

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

SEAFREEZE SHORESIDE, INC.
100 Davisville Pier, North Kingstown, RI
02852,

LONG ISLAND COMMERCIAL FISHING
ASSOC., INC.
P.O. Box 191, Montauk, NY 11954,

XIII NORTHEAST FISHERY SECTOR,
INC.
205 Rockland Street, Dartmouth, MA 01748,

HERITAGE FISHERIES, INC.
6 Rhody Drive, Westerly, RI 92891,

NAT. W. INC.
6 Rhody Drive, Westerly, RI 92891,

and

OLD SQUAW FISHERIES, INC.
P.O. Box 1036, Montauk, NY 11954,
Plaintiffs,

v.

THE UNITED STATES DEPARTMENT OF
THE INTERIOR,

THE HONORABLE DEB HAALAND, *in her
official capacity as the Secretary of the
Department of the Interior,*

THE BUREAU OF OCEAN ENERGY
MANAGEMENT,

AMANDA LEFTON, *in her official capacity
as the Director of the Bureau of Ocean Energy
Management,*

LAURA DANIEL-DAVIS, *in her official
capacity as Principal Deputy Assistant*

Case No. _____

*Secretary, Land and Minerals Management,
Department of the Interior*

THE UNITED STATES DEPARTMENT OF
COMMERCE,

THE HONORABLE GINA M. RAIMONDO,
*in her official capacity as the Secretary of the
Department of Commerce,*

THE NATIONAL OCEANIC AND
ATMOSPHERIC ADMINISTRATION
/NATIONAL MARINE FISHERIES
SERVICE,

CATHERINE MARZIN, *in her official
capacity as the Deputy Director of NOAA
Fisheries and Acting Director of the National
Marine Fisheries Service Office of Protected
Resources*

THE UNITED STATES DEPARTMENT OF
DEFENSE,

THE HONORABLE LLOYD J. AUSTIN, *in
his official capacity as the Secretary of the
Department of Defense,*

THE UNITED STATES ARMY CORPS OF
ENGINEERS,

LT. GEN. SCOTT A. SPELLMON, *in his
official capacity as the Commander and Chief
of Engineers of the United States Army Corps
of Engineers, and*

COLONEL JOHN A. ATILANO II, *in his
official capacity as the District Engineer of the
New England District of the United States
Army Corps of Engineers,
Defendants.*

COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF

THEODORE HADZI-ANTICH
ROBERT HENNEKE
CONNOR MIGHELL (*Application for
Admission Pending*)
TEXAS PUBLIC POLICY FOUNDATION
901 Congress Avenue
Austin, Texas 78701
Telephone: (512) 472-2700
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Attorneys for Plaintiffs

I. INTRODUCTION

1. This is an action for declaratory and injunctive relief against the United States Departments of the Interior, Commerce, and Defense, their subagencies, and their officers acting in their official capacities (collectively, the “Federal Defendants”) for violations of the Outer Continental Shelf Lands Act, the Endangered Species Act, the Clean Water Act, the Marine Mammal Protection Act, the National Environmental Policy Act, and their respective rules and regulations (collectively, the “Federal Laws”).

2. Each of the Federal Defendants violated one or more of the Federal Laws in connection with the issuance of Lease OCS-A-0501 and the approval of the Construction and Operations Plan for a massive offshore wind energy generating facility located in an expansive area of the Outer Continental Shelf off the southern coast of Nantucket, Massachusetts, known as the Vineyard Wind 1 offshore wind energy project (the “Vineyard Wind project”). The Plaintiffs ask this Court to set aside the illegal lease issuance and the approval of the Construction and Operations Plan.

3. Plaintiffs are comprised of commercial fishermen and their trade associations as well as a shoreside business. Their livelihoods and economic futures depend on fishing in the Vineyard Wind project area. The final Record of Decision (“ROD”) for the Vineyard Wind project states that approval of the project will likely result in the permanent abandonment of commercial fishing in the entire project area. *See Record of Decision: Vineyard Wind 1 Offshore Wind Energy Project Construction and Operations Plan*, BUREAU OF OCEAN ENERGY MANAGEMENT (May 10, 2021), <https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/Final-Record-of-Decision-Vineyard-Wind-1.pdf> at 39 (“While Vineyard Wind is not authorized to prevent free access to the entire wind development area, due to the placement of the turbines it

is likely that the *entire* 75,614 acre area will be *abandoned* by commercial fisheries due to difficulties with navigation.”) (emphasis added). Because the ability to fish in the Vineyard Wind lease area is key to the survival of the Plaintiffs as ongoing businesses, they will be economically ruined by the Federal Defendants’ collective action in approving the project.

4. While greenlighting the Vineyard Wind project, the Federal Defendants failed to adhere to their substantive statutory and regulatory responsibilities, acted in ways that are *ultra vires*, and fell short of complying with mandated procedures, all to the injury of the Plaintiffs.

5. The violations of the Federal Laws resulted from the Federal Defendants’ unintelligent pursuit of their overarching governmental goal of increasing the capacity of renewable energy generation on the Outer Continental Shelf at any cost. By indiscriminately pursuing that goal, the Federal Defendants disregarded their legal responsibilities. Accordingly, the Court should declare the issuance of the lease and the approval of the Construction and Operations Plan unlawful and enjoin further construction of the Vineyard Wind project.

II. PARTIES

A. Plaintiffs

6. Plaintiff Seafreeze Shoreside, Inc. (“Seafreeze”) is one of the largest fish dealers in Point Judith, Rhode Island, with sales in both domestic and international markets. Seafreeze purchases, sells, and processes product—primarily squid—from its own customers and other local wholesalers. Seafreeze is also the primary ice supplier to squid fishing vessels in Port Judith. Seafreeze services a company-owned, federally-permitted vessel (which supplies Seafreeze with squid and other marine species) and additionally services approximately 20 independently-owned vessels, many of which are federally-permitted squid vessels. Seafreeze employs about 40 people, including temporary workers. Squid is vital to Seafreeze’s business and the vessels it services. In

addition to participating in fishery management processes, Seafreeze has long supported cooperative research and works to enhance scientific understanding of fisheries' resources in the context of the wider marine environment. Seafreeze's entire business is injured because the issuance of Lease OCS-A-0501 and the approval of the Construction and Operations Plan will result in the cessation of commercial fishing activities in the Vineyard Wind lease area, on which Seafreeze depends for a substantial portion of its revenues.

7. Plaintiff Long Island Commercial Fishing Association, Inc. ("LICFA") is a commercial fishing industry group representing New York's commercial fishermen and fishing industry in 11 gear groups in 14 ports on Long Island. LICFA represents owners and operators from over 150 fishing businesses, boats, and fishermen who are home-ported on Long Island, some of which fish in state and federal waters that include the Vineyard Wind Lease area. LICFA and its members support extensive cooperative scientific research aimed at improving understanding of the marine environment, in addition to engaging in fisheries management, public education, and outreach. LICFA members are injured because the issuance of Lease OCS-A-0501 and the approval of the Construction and Operations Plan will result in the cessation of commercial fishing activities in the Vineyard Wind lease area, on which some LICFA members depend for a substantial portion of their revenues.

8. Plaintiff XIII Northeast Fisheries Sector, Inc. ("Sector XIII") is a private organization of commercial fishermen formed in 2010 with 49 members responsible for monitoring compliance with 60 fishing permits along the Coast of the Northeast United States and supporting the commercial fishing industry in the area. Members of Sector XIII fish the waters of the Vineyard Wind lease area, and their livelihoods depend upon the availability of that area for fishing. Members of Sector XIII are injured because the issuance of Lease OCS-A-0501 and the

approval of the Construction and Operations Plan will result in the cessation of commercial fishing activities in the Vineyard Wind lease area, on which Sector XIII members depend for a substantial portion of their revenues.

9. Plaintiff Heritage Fisheries, Inc. (“Heritage Fisheries”) is a commercial fishing company whose President is Thomas E. Williams, Sr., a commercial fisherman who started fishing commercially in 1967. Heritage Fisheries owns a fishing boat called “FV Heritage” that fishes the waters of the Vineyard Wind lease area, which provides approximately 30% - 40% of the annual revenues of the company. FV Heritage is captained by Thomas E. Williams Sr.’s son, Thomas Williams. The continuing economic viability of Heritage Fisheries depends on its ability to continue to fish in the Vineyard Wind lease area. Heritage Fisheries is injured because the issuance of Lease OCS-A-0501 and the approval of the Construction and Operations Plan will result in the cessation of commercial fishing activities in the Vineyard Wind lease area, on which Heritage Fisheries depends for a substantial portion of its revenues.

10. Plaintiff NAT W., Inc. (“NAT”) is a commercial fishing company whose President is Thomas E. Williams, Sr. NAT owns a fishing boat called “FV Tradition,” which is captained by Thomas E. Williams’ son, Aaron Williams. FV Tradition fishes the waters of the Vineyard Wind lease area, which provides approximately 50-60% of the revenues of NAT. The continuing economic viability of NAT depends on its ability to continue to fish in the Vineyard Wind lease area. NAT is injured because the issuance of Lease OCS-A-0501 and the approval of the Construction and Operations Plan will result in the cessation of commercial fishing activities in the Vineyard Wind lease area, on which NAT depends for a substantial portion of its revenues.

11. Plaintiff Old Squaw Fisheries, Inc. (“Old Squaw”) is a commercial fishing company based in Montauk, New York, whose President is David Aripotch. Old Squaw owns a fishing boat

called “FV Caitlin & Mairead,” which is captained by David Aripotch. FV Caitlin & Mairead fishes the waters of the Vineyard Wind lease area, which provides approximately 30% of the revenues of Old Squaw. The continuing economic viability of Old Squaw depends on its ability to continue to fish in the Vineyard Wind lease area. Old Squaw is injured because the issuance of Lease OCS-A-0501 and the approval of the Construction and Operations Plan will result in the cessation of commercial fishing activities in the Vineyard Wind lease area, on which Old Squaw depends for a substantial portion of its revenues.

B. Defendants

12. Defendant The United States Department of the Interior (“Interior”) is a federal executive department created in 1849 and responsible for managing and conserving federal lands and natural resources. Interior manages approximately 75% of the United States’ federal public land. Interior also administers federal historic preservation programs and oversees federal engagement with Native Americans, Alaska Natives, Native Hawaiians, insular areas, and other federal territories. Among other things, Interior is responsible for implementation of the Outer Continental Shelf Lands Act.

13. Defendant The Hon. Deb Haaland is the current Secretary of the Interior.

14. Defendant Bureau of Ocean Energy Management (“BOEM”) is a federal agency within Interior established in 2010 to oversee development of the Outer Continental Shelf. BOEM evaluates the resources of the Outer Continental Shelf and leases portions of it. BOEM also supervises and approves any oil, gas, or renewable energy projects conducted within Outer Continental Shelf leases.

15. Defendant Amanda Lefton is the current Director of BOEM.

16. Defendant Laura Daniel-Davis is the Deputy Assistant Secretary, Land and Minerals Management, Department of the Interior.

17. Defendant The United States Department of Commerce (“Commerce”) is a federal executive department focused on job creation, promoting economic growth, encouraging sustainable development, and blocking harmful international trade practices. Commerce also gathers a wide array of economic and demographic data to assist in business and government decision-making, and sets industry standards in many major fields. One of Commerce’s sub-agencies is the National Oceanic and Atmospheric Administration (“NOAA”). NOAA forecasts weather, monitors a variety of oceanic and atmospheric conditions, charts and explores the oceans, and (notably for this case) manages protection of marine mammals, threatened species, and endangered species in United States territory.

18. Defendant The Hon. Gina M. Raimondo is the current Secretary of Commerce.

19. Defendant The National Marine Fisheries Service (“NMFS” or “NOAA Fisheries”) is a federal agency founded in 1871 and placed within NOAA in 1970. NMFS oversees national marine resources and conserves fish species and manages fisheries, promoting sustainability and preventing overfishing, species decline, and habitat destruction. NMFS implements and enforces the Endangered Species Act with regard to marine organisms.

20. Defendant Catherine Marzin is the current Deputy Director of NOAA Fisheries.

21. Defendant The United States Department of Defense (“Defense”) is the federal executive department responsible for coordinating and supervising all government functions related to national security and the United States’ armed forces.

22. Defendant The Hon. Lloyd J. Austin is the current Secretary of Defense.

23. Defendant The United States Army Corps of Engineers (“Corps”) is a division of the United States Army, which is a sub-agency of Defense. The Corps’ mission is to serve as combat engineers, oversee military construction, and construct civil works like canals and dams. The Corps is also charged with administering portions of the Clean Water Act.

24. Defendant Lt. Gen. Scott A. Spellmon is the current Commander and Chief of Engineers of the Corps.

25. Defendant Col. John A. Atilano II is the current District Engineer of the New England District of the Corps.

III. JURISDICTION AND VENUE

26. Plaintiffs bring this action under the relevant provisions of the Administrative Procedure Act (“APA”), 5 U.S.C. §§ 701-706; the Outer Continental Shelf Lands Act (“OCSLA”), 43 U.S.C. § 1349(a)(2)(A); the Endangered Species Act (“ESA”), 16 U.S.C. §§ 1540(g)(1)(A), (B); the Clean Water Act (“CWA”), 33 U.S.C. § 1365(b); the Marine Mammal Protection Act (“MMPA”), 16 U.S.C. § 1371; and the National Environmental Policy Act (“NEPA”), 42 U.S.C. §§ 4321-4370h.

27. This court has subject matter jurisdiction pursuant to 5 U.S.C. §§ 701-706 (APA); 28 U.S.C. § 2201 (Declaratory Judgment Act); 43 U.S.C. § 1349(a)(2)(A) (OCSLA citizen suit provision); 16 U.S.C. §§ 1540(g)(1)(A) and (C) and (g)(2)(A) and (B) (ESA citizen suit provisions); and 33 U.S.C. § 1365(b) (CWA citizen suit provision).

28. Pursuant to the citizen suit provisions of OCSLA, ESA and CWA, Plaintiffs sent a 60-day notice of intent (“NOI”) to sue the Federal Defendants over their respective failures to comply with OCSLA, ESA and CWA in reviewing and approving the Vineyard Wind Construction and Operations Plan. *See Exhibit A.* The NOI was sent to all Federal Defendants

and certain other addressees required by statute on September 17, 2021, and was received by the last of them on September 20, 2021. Accordingly, Plaintiffs have complied with the 60-day notice requirements of OCSLA, ESA, and CWA. Signed copies of related mail receipts are attached to this complaint. *See Exhibit B.*

29. The relief requested is authorized by 28 U.S.C. § 2201 (declaratory judgment); 28 U.S.C. § 2202 (injunctive relief); 5 U.S.C. §§ 701-706 (APA); 43 U.S.C. § 1349 (OCSLA citizen suit provision); 16 U.S.C. § 1540(g) (ESA citizen suit provision); and 33 U.S.C. § 1365(b) (CWA citizen suit provision).

30. This Court also has jurisdiction pursuant to 28 U.S.C. § 1331, which grants the district courts “original jurisdiction of all civil actions arising under the . . . laws . . . of the United States.”

31. Venue is appropriate in this Court pursuant to 28 U.S.C. § 1391(e)(2) because the Federal Defendants reside in this district and a substantial part of the events or omissions giving rise to the claims occurred in this district. Venue is also appropriate under 16 U.S.C. § 1540(g)(3)(A) because the violation occurred in this district. Venue is also appropriate also under 5 U.S.C. § 703.

32. An actual, justiciable controversy exists between the parties within the meaning of 28 U.S.C. § 2201.

33. The federal Government has waived sovereign immunity in this action pursuant to 5 U.S.C. § 702, 43 U.S.C. § 1349, 16 U.S.C. § 1540, and 33 U.S.C. § 1365.

34. Plaintiffs have exhausted all administrative remedies, the agency action is final and ripe for review, and all Plaintiffs have standing because they are injured in fact because of the Federal Defendants’ actions or omissions and this court has the power to redress those injuries.

IV. LEGAL BACKGROUND

A. Outer Continental Shelf Lands Act and Implementing Regulations

35. The United States Congress enacted OCSLA in August 1953, authorizing the Secretary of the Interior to oversee mineral exploration and development in the Outer Continental Shelf by granting leases through a competitive bid process now managed by BOEM. 43 U.S.C. §§ 1331–1356. The law requires that “the character of the waters above the outer continental shelf as high seas and the right to navigation and fishing therein shall not be affected” by BOEM’s management and regulation. *Id.* § 1332(2).

36. In 2005, Congress amended OCSLA to impose a legal obligation on BOEM to protect existing “reasonable uses” of the Outer Continental Shelf, including commercial fishing, and to consider the impact of proposed leases’ on fishing and navigational uses. 43 U.S.C. § 1337(p)(4)(I), (J). Congress included this requirement in a list of factors BOEM must consider when examining any proposed Outer Continental Shelf lease. 43 U.S.C. 1337(p)(4).

37. In 2011, BOEM decided to revise an earlier 2009 rulemaking, referring to its revisions as the “Smart From The Start” policy. 76 Fed. Reg. 28178 (May 16, 2011) (amending 30 C.F.R. § 285). This revision was supposed to streamline review and approval of offshore wind energy leases by allowing BOEM to streamline its review process and bypass periods of public comment that existed under the 2009 Rule. Under the prior rule, issuance of a lease and approval of development occurred in four phases: (1) planning and analysis; (2) lease issuance; (3) Site Assessment Plan approval; and (4) Construction and Operations Plan approval. With regard to leasing, the “Smart From The Start” policy merged the first three steps, leaving only one opportunity for public comment upon receipt of an unsolicited lease proposal, removing any pre-bid opportunity for public comment on the lease locations, and torpedoing any on-site evaluation

of environmental impacts or existing “reasonable uses,” including fishing, prior to lease issuance. Essentially, the “Smart From The Start” policy purports to authorize BOEM to lease large areas of the Outer Continental Shelf to private companies without adequate process and without consideration of alternative sites.

B. Endangered Species Act and Implementing Regulations

38. The United States Congress enacted the Endangered Species Act (“ESA”) to protect species vulnerable to extinction. Before a species receives full protection under the ESA, it must be listed as “threatened” or “endangered.” A “threatened” species is “any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” 16 U.S.C. § 1532(20). An “endangered” species is “in danger of extinction throughout all or a significant portion of its range.” 16 U.S.C. § 1532(6). The government determines whether to list a species based on certain factors using the “best scientific and commercial data available.” 16 U.S.C. § 1533(b)(1)(A).

39. Once a species is listed as “threatened” or “endangered,” the ESA protects it by making it unlawful for any person to “take” such species. 16 U.S.C. § 1538(a)(1)(B). To “take” means to “harass, harm, hunt, pursue, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” 16 U.S.C. § 1532(19).

40. Moreover, the government has a duty to specify critical habitat for any threatened or endangered species “to the maximum extent prudent and determinable.” 16 U.S.C. § 1533(a)(3)(A). Critical habitat means “the specific areas within the geographical area occupied by the species . . . on which are found those physical or biological features essential to the conservation of the species and which may require special management considerations or protection,” as well as specific areas outside an endangered species’ range “upon a determination

by the Secretary [of Commerce] that such areas are essential for the conservation of the species.” 16 U.S.C. § 1532(5)(A)–(B) (cleaned up).

