biological Opinion and Incidental Take Statement and as incorporated in BOEM's conditions of approval, the Project will deploy Passive Acoustic Monitoring equipment in the construction area only one hour before commencing pile-driving or detonations. Based on the November study, one hour of monitoring will more likely than not fail to identify when a North Atlantic right whale is in the area. BOEM must request re-initiation of Section 7 consultation so that the Service can consider additional monitoring measures and require additional monitoring times. Without requiring more extended monitoring periods, the Service and BOEM are putting North Atlantic right whales and other marine mammals at greater risk for injury and death.

Conclusion

Green Oceans and the Responsible Offshore Development Alliance and their members intend to sue to seek a judicial remedy unless these statutory violations are resolved. If you wish to contact Green Oceans, the Responsible Offshore Development Alliance, Save the Right Whales Coalition, New England Fishermen's Stewardship Association, Jerry Leeman III, Chris Brown, Ralph Craft, Murray Danforth, Rich Hittinger, Lauren Knight, Gary Mataronas, Eric Philippi, and Alan Shinn, their Counsel can be contacted by phone or email.

²⁴⁸ *Id.* at 12.

²⁴⁹ *Id.*

Letter from Green Oceans, et al.
January 19, 2024
Page 51 of 51

Yours truly,

Dated: January 5, 2024

Roger J. Marzulla
Nancie G. Marzulla
Mollie A. Jackowski
Marzulla Law, LLC
1150 Connecticut Avenue NW
Suite 1050
Washington, DC 20036
(202) 822-6760
roger@marzulla.com
nancie@marzulla.com
mollie@marzulla.com

Attorneys for Green Oceans, the
Responsible Offshore
Development Alliance, Save the
Right Whales Coalition, New
England Fishermen's Stewardship
Association, and their members,
as well as Chris Brown, Ralph
Craft, Murray Danforth, Rich
Hittinger, Lauren Knight, Jerry
Leeman III, Gary Mataronas, Eric
Philippi, Benjamin Riggs, and
Alan Shinn