41. Federal agencies must ensure that any action they authorize, fund, or carry out “is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of [critical] habitat of such species.” 16 U.S.C. § 1536(a)(2). If a permit applicant “has reason to believe that an endangered species or a threatened species may be present in the area affected by his project and that implementation of such action will likely affect such species[,]” the federal agency involved must consult with the Secretary of Commerce. The Secretary must provide the consulting agency and applicant with a Biological Opinion summarizing how the project will impact a species or its critical habitat, and the basis for that decision. *See* 16 U.S.C. § 1536(b)(3)(A). If the Biological Opinion finds jeopardy or adverse modification, it must suggest “reasonable and prudent alternatives” for the agency and applicant to avoid these negative outcomes. *Id.* If the Biological Opinion finds no jeopardy or adverse modification, the Secretary must issue a written incidental take statement. This statement must (1) specify the impact of an incidental taking on the species, (2) specify reasonable and prudent measures necessary or appropriate to minimize that impact, and (3) set forth the terms and conditions with which the agency or applicant must comply to implement those measures. 16 U.S.C. § 1536(b)(4)(B)(i)–(iv).

C. Clean Water Act and Implementing Regulations

42. Congress enacted the Federal Water Pollution Control Act, subsequently amended as the Clean Water Act (“CWA”), in 1972 to regulate “navigable waters,” meaning the “waters of the United States, including the territorial seas.” 33 U.S.C. § 1362(7). The CWA prohibits discharging dredged and fill material into navigable waters without a permit. 33 U.S.C. § 1311(a).

However, the Secretary of the Army, through the Army Corps of Engineers, may issue permits for such discharges. 33 U.S.C. § 1344.

43. When making permitting decisions, the Corps must follow the CWA's statutory guidelines. 33 U.S.C. § 1344(b). These guidelines bar the Corps from granting a permit "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." 40 C.F.R. § 230.10(a). A practicable alternative is "available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes." *Id.* This includes locations that the permit applicant does not currently own, but could "reasonably be obtained, utilized, expanded, or managed in order to fulfill the basic purpose of the proposed activity." *Id.* And practicable alternatives also include "[a]ctivities which do not involve a discharge of dredged or fill material into the waters of the United States[]," including onshore renewable energy projects. *Id.*

44. In addition, the CWA's implementing regulations require the Corps to conduct a public interest review for each permit application, and prohibits the granting of any permit that would be "contrary to the public interest." 33 C.F.R. § 320.4(a)(1).

D. Marine Mammal Protection Act and Implementing Regulations

45. Congress enacted the Marine Mammal Protection Act ("MMPA") in 1972. It prohibits (with few exceptions) the "take" of marine mammals in United States waters and by United States citizens on the high seas, and the importation of marine mammals and marine mammal products into the United States. The law's primary purpose is protecting marine mammals, and Congress did not intend it to balance between the welfare of marine mammals and

the interests of other industries. *See Comm. for Humane Legis., Inc. v. Richardson*, 414 F. Supp. 297 (D.D.C.), *aff'd*, 540 F.2d 1141 (D.C. Cir. 1976).

E. National Environmental Policy Act and Implementing Regulations

46. The National Environmental Policy Act (“NEPA”) is our “basic national charter for the protection of the environment.” 40 C.F.R. § 1500.1(a). It achieves its purpose by “action forcing procedures . . . requir[ing] that agencies take a hard look at environmental consequences.” *Robertson v. Methow Valley Citizens Counsel*, 490 U.S. 332, 350 (1989). This “hard look” means federal agencies must consider “any adverse environmental effects which cannot be avoided.” 42 U.S.C. § 4332(C)(ii). This process requires agencies to “identify and develop methods and procedures . . . which will insure that presently unquantified environmental amenities and values may be given appropriate consideration in decision-making along with economic and technical considerations.” 42 U.S.C. § 4332(B).

47. Agencies fulfill these duties by preparing a “detailed statement” for all major agency actions “significantly affecting the quality of the human environment,” known as an environmental impact statement (“EIS”) 42 U.S.C. § 4332(C). For actions that are not likely to have significant effects or where the significance of the effects is unknown, agencies must prepare an Environmental Assessment (“EA”) to analyze the potentially affected environment and consider “connected actions.” 40 C.F.R. § 1501.3(a)–(b).

48. An EIS must include within its scope “[c]umulative actions [that] when viewed with other proposed actions have cumulatively significant impacts and should therefore be discussed in the same impact statement” and “[s]imilar actions [that] when viewed with other reasonably foreseeable or proposed agency actions, have similarities that provide a basis for evaluating their environmental consequences together.” 40 C.F.R. § 1508.25(a)(2)–(3). This

cumulative impact requirement ensures that agencies consider the collective effects of individually minor but related actions over time when examining environmental impact. 40 C.F.R. § 1508.7.

49. “Effects” and “impacts” are synonymous with respect to NEPA. 40 C.F.R. § 1508.8. The EIS must analyze “ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative” effects. 40 C.F.R. § 1508.8. Direct effects “are caused by the action and occur at the same time and place.” 40 C.F.R. § 1508.8(a). Indirect effects “are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.” 40 C.F.R. § 1508.8(b).

50. The EIS must not only identify impacts but evaluate their severity. 40 C.F.R. § 1502.16(a)–(b) (recognizing that agency must explain the “significance” of effects). And when providing reasonable alternatives, agencies must include even those they do not have the specific authority to implement. *See NRDC v. Morton*, 458 F.2d 827 (D.C. Cir. 1972).

51. The law also requires agencies to “prepare supplements to either draft or final environmental impact statements if . . . [t]he agency makes substantial changes in the proposed action that are relevant to environmental concerns, or . . . [t]here are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.” 40 C.F.R. § 1502.9(c)(1).

F. Administrative Procedure Act

52. The Administrative Procedure Act (“APA”) provides a right to judicial review for any “person suffering legal wrong because of agency action.” 5 U.S.C. § 702. This includes final agency actions “for which there is no other adequate remedy in a court.” 5 U.S.C. § 704. The reviewing court must “hold unlawful and set aside agency action” that it finds “arbitrary,

capricious, an abuse of discretion, or otherwise not in accordance with law; . . . in excess of statutory jurisdiction, authority, or limitations, or short of statutory right;” or “without observance of procedure required by law” 5 U.S.C. § 706(2)(A), (C), (D).

V. FACTUAL ALLEGATIONS

BOEM Promulgates the “Smart From The Start” Program

53. On November 23, 2010, the Obama Administration announced its “Smart From The Start” program, designed to “speed offshore wind energy development off the Atlantic Coast.” *Press Release*, U.S. DEPT. OF INTERIOR, <https://www.doi.gov/news/pressreleases/Salazar-Launches-Smart-from-the-Start-Initiative-to-Speed-Offshore-Wind-Energy-Development-off-the-Atlantic-Coast>.

54. The “Smart From The Start” program was based on a regulatory initiative that purports to allow BOEM to issue, publish, and award offshore wind leases without satisfying its statutory duty of pre-leasing review. *Id.*; *see also* 43 U.S.C. § 1337(p)(4) (outlining required factors for pre-leasing review).

55. BOEM amended its regulations to set the stage to fully implement the “Smart From The Start” program on May 16, 2011. *See* 76 Fed. Reg. 28178.

BOEM Implements the “Smart From The Start” Program

56. On February 6, 2012, BOEM published a notice of intent to prepare an environmental assessment for siting several “Smart From The Start” wind energy leases located off the coast of Massachusetts. *See* 77 Fed. Reg. 5830.

57. On the same day, BOEM published a call for information and nominations “for commercial leases” off the Massachusetts coast. 77 Fed. Reg. 5820 (Feb. 6, 2012).

58. BOEM made limited efforts to review commercial fishing impacts as part of its siting decision for its “Smart From The Start” leases located off the coast of Massachusetts. *See Site Assessment Plan (SAP)*, BUREAU OF OCEAN ENERGY MANAGEMENT (Nov. 22, 2017), <https://www.boem.gov/sites/default/files/renewable-energy-program/State-Activities/MA/VW-Site-Assessment-Plan.pdf>.

59. The review purports to list state-by-state fishery dollar values based on commercial landings by weight and value for species that contribute over \$1 million in Massachusetts for a single year—a highly-limited snapshot of fishing activity in the proposed lease area that is the subject of this litigation (the “Vineyard Wind lease area” or “Vineyard Wind site”). *Id.* at 58–59.

60. BOEM’s review lists impacts to the Commonwealth of Massachusetts when discussing sites off of the Massachusetts coast, despite the fact that the proposed sites were in federal waters and impacted fisheries from multiple states—one of several narrow limitations BOEM adopted in its “Smart From The Start” program. *Id.* at 56.

61. BOEM’s review found that “[s]tate commercial fishing effort” was “low to medium in State waters south of Martha’s Vineyard, adjacent to the location of the [proposed lease site].” *Id.* (cleaned up). However, the Vineyard Wind lease area is not in “state” waters but is in federal waters on the Outer Continental Shelf. Accordingly, this finding by its own terms does not apply to the Vineyard Wind lease area.

62. The entire review was based on a faulty process which defined the Wind Energy Area (the “WEA”) through the BOEM Massachusetts Renewable Energy Task Force, whose primary method of communication with affected stakeholders was through a Massachusetts-based focused group that did not conduct substantial outreach to affected federal fisheries permit holders in states other than Massachusetts, such as Rhode Island and New York, where the bulk of

commercial fisheries using the Vineyard Wind lease area are based. *Id.* Failure to reach out to commercial fisheries in Rhode Island and New York during the initial phases of implementing the “Smart From The Start” policy doomed the policy to failure from the start.

BOEM Awards An Offshore Wind Lease to the Predecessor of Vineyard Wind LLC Based on “Smart From The Start”

63. BOEM awarded Lease OCS-A-0501 (the “Vineyard Wind lease”) to a company called Offshore MW LLC in 2015. *See* 79 Fed. Reg. 70545 (Nov. 26, 2014) (FSN); <https://www.boem.gov/sites/default/files/renewable-energy-program/State-Activities/MA/Lease-OCS-A-0501.pdf>.

64. The Vineyard Wind lease became effective on April 1, 2015. *See id.*

65. Offshore MW LLC and Vineyard Power, a Martha’s Vineyard energy cooperative, were partners in the bidding and lease award.

66. Through several corporate transactions, Offshore MW LLC became Vineyard Wind LLC. *See* Final EIS at 1-1.

67. BOEM awarded Lease OCS-A-0501 under the “Smart From The Start” policy—in other words, without considering the requirements set forth in 43 U.S.C. § 1337(p)(4).

68. BOEM prepared an environmental assessment (“EA”) in connection with the lease award. *See* https://www.boem.gov/sites/default/files/uploadedFiles/BOEM/BOEM_Newsroom/Library/Publications/2021/BOEM-2012-087.pdf.

69. BOEM awarded the Vineyard Wind lease without issuing an environmental impact statement (“EIS”).

70. BOEM received multiple public comments before awarding this lease, some of which specifically objected to BOEM’s issuance of the lease without first complying fully with the requirements of 43 U.S.C. § 1337(p)(4) and NEPA.

**Vineyard Wind LLC Submits Its Construction and Operations Plan
(the “COP”)**

71. In December 2017, Vineyard Wind LLC (hereinafter “Vineyard Wind”) submitted the COP to BOEM for review.

72. The COP did not provide sufficient data to demonstrate that its planned construction or operation would ensure safe passage and navigation for commercial fishing boats, safe operations for bottom trawl vessels, or a safe environment for emergency rescue operations or marine life.

BOEM Issues Its Draft Environmental Impact Statement (the “Draft EIS”) and Initiates Consultation with NMFS under the ESA, While The United States Army Corps of Engineers (the “Corps of Engineers” or the “Corps”) Begins Public Review of Vineyard Wind’s Permit Application Under the CWA

73. Shortly after receiving the COP, BOEM published a Notice of Intent to prepare a Draft EIS in connection with its review of the COP. *See* 83 Fed. Reg. 13777 (Mar. 30, 2018).

74. BOEM published the Draft EIS on December 7, 2018 and requested public comment. *See* 83 Fed. Reg. 63184.

75. Among other things, the Draft EIS found that the turbines Vineyard Wind originally planned to use would not be able to survive a category 3 hurricane. Draft EIS at 2–18.

76. Concurrently with its issuance of the Draft EIS, BOEM initiated ESA consultation with the National Marine Fisheries Service pursuant to the requirements of the ESA.

77. The Corps of Engineers announced its public-interest review of Vineyard Wind’s Clean Water Act permit application for the Vineyard Wind site on December 26, 2018, and closed the comment period on January 28, 2019.

Vineyard Wind Enters into a Private Contract with Electric Companies to Provide Offshore Wind Energy and Obtains Regulatory Approval from Massachusetts

78. On July 18, 2018, months before the DEIS was published for public comment and months before consultation with NMFS was commenced, Vineyard Wind filed a power purchase agreement with several Massachusetts electric companies for offshore wind energy and renewable energy certificates.

79. In February 2019, the comment period closed for the Draft EIS.

80. Shortly afterward, the Massachusetts Department of Public Utilities approved Vineyard Wind's power purchase agreements and issued the requested renewable energy certificates.

NMFS Calls “Time Out”

81. In March 2019, NMFS refused to concur with BOEM's Draft EIS, citing concerns over the impact of the Vineyard Wind project on marine species, marine habitat, and socioeconomic resources.

82. Among other concerns, NMFS identified the Vineyard Wind lease area and cable route as “one of the primary documented spawning locations for longfin squid” and pointed out that the draft EIS lacks “adequate study on the effects of electrical and electromagnetic frequency “EMF” and heat from transmission cables on invertebrates” Noah Asimow, *NOAA Raises Concerns About Effects of Wind Farm and Undersea Cables*, VINEYARD GAZETTE (Mar. 26, 2019), <https://vineyardgazette.com/news/2019/03/26/noaa-raises-concerns-about-effects-wind-farm-and-undersea-cables>.

83. On July 29, 2019, Massachusetts Governor Charlie Baker traveled to Washington, DC to lobby BOEM to approve the Vineyard Wind COP despite NMFS's concerns. Douglas Hook, *Gov. Charlie Baker is in Washington D.C. to push for the wind farm off the coast of*

Martha's Vineyard, MASSLIVE (Jul. 29, 2019), <https://www.masslive.com/capecod/2019/07/gov-charlie-baker-is-in-washington-d-c-to-push-for-the-wind-farm-off-the-coast-of-marthas-vineyard.html>.

84. At NMFS's urging, on August 9, 2019, BOEM delayed approval of the Vineyard Wind project to conduct an expanded "cumulative impacts analysis" before issuing its final environmental impact statement ("Final EIS"). Colin A. Young, *Federal Review Will Further Delay Vineyard Wind*, WBUR (Aug. 9, 2019), <https://www.wbur.org/news/2019/08/09/vineyard-wind-project-delayed>.

85. Governor Charlie Baker's office called BOEM's delay "a step in the wrong direction." *Id.*

86. On September 16, 2019, Brendan Moss (press secretary for Governor Charlie Baker) became communications director for Vineyard Wind.

NMFS Bungles Its Consultation Responsibilities

87. In 2019, NMFS promulgated a set of interagency consultation regulations, that:

- a. limit when agency action would be deemed to adversely modify designated critical habitat by requiring the action to affect habitat as a whole;
- b. alter the definitions of "effects of the action" and "environmental baseline" to limit the scope of analysis of effects;
- c. require that the effects be:
 - i. a but-for result of agency action;
 - ii. reasonably certain to occur; and
 - iii. based on clear and substantial information;
- d. limit when changed circumstances would require new consultation;

- e. limit agencies' duties to ensure mitigation of adverse effects;
- f. unlawfully delegate to other agencies the ability to make biological determinations that NMFS is required to make; and
- g. allow for rote, slapdash consultations that replace legally required site-specific, in-depth analysis of proposed agency action.

See 84 Fed. Reg. 44976 (Aug. 27, 2019).

88. NMFS's consultation with BOEM regarding the Vineyard Wind COP resulted in several errors.

- a. NMFS did not provide BOEM with any alternative lease sites in connection with any endangered species, despite the lease area encompassing a large area of habitat for the endangered North Atlantic Right Whale.
- b. NMFS issued a biological opinion that (1) does not properly establish the environmental baseline, (2) excludes a number of effects the Vineyard Wind project will have on the endangered North Atlantic Right Whale, (3) fails to properly consider the impact of the project on the survival and recovery of endangered species in the area, (4) fails to consider research studies showing the short-term harms to the marine habitat of endangered species caused by the construction and operation of wind farms, and (5) is additionally flawed for the reasons set forth in items 1 through 49 of the 60-Day Notice letter dated May 24, 2021, sent on behalf of the Nantucket Residents Against Turbines. *See* Exhibit C.

- c. NMFS issued inadequate incidental take statements that failed to take into account all effects to endangered species, especially to the North Atlantic Right Whale.
- d. BOEM failed to reinitiate consultation after receiving new data that would have affected the biological opinion and incidental take statement, or after Vineyard Wind altered its project to include large new Haliade-X turbines.

BOEM Issues Its Supplemental Draft EIS and NMFS Issues its Biological Opinion

89. On June 12, 2020, BOEM issued a notice of availability of a supplemental draft environmental impact statement (“Supplemental Draft EIS”) that analyzed “reasonably foreseeable effects from an expanded cumulative activities scenario for offshore wind development, previously unavailable fishing data, a new transit lane alternative, and changes to the COP since publication of the Draft [EIS].” 85 Fed. Reg. 35952 (June 12, 2020).

90. BOEM closed comments on the Supplemental Draft EIS on July 27, 2020. *Id.*

91. The Supplemental Draft EIS confirmed that the Vineyard Wind project would likely harm the local ecosystem, local marine species, commercial fisheries, scientific research and surveys, and military and national security uses. Specifically, the Supplemental Draft EIS shows that:

- a. Special aquatic sites for coral, eel grass, and wetlands are located within the impact zone for the Vineyard Wind project. *See* Supplemental Draft EIS at ES-7.
- b. Construction on the Project would likely kill, displace, or disturb local species, including endangered species. *See id.* at 3-114.

c. There would be “major” adverse cumulative impacts on commercial fisheries, scientific research and surveys, and military and national security uses. *See id.* at ES-3.

92. Three months after BOEM issued the Supplemental Draft EIS, NMFS issued its Biological Opinion, dated September 11, 2020.

93. BOEM planned to issue a Final EIS on the Vineyard Wind project by December 11, 2020 and a decision on the COP by January 15, 2021.

Vineyard Wind Terminates Federal Review Of The COP

94. On December 1, 2020, Vineyard Wind withdrew its COP from federal review.

95. Vineyard Wind characterized this withdrawal as “temporary” and claimed it was necessary “to allow the project team to conduct a final technical review associated with the inclusion of General Electric Company’s (“GE’s”) 13-14 MW Haliade-X into the final project design.” *Statement on BOEM’s Acknowledgement of Temporary COP Withdrawal*, VINEYARD WIND (accessed Nov. 17, 2021), <https://www.vineyardwind.com/press-releases/2020/12/14/vineyard-wind-statement-on-boems-acknowledgement-of-temporary-cop-withdrawal>.

96. GE’s 13-14 MW Haliade-X is an enormous prototype wind turbine that BOEM had never before analyzed in any context for use on the Outer Continental Shelf before the Vineyard Wind project review.

97. GE’s website story on the Haliade-X turbine begins with the sentence: “It’s hard to conceive of just how large it is.” *Meet the Haliade-X – Powering 16,000 Homes*, GE RENEWABLE ENERGY, last accessed Nov. 17, 2021, <https://www.ge.com/renewableenergy/stories/new-wind-turbine-to-increase-efficiency-in-offshore-wind-farms>.

98. The 13-14 MW Haliade-X turbine stretches 260 meters in height (approximately 853 feet), which is the approximate height of San Francisco’s Transamerica Pyramid, with blades “as long as a football field.” *Id.* The turbine’s blades are 107 meters long and the rotor is 220 meters. *Haliade-X offshore wind turbine*, GE RENEWABLE ENERGY, last accessed December 6, 2021, <https://www.ge.com/renewableenergy/wind-energy/offshore-wind/haliade-x-offshore-turbine>.

99. The Vineyard Wind project includes sixty-two 13-14 MW Haliade-X units in its final design. Michelle Lewis, *It gets real – Vineyard Wind orders its Haliade-X wind turbines*, ELECTREK (Oct. 13, 2021), <https://electrek.co/2021/10/13/egeb-it-gets-real-vineyard-wind-orders-its-haliade-x-wind-turbines/>.

100. When Vineyard Wind began reviewing the Haliade-X turbine, the only operating 13-14 MW Haliade-X turbine in the world was located on land at the Port of Rotterdam, Netherlands.

101. The Rotterdam Haliade-X turbine had been in operation for less than a year when Vineyard Wind began reviewing it for inclusion in its project pursuant to the notice dated December 1, 2020.

102. In its statement on withdrawal, Vineyard Wind stated that it “look[s] forward to working together [with BOEM] again after we notify [BOEM] to resume its review.” *Statement*, VINEYARD WIND (accessed Nov. 17, 2021). This statement misrepresents what it means to withdraw a COP from review, as opposed to seeking a suspension of review.

103. BOEM published notice that it had terminated (and not merely suspended) review of the Vineyard Wind COP on December 16, 2020. 85 Fed. Reg. 81486 (Dec. 16, 2020).

104. BOEM’s notice of termination stated that “[s]ince the COP has been withdrawn from review and decision-making, there is no longer a proposal for a major federal action awaiting technical and environmental review, *nor is there a decision pending before BOEM.*” *Id.* (emphasis added).

BOEM Raises The Vineyard Wind COP From The Dead

105. Shortly after the Biden Administration entered office, Vineyard Wind asked BOEM via letter dated January 22, 2021, to resume review of its terminated COP, indicating that it “had completed its technical and logistical due diligence review and had concluded that inclusion of the Haliade-X turbines did not warrant any modifications to the COP.” 86 Fed. Reg. 12495 (Mar. 3, 2021).

106. Vineyard Wind’s letter did not provide detailed documentation of its review of the 13-14 MW Haliade-X turbines.

107. Nothing in Vineyard Wind’s letter indicates that Vineyard Wind solicited public input on the safety, efficacy, or environmental impact of using the large 13-14 MW Haliade-X turbines during its review from December 16, 2020, to January 22, 2021.

108. BOEM published the following notice in the Federal Register: “Vineyard Wind . . . informed BOEM that it was rescinding its temporary withdrawal and asked BOEM to resume its review of the COP. Because Vineyard Wind has indicated that its proposed COP is a ‘decision pending before BOEM’, BOEM is resuming its review of the COP under NEPA.” *Id.*

109. BOEM resumed review of the terminated Vineyard Wind COP because Vineyard Wind falsely claimed that the COP was pending review.

110. BOEM resumed review of the terminated Vineyard Wind COP without requiring Vineyard Wind to update the agency with details describing studies, surveys, and other project-

specific information Vineyard Wind gathered during its 13-14 MW Haliade-X review between December 1, 2020 and January 22, 2021.

BOEM, NMFS, and the Corps Jointly Issue the Final EIS Under NEPA

111. Nine days after officially resuming review of the COP, BOEM published the Vineyard Wind site Final EIS. 86 Fed. Reg. 14153 (Mar. 12, 2021).

112. The Final EIS confirmed that the Vineyard Wind project would significantly harm the ecosystem, marine life, the fishing industry, shoreside businesses, and other statutorily-protected interests such as scientific research and navigational radar. Specifically, the Final EIS found that:

- a. The Vineyard Wind project will increase the risk of collision between marine vessels. *See* Final EIS at 3-246.
- b. The project will result in massive devastation of the marine environment if severe weather or a hurricane fells Vineyard Wind's large Haliade-X turbines, which have never before been tried or tested anywhere other than at the Port of Rotterdam. *See id.* at 3-81, 89, 219.
- c. The project will disturb the coastal breeding grounds of the horseshoe crab, a species whose blood is an essential ingredient for life-saving medical tests and treatments. *See id.* at 3-28.
- d. The project will likely permanently harm, displace, and disturb existing fish, sea turtle, and mammal populations. *See id.* at 3-43, 46, 75, 76, 103, 105.

- e. The proposed spacing between wind turbines will make it nearly impossible for commercial fishing trawl and dredge vessels to operate in the lease area, especially at night and in severe weather. *See id.* at 3–96, 207, 214, 215.
- f. The wind turbines will interfere with navigational radar. *See id.* at 3–214; *see also, e.g.*, Report to the Congressional Defense Committees, “The Effect of Windmill Farms on Military Readiness,” Department of Defense Office of the Director of Defense and Research Engineering (2006) at 4.

113. The Final EIS lacked any findings on whether Vineyard Wind’s new prototype Haliade-X turbines could survive an adverse weather event with high winds and surf, such as a major hurricane.

114. The Final EIS concluded that “approximately 22 GW of Atlantic offshore wind development is reasonably foreseeable.” Final EIS at 1-6. This figure is inconsistent with the Administration’s stated goal of “deploy[ing] 30 gigawatts (GW) of offshore wind in the United States by 2030 . . . Achieving this target also will unlock a pathway to 110 GW by 2050 . . .”

FACT SHEET: Biden Administration Jumpstarts Offshore Wind Energy Projects to Create Jobs, THE WHITE HOUSE (Mar. 29, 2021), <https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/29/fact-sheet-biden-administration-jumpstarts-offshore-wind-energy-projects-to-create-jobs/>.

115. The Final EIS failed to consider a reasonable range of alternatives to the COP that were located outside of the lease area covered by Lease OCS-A-0501 because BOEM’s application of the “Smart From The Start” program impermissibly and effectively limited all alternatives to only those that were within the lease area.

116. Although the Draft Supplemental EIS considered some cumulative impacts, the Final EIS curiously removed most of the cumulative impacts analysis and failed to properly analyze the foreseeable, cumulative ecological impacts that implementation of BOEM's pledged plans to approve multiple wind farms near the Vineyard Wind project would have, including:

- a. the oil spill risks associated with wind turbines;
- b. the cumulative environmental risks associated with pile-driving installation of the turbines;
- c. the cumulative impact that operational underwater sound associated with the installation and operation the turbines will have on marine life and resources;
- d. the cumulative impact of electrical and electromagnetic frequency ("EMF") discharge from generators and cabling will have on the marine environment; and
- e. the cumulative impact on commercial fishermen, small harvester fishing businesses, onshore seafood processors, and other point of service seafood sales and businesses.

117. After resuming review of the COP, BOEM did not engage with commercial fishermen, shoreside businesses, or the general public when preparing the Final EIS, including on such crucial issues as environmental and economic impacts.

118. After BOEM resumed its review, affected states gathered no substantial input from the plaintiff commercial fishermen or other similarly situated businesses that use the Vineyard Wind lease area with regard to the environmental and economic impacts of the Vineyard Wind project.

119. Throughout the process, BOEM, affected states, and Vineyard Wind provided a meager opportunity for financial mitigation to certain limited fishing interests and shoreside businesses without consulting with or mitigating the impact of the COP on other fishing interests, thereby favoring some commercial fishing businesses over others, without adequate explanation.

BOEM Reinitiates the ESA Consultation Process with NMFS While Simultaneously Issuing its Joint Record of Decision (the “ROD”) Under NEPA With NMFS and the Corps of Engineers

120. On May 7, 2021, two months after issuing the final EIS, BOEM submitted a request to NMFS to reinitiate consultation to consider new information regarding the impacts of the Vineyard Wind Project on endangered species.

121. Three days later, and before NMFS had the opportunity to analyze the new information submitted by BOEM, on May 10, 2021, BOEM issued its Joint Record of Decision under NEPA with NMFS and the Corps of Engineers approving the Vineyard Wind COP and clearing the way for construction to begin. *See* 86 Fed. Reg. 26541 (May 14, 2021); *see also* *Record of Decision: Vineyard Wind 1 Offshore Wind Energy Project Construction and Operations Plan*, BUREAU OF OCEAN ENERGY MANAGEMENT (May 10, 2021), <https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/Final-Record-of-Decision-Vineyard-Wind-1.pdf>.

122. Among other things, the ROD states the following:

- a. “The purpose of the [agency action on the Vineyard Wind COP] is to determine whether to approve, approve with modifications, or disapprove the COP . . . to meet New England’s demand for renewable energy. More specifically, the proposed Project would deliver power to the New England Energy grid to contribute to Massachusetts’ renewable energy

requirements—particularly, the Commonwealth’s mandate that distribution companies jointly and competitively solicit proposals for offshore wind energy generation” ROD at 10—11.

- b. “BOEM’s decision on Vineyard Wind’s COP is needed to carry out its duty to approve, approve with modifications, or disapprove the proposed Project in furtherance of the United States policy to make OCS energy resources available for expeditious and orderly development” ROD at 11.

123. The ROD shows that BOEM dismissed several alternatives to locating the Vineyard Wind project in the lease area in the ROD. Such alternatives included:

- a. proposals made by Seafreeze that the COP should not be approved until the agencies could fully analyze radar interference caused by Vineyard Wind with search-and-rescue operations;
- b. comments showing that the COP’s structural analysis was flawed and should be changed;
- c. concrete proposals to eliminate certain important fisheries areas of the lease from the COP;
- d. concrete proposals showing that Vineyard Wind’s decision to use larger turbines would have cumulative impacts necessitating further analysis;
- e. comments urging consideration of the devastating impact the Vineyard Wind project would have on fisheries, specifically the longfin squid fishery;
- f. concrete proposals regarding compensation for commercial fishermen and shoreside industries negatively impacted by the Vineyard Wind Project;

- g. the proposal of the High Frequency Radar Wind Turbine Interference Community Working Group dated June 2019; and
- h. the proposal of a reasonable alternative that set forth proposed transit lanes in the lease area to ensure safety and viability of commercial fishing operations put forward by the Responsible Offshore Development Alliance (“RODA”).

124. BOEM and the other agencies involved in compiling the ROD did not adequately cite sources or sufficiently explain why the following comments do not warrant further response:

- a. Comment 1063-002, which concerned fisheries mitigation and compensation;
- b. Comment 0076-004, which questions the sufficiency of the purpose and need statement for the purposes of NEPA;
- c. Comment 13185-017, which pointed out BOEM’s failure to consider the cumulative impact of fisheries mitigation plans and associate compensation;
- d. Comment 13185-018, which addressed BOEM’s failure to fully analyze impacts to shoreside businesses or gather enough peer review or public input; and
- e. All comments made by Seafreeze regarding the last-minute increase in megawatt capacity for each wind turbine generator without adequate analysis.
- f. Comments 0116-001 through 05, which concerns the fact that New York was not given factual consistency review, was not included in the task force,

and accordingly had no way to negotiate compensation to New York squid fishermen.

125. BOEM approved Vineyard Wind's terminated, insufficient, and out-of-date COP without any further environmental impact assessment, despite material and significant discrepancies involving the Vineyard Wind project envelope and project material parameters from the Draft EIS, to the Supplemental Draft EIS, and through the Final EIS.

126. BOEM approved this terminated, insufficient, and out-of-date COP without public notice or opportunity for comment on the choice of a large prototype wind turbine for the Vineyard Wind project made during the period December 1, 2020, to January 22, 2021.

127. BOEM approved this terminated, insufficient, and out-of-date COP in disregard of adverse impacts to endangered species, or approved it despite knowing it would harm endangered species.

128. BOEM approved this terminated, insufficient, and out-of-date COP without accounting for its own plans for widespread development of wind farms on the outer Continental Shelf, or any foreseeable cumulative impacts.

129. The Corps of Engineers' final decision regarding Vineyard Wind's Clean Water Act permit application was included in the ROD. *See* ROD at 30—49.

130. Among other things, the ROD states the following regarding the Corps' permit grant:

- a. "Vineyard Wind's contractual obligation with the Commonwealth of Massachusetts to deliver the generated energy to the Massachusetts power grid was used as criteria for the evaluation of alternatives as the ability to

deliver to the power grid limits where the project can be located geographically.” ROD at 32.

b. “[D]ue to the placement of the turbines it is likely that the entire [lease] area will be abandoned by commercial fisheries due to difficulties with navigation. The extent of impact to commercial fisheries and loss of economic income is estimated to total \$14 million over the expected 30-year lifetime of the project. . . . When considering these factors, the project as proposed is anticipated to have a negligible beneficial effect to local economics.” ROD at 39.

131. As part of its review, the Corps found no jeopardy to endangered species and recommended no adverse modification to the NMFS.

132. The Corps did not sufficiently consider practicable alternative locations for the Vineyard Wind project outside the lease area in the public-interest review portion of the Record of Decision.

133. The Corps admitted that “[Vineyard Wind] does not require access or proximity to or siting within a special aquatic site to fulfill its basic project purpose.” ROD at 31. Yet the Corps also restricted analysis of practicable alternatives to areas in the water because the existing Vineyard Wind lease was in the ocean.

134. The Corps also erroneously concluded in its public-interest review that the Vineyard Wind project would not discharge into a special aquatic site, even though environmental impact analysis showed it would. *See id., see also* Supplemental Draft EIS at ES-7. Specifically, the public-interest review found that “[t]he project does not propose impacts to wetlands and therefore, the project will have no effect on wetlands.” ROD at 40.

135. The Corps did not take other planned outer Continental Shelf wind energy projects into account when considering the possible cumulative impact of Vineyard Wind.

136. The Corps' review documentation does not address:

- a. the rise in temperatures at and near the project area due to the project's turbines;
- b. the potential vulnerabilities to the electrical grid caused by relying on so much energy from one source (namely offshore wind power);
- c. the impact on the commercial fishing industry;
- d. harm to endangered species and their critical habitat; or
- e. adverse impacts on food supply.

137. The Corps never appropriately analyzed the impact that the Vineyard Wind project would likely have on horseshoe crabs—a marine species whose blood contains compounds used for gold-standard endotoxin testing, which is required for all drugs and vaccines, and many implantable medical devices.

138. BOEM's official letter informing Vineyard Wind that the COP was approved was dated July 15, 2021, and constitutes BOEM's most recent application of the illegitimate "Smart From The Start" program in connection with the Vineyard Wind project. *See Exhibit D.*

139. On September 17, 2021, counsel for the Plaintiffs sent the Defendants (among others) a 60-day notice letter informing the Defendants of their intent to sue. The facts set forth in the notice letter, which is attached as Exhibit A, are hereby incorporated herein.

140. On October 18, 2021, months after BOEM approved the Vineyard Wind COP, NMFS completed the reinstated ESA consultation process and published major revisions to the Biological Opinion, which addressed serious risks to endangered species from noise, vessel traffic,

and critical habitat and environmental conditions during construction, operation, and decommissioning activities in connection with the Vineyard Wind project.

141. To date, BOEM has not reopened the Final EIS or ROD in order to address the revised Biological Opinion, has not rescinded its approval of the COP, and has not required Vineyard Wind to halt construction of the project pending BOEM's review of the revised Biological Opinion.

VI. PLAINTIFFS' CLAIMS FOR RELIEF

OCSLA CLAIMS

First Claim for Relief

BOEM'S “SMART FROM THE START” POLICY VIOLATES OCSLA

(Violation of 43 U.S.C. 1337(p)(4); 5 U.S.C. § 702)

142. The plaintiffs reallege and incorporate by reference the allegations contained in Paragraphs 1 through 141 as though fully set forth herein.

143. OCSLA imposes a mandatory duty on BOEM to “ensure that [leasing in the Outer Continental Shelf] is carried out in a manner that provides for”:

- a. safety;
- b. protection of the environment;
- c. prevention of waste;
- d. conservation of natural resources of the outer Continental Shelf;
- e. protection of national security interests;
- f. prevention of interference with other reasonable uses;

- g. adequate consideration of the location of, and any scheduling related to, the lease and other uses of the sea or seabed (such as for a fishery, a sealane, and navigation);
- h. oversight, inspection, research, monitoring, and enforcement.

43 U.S.C. §§ 1337(p)(4)(A), (B), (C), (D), (F), (I), (J), or (L).

144. In 2011, BOEM amended its regulations according to its “Smart From The Start” policy. *See Proposed Rule*, 76 Fed. Reg. 8962 (Feb. 16, 2011); *Final Rule*, 76 Fed. Reg. 28178 (May 16, 2011).

145. As amended under the “Smart From The Start” policy, 30 C.F.R. § 285.232 (2011), the current regulation allows BOEM to issue, publish, and award a lease without satisfying its mandatory duty to consider whether the proposed lease (or any associated easements or rights-of-way) meets any of the relevant criteria the OCSLA lists at 43 U.S.C. §§ 1337(p)(4)(A), (B), (C), (D), (F), (I), (J), or (L).

146. BOEM’s “Smart From The Start” amendment is *ultra vires* because nothing in 43 U.S.C. § 1337 or elsewhere in OCSLA authorizes BOEM to issue a lease in the Outer Continental Shelf before reviewing and analyzing the criteria set forth in § 1337(p)(4).

147. The APA allows a court reviewing agency policy to “hold unlawful and set aside agency action” that it finds:

1. “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law;”
2. “in excess of statutory jurisdiction, authority, or limitations, or short of statutory right;” or
3. “without observance of procedure required by law . . .”

5 U.S.C. § 706(2)(A), (C), (D).

148. Because BOEM's "Smart From The Start" regulatory amendment is *ultra vires*, it constitutes agency action that is arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law, in excess of statutory jurisdiction, authority, or limitations, or short of statutory right, or without observance of procedure required by law. 5 U.S.C. § 706(2)(A), (C), (D).

Second Claim for Relief

BOEM'S ISSUANCE, PUBLICATION, AND AWARD OF THE VINEYARD WIND LEASE VIOLATES OCSLA BECAUSE IT APPLIES THE ILLEGITIMATE 'SMART FROM THE START" POLICY TO THE VINEYARD WIND PROJECT

(Violation of 43 U.S.C. 1337(p)(4); 5 U.S.C. § 706(2))

149. The plaintiffs reallege and incorporate by reference the allegations contained in Paragraphs 1 through 148 as though fully set forth herein.

150. BOEM issued and published the Final Sale Notice ("FSN") for Lease OCS-A-0501 in November 2014 and awarded the lease to Offshore MW LLC (now Vineyard Wind LLC). *See* 79 Fed. Reg. 70545 (Nov. 26, 2014) (FSN). This lease became effective on April 1, 2015. *See id.*

151. BOEM violated its statutory duties under OCSLA, 43 U.S.C. §§ 1337(p)(4)(A), (B), (C), (D), (F), (I), (J), (L), by failing to issue, publish, and award Lease OCS-A-0501 without adequately considering and providing for safety, protection of the environment, prevention of waste, conservation of natural resources of the Outer Continental Shelf, protection of national security interests, prevention of interference with other reasonable uses, adequate consideration of the location of and any scheduling related to the lease and other uses of the sea or seabed (such as for a fishery, a sealane, and navigation), or oversight, inspection, research, or monitoring and enforcement.

152. In violation of its statutory duties under OCSLA, BOEM issued, published, and awarded Lease OCS-A-0501 under the “Smart From The Start” policy, and did not provide adequate opportunity for public comment regarding the lease or its attendant easements or rights-of-way with specific reference to 43 U.S.C. §§ 1337(p)(4)(A), (B), (C), (D), (F), (I), (J), (L). *See* 79 Fed. Reg. 70545 (Nov. 26, 2014).

153. BOEM’s decision to issue, publish, and award Lease OCS-A-0501 without following the requirements of OCSLA was *ultra vires*, and therefore is arbitrary, capricious, an abuse of discretion, in excess of statutory authority, without observance of procedure required by law, and otherwise not in accordance with law. 5 U.S.C. § 706(2)(A), (C), (D).

Third Claim for Relief

BOEM’S APPROVAL OF THE COP VIOLATES OCSLA BECAUSE IT IS THE MOST RECENT APPLICATION OF BOEM’S ILLEGITIMATE “SMART FROM THE START” POLICY

(Violation of 43 U.S.C. § 1337(p)(4); 5 U.S.C. § 706(2))

154. The plaintiffs reallege and incorporate by reference the allegations contained in Paragraphs 1 through 153 as though fully set forth herein.

155. After resuming review of the Vineyard Wind COP that it had terminated, BOEM approved the COP on July 15, 2021.

156. BOEM issued the ROD as part of its overall application of its “Smart From The Start” policy to the Vineyard Wind project.

157. BOEM’s ROD states that approval of the COP will likely lead to the complete abandonment of commercial fishing within the Vineyard Wind project area. *See* ROD at 39.

158. BOEM’s decision to approve the Vineyard Wind COP is the most recent application of its illegitimate “Smart From The Start” policy.

159. BOEM approved the COP despite knowing that the project would interfere with reasonable uses of the high seas and without considering the use of the project area for a fishery. *See* 43 U.S.C. § 1337(p)(4)(I), (J)(ii) (OCSLA requirements).

160. BOEM’s decision to approve the Vineyard Wind COP under these circumstances was *ultra vires*, and therefore is arbitrary, capricious, an abuse of discretion, in excess of statutory authority, without observance of procedure required by law, or otherwise not in accordance with law. 5 U.S.C. § 706(2)(A), (C), (D).

Fourth Claim for Relief

BOEM’S DECISION TO RESUME REVIEW OF THE VINEYARD WIND COP AFTER VINEYARD WIND WITHDREW THE COP FROM CONSIDERATION VIOLATES OCSLA AND MULTIPLE FEDERAL REGULATIONS

(Violation of 43 U.S.C. § 1337(p)(4); 40 CFR § 1500.2; 30 CFR § 585.626; 5 U.S.C. § 706(2))

161. The plaintiffs reallege and incorporate by reference the allegations contained in Paragraphs 1 through 160 as though fully set forth herein.

162. In December 2020, Vineyard Wind officially withdrew its Construction and Operations Plan (“COP”) from consideration, citing a need to fully reconsider its choice of wind turbines for the project. 85 Fed. Reg. 81486 (Dec. 16, 2020).

163. BOEM immediately took final action by formally terminating its review of the Vineyard Wind COP, stating that “[s]ince the COP has been withdrawn from review and decision-making, there is no longer a proposal for a major federal action awaiting technical or environmental review, nor is there a decision pending before BOEM.” *Id.*

164. On January 22, 2021, Vineyard Wind asked BOEM to recommence the review of the withdrawn and terminated COP.

165. BOEM resumed review of the COP less than two months later “[b]ecause Vineyard Wind has indicated that its proposed COP is ‘a decision pending before BOEM[.]’” *Notice to Resume*, 86 Fed. Reg. 12494 (Mar. 3, 2021).

166. BOEM’s decision to resume review of the formally terminated COP for the sole reason that the project sponsor falsely claimed that the COP was still pending review was *ultra vires* because such an action is not authorized by OCSLA or any other federal statute and is not among the powers delegated by Congress to BOEM or to any other federal agency.

167. BOEM did not comply with OCSLA’s statutory requirement of public notice and comment before deciding to resume review of the terminated COP. *See* 43 U.S.C. § 1337(p)(4)(K).

168. BOEM did not ensure that Vineyard Wind’s independent review of the turbine technology sufficiently demonstrated that the use of that technology would satisfy OCSLA’s statutory requirements before resuming review of the COP. *See* 43 U.S.C. § 1337(p)(4).

169. BOEM’s decision to revive Vineyard Wind’s terminated COP without public notice and comment violates its duty to encourage and facilitate public involvement in decisions which affect the quality of the human environment. *See* 40 C.F.R. § 1500.2(d).

170. BOEM decided to revive Vineyard Wind’s terminated COP without requiring Vineyard Wind to update the COP with details describing studies, surveys, and other project-specific information gathered during Vineyard Wind’s review of its turbine technology from December 16, 2020 to January 22, 2021, in violation of 30 C.F.R. § 585.626.

171. BOEM’s *ultra vires* decision to resume review of the Vineyard Wind COP is arbitrary, capricious, an abuse of discretion, in excess of statutory authority, without observance of procedure required by law, or otherwise not in accordance with law. 5 U.S.C. § 706(2)(A), (C), (D).

Fifth Claim for Relief

BOEM’S APPROVAL OF THE VINEYARD WIND CONSTRUCTION AND OPERATIONS PLAN VIOLATES OCSLA IN NUMEROUS OTHER WAYS

(Violation of 43 U.S.C. § 1337(p)(4); 43 U.S.C. § 1332(2); 30 CFR § 585.621(b); 5 U.S.C. § 706(2))

172. The plaintiffs reallege and incorporate by reference the allegations contained in Paragraphs 1 through 171 as though fully set forth herein.

173. After resuming review of the Vineyard Wind COP that it had terminated, BOEM approved the COP on July 15, 2021.

174. OCSLA requires BOEM to ensure that the Vineyard Wind COP provides for “**safety**.” 43 U.S.C. § 1337(p)(4)(A). Related regulations state that a COP must demonstrate that its proposed activity “[i]s safe.” 30 C.F.R. § 585.621(b). BOEM violated OCSLA and its attendant regulations by approving the Vineyard Wind COP, which did not demonstrate that its proposed activity was safe by failing to ensure safe travel for commercial fishing boats, safe operation of bottom trawl vessels, or a safe environment for emergency rescue operations. The project will interfere with marine navigational radar, increasing risks for all vessels in the area. BOEM received multiple comments on this matter, but disregarded them. *See* Supplemental Draft EIS at 60–62. This interference will only become more pronounced with Vineyard Wind’s decision to use gargantuan 13-14 MW Haliade turbines, rather than the originally-planned 8-10 MW size. BOEM failed to properly review and analyze Vineyard Wind’s decision to increase its turbine size even though it made the project less safe—a willful lack of due diligence that puts every ship traveling through the Vineyard Wind project area at risk.

175. OCSLA requires BOEM to ensure that the Vineyard Wind COP provides for “**protection of the environment**.” 43 U.S.C. § 1337(p)(4)(B). Related regulations add that a COP must demonstrate that its proposed activity “does not cause undue harm or damage to natural

resources; life (including human and wildlife) . . . [or] the marine, coastal[,] or human environment.” 30 C.F.R. § 585.621(d). BOEM violated OCSLA and its attendant regulations by approving the Vineyard Wind COP, which did not demonstrate that its activity would not unduly harm or damage natural resources, life, or the environment, as follows:

- a. Construction would likely kill, displace, or disturb local species. *See* Supplemental EIS at 3-114.
- b. The project itself is likely to result in the loss of human life by significantly increasing the risk of collision, exacerbated by failure to adequately research the project’s impact on navigational radar. *See* Final EIS at 3-246.
- c. The operation of the project will likely result in massive devastation of the marine environment—especially if severe weather or a hurricane fells one or more wind turbines. *See id.* at 3-81, 89, 219.
- d. The project will disturb the important coastal breeding grounds of the horseshoe crab, whose blood is an essential ingredient for life-saving medical tests and treatments. *See id.* at 3-28.

176. OCSLA requires BOEM to ensure that the Vineyard Wind COP provides for “**conservation of the natural resources of the outer Continental Shelf.**” 43 U.S.C. § 1337(p)(4)(D); *see also* 30 C.F.R. § 585.102(a)(4). Fish and marine mammals are “natural resources” of the outer Continental Shelf. 16 U.S.C. § 1801. BOEM violated OCSLA and its attendant regulations by approving the Vineyard Wind COP, which not only fails in general to conserve fish and marine mammals in the outer Continental Shelf, but will permanently harm, displace, and disturb existing fish, sea turtle, and mammal populations in the lease area. *See* Final EIS at 3-43, 46, 75, 76, 103, 105.

177. OCSLA requires BOEM to ensure that the Vineyard Wind COP provides for “protection of national security interests of the United States.” 43 U.S.C. § 1337(p)(4)(F). The implementing regulations also state that a COP must demonstrate that its proposed activities will not “unreasonably interfere” with national security or defense. 30 C.F.R. § 585.102(a)(6). BOEM violated OCSLA and its attendant regulations by approving the Vineyard Wind COP, which unreasonably interferes with national security and defense by adversely impacting the ability of radar units to detect and track incoming aircraft. *See* e.g., Report to the Congressional Defense Committees, “The Effect of Windmill Farms on Military Readiness,” Department of Defense Office of the Director of Defense and Research Engineering (2006) at 4.

178. OCSLA requires BOEM to provide for “**prevention of interference with reasonable uses . . . of the exclusive economic zone, the high seas, and the territorial seas**” when considering COPs. 43 U.S.C. § 1337(p)(4)(I); *see also* 30 C.F.R. § 585.621(c) (requiring project sponsors like Vineyard Wind to show its plan will not “unreasonably interfere with other uses of the [outer Continental Shelf]”). Such reasonable uses include the “use of the sea or seabed . . . for a fishery . . . sealane . . . or navigation.” 43 U.S.C. § 1337(p)(4)(J). BOEM violated OCSLA and its attendant regulations by approving the Vineyard Wind COP, which proposed wind energy activities that would unreasonably bar access to and unreasonably interfere with fishing activities and navigation in the lease area, as follows:

- a. The proposed narrow spacing between wind turbines and the lack of a Coast-Guard-designated transit lane through the Vineyard Wind lease will impact the ability of trawl and dredge vessels to navigate and carry out their operation, especially at night and in severe weather. *See* Final EIS at 3–96,

207, 214, 215. It will also interfere with navigational radar. *See id.* at 3–214.

- b. The arrangement of wind turbines does not provide adequate spacing in the most predominant travel direction for Coast Guard rescue operations.
- c. BOEM’s approval of the Vineyard Wind COP makes travel to and from fishing sites significantly more costly.
- d. The Draft EIS and the Supplemental Draft EIS both determined that the impacts on commercial fishing would be “major.” BOEM impermissibly reduced the level of impacts to commercial fishing from “major” to “minor to moderate” based on the woefully inadequate compensation packages, which in no way prevented the “interference with reasonable uses” for commercial fishing.

179. OCSLA provides that **“the character of the waters above the outer continental shelf as high seas and the right to navigation and fishing therein shall not be affected”** by BOEM’s management and regulation. 43 U.S.C. § 1332(2). BOEM admitted in the ROD that, as a practical matter, “due to the placement of the turbines it is likely that the *entire* 75,614 acre area will be *abandoned* by commercial fisheries due to difficulties with navigation.”) (emphasis added). Because the issuance of the ROD and the subsequent approval of the COP will “likely” result in the abandonment of fishing due to difficulties in navigation occasioned by “the placement of the turbines” in the Vineyard Wind area, BOEM violated 43 U.S.C. § 1332(2) when it approved the COP.

180. Because BOEM’s decision to approve the Vineyard Wind COP violated multiple duties under § 1337(p)(4) of OCSLA, it is arbitrary, capricious, an abuse of discretion, in excess

of statutory authority, without observance of procedure required by law, or otherwise not in accordance with law. 5 U.S.C. § 706(2)(A), (C), (D).

ESA CLAIMS

Sixth Claim for Relief

**THE FEDERAL DEFENDANTS VIOLATED THE ESA BY IGNORING ITS MANDATE
TO CONSERVE ENDANGERED AND THREATENED SPECIES**

(Violation of 16 U.S.C. § 1536(a)(1); 5 U.S.C. § 706(2))

181. The plaintiffs reallege and incorporate by reference the allegations contained in Paragraphs 1 through 180 as though fully set forth herein.

182. The ESA requires all federal agencies to “utilize their authorities in furtherance of the purposes of [the ESA] by carrying out programs for the conservation of endangered species and threatened species.” 16 U.S.C. § 1536(a)(1).

183. This mandatory duty to advance and assist the conservation of species requires agencies to adopt a program of conservation that brings a species to the point of recovery and delisting. *See* 16 U.S.C. § 1532(3).

184. The ESA prohibits “[a]ll persons, including federal agencies” from “taking” endangered species—“meaning that no one is to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect such life forms.” *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 184–85 (1978) (cleaned up).

185. The ESA directs federal agencies to use “*all* methods and procedures which are necessary to preserve the endangered species.” *Id.* (emphasis in original).

186. The Federal Defendants repeatedly and continuously disregarded adverse impacts to endangered species or approved the Vineyard Wind project despite knowing it would harm endangered species, and in doing so violated their mandatory duties under the ESA.

187. The Federal Defendants' failure to abide by their mandatory duties under the ESA was arbitrary, capricious, an abuse of discretion, without observance of procedure required by law, or otherwise not in accordance with law. 5 U.S.C. § 706(2)(A), (C), (D).

Seventh Claim for Relief

DEFENDANTS BOEM AND NMFS FOLLOWED UNLAWFUL REGULATORY STANDARDS THAT TAINTED THE VINEYARD WIND ESA CONSULTATION PROCESS

(Violation of 16 U.S.C. § 1536(a)(1); 5 U.S.C. § 706(2))

188. The plaintiffs reallege and incorporate by reference the allegations contained in Paragraphs 1 through 187 as though fully set forth herein.

189. In 2019, the NMFS promulgated certain interagency consultation regulations that:

- a. limit when agency action would be deemed to adversely modify designated critical habitat by requiring the action to affect habitat as a whole;
- b. alter the definitions of "effects of the action" and "environmental baseline" to limit the scope of analysis of effects;
- c. require that the effects be:
 - i. a but-for result of agency action;
 - ii. reasonably certain to occur; and
 - iii. based on clear and substantial information;
- d. limit when changed circumstances would require new consultation;
- e. limit agencies' duties to ensure mitigation of adverse effects;
- f. unlawfully delegate to other agencies the ability to make biological determinations that NMFS is required to make; and

- g. allow for rote, slapdash consultations that replace legally required site-specific, in-depth analysis of proposed agency action.

See 84 Fed. Reg. 44976 (Aug. 27, 2019).

190. These changes are not authorized by the ESA and not comprehended by existing Supreme Court precedent on the Endangered Species Act. *See Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 184–85 (1978). As such, they do not utilize agency authority in furtherance of the ESA’s purposes. *See* 16 U.S.C. § 1536(a)(1).

191. Using these unlawful, *ultra vires* interagency consultation regulations, the Defendants downplayed the effects the Vineyard Wind project would have on endangered species in their subsequent biological opinion.

192. Because the Defendants issued a soft-pedaled, self-generous biological opinion, any consultation process was fatally flawed, and the *ultra vires* decision to issue, publish, and award the Vineyard Wind lease based in part on the biological opinion constitutes agency action that is on its face arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law, in excess of statutory jurisdiction, authority, or limitations, or short of statutory right, or without observance of procedure required by law. 5 U.S.C. § 706(2)(A), (C), (D).

Eighth Claim for Relief

BOEM, NMFS, AND THE ARMY CORPS OF ENGINEERS VIOLATED THE ESA BY FAILING TO SEEK AN EXEMPTION FOR THE VINEYARD WIND PROJECT

(Violation of 16 U.S.C. § 1536(a)(2); 5 U.S.C. § 706(2))

193. The plaintiffs reallege and incorporate by reference the allegations contained in Paragraphs 1 through 192 as though fully set forth herein.

194. The ESA requires federal agencies to “ensure that any action authorized . . . by such agency is not likely to jeopardize the continued existence of any endangered species or threatened

species or result in the destruction or adverse modification of [critical] habitat of such species unless such agency has been granted an exemption for such action by the Committee.” 16 U.S.C. § 1536(a)(2). The ESA establishes this committee at 16 U.S.C. § 1536(h).

195. BOEM, NMFS, and the Army Corps of Engineers did not seek an exemption from the Committee once they knew that critical habitat of the North American right whale would be destroyed or adversely modified by the Vineyard Wind project.

196. BOEM, NMFS, and the Corps’ *ultra vires* decision to issue, publish, and award the Vineyard Wind lease without an exemption constitutes agency action that is arbitrary, capricious, an abuse of discretion, in excess of statutory jurisdiction, authority, or limitations, short of statutory right, without observance of procedure required by law, or otherwise not in accordance with law. 5 U.S.C. § 706(2)(A), (C), (D).

Ninth Claim for Relief

NMFS VIOLATED FEDERAL LAW BY FAILING TO CONSIDER THE CUMULATIVE EFFECTS OF THE VINEYARD WIND PROJECT

(Violation of 50 C.F.R. § 402.14(g)(4); 5 U.S.C. § 706(2))

197. The plaintiffs reallege and incorporate by reference the allegations contained in Paragraphs 1 through 196 as though fully set forth herein.

198. Federal regulations require NMFS to “[a]dd the effects of the action and cumulative effects to the environmental baseline” when determining whether an agency action is likely to harm endangered species or their critical habitat. 50 C.F.R. § 402.14(g)(4).

199. NMFS failed to properly consider cumulative effects when making such determination.

200. NMFS’s failure to properly consider cumulative effects on endangered species or their critical habitat is arbitrary, capricious, an abuse of discretion, in excess of statutory authority,

without observance of procedure required by law, or otherwise not in accordance with law. 5 U.S.C. § 706(2)(A), (C), (D).

Tenth Claim for Relief

NMFS VIOLATED FEDERAL LAW BY FAILING TO INFORM BOEM OF ALTERNATIVES THAT WOULD AVOID HARMING ENDANGERED SPECIES

(Violation of 50 C.F.R. § 402.14(g)(5); 5 U.S.C. § 706(2))

201. The plaintiffs reallege and incorporate by reference the allegations contained in Paragraphs 1 through 200 as though fully set forth herein.

202. Federal regulations require NMFS to inform BOEM of “reasonable and prudent alternatives” that BOEM and a lease applicant can take to avoid harming endangered species or their critical habitat. 50 C.F.R. § 402.14(g)(5).

203. NMFS did not provide BOEM with sufficient reasonable and prudent alternatives in connection with endangered species, including but not limited to the North Atlantic Right Whale.

204. NMFS’s failure to provide BOEM with sufficient reasonable and prudent alternatives that would avoid harm to endangered species or their critical habitat is arbitrary, capricious, an abuse of discretion, in excess of statutory authority, without observance of procedure required by law, or otherwise not in accordance with law. 5 U.S.C. § 706(2)(A), (C), (D).

Eleventh Claim for Relief

**NMFS VIOLATED THE ESA BY ISSUING A FLAWED
BIOLOGICAL OPINION**

(Violation of 16 U.S.C. § 1536(a)(2); 5 U.S.C. § 706(2))

205. The plaintiffs reallege and incorporate by reference the allegations contained in Paragraphs 1 through 204 as though fully set forth herein.

206. The ESA requires agencies to use “the best scientific and commercial data available” when preparing a biological opinion. 16 U.S.C. § 1536(a)(2). Such data must support the conclusions of the biological opinion on jeopardy and adverse modification, and a biological opinion is arbitrary and capricious if it fails to consider relevant factors and articulate a rational connection between the facts found and the choice made. *See U.S. Sugar Corp. v. EPA*, 830 F.3d 579, 606 (D.C. Cir. 2016).

207. The ESA also requires that agencies take responsibility “to ensure that [their] actions will no[t] jeopardize a listed species” under the ESA. *See, e.g., Haw. Longline Ass’n v. Nat’l Marine Fisheries Serv.*, 281 F. Supp. 2d 1, 25 (D.D.C. 2003).

208. NMFS violated the ESA by issuing a biological opinion that falls short of satisfying its statutory and regulatory responsibilities. Specifically, the biological opinion:

- a. does not properly establish the correct environmental baseline;
- b. does not properly set forth the “[e]ffects of the action” by excluding the direct, indirect, interrelated, and cumulative effects of the Vineyard Wind lease and COP approval will likely have on endangered species and critical habitat, most notably the habitat of the North Atlantic Right Whale;
- c. does not properly consider the impacts of the Vineyard Wind project on survival and recovery of endangered species in the project area;

- d. does not properly outline reasonable and prudent alternatives in its incidental take statement or the conditions for complying with those alternatives that would prevent an ESA violation;
- e. disregards the “best scientific and commercial data available” by failing to adequately consider research studies demonstrating that wind farms harm the marine environment more in the short-term than coal or gas emissions;
- f. disregards the “best scientific and commercial data available” by ignoring scientific data showing the prevalence of North Atlantic Right Whales in the lease area, the danger posed to North Atlantic Right Whales by increased boat traffic during construction, and the likelihood of substantial takes of the endangered North Atlantic Right Whale during construction of the Vineyard Wind project;
- g. disregards the “best scientific and commercial data available” by downplaying the substantial negative impact of pile driving on marine endangered species during construction of the Vineyard Wind lease; and
- h. disregards the “best scientific and commercial data available” by dismissing the impact that underwater noise produced by construction and turbine operation in the Vineyard Wind lease area will have on endangered species.

209. NMFS violated the ESA by issuing a biological opinion that is legally flawed for the additional reasons set forth in items 1 through 49 of the 60-Day Notice letter dated May 24, 2021 sent on behalf of the Nantucket Residents Against Turbines. *See Exhibit D.*

210. NMFS's decision to issue a defective biological opinion is arbitrary, capricious, an abuse of discretion, in excess of statutory authority, without observance of procedure required by law, and otherwise not in accordance with law. 5 U.S.C. § 706(2)(A), (C), (D).

Twelfth Claim for Relief

BOEM VIOLATED THE ESA BY RELYING ON NMFS'S FLAWED BIOLOGICAL OPINION

(Violation of 50 C.F.R. § 402.14(h); 5 U.S.C. § 706(2))

211. The plaintiffs reallege and incorporate by reference the allegations contained in Paragraphs 1 through 210 as though fully set forth herein.

212. The ESA and its attendant regulations require BOEM to "ensure that its actions will no[t] jeopardize a listed species." 50 C.F.R. § 402.14(h). BOEM relied on the biological opinion, which did not follow this requirement.

213. BOEM's decision to rely on NMFS' deeply flawed biological opinion is arbitrary, capricious, an abuse of discretion, in excess of statutory authority, without observance of procedure required by law, or otherwise not in accordance with law. 5 U.S.C. § 706(2)(A), (C), (D).

Thirteenth Claim for Relief

BOEM'S FAILURE TO REINITIATE CONSULTATION WITH NMFS AFTER RECEIVING NEW SCIENTIFIC STUDIES VIOLATED FEDERAL LAW

(Violation of 50 C.F.R. § 402.14, 402.16; 5 U.S.C. § 706(2))

214. The plaintiffs reallege and incorporate by reference the allegations contained in Paragraphs 1 through 213 as though fully set forth herein.

215. After NMFS issued its flawed biological opinion and inadequate incidental take statement, BOEM received further scientific data regarding the Vineyard Wind lease area (detailed

in the Final EIS) that should have led it to modify the Vineyard Wind COP and reinitiate consultation with NMFS. Specifically, the Final EIS found that:

- a. The Vineyard Wind project will increase the risk of collision between marine vessels. *See* Final EIS at 3-246.
- b. The project will result in massive devastation of the marine environment if severe weather or a hurricane fells Vineyard Wind's turbines. *See id.* at 3-81, 89, 219.
- c. The project will disturb the coastal breeding grounds of the horseshoe crab, a species whose blood is an essential ingredient for life-saving medical tests and treatments. *See id.* at 3-28.
- d. The project will likely permanently harm, displace, and disturb existing fish, sea turtle, and marine mammal populations. *See id.* at 3-43, 46, 75, 76, 103, 105.

216. Federal regulations require BOEM and NMFS to use "the best scientific and commercial data available" to inform and evaluate NMFS's biological opinion and take statement. 50 C.F.R. § 402.14.

217. BOEM failed to reinitiate consultation under 50 C.F.R. § 402.16 after receiving new scientific data that would have altered the biological opinion and incidental take statement.

218. BOEM's failure to reinitiate consultation after receiving the new scientific data was arbitrary, capricious, an abuse of discretion, without observance of procedure required by law, and otherwise not in accordance with law. 5 U.S.C. § 706(2)(A), (C), (D).

Fourteenth Claim for Relief

BOEM VIOLATED ITS OWN ESA REGULATIONS BY FAILING TO REINITIATE CONSULTATION AFTER VINEYARD WIND SELECTED PROTOTYPE WIND TURBINES

(Violation of 50 C.F.R. § 402.14, § 402.16; 5 U.S.C. § 706(2))

219. The plaintiffs reallege and incorporate by reference the allegations contained in Paragraphs 1 through 218 as though fully set forth herein.

220. At some point in the period December 2020 to January 2021, Vineyard Wind made a final decision to use larger, prototype 13-14 MW Haliade-X wind turbines in the Vineyard Wind area—turbines that NMFS had not assessed in the context of impact on endangered species.

221. Prior to Vineyard Wind’s decision, NMFS issued its flawed biological assessment and take statement.

222. In December 2020, Vineyard Wind withdrew its COP from consideration, citing a need to further review its choice of turbines. 85 Fed. Reg. 81486 (2020).

223. BOEM immediately terminated its process of deciding whether to approve the COP in response to Vineyard Wind’s withdrawal. *Id.*

224. On January 22, 2021, Vineyard Wind informed BOEM that its review was complete and asked the Agency to revive the terminated process. BOEM did so, impermissibly.

225. BOEM failed to reengage in the consultation process with NMFS after Vineyard Wind finalized its turbine plans, despite the novel nature and size of these prototype turbines, and the increase in power needed to install and operate them.

226. BOEM’s decision not to reinitiate consultation with NMFS after Vineyard Wind made the final decision to use the 13-14 MW Haliade X technology violated the ESA and its attendant regulations and is therefore arbitrary, capricious, an abuse of discretion, in excess of

statutory authority, without observance of procedure required by law, and otherwise not in accordance with law. 5 U.S.C. § 706(2)(A), (C), (D).

Fifteenth Claim for Relief

BOEM VIOLATED THE ESA AND ITS ATTENDANT REGULATIONS BY FAILING TO CONSIDER THE IMPACT OF LIKELY CATASTROPHIC WEATHER EVENTS

(Violation of 16 U.S.C. § 1536(a)(2); 5 U.S.C. § 706(2))

227. The plaintiffs reallege and incorporate by reference the allegations contained in Paragraphs 1 through 226 as though fully set forth herein.

228. The ESA requires agencies to insure that any action they take “is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification” of critical habitat, using “the best scientific and commercial data available.” 16 U.S.C. § 1536(a)(2).

229. At some point prior to December 2020, Vineyard Wind made a decision to use larger, prototype wind turbines in the Vineyard Wind lease—turbines that no federal agency had ever assessed in the context of impact on endangered species.

230. The draft environmental impact statement stated that the smaller turbines Vineyard Wind previously planned to use would “be designed to endure sustained wind speeds of up to 112 mph,” which means that these turbines would not survive a category 3 or higher hurricane. Draft EIS at 2–18.

231. The final environmental impact statement, issued after Vineyard Wind adopted larger prototype wind turbines, included no language regarding whether such turbines could sustain wind speeds of a category 3 or higher hurricane.

232. After impermissibly reviving Vineyard Wind’s terminated COP approval process, BOEM approved the COP without considering whether Vineyard Wind’s novel and nearly-

untested prototype turbines would have the structural integrity to withstand an adverse weather event of a category 3 or higher hurricane.

233. BOEM failed to consider the structural integrity of Vineyard Wind's prototype 13-14 MW Haliade-X turbines when approving the COP despite scientific data showing the likely devastation that turbine failure would wreak upon the marine environment, including harm to and/or the possible extinction of the North Atlantic Right Whale and other endangered species in the lease area.

234. BOEM's failure to consider whether Vineyard Wind's new turbines could survive a category 3 or higher hurricane before approving the Vineyard Wind COP violated the ESA and is arbitrary, capricious, an abuse of discretion, without observance of procedure required by law, or otherwise not in accordance with law. 5 U.S.C. § 706(2)(A), (C), (D).

Sixteenth Claim for Relief

BOEM VIOLATED THE ESA BY FAILING TO REOPEN THE EIS AND ROD TO ADDRESS NMFS'S REVISED BIOLOGICAL OPINION AFTER BOEM APPROVED THE COP

(Violation of 50 C.F.R. § 402.14(h); 5 U.S.C. § 706(2))

235. The plaintiffs reallege and incorporate by reference the allegations contained in Paragraphs 1 through 234 as though fully set forth herein.

236. On October 18, 2021, months after BOEM approved the Vineyard Wind COP, NMFS completed the reinstated ESA consultation process and published major revisions to the Biological Opinion, which addressed serious risks to endangered species from noise, vessel traffic, and critical habitat and environmental conditions during construction, operation, and decommissioning activities in connection with the Vineyard Wind project.

237. BOEM failed to reopen the Final EIS or ROD to address the second revised Biological Opinion

238. BOEM has not rescinded its approval of the COP in light of the revised Biological Opinion.

239. BOEM has not required Vineyard Wind to halt construction of the project pending review of the revised Biological Opinion.

240. The ESA and its attendant regulations require BOEM to “ensure that its actions will no[t] jeopardize a listed species.” 50 C.F.R. § 402.14(h). BOEM’s failure to address or take appropriate action to rescind the COP approval and put a halt to construction activities in light of NMFS’s revised Biological Opinion violates this duty, and is arbitrary, capricious, an abuse of discretion, in excess of statutory authority, without observance of procedure required by law, or otherwise not in accordance with law. 5 U.S.C. § 706(2)(A), (C), (D).

CWA CLAIMS

Seventeenth Claim for Relief

THE CORPS OF ENGINEERS VIOLATED THE CLEAN WATER ACT BY FAILING TO REVIEW PRACTICABLE ALTERNATIVES OUTSIDE THE LEASE AREA

(Violation of 40 C.F.R. § 230.10(a); 33 C.F.R. § 320.4(a)(1); 5 U.S.C. § 706(2))

241. The plaintiffs reallege and incorporate by reference the allegations contained in Paragraphs 1 through 240 as though fully set forth herein.

242. The CWA authorizes the Secretary of the Army (through the Corps) to issue permits for discharge of dredged or fill material into navigable waters after notice and opportunity for public hearings. *See* 33 U.S.C. § 1344(a).

243. The CWA prohibits the Corps from granting such a permit “if there is a practicable alternative” that would have “less adverse impact on the aquatic ecosystem” and “does not have

other significant adverse environmental consequences. 40 C.F.R. § 230.10(a). 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,” and such alternatives are not restricted to property owned or leased by the permit applicant. *Id.* at (a)(2).

244. The CWA requires the Corps to conduct a public interest review for every proposed discharge. 33 C.F.R. § 320.4(a)(1).

245. The CWA prohibits the Corps from granting a permit that would not comply with the CWA’s guidelines or would be contrary to the public interest. *Id.*

246. Despite its finding that the Vineyard Wind project is not water-dependent, the Corps restricted its analysis of practicable alternatives to sites in the water—simply because the existing Vineyard Wind lease was located in the ocean. This restriction was arbitrary, capricious, an abuse of discretion, otherwise not in accordance with law, and unsupported by the evidence.

247. The Corps did not consider other practicable alternative locations for the Vineyard Wind project outside of the Vineyard Wind lease area—a failure that is arbitrary, capricious, an abuse of discretion, without observance of procedure required by law, or otherwise not in accordance with law. 5 U.S.C. § 706(2)(A), (C), (D).

Eighteenth Claim for Relief

THE CORPS VIOLATED THE CLEAN WATER ACT AND ITS REGULATIONS BY ERRONEOUSLY FINDING THAT THE PROJECT WOULD NOT DISCHARGE INTO A SPECIAL AQUATIC SITE

(Violation of 33 C.F.R. § 320.4(a)(1), 40 C.F.R. § 230.10(a)(3); 5 U.S.C. § 706(2))

248. The plaintiffs reallege and incorporate by reference the allegations contained in Paragraphs 1 through 247 as though fully set forth herein.

249. The CWA regulations define the term “special aquatic site” as “a geographic area that has “ecological characteristics of productivity, habitat, wildlife protection, or other important and easily disrupted ecological values.” 40 C.F.R. § 230.3(m).

250. The regulations state that “[w]here the activity associated with a discharge which is proposed for a special aquatic site . . . does not require access or proximity to or siting within the special aquatic site in question to fulfill its basic purpose (*i.e.*, is not “water dependent”), practicable alternatives that do not involve special aquatic sites are presumed to be available, unless clearly demonstrated otherwise.” 40 C.F.R. § 230.10(a)(3).

251. The Corps erroneously concluded that the project would not discharge into a special aquatic site, violating the presumption set forth in § 230.10(a)(3). Specifically, special aquatic sites for coral, eel grass, and wetlands are found in the 10-mile impact zone for the Vineyard Wind project. *See* Supplemental EIS at ES-7; *see also* 40 C.F.R. § 230.41, 43, 44.

252. The Corps’ erroneous conclusion and any subsequent decisions resulting from it constitute agency action that is on its face arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law. 5 U.S.C. § 706(2)(A).

Nineteenth Claim for Relief

THE CORPS OF ENGINEERS VIOLATED FEDERAL REGULATIONS BY FAILING TO DEMONSTRATE THAT THE VINEYARD WIND PROJECT DISCHARGES WILL NOT UNACCEPTABLY IMPACT THE ECOSYSTEM

(Violation of 40 C.F.R. § 230.1(c); 5 U.S.C. § 706(2))

253. The plaintiffs reallege and incorporate by reference the allegations contained in Paragraphs 1 through 252 as though fully set forth herein.

254. 40 C.F.R. § 230.1(c) states 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.”

255. The Corps did not consider the probable impacts of other activities in combination with the Vineyard Wind lease, including the planned hundreds of wind turbines that will dot the Outer Continental Shelf.

256. Because the Corps did not consider the probable impacts of other, related activities, it failed to demonstrate that the Vineyard Wind project’s discharges will not unacceptably impact the aquatic ecosystem, and its decision was therefore arbitrary, capricious, an abuse of discretion, without observance of procedure required by law, or otherwise not in accordance with law. 5 U.S.C. § 706(2)(A), (C), (D).

Twentieth Claim for Relief

IN VIOLATION OF ITS OWN REGULATIONS, THE CORPS FAILED TO CONSIDER THE PUBLIC INTEREST WHEN REVIEWING THE VINEYARD WIND PROJECT

(Violation of 33 C.F.R. § 320.4(a)(1); 5 U.S.C. § 706(2))

257. The plaintiffs reallege and incorporate by reference the allegations contained in Paragraphs 1 through 256 as though fully set forth herein.

258. Federal regulations require the Corps to find that a proposed project is in the public interest before issuing a permit. 33 C.F.R. § 320.4(a)(1).

259. The Corps failed to show in its documentation that the Vineyard Wind project meets the public interest test because the documentation does not address:

- a. the rise in temperatures at and near the project area due to the project’s turbines;
- b. the potential vulnerabilities to the electrical grid caused by relying on so much energy from one source (namely offshore wind power);

- c. the impact on the commercial fishing industry;
- d. harm to endangered species and their critical habitat; or
- e. adverse impacts on food supply.

260. The Corps violated 33 C.F.R. § 320.4(a)(1) by failing to show that the Vineyard Wind project is in the public interest, and accordingly, its review and approval of the Vineyard Wind lease was arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.

261. Certain compounds found in horseshoe crab blood are essential and necessary for gold-standard endotoxin testing, which is required for all drugs (including vaccines), and many implantable medical devices.

262. The Vineyard Wind lease is located in horseshoe crab habitat, and the COP proposes running cables through horseshoe crab habitat.

263. The Vineyard Wind project's turbine foundations, scour protection, cabling, electromagnetic fields from cables, and cable installation will all harm existing horseshoe crab populations.

264. The Corps did not conduct appropriate impacts analysis of offshore wind farm construction to the U.S. medical supply based on threats to horseshoe crabs.

265. The Corps failed to properly consider the public interest when dealing with adverse impacts of the Vineyard Wind project on area horseshoe crab populations, and therefore violated 33 C.F.R. § 320.4. Because the Corps violated this regulation, its review and approval of the Vineyard Wind project constitutes agency action that is arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law. 5 U.S.C. § 706(2)(A), (C), (D).

MMPA CLAIMS

Twenty-First Claim for Relief

**NMFS VIOLATED THE MMPA BY ALLOWING THE TAKE AND HARASSMENT OF
MARINE MAMMALS WITHOUT PROPER CONSIDERATION**

(Violation of 16 U.S.C. § 1373(b); 5 U.S.C. § 706(2))

266. The plaintiffs reallege and incorporate by reference the allegations contained in Paragraphs 1 through 265 as though fully set forth herein.

267. The MMPA requires the Secretary of NMFS to “give full consideration to all factors which may affect the extent to which such animals may be taken[,]” before prescribing regulations with respect to a taking, including:

- a. current and future population levels of marine mammal species;
- b. the marine ecosystem and related environmental matters;
- c. conserving, developing, and using fishery resources; and
- d. how economically and technologically feasible implementation of a regulation may be.

16 U.S.C. § 1373(b)(1), (3)–(5).

268. In its Incidental Harassment Authorization (“IHA”) for the Vineyard Wind project, NMFS authorized the take and harassment of certain marine mammals.

269. NMFS authorized this take and harassment without properly considering the best scientific evidence available or adequately analyzing the impact of certain project elements, including:

- a. the increase in local temperatures in the project area attributable to the project’s wind turbine generators;
- b. potential catastrophic oil spills from the generators;

- c. potential impacts of severe hurricanes to the generators;
- d. vessel strikes during construction and maintenance activities;
- e. ocean noise from construction and operation activities;
- f. sudden changes to the project's scope and design envelope without corresponding studies or analysis;
- g. dredged material causing harmful impacts to the ocean habitat;
- h. loss of habitat for endangered species, including but not limited to the North Atlantic right whale; and
- i. failure to account for the sizable risk this project poses to the North Atlantic right whale species in particular.

270. This failure to properly consider “the well-being of . . . marine mammals” violates the “primary goal of the MMPA” *Comm. for Humane Legis., Inc. v. Richardson*, 414 F. Supp. 297, 308–09 (D.D.C. 1976) (opining that “even the use of the best technology available cannot justify results inconsistent with the purpose of the Act” and that the take of marine mammals “may not be authorized if the impact is to the disadvantage of the mammals involved”).

271. NMFS’s decision to allow the take of marine mammals without considering relevant factors is arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law, in excess of statutory jurisdiction, authority, or limitations, or short of statutory right, or without observance of procedure required by law. 5 U.S.C. § 706(2)(A), (C), (D).

Twenty-Second Claim for Relief

**NMFS VIOLATED THE MMPA BY ALLOWING A TAKING LASTING
LONGER THAN ONE (1) YEAR**

(Violation of 16 U.S.C. § 1371(a)(5)(D)(i); 5 U.S.C. § 706(2))

272. The plaintiffs reallege and incorporate by reference the allegations contained in Paragraphs 1 through 271 as though fully set forth herein.

273. The MMPA allows NMFS to authorize (for one year or less) “the incidental, but not intentional, taking by harassment of small numbers of marine mammals” if NMFS finds that the harassment “will have a negligible impact on such species or stock” 16 U.S.C. § 1371(a)(5)(D)(i).

274. NMFS has failed to provide evidence that:

- a. the takes from the Vineyard Wind project will only affect small numbers of marine mammals;
- b. the Vineyard Wind project would have a negligible impact on marine mammal species or stocks; or
- c. the project will be completed within a year of the issuance of NMFS’s IHA.

275. Even if NMFS had provided this evidence, NMFS’s incidental take authorization would still have violated the MMPA because the take of marine mammals will continue to occur even beyond the end of the useful life of the project, far exceeding the one-year statutory limitation on an IHA and the five-year statutory limitation on permitting applicable here.

276. Accordingly, NMFS’s *ultra vires* approval of the Vineyard Wind project is arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law. 5 U.S.C. § 706(2)(A), (C), (D).

NEPA CLAIMS

Twenty-Third Claim for Relief

BOEM, THE CORPS, AND NMFS VIOLATED NEPA BY DEFINING THE PURPOSE OF THE ACTION IN CONNECTION WITH THE VINEYARD WIND COP TOO NARROWLY

(Violation of 42 U.S.C. § 4331(b)–(c); 5 U.S.C. § 706(2))

277. The plaintiffs reallege and incorporate by reference the allegations contained in Paragraphs 1 through 276 as though fully set forth herein.

278. In its Record of Decision (“ROD”), BOEM, the Corps, and NMFS state that

[t]he purpose of the [agency action on the Vineyard Wind COP] is to determine whether to approve, approve with modifications, or disapprove the COP . . . to meet *New England’s demand* for renewable energy. More specifically, the proposed Project would deliver power to the New England Energy grid to contribute to *Massachusetts’ renewable energy requirements*—particularly, *the Commonwealth’s mandate that distribution companies jointly and competitively solicit proposals* for offshore wind energy generation

ROD § 2.2 (emphasis added). In essence, the ROD states that the purpose of the federal action is to ensure that Massachusetts’ energy requirements under state law are met.

279. The ROD also states that BOEM, the Corps, and NMFS used “Vineyard Wind’s contractual obligation with the Commonwealth of Massachusetts to deliver the generated energy to the Massachusetts power grid” as a major criterion when deciding whether to approve the COP.

See ROD at 32.

280. BOEM, the Corps, and NMFS decided to unreasonably, arbitrarily, and capriciously cabin the purpose of their federal action to the goal of complying with Massachusetts state law.

281. This impermissible decision predetermines the result of the federal action and allows state law to hold federal policymaking hostage, essentially abrogating federal responsibility to a state legislature. *Citizens against Burlington, Inc. v. Busey*, 938 F.2d 190, 196 (D.C. Cir. 1991) (holding that “[an] agency may not define the objectives of its action in terms so unreasonably narrow that only one alternative . . . would accomplish the agency’s action . . . ”).

282. The statement of purpose violates NEPA by tying the specific purpose of this federal action to state-determined renewable energy requirements, rather than following the factors Congress intended for agencies to consider under NEPA. *See* 42 U.S.C. § 4331(b)–(c); *see also* *Nat'l Ass'n of Home Builders v. Defs. of Wildlife*, 551 U.S. 644, 658 (2007) (stating that it is arbitrary and capricious for an agency’s decision to rely “on factors Congress did not wish it to consider”).

283. The decision violates NEPA by aiming the federal action’s purpose at ensuring distributor compliance with a single state’s energy policies and statutes. This purpose is *ultra vires*, arbitrary, capricious, and unreasonably narrow. And it has no relevance to any of the factors Congress wished federal agencies to consider when evaluating a COP. *See* 42 U.S.C. § 4331(b)–(c).

284. By using the COP’s sponsor’s contractual obligations as a major factor when determining whether to approve the COP, BOEM, the Corps, and NMFS violated NEPA by allowing existing private contracts to define the need for the project, thereby impermissibly predetermining the outcome of their review and taking agency action that is arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law, in excess of statutory jurisdiction, authority, or limitations, or short of statutory right, or without observance of procedure required by law. 5 U.S.C. § 706(2)(A), (C), (D).

Twenty-Fourth Claim for Relief

**BOEM, THE CORPS, AND NMFS VIOLATED NEPA BY FAILING TO PROPERLY
CONSIDER A REASONABLE RANGE OF ALTERNATIVES TO THE COP**

(Violation of 40 C.F.R. 1500.2(e) and 40 C.F.R. § 1502.14(a); 5 U.S.C. § 706(2))

285. The plaintiffs reallege and incorporate by reference the allegations contained in Paragraphs 1 through 284 as though fully set forth herein.

286. NEPA's implementing regulations require federal agencies to “[u]se the NEPA process to identify and assess the reasonable alternatives to proposed actions that will avoid or minimize adverse effects of these actions upon the quality of the human environment.” 40 C.F.R. § 1500.2(e).

287. NEPA's implementing regulations also characterize assessing and identifying reasonable alternatives as “the heart of the environmental impact statement” and require agencies to “rigorously explore and objectively evaluate all reasonable alternatives to proposed actions.” 40 C.F.R. § 1502.14.

288. As the lead agency in connection with the NEPA review of the Vineyard Wind project, BOEM applied its *ultra vires* “Smart From The Start” program by impermissibly limiting the range of alternatives to only those within the geographic area of Lease OCS-A-0501, thereby violating NEPA's requirement to review a reasonable range of alternatives.

289. BOEM, the Corps, and NMFS decided to grant the Vineyard Wind COP and allow the project to go forward in the lease area, knowing that their failure to adequately review reasonable alternatives outside of the lease area would decimate the commercial fishing industry and related shoreside businesses. *See* ROD at 39 (stating that “due to the placement of the turbines it is likely that the entire [lease] area will be abandoned by commercial fisheries due to difficulties with navigation”).

290. BOEM, the Corps, and NMFS violated NEPA by failing to diligently explore and dispassionately evaluate all reasonable alternatives to placing the Vineyard Wind project in the lease area.

291. The unduly narrowly-defined nature of the federal action impermissibly cabined the range of reasonable alternatives that BOEM, the Corps, and NMFS considered, essentially limiting them to approving the Vineyard Wind project in the lease area or nowhere at all. This transformed the agencies' review of the COP into a rubber stamp, not the hard look federal law requires, and constitutes a violation of NEPA.

292. BOEM, the Corps, and NMFS also violated NEPA by impermissibly and summarily dismissing significant, concrete, reasonable alternatives to locating the Vineyard Wind project in the lease area during the comment process without adequate explanation, including:

- a. proposals made by Seafreeze that the COP should not be approved until the agencies could fully analyze radar interference caused by Vineyard Wind with search-and-rescue operations;
- b. comments showing that the COP's structural analysis was flawed and should be changed;
- c. concrete proposals to eliminate certain important fishery areas of the lease from the COP;
- d. concrete proposals showing that Vineyard Wind's decision to use larger turbines would have cumulative impacts necessitating further analysis;
- e. comments urging consideration of the devastating impact the Vineyard Wind project would have on fisheries, specifically the longfin squid fishery;

- f. concrete proposals regarding compensation for commercial fishermen and shoreside industries negatively impacted by the Vineyard Wind Project;
- g. the proposal of the High Frequency Radar Wind Turbine Interference Community Working Group dated June 2019; and
- h. the proposal of a reasonable alternative that set forth proposed transit lanes in the lease area to ensure safety and viability of commercial fishing operations put forward by the Responsible Offshore Development Alliance (“RODA”).

293. This lack of full and fair consideration of a reasonable range of alternatives available outside the area of Lease OCS-A-0501 and the full and fair consideration of proposals submitted by the public within the area of Lease OCS-A-0501 was arbitrary, capricious, an abuse of discretion, in excess of statutory authority, without observance of procedure required by law, or otherwise not in accordance with law. 5 U.S.C. § 706(2)(A), (C), (D).

Twenty-Fifth Claim for Relief

BOEM, THE CORPS, AND NMFS VIOLATED NEPA BY FAILING TO COMPLY WITH REQUIREMENTS FOR ANALYZING CUMULATIVE IMPACTS

(Violation of 40 C.F.R. § 1508.7; 5 U.S.C. § 706(2))

294. The plaintiffs reallege and incorporate by reference the allegations contained in Paragraphs 1 through 293 as though fully set forth herein.

295. NEPA’s implementing regulations define “cumulative impact” as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and *reasonably foreseeable* future actions” 40 C.F.R. 1508.7 (emphasis added).

296. In the decision documents, BOEM did not account for its own plans to develop whole swaths of the Outer Continental Shelf for wind energy generation when assessing cumulative impact in the environmental assessment connected to the Vineyard Wind COP.

297. BOEM, the Corps, and NMFS did not take into account the “foreseeable” impacts outside of the COP area associated with BOEM’s set plans to place wind farms across much of the outer Continental Shelf when compiling the Final EIS or the ROD.

298. This failure to account for reasonably foreseeable future actions when analyzing cumulative impact under NEPA is arbitrary, capricious, an abuse of discretion, in excess of statutory authority, or otherwise not in accordance with law. 5 U.S.C. § 706(2)(A), (C), (D).

Twenty-Sixth Claim for Relief

BOEM, THE CORPS, AND NMFS FAILED TO COMPLY WITH RELEVANT NEPA IMPLEMENTING REGULATIONS

(Violation of 40 C.F.R. § 1502.22; 5 U.S.C. § 706(2))

299. The plaintiffs reallege and incorporate by reference the allegations contained in Paragraphs 1 through 298 as though fully set forth herein.

300. NEPA’s implementing regulations require agencies to follow certain steps when there is “incomplete information relevant to reasonably foreseeable significant adverse impacts.”

See 40 C.F.R. §§ 1502.22(a)–(b).

301. BOEM, the Corps, and NMFS did not follow those steps despite a lack of information relevant to multiple reasonably foreseeable adverse impacts of the Vineyard Wind project, including:

- a. the oil spill risks associated with Vineyard Wind’s prototype wind turbines;
- b. the environmental risks associated with pile-driving installation of these turbines;

- c. the impact operational underwater sound associated with the installation and operation of these turbines could have on marine life and resources;
- d. the impact of electrical discharge from generators and cabling into the marine environment; and
- e. the adverse impact Vineyard Wind will have on commercial fishermen and onshore seafood processors.

302. This failure to follow these NEPA implementing regulations caused these agencies to arbitrarily limit not only the consideration of cumulative impacts but also their “reasoned choice among alternatives,” and is therefore arbitrary, capricious, an abuse of discretion, in excess of statutory authority, without observance of procedure required by law, or otherwise not in accordance with law. 5 U.S.C. § 706(2)(A), (C), (D).

Twenty-Seventh Claim for Relief

BOEM IMPERMISSIBLY LIMITED THE SCOPE OF THE EIS TO THE VINEYARD WIND PROJECT AREA

(Violation of 40 C.F.R. § 1508.25(a)(1)(iii); 5 U.S.C. 706(2))

303. The plaintiffs reallege and incorporate by reference the allegations contained in Paragraphs 1 through 302 as though fully set forth herein.

304. In the ROD for the Vineyard Wind project, BOEM, the Corps, and NMFS stated that the purpose of BOEM’s decision on the COP was “to carry out its duty . . . in furtherance of the United States Policy to make OCS energy resources available for expeditious and orderly development.”

305. NEPA’s implementing regulations state that if an agency action is one of many “interdependent parts of a larger action,” it “depends on the larger action for [its] justification.” 40 C.F.R. § 1508.25(a)(1)(iii).

306. BOEM’s analysis of the “reasonably foreseeable effects measured by installed power capacity,” Final EIS at 1–5, was inappropriately narrow because it did not adequately examine the cumulative environmental impact of offshore wind development on neighboring lease areas, the broader Atlantic coast, the Pacific coast, or the Gulf coast.

307. The Vineyard Wind Final EIS considered only 22 GW of Atlantic offshore wind development “reasonably foreseeable” when the already-pledged target commitment was 30 GW—making its environmental impact analysis inadequate. *See* FEIS, p. 1–6.

308. BOEM failed to identify the proper scope of analysis for cumulative impact in the Final EIS.

309. BOEM’s failures in this area render its EIS fundamentally flawed, arbitrary, capricious, and otherwise not in accordance with law. 5 U.S.C. § 706(2)(A).

Twenty-Eighth Claim for Relief

BOEM, THE CORPS, AND NMFS VIOLATED NEPA BY FAILING TO MAKE DILIGENT EFFORTS TO INVOLVE THE PUBLIC

(Violation of 40 C.F.R. § 1506.6; 5 U.S.C. § 706(2))

310. The plaintiffs reallege and incorporate by reference the allegations contained in Paragraphs 1 through 309 as though fully set forth herein.

311. NEPA’s implementing regulations require agencies to make “diligent efforts to involve the public in preparing and implementing their NEPA procedures.” 40 C.F.R. § 1506.6.

312. BOEM repeatedly failed to engage with the public when preparing and implementing decisions related to Vineyard Wind, instead relying on state agencies and their appointed boards (including the Rhode Island Fisheries Advisory Board (“FAB”) and the Rhode Island Coastal Resources Management Council (“CRMC”)) to do this for them.

313. The FAB did not engage with a significant and relevant portion of the public (namely, offshore squid trawl fishermen, shoreside businesses, and any offshore fishing interests from the State of New York) when considering and developing mitigation measures. Instead, it conducted these negotiations behind closed doors.

314. BOEM did not provide offshore squid trawl fishermen, shoreside businesses, or New York offshore fishing interests with substantive opportunity to actively participate in and access documents relating to these negotiations.

315. BOEM did not include any economic catch data or consider traditional fishing grounds important to New York-based commercial fishermen, leaving these interests with no safe or sufficient transit lane for travel to or from their fishing grounds.

316. BOEM impermissibly delegated to the Commonwealth of Massachusetts the task of negotiating certain commercial fishing mitigation measures for Vineyard Wind. Massachusetts then failed to garner substantial input on these measures from commercial fishermen.

317. These failures to involve the public in preparation and implementation of NEPA procedures with respect to Vineyard Wind are arbitrary, capricious, an abuse of discretion, without observance of procedure required by law, or otherwise not in accordance with law. 5 U.S.C. § 706(2)(A), (C), (D).

Twenty-Ninth Claim for Relief

THE DEFENDANTS VIOLATED NEPA BY FAILING TO ADEQUATELY EXPLAIN WHY CERTAIN COMMENTS DO NOT WARRANT A FURTHER RESPONSE

(Violation of 40 C.F.R. § 1503.4(a)(5); 5 U.S.C. § 706(2))

318. The plaintiffs reallege and incorporate by reference the allegations contained in Paragraphs 1 through 317 as though fully set forth herein.

319. NEPA's implementing regulations require agencies to adequately cite "the sources, authorities, or reasons which support the agency's position . . . [and] indicate those circumstances which would trigger agency reappraisal or further response." 40 C.F.R. § 1503.4(a)(5).

320. These regulations also require agencies to explain why certain comments "do not warrant further agency response." *Id.*

321. BOEM and other agencies involved in responding to specific public comments did not adequately cite their sources or sufficiently explain why comments do not warrant further response. These comments include:

- a. Comment 1063-002, which concerned fisheries mitigation and compensation;
- b. Comment 0076-004, which questions the sufficiency of the purpose and need statement for the purposes of NEPA;
- c. Comment 13185-017, which pointed out BOEM's failure to consider the cumulative impact of fisheries mitigation plans and associate compensation;
- d. Comment 13185-018, which addressed BOEM's failure to fully analyze impacts to shoreside businesses or gather enough peer review or public input; and
- e. All comments made by Seafreeze Ltd. regarding the last-minute increase in megawatt capacity for each wind turbine generator without adequate analysis.

322. The defendants' failure to provide adequate explanation and sourcing for their responses to comments is arbitrary, capricious, an abuse of discretion, without observance of

procedure required by law, or otherwise not in accordance with law. 5 U.S.C. § 706(2)(A), (C), (D).

Thirtieth Claim for Relief

**THE DEFENDANTS VIOLATED NEPA BY FAILING TO ATTACH
SUBSTANTIVE COMMENTS TO THE FINAL STATEMENT**

(Violation of 40 C.F.R. § 1503.4(b); 5 U.S.C. § 706(2))

323. The plaintiffs reallege and incorporate by reference the allegations contained in Paragraphs 1 through 322 as though fully set forth herein.

324. Federal regulations require an agency to attach “all substantive comments received on the draft statement (or summaries thereof where the response has been exceptionally voluminous) to the final statement.” 40 C.F.R. § 1503.4(b).

325. The defendants did not attach all substantive comments to the final statement.

326. The defendants’ failure to attach such comments is arbitrary, capricious, an abuse of discretion, without observance of procedure required by law, and otherwise not in accordance with law. 5 U.S.C. § 706(2)(A), (C), (D).

Thirty-First Claim for Relief

**THE DEFENDANTS VIOLATED NEPA AND THE APA BY FAILING
TO PREPARE AN EIS PRIOR TO ISSUING THE VINEYARD WIND LEASE**

(Violation of 40 C.F.R. § 1501.3, 40 C.F.R. § 1502.14; 5 U.S.C. § 706(2))

327. The plaintiffs reallege and incorporate by reference the allegations contained in Paragraphs 1 through 326 as though fully set forth herein.

328. NEPA’s implementing regulations require any action that “[i]s likely to have significant effects” on the environment to include an environmental impact statement (“EIS”). 40

C.F.R. § 1501.3(a). Alternatively, any action that “is not likely to have significant effects or the significance of the effects is unknown” requires only an environmental assessment (“EA”). *Id.*

329. When considering whether the effects are significant, agencies “analyze the potentially affected environment and the degree of the effects of the action,” and consider connected actions as well. 40 C.F.R. § 1501.3(b).

330. Agencies must consider “the affected area . . . and its resources, such as listed species and designated critical habitat under the Endangered Species Act” when deciding whether the environment will be potentially affected. *Id.*

331. Agencies must also consider “[b]oth short- and long-term effects . . . [b]oth beneficial and adverse effects . . . [e]ffects on public health and safety . . . [and e]ffects that would violate Federal . . . law protecting the environment” when determining the degree of the action’s effects. *Id.*

332. When BOEM issued the Vineyard Wind lease, it conducted an EA, but did not issue an EIS.

333. The Vineyard Wind lease sits directly on designated critical habitat for the endangered North Atlantic Right Whale.

334. Construction and operation of the Vineyard Wind project will disrupt and harm the ocean environment in the short and long term, likely decreasing marine populations due to physical construction, undersea noise, and electrical discharge.

335. BOEM foresaw or should have foreseen these significant adverse effects when it chose not to issue an environmental impact statement before leasing Vineyard Wind.

336. By failing to prepare an EIS for Vineyard Wind prior to leasing, BOEM did not consider a reasonable range of alternative locations for wind energy construction and therefore

shirked its duty to “[e]valuate reasonable alternatives to the proposed action . . .” 40 C.F.R. § 1502.14(a).

337. BOEM’s decision not to issue an environmental impact statement in connection with the issuance of the lease is arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law, in excess of statutory jurisdiction, authority, or limitations, or short of statutory right, or without observance of procedure required by law. 5 U.S.C. § 706(2)(A), (C), (D).

Thirty-Second Claim for Relief

BOEM VIOLATED NEPA BY SEGMENTING ITS NEPA ANALYSIS

(Violation of 40 C.F.R. § 1508.25; 5 U.S.C. § 706(2))

338. The plaintiffs reallege and incorporate by reference the allegations contained in Paragraphs 1 through 337 as though fully set forth herein.

339. When preparing an EA, an agency must give a hard look toward “connected actions” within the same EA, including actions that are “interdependent parts of a larger action and depend on the larger action for justification.” *See* 40 C.F.R. § 1508.25.

340. BOEM improperly segmented its NEPA analysis by “divid[ing] connected, cumulative, or similar federal actions into separate projects and thereby fail[ing] to address the true scope and impact of the activities that should be under consideration.” *Del. Riverkeeper Network v. FERC*, 753 F.3d 1304, 1313 (D.C. Cir. 2014).

341. Because BOEM improperly segmented its analysis, it failed to consider foreseeable impacts of a wind energy farm in the lease area on fisheries, ocean and benthic fish habitat, protected species, and navigation before issuing the final lease notice.

342. BOEM's decision to segment its NEPA analysis is arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law, in excess of statutory jurisdiction, authority, or limitations, or short of statutory right, or without observance of procedure required by law. 5 U.S.C. § 706(2)(A), (C), (D).

Thirty-Third Claim for Relief

THE DEFENDANTS VIOLATED NEPA BY USING OUTDATED NEPA REGULATIONS TO DEMONSTRATE CURRENT COMPLIANCE

(5 U.S.C. § 706(2))

343. The plaintiffs reallege and incorporate by reference the allegations contained in Paragraphs 1 through 342 as though fully set forth herein.

344. The defendants prepared the Final EIS and ROD under NEPA regulations in effect before September 14, 2020 because "BOEM's NEPA review of the proposed Project *began* prior to . . . September 14, 2020." ROD at 3 n.1 (emphasis added).

345. The defendants issued the Final EIS in March 2021 and issued the ROD in May 2021.

346. The defendants did not refer to or use then-current NEPA regulations in the Final EIS or ROD.

347. The defendants' decision to use prior, outdated NEPA regulations to demonstrate compliance with NEPA's procedural requirements is arbitrary, capricious, an abuse of discretion, without observance of procedure required by law, and otherwise not in accordance with law. 5 U.S.C. § 706(2)(A), (C), (D).

VII. PLAINTIFFS' PRAYERS FOR RELIEF

WHEREFORE, Plaintiffs respectfully seek an Order of this Court:

- A. Declaring, pursuant to the Declaratory Judgment Act, 28 U.S.C. § 2201, that the (1) the issuance, publication, and award of the Vineyard Wind lease, (2) the issuance of the Vineyard Wind FEIS and the ROD, and (3) the approval of the Vineyard Wind COP were in violation of OCSLA, ESA, CWA, MMPA, and NEPA and their implementing regulations, constituting acts and omissions that were *ultra vires*, arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law, in excess of statutory jurisdiction, authority, or limitations, or short of statutory right, or without observance of procedure required by law;
- B. Holding unlawful, vacating, and setting aside (1) the issuance, publication, and award of the Vineyard Wind lease, (2) the issuance of the Vineyard Wind FEIS and the ROD, and (3) the approval of the Vineyard Wind COP;
- C. Enjoining all further wind farm construction and related activity within the Vineyard Wind lease area;
- D. Enjoining all further wind farm construction and related activity within any leases awarded under the “Smart From The Start” program;
- E. Enjoining the Federal Defendants from accepting submissions for wind leases under the Smart From The Start program;
- F. Retaining continuing jurisdiction of this matter until Federal Defendants fully remedy the violations of law complained of herein;
- G. Awarding financial compensation and full restitution to Plaintiffs for Federal Defendants’ *ultra vires*, arbitrary, capricious, and unlawful actions in (1) issuing, publishing, and awarding the Vineyard Wind lease, (2) issuing the FEIS and ROD; and (3) approving the Vineyard Wind COP;

- H. Awarding Plaintiffs their costs and attorney fees as appropriate; and
- I. Providing such other relief as is just and proper.

DATED: December 15, 2021 Respectfully submitted,

/s/Theodore Hadzi-Antich

THEODORE HADZI-ANTICH

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TEXAS PUBLIC POLICY FOUNDATION

901 Congress Avenue

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CERTIFICATE OF SERVICE

I hereby certify that on December 15, 2021, I electronically filed the foregoing Complaint for Declaratory and Injunctive Relief, Exhibits A-D, and this Certificate of Service with the Clerk of the Court for the United States District Court for the District of Columbia by using the CM/ECF system. In accordance with Fed. R. Civ. Proc. 4, I am causing to be served one true and correct copy of the filed documents via certified mail, along with a summons, on each of the following persons:

Matthew M. Graves
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Washington, DC 20530

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in her official capacity as the
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Amanda Lefton,
in her official capacity as the Director of the
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The United States Department of Commerce
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The National Oceanic and Atmospheric
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/s/Theodore Hadzi-Antich
THEODORE HADZI-ANTICH

EXHIBIT A



Texas Public Policy Foundation

September 17, 2021

BY EMAIL AND FEDERAL EXPRESS

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The Honorable Kathy Hochul
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RE: Notice of Violations of Law under the Outer Continental Shelf Lands Act, the Endangered Species Act, the Clean Water Act, the Marine Mammal Protection Act, and the National Environmental Policy Act in Connection with the Vineyard Wind -1 Project with Regard to Lease OCS-A 0501 on the Outer Continental Shelf

Dear Secretaries, Directors, Commanders, Governors, General Counsel, Attorneys General and Other Addressees:

Pursuant to the citizen suit provisions of the Outer Continental Shelf Lands Act, 43 U.S.C. § 1349(a)(2)(A) (“OCSLA”), the Endangered Species Act, 16 U.S.C. § 1540(g)(1)(A) and (C) and 16 U.S.C. § 1540 (g)(2)(A) and (B) (“ESA”), and the Clean Water Act, 33 U.S.C. § 1365(b) (“CWA”) (and in accordance with 40 CFR § 135.3 implementing the notice provisions of the CWA), on behalf of XIII Northeast Fishery Sector, Inc., Heritage Fisheries, Inc., Nat. W. Inc., Seafreeze Shoreside, Inc., Long Island Commercial Fishing Assoc., Inc., and Old Squaw Fisheries, Inc., we hereby provide you with this 60-Day Notice of Violations of OCSLA, ESA, and CWA committed by your respective departments, divisions, branches, other governmental units and/or their respective officers and/or employees in connection with the Vineyard Wind – 1 Project with regard to Lease OCS-A 0501 on the Outer Continental Shelf (the “Vineyard Wind Project” or the “Project”). This notice letter is hereby also provided to the other addressees as may be required by law.

In addition, although not required by law, this letter provides you with notice of violations of the Marine Mammal Protection Act (“MMPA”) and the National Environmental Policy Act (“NEPA”) committed by your respective departments, divisions, branches, other governmental units and/or their respective officers and/or employees in connection with the Vineyard Wind Project. Furthermore, this notice letter describes your actions and failures to act that are inconsistent with or otherwise in violation of the requirements of the Administrative Procedure Act (“APA”).

After the expiration of the 60-Day Notice Period, we plan to file a complaint in the appropriate federal court for relief on behalf of our clients.

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VIOLATIONS OF OCSLA COMMITTED BY THE DEPARTMENT OF THE INTERIOR, THE BUREAU OF OCEAN ENERGY MANAGEMENT, AND THEIR OFFICERS AND/OR EMPLOYEES (COLLECTIVELY “BOEM”)

A. Violations Based on Awarding Lease OCS-A 0501

1. BOEM violated its duties under OCSLA by issuing and publishing the Final Sale Notice (“FSN”) in 79 Fed. Reg. 70545 (November 26, 2014) and awarding Lease OCS-A 0501 via a competitive lease sale held in January 2015 to Offshore MW LLC (which subsequently changed its name to Vineyard Wind LLC) without first adhering to the criteria set forth in 43 U.S.C. § 1337(p)(4). Lease OCS-A 0501 became effective on April 1, 2015. Specifically:

- a. BOEM failed to ensure that issuance of Lease OCS-A 0501 was carried out in a manner that provides for safety, protection of the environment, prevention of waste, conservation of natural resources of the outer Continental Shelf, protection of national security interests, and prevention of interference with reasonable uses. *See* 43 U.S.C. §§ 1337(p)(4)(A), (B), (C), (D), (F), and (I);
- b. BOEM failed to provide adequate consideration of the location of, and any scheduling relating to, Lease OCS-A 0501 and other uses of the sea or seabed, including but not limited to use for a fishery, a sealane, and navigation. *See* 43 U.S.C. §§ 1337(p)(J)(i)-(ii);
- c. BOEM failed to provide adequate consideration of public notice and comment on proposed Lease OCS-A 0501, as well as for easements or rights-of way associated therewith. *See* 43 U.S.C. § 1337(p)(4)(K); and
- d. BOEM failed to adequately consider oversight, inspection, research, monitoring, and enforcement relating to Lease OCS-A 0501, including easements or rights of way in connection therewith.

2. BOEM’s “Smart from the Start” policy, as described in 76 Fed. Reg. 8962 (February 12, 2011) (amending 30 C.F.R. Part 285) both on its face and as applied to the approval of Lease OCS-A 0501 for the Vineyard Wind Project exceeds BOEM’s authority under the OCSLA because nothing in 43 U.S.C. § 1337(p) explicitly or implicitly authorizes BOEM to issue such a lease before reviewing and analyzing the criteria set forth therein. As such, the *ultra vires* “Smart from the Start” policy and its application to Lease OCS-A 0501 is arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.

In addition, the “Smart for the Start” policy impermissibly enables private companies to lay claim to valuable ocean areas without an adequate public process. Under that policy, the site to be leased is determined prior to public input, without meaningful consideration of existing natural resources, reasonable uses, or alternative sites. That is

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what happened with regard to Lease OCS-A 0501, and nothing in 43 U.S.C. § 1337(p) authorizes BOEM to skirt the substantive requirements or public input in such a manner. Accordingly, the *ultra vires* policy and its application to Lease OCS-A 0501 is arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law. *See* 43 U.S.C. § 1337(p)(K).

B. Violations Based on Approving the Construction and Operations Plan

1. On December 1, 2020, Vineyard Wind withdrew the Construction and Operations Plan (the “COP”) via letter, citing the need to conduct further review of its project design resulting from the selection of General Electric Company’s (“GE’s) large Haliade-X 13-14 MW turbines (“Haliade-X”). The letter did not explain in detail *why* further review was required. Nor did the letter ask that review of the COP be suspended pending the review. Rather, Vineyard Wind’s letter, which was made pursuant to 30 CFR § 585.628, withdrew the COP “from further review and decision making by BOEM.” It was “effective immediately.” *See Notice of Termination*, 85 Fed. Reg. 81486 (December 16, 2020).

The large 13-14 MW Haliade-X is a brand-new technology, with only a single prototype operating for less than two years at the Port of Rotterdam, Netherlands. The operation of that equipment at that single location began in November of 2019. The Haliade-X technology has not operated in any other location and, consequently, does not have a proven track record of safety and efficacy.¹ Small wonder that Vineyard Wind withdrew the COP in order to reevaluate the use of that unproven technology.

Upon receipt of the termination letter, BOEM immediately terminated its review of the COP, stating that the administrative review of the Vineyard Wind Project “is no longer necessary and the *process* is hereby terminated,” 85 Fed. Reg. 81486 (emphasis added). The “process” that was terminated by BOEM is the process of determining whether to approve the COP and its Environmental Impact Statement. With the termination of that process, the entire Vineyard Wind Project was terminated pursuant to 30 C.F.R. § 585.628 and 40 C.F.R. §§ 1503.1 and 1506.6.

Within a few weeks, on January 22, 2021, Vineyard Wind submitted another letter to BOEM stating that it had completed its review of the large Haliade-X technology and had concluded that it was safe and effective, without explaining how such a review could have occurred so quickly in connection with an unproven technology that is in the prototype stage at one location at the Port of Rotterdam. The letter asked BOEM to revive the terminated Vineyard Wind Project and continue its review of the existing COP without any amendment. The letter did not provide detailed documentation regarding Vineyard

¹ See 30 C.F.R. § 585.115(e) (incorporating by reference Am. Petroleum Inst. API RP 2A-WSD, Recommended Practice for Planning, Designing and Constructing Fixed Offshore Platforms – Working Stress Design (21st ed. 2000); Errata and Supplement 1 (2002); Errata and Supplement 2 (2005); Errata and Supplement 3 (2007)).

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Wind's lightning-speed review of the safety and efficacy of the larger Haliade-X technology nor the opportunity for public input.

Less than two months later, BOEM resumed its review of the COP, stating that "Because Vineyard Wind has indicated that its proposed COP is 'a decision pending before BOEM, BOEM is resuming its review of the COP.'" *See Notice to Resume*, 86 Fed. Reg. 12494 (March 3, 2021). In fact, the COP was not a "decision pending before BOEM" at that time because the regulatory process had been terminated on December 16, 2020, and there was no longer a pending COP awaiting any decision by BOEM.

The public was not given an opportunity to review and comment on the hurry-up review of the safety and efficacy of the large Haliade-X, nor was it provided with any documentation regarding such review other than a curiously sparse description of the resuscitation of the Vineyard Wind project in the Federal Register. *Id.*

By reinstituting the COP review process in the foregoing manner, BOEM violated the following statutory and regulatory provisions:

- a. BOEM failed to ensure that Vineyard Wind's review of the new large Haliade-X technology was sufficient to show that the use of that technology by Vineyard Wind would provide for safety, protection of the environment, prevention of waste, conservation of natural resources of the Outer Continental Shelf, protection of national security interests, and prevention of interference with reasonable uses. *See* 43 U.S.C. §§ 1337(p)(4)(A), (B), (C), (D), (F), and (I);
- b. BOEM failed to provide public notice and opportunity for comment on Vineyard Wind's analysis and work product during the review period of December 1, 2020, to January 22, 2021, regarding the use of the large Haliade-X technology and its ability to provide for safety, protection of the environment, prevention of waste, conservation of natural resources of the Outer Continental Shelf, protection of national security interests, and prevention of interference with reasonable uses. *See* 43 U.S.C. § 1337(p)(4)(K);
- c. Nothing in 30 CFR 585.62 or in any other regulation or statute permits BOEM to recommence the formally terminated process simply because the project sponsor asserted falsely that the COP "is a decision pending before BOEM." *See* 86 Fed. at 12494. BOEM has never cited any statutory or regulatory authority to support its action. Accordingly, BOEM's action was *ultra vires*.
- d. BOEM's action violates 40 C.F.R. § 1500.2(d) (agencies must encourage and facilitate public involvement in decisions which affect the quality of the human environment).

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- e. BOEM acted arbitrarily, capriciously, contrary to law, and in excess of its statutory authority when it recommenced the COP review process. *See* 5 U.S.C. § 706(2). *See* *Citizens to Preserve Overton Park v. Volpe*, 401 U.S. 402, 415-17 (1971) (opining that agency decision should be overturned if there was not a consideration of appropriate factors, if there was a clear error of judgment, or if there was a failure to follow mandated procedure); *Marsh v. Or. Natural Res. Council*, 490 U.S. 360, 378 (1989) (agency action should be overturned if any part of the action is not based on a reasoned decision).
- f. BOEM’s action violated 30 C.F.R. § 585.626, which requires the COP to contain details describing all studies, surveys, and other project-specific information gathered in connection with planned facilities proposed for construction and operation of the project. BOEM reinstated the review process without being provided with such details in connection with the review conducted by Vineyard Wind during the period from December 16, 2020, to January 22, 2021. *See also* 30 C.F.R. § 585.620.

2. 43 U.S.C. § 1337(p)(4)(I) states that “The Secretary *shall* ensure that any activity under this subsection is carried out in a manner that provides for . . . *prevention of interference* with reasonable uses . . . of the exclusive economic zone, the high seas, and the territorial seas.” (emphasis added). The term “shall” denotes a mandatory and not a discretionary duty. *N.C. Fisheries Ass’n v. Gutierrez*, 518 F. Supp. 2d 62, 97 (D.D.C. 2007). In turn, 43 U.S.C. § 1337(p)(4)(J) requires the Secretary to consider the “use of the sea or seabed . . . for a fishery.” Accordingly, the use of the sea for a fishery is a protected reasonable use under OCSLA, and the plain statutory language requires the Secretary of Interior (and BOEM) to prevent interference with that use.

The implementing regulations add that lessees such as Vineyard Wind must demonstrate that the activities proposed under a COP will not “*unreasonably* interfere with other uses of the OCS.” *See* 30 C.F.R. § 585.621(c) (emphasis added). Reading the statute and regulations together, the Secretary must carry out the duties under 43 U.S.C. § 1337(p), including decisions regarding whether to approve or disapprove a COP, in a manner that *prevents unreasonable interference* with the use of the sea for a fishery. Nothing in the statutory or regulatory language expressly or impliedly limits the term “interference” only to interference with legal rights.

BOEM violated these statutory and regulatory requirements by approving the Vineyard Wind COP, which proposed wind energy activities that would unreasonably bar access to and otherwise unreasonably interfere with fishing activities in the lease area, as follows:

- a. Commercial fishing for whiting and squid using bottom trawls is one of the primary uses of the lease area. BOEM acknowledges that “bottom trawl fishery provides the highest revenue from the WDA.” FEIS p. 3-213. This is especially significant given that “[t]he small mesh bottom fishery targeting

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whiting and squid are most likely to be impacted.” FEIS at 3-221. BOEM admits “that disruptions to access or unavailability of fish as a result of the Proposed Action during operations and maintenance” may be especially pronounced for “pelagic fishery resources.” DEIS at 3-184.

- b. The Vineyard Wind project will be economically catastrophic to bottom trawl fishing vessels given the likelihood of “fishing gear [becoming] entangled in protections placed over cables or around foundations of WTGs or ESPs, and/or restrictions on maneuverability due to the presence of infrastructure within the WDA result[ing] in the displacement of fishing vessels.” FEIS at 3-215.
 - i. Indeed, “the squid trawl fishery” in particular “may not be able to safely operate and harvest the resource in the WDA using status-quo fishing techniques.” DEIS at 3-183 - 84; FEIS, at 3-222.
 - ii. “The conversion of soft sediment habitat to hard bottom via protective cover could also negatively impact the bottom trawl industry by increasing the risk of net hangs and vessel instability, and generally decreasing trawlable habitat.” FEIS at 3-219.
- c. The Vineyard Wind project is also likely to severely reduce the population of squid within the WDA.
 - i. Sediment deposition associated with construction kills both squid eggs and squid larvae. FEIS at 03-62. This likely will significantly lower future squid populations.
 - ii. Low frequency noise produced by the construction and operation of the windfarm is also likely to kill squid eggs and squid larvae.
 - iii. “Permanent habitat alteration in the form of scour and cable protection would . . . displace species that prefer soft-bottom habitat (e.g., squid) from the area immediately surrounding the foundation footprint.” FEIS at 3-219.
- d. Bottom trawling vessels will be forced to fish in new areas, increasing competition for scarce resources.
 - i. “Restrictions on maneuverability due to the presence of structures in the WDA could displace some fishing vessels, increasing conflict over alternative fishing grounds.” SEIS at 3-100.
 - ii. “Potential displacement of fishing vessels and increased competition on fishing grounds could have long-term adverse impacts on commercial fisheries and for-hire recreational fishing.” SEIS at 3-97.

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- iii. Up to 46 vessels may be present within the Vineyard Wind construction area at any given time and up to 184 might be present in the entire navigational analysis area. SEIS at 3-112. The presence of that many vessels will necessarily and unreasonably restrict the operation of fishing vessels within the area.
- iv. Additionally, “[b]ottom tending mobile gear is more likely to be displaced than fixed gear.” SEIS at 3-100. Thus, “future offshore wind projects would be more likely to displace larger fishing vessels with small mesh bottom-trawl gear and mid-water trawl gear.” SEIS at 3-97.
- v. Moreover, as BOEM admits, “due to the placement of the turbines it is likely that the entire 75,614-acre area will be abandoned by commercial fisheries due to difficulties with navigation.” ROD at 39.
- vi. Additionally, the process of boulder relocation changes the position of already-existing hangs to new locations on the seafloor potentially outside of the lease area, rendering it unsuitable for bottom trawling, without any requirement to inform vessels of the change or update currently existing navigational charts. *See* ROD at 94, mitigation measure 81. Without such requirements or updates, navigating the area with a bottom trawl vessel becomes analogous to treading blindly through a minefield.

e. This project will also make travel to and from fishing sites more costly for fishing vessels. As BOEM admits, “[t]he presence of WTGs could also lead to long-term changes to fishing vessel transit routes during operations, which could affect travel time and trip costs.” SEIS at 3-96. These disruptions mean that “a large portion of annual income for vessels may be inaccessible during operations, resulting in major impacts on individual vessel owners for a given year that could have longer-term impacts due to low operating capital.” DEIS at 3-184; *see also* FEIS at 3-222. BOEM recognizes yet understates these impacts by observing “impacts on some commercial fisheries may be moderate to major.” DEIS at 3-184; *see also* FEIS at 3-222. For example:

- i. NOAA has observed that, “approximately 25 permitted vessels would lose the majority of the revenue if not able to access traditional grounds within the RI and MA Lease Areas.” FEIS at 3-221. This figure is substantially understated.
- ii. Additionally, NOAA falsely asserts that the average vessel “would experience \$819 per trip loss (revenue net of variable costs), with a maximum annual loss of slightly over \$8,000 for one permitted vessel.” FEIS at 3-221. This figure is substantially understated.

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- iii. “The extent of impact to commercial fisheries and loss of economic income is estimated to total \$14 million over the expected 30-year lifetime of the Project.” ROD at 39. This figure is substantially understated.
- f. This project will also negatively impact the economics of onshore seafood processors and distributors. BOEM recognizes yet understates these severe impacts. “If commercial fisheries experience decreased catch due to the inability to operate in the WDAs for the projects or being unsuccessful in finding alternative fishing locations that provide comparable catch and fishing revenue, seafood processors and distributors could see lower volumes and/or value of product.” FEIS at 3-219.
- g. The approval of the COP notwithstanding the foregoing severe impacts on the fishing industry violated 43 U.S.C. § 1337(p)(4)(I) and its implementing regulations and was arbitrary and capricious, an abuse of discretion, not in accordance with law, and often inconsistent with the facts found by BOEM.
- h. The state-by-state financial mitigation proffered by Vineyard Wind to certain limited fishing interests is woefully inadequate to compensate for the types of severe adverse impacts and injuries that will be caused by the project to numerous commercial fishing and processing businesses, many of which were not consulted in connection with the secretive negotiations leading to the final offers, making the effort and result of those financial mitigation efforts, which were implicitly or explicitly sanctioned by BOEM, arbitrary and capricious.

3. 43 U.S.C. § 1337(p)(4)(A) states that “The Secretary *shall* ensure that any activity under this subsection is carried out in a manner that provides for (A) safety.” (emphasis added). The use of the term “shall” denotes a mandatory and not a discretionary duty. *N.C. Fisheries Ass'n v. Gutierrez*, 518 F. Supp. 2d 62, 97 (D.D.C. 2007). The regulations parrot the statutory language. *See* 30 C.F.R. § 585.102(a)(1). In turn, 30 C.F.R. § 585.621(b) adds that a COP must demonstrate that the proposed activity “[i]s safe.” Accordingly, a COP may not be approved if it does not “ensure” safety at sea by demonstrating that the proposed activity “is safe.” BOEM violated these statutory and regulatory requirements by approving the Vineyard Wind COP, which threatens safety at sea in the following substantial ways:

- a. The COP fails to ensure safe travel for commercial fishing boats, including bottom trawl fishing vessels. Although BOEM acknowledges some negative impacts, they are given undue short shrift by BOEM, which impermissibly failed to require Vineyard Wind to make the lease area safe for commercial fishing.
 - i. As BOEM acknowledges, “[t]he location of the proposed infrastructure within the WDA could impact transit corridors and access to preferred

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fishing locations.” FEIS at 3-214. Accordingly, “commercial and for-hire recreational fishing fleets may find it more challenging to safely transit to and from homeports as there may be less space for maneuverability and greater risk of allision or collision if there is a loss of steerage.” FEIS at 3-214.

- ii. Likewise, “[m]aneuverability within WDAs would vary depending on many factors, including vessel size, fishing gear or method used, and weather conditions.” FEIS at 3-207. “Trawl and dredge vessels require a relatively large space between turbines to maneuver their gear, as the gear does not directly follow the vessel.” DEIS at 3-184. While “trawling vessels require 180-degree turning diameter” of up to “0.86 nautical mile in good weather and sea conditions,” of course “larger diameters would be required in poor weather and sea conditions.” FEIS at 3-215. And because “commercial fishing vessels typically stay out at sea over multiple days,” it is inevitable “that vessels would be navigating at nighttime or during adverse weather conditions.” FEIS at 3-214. No wonder “BOEM expects navigation in the WDA to be difficult at night, or in challenging weather conditions such as fog.” FEIS at 3-214. Of course, night and fog are frequently recurring conditions in the project area.
- iii. Further, “[t]he presence of structures (including transmission cable infrastructure) would have long-term impacts on commercial fisheries and for-hire fishing by increasing the risk of allisions, entanglement or gear loss/damage, and navigational hazards.” SEIS at 3-96.
- iv. Even if destruction of life, limb, or property does not directly result from a trawling vessel’s nets becoming entangled on additional seafloor “hangs” attributable to the Project, such a vessel cannot navigate any further until it has managed to free itself from those snags. Depending on factors such as currents, prevailing winds, and the amount of space available to maneuver, the time during which the vessel is rendered immobile could span from hours to days. This immobility becomes especially dangerous when combined with detrimental weather conditions. *See* FEIS at 3-219.
- v. As also recognized in the FEIS, “[t]ransiting through the WDA could create challenges associated with using navigational radar when there are many radar targets that may obscure smaller vessels and where radar returns may be duplicated under certain meteorological conditions like heavy fog.” FEIS at 3-214. Poor navigating conditions are the rule rather than the exception since commercial fishing vessels “would be navigating at nighttime or during adverse weather conditions” because they “typically stay out at sea over multiple days.” Id. BOEM admits that

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it “expects navigation in the WDA to be difficult at night, or in challenging weather conditions such as fog.” Id. This interference with navigational radar presents yet another significant danger to safety that was not adequately considered by BOEM in approving the COP.

- b. The COP fails to ensure safety for the unique fishing operations of bottom trawl fishing vessels.
 - i. The threat to safety from infrastructure placement is compounded for bottom trawl vessels. “Fisheries that use bottom trawls and dredge may find it challenging to deploy gear, maneuver, and fish in the WDA or along the OECC where cable protection measures have been deployed.” DEIS at 3-183. By their nature, such vessels must navigate around existing hangs to avoid snags on the seafloor, such as large rocks and shipwreck debris. Introduction of the additional hangs via the infrastructure required for the Vineyard Wind Project, including so-called “scour protection” around the base of the wind platforms, makes navigation particularly dangerous for bottom trawl vessels. Thus, “the chance of snagging mobile gear on Project infrastructure is much greater than if—in the case of fixed gear—the gear were set on the infrastructure or waves or currents pushed the gear into the infrastructure.” SEIS at 3-96.
 - ii. Electrified cables are also among the infrastructure required for the Vineyard Wind Project. “Protections placed over cables or around foundations of WTGs or ESPs may catch or entangle fishing gear.” DEIS at 3-183. Those cables are not only located within the Wind Development Zone, but also to and from the coast and the Zone as well. While those cables would initially be buried under sand on the ocean floor, burial in such a dynamic environment is necessarily short-lived. Cables will become exposed, with substantial danger to both the vessels and their occupants likely to result from contact between vessels constructed mostly of metal and these electrified cables.
 - iii. Additionally, the process of boulder relocation and clearing of other objects of the ocean floor introduces additional safety concerns. This practice of relocating existing hangs to new locations on the seafloor without any requirement to inform vessels of the change or update currently existing navigational charts is both reckless and illegal. The half-hearted effort to mitigate is woefully inadequate to protect safety. *See* ROD at 94, mitigation measure 81. Without appropriate mitigation requirements or updates, navigating the area with a bottom trawl vessel becomes analogous to treading blindly through a minefield.

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- iv. Given these substantial adverse impacts, it is obvious why “some fisheries—like the squid trawl fishery—may not be able to safely operate and harvest the resource in the WDA using status-quo fishing techniques.” FEIS at 3-222. Having acknowledged this devastating adverse impact on safety of commercial fishing transit in the area, and having failed to require the COP to provide adequate solutions, BOEM acted arbitrarily, capriciously, and otherwise not in accordance with law.
- c. The COP fails to ensure that emergency rescues can be safely conducted within the WDA.
 - i. Interference by the Project with marine navigational radar makes emergency rescue operations unsafe. The United States Coast Guard (the “Coast Guard”) utilizes radar for search and rescue operations. The issue of the extent to which the wind turbines will interfere with high frequency radar (“HR Radar”) search and rescue efforts was impermissibly given short shrift by BOEM, notwithstanding public and government agency comments and contemporaneous statements alerting the Agency to this enormous safety problem. For example, prior to Vineyard Wind’s COP submission, NOAA’s National Ocean Service Integrated Ocean Observing System (the “IOOS”) submitted comments to BOEM stating that HF Radar coverage for essential rescue operations and for oil spill response would be lost as the result of the offshore wind project. Additionally, on July 27, 2020, the United States Department of Energy held a webinar on the topic of HF Radar interference from wind farms. BOEM was a collaborator on the webinar. The slides presented show that massive HF Radar interference would be caused by offshore wind farms in current leases should they be built.

Earlier, in 2019, an HF Radar Wind Turbine Community Working Group Report addressed the issue of radar interference from turbines and stated that no operational solutions exist to mitigate the future interference. The Report specifically raised concerns about the Vineyard Wind project with regard to the then-planned turbines (up to 10 MW), which are far larger than any offshore wind turbines in use in the Outer Continental Shelf. These issues were raised in comments submitted by Meghan Lapp on the Supplemental Environmental Impact Statement at pp. 60-62. These issues are exacerbated by Vineyard Wind’s switch from the smaller 8-10 MW Haliade-X turbines to the larger 13-14 MW turbines. The relevant webinar slides describing this interference may be found at: [Offshore Wind Turbine Radar Interference Mitigation \(WTRIM\) Webinar: Oceanographic High Frequency \(HF\) Radar Webinar \(energy.gov\).](https://www.energy.gov/fei/Offshore-Wind-Turbine-Radar-Interference-Mitigation-(WTRIM)-Webinar-Oceanographic-High-Frequency-(HF)-Radar-Webinar-(energy.gov).)

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Significantly, BOEM acknowledges that “[r]ecent BOEM research shows that the Lessee’s project is within the line of sight (the “LOS”) of *seven* oceanographic high-frequency (HF) radar systems” (emphasis added). The so-called solution proffered by BOEM is as follows:

The Lessee must coordinate with these radar operators to determine if the facility causes radar interference to the degree that radar performance is no longer within the specific radar systems’ operational parameters, or mission objectives . . . In coordination with the radar operators, the Lessee must perform an analysis of radar impacts and provide the results to DOI within six months of commercial operation . . . If this information indicates that the project facilities reduce radar performance to a degree where the system no longer meets operations parameters, or mission objectives, the Lessee must provide [within one year] mitigation to demonstrate the radar’s performance stats within the system’s operational parameters as appropriate” within one year of the discovery.

See ROD Attachment B, Compliance Memo, Proposed Technical, Navigation, and Safety Concerns at 15-16.

Thus, although BOEM received substantial information before approving the COP that the Vineyard Wind Project would interfere with the HF Radar system used by the Coast Guard for Search and Rescue operations (“SAROPS”), it nevertheless approved the project knowing that such operations could be adversely impacted for over a year, thereby failing to meet its duty to protect safety in the Outer Continental Shelf for fishing vessels and other legitimate, protected uses, in violation of 43 U.S.C. § 1337(p)(4)(A).

- ii. Additionally, the wind turbines present an extra hazard for helicopter rescues, particularly in combination with adverse weather. For example, high winds present a significant risk of injury or death for rescue personnel. This is especially true when those being rescued are in a vessel that has drifted close to a turbine. Potential collision between the rescue helicopter or its equipment and the turbine may present an unacceptable risk for rescue personnel, causing them to forego rescue efforts in such situations. This life-and-death safety issue was impermissibly ignored by BOEM in the decision documents.

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d. The approval of the COP notwithstanding the foregoing severe impacts on safety violated 43 U.S.C. § 1337(p)(4)(A) and its implementing regulations, was arbitrary, capricious, an abuse of discretion, otherwise not in accordance with law, and inconsistent with the facts found by BOEM.

4. 43 U.S.C. § 1337(p)(4)(B) states that “The Secretary *shall* ensure that any activity under this subsection is carried out in a manner that provides for . . . (B) protection of the environment.” (emphasis added). The use of the term “shall” denotes a mandatory and not a discretionary duty. *N.C. Fisheries Ass'n v. Gutierrez*, 518 F. Supp. 2d 62, 97 (D.D.C. 2007). The regulations echo the statutory language. *See* 30 C.F.R. § 585.102(a)(2). In turn, 30 C.F.R. § 585.621(d) adds that a COP must demonstrate that the proposed activity “does not cause undue harm or damage to natural resources; life (including human and wildlife) . . . [or] the marine, coastal or human environment.” Accordingly, a COP may not be approved if it fails to demonstrate that undue harm or damage will not occur to the foregoing protected resources, conditions, and qualities. BOEM violated these statutory and regulatory requirements by approving the Vineyard Wind COP, which fails to demonstrate that undue harm or damage will not occur to such resources, conditions, and qualities, as follows:

a. Natural Resources:

- i. Pile driving during construction emits low frequency noise. Windmill operation also emits low frequency noise. Low frequency noise kills both squid eggs and squid larvae. This will significantly lower future squid populations. In addition, peak sound pressure from pile driving will kill other marine species and generally interfere with their anti-predator alarm responses, further disturbing the marine population in the project area.
- ii. The project industrializes the natural environment. Squid require a sandy ocean bottom to thrive. This Project will change that environment to concrete, boulders, and electrified cables, making it uninhabitable by squid.

b. Human Life and the Human Environment:

- i. The additional fixed structures required by the project are likely to result in the loss of human life. While understating the risk, BOEM admits as much: “The main IPF is the presence of structures, which increase the risk of collision/allusion and navigational complexity.” SEIS at 3-114. This risk to the human environment is greater still when cumulative impact is considered. “Cumulative impacts resulting from individual IPFs associated with the Proposed Action would range from negligible to major.” SEIS at 3-114. Thus, “BOEM anticipates the overall cumulative impacts on navigation and vessel traffic would be major, due

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primarily to the increased loss of life due to maritime incidents.” SEIS at 3-114. *See* FEIS at 3-246.

- ii. The potential loss of life is further exasperated by the failure to adequately research the project’s interference with navigational radar. No adequate study on this potentially major threat to safe navigation was done prior to the ROD being issued. Instead, there is only a vague promise to study such an impact after the fact. *See* FEIS at 3-246.

c. Marine Environment:

- i. The Project will forever alter the marine environment. “Permanent habitat alteration in the form of scour and cable protection would . . . displace species that prefer soft-bottom habitat (e.g., squid) from the area immediately surrounding the foundation footprint.” FEIS at 3-219.
- ii. This “conversion of soft sediment habitat to hard bottom via protective cover” is likely to have the effect of “generally decreasing trawlable habitat.” FEIS at 3-219.
- iii. Pile driving during construction omits low frequency noise. Windmill operation also omits low frequency noise. This low frequency noise will harm the marine environment by making it significantly less hospitable to various forms of marine life. FEIS at 3-81; 3-89. Furthermore, pile driving can kill and maim local species and operational sound can mask communication among and between species.
- iv. Each large Haliade-X wind turbine to be used by Vineyard Wind is at least 260 meters high, which is approximately the equivalent of a 23-story building, and contains substantial quantities of oil and other chemicals. There is no documentation that the equipment can withstand a category 3 or higher Atlantic hurricane, which is likely to occur during the useful life of the equipment. Destruction of even one unit could lead to a catastrophic release into the marine environment, with attendant ecological harm that would be felt for generations. Multiply that by up to 84-100 units and the potential for ecological disaster is massive.

d. Coastal Environment:

- i. The project’s electrified cables will reach into the breeding grounds for the horseshoe crab, which are located on the beaches of Cape Cod in the Project area. The blood of these crabs is an essential ingredient for life-saving medical tests and treatments. FEIS at 3-28. For example, on July 27, 2020, Lonza Walkersville, Inc, a manufacturer of Limulus Amebocyte Lysate (“LAL”) for medical use, submitted comments on the

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DEIS showing that disturbance of horseshoe crabs by the Vineyard Wind Project will unreasonably interfere with the production of LAL, urging the agencies to carefully examine this important health issue. The comment stated: “BOEM must undertake to determine the impacts of these wind farm projects on the horseshoe crab. Failure to fully assess these impacts puts at risk the LAL assay which is vital to protecting the health of all Americans and billions of people around the world.”

- ii. In a letter dated November 13, 2020, from Adm. Bret Giroir, M.D., Assistant Secretary for Health, U.S. Department of Health and Human Services, urged the Department of Interior to closely examine this crucial issue and “to properly assess any impacts to the habitat of the North American Horseshoe Crab before any offshore wind project is approved on the East Coast.”
- iii. In a letter dated September 28, 2020, Congressman Andy Harris, M.D. wrote to Secretary of Health and Human Services Alex M. Azar II, stating “Given the biopharmaceutical importance of [the North American Horseshoe Crab] . . . I urge you to take action to ensure that offshore wind energy development does not, in any way, compromise the United States’ access to this precious natural resource.”
- iv. The agencies’ response to these comments and entreaties was inadequate at best and nonexistent at worst.
- e. The approval of the COP notwithstanding the foregoing severe impacts on natural resources, human life and the human environment, the marine environment, and the coastal environment violated 43 U.S.C. § 1337(p)(4)(B) and its implementing regulations, was arbitrary and capricious, and was inconsistent with the incontrovertible facts found by or presented to BOEM.

5. 43 U.S.C. § 1337(p)(4)(D)) states that “The Secretary *shall* ensure that any activity under this subsection is carried out in a manner that provides for . . . (D) conservation of the natural resources of the outer Continental Shelf” (emphasis added). The use of the term “shall” denotes a mandatory and not a discretionary duty. *N.C. Fisheries Ass'n v. Gutierrez*, 518 F. Supp. 2d 62, 97 (D.D.C. 2007). The regulations parrot the statutory language. *See* 30 C.F.R. § 585.102(a)(4). Fish and marine mammals are “natural resources” of the Outer Continental Shelf. *See* 16 U.S.C. § 1801 (stating that “[t]he fish off the coasts of the United States” as well as “the species which dwell on or in the Continental Shelf appertaining to the United States” and “the anadromous species which spawn in United States rivers or estuaries, constitute valuable and renewable natural resources”). Accordingly, with regard to fish and marine mammals, a COP may not be approved if it does not “ensure . . . conservation of . . . [such] natural resources of the outer Continental Shelf.” BOEM violated these statutory and regulatory requirements by approving the Vineyard Wind

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COP, which utterly fails to conserve fish and marine mammals in the lease area of the Outer Continental Shelf, as follows:

a. Fish

- i. Vessel anchoring can cause permanent displacement to fishery habitats. FEIS at 3-43. “Anchoring would cause increased turbidity levels and would have the potential to cause mortality of finfish and invertebrates and, possibly, degradation of sensitive habitats.” *Id.*
- ii. “The presence of structures can lead to impacts on finfish, invertebrates, and EFH through entanglement and gear loss/damage, hydrodynamic disturbance, fish aggregation, habitat conversion, and migration disturbance.” FEIS at 3-46.

b. Marine Mammals

- i. “Hearing is the most important sensory modality for marine mammals because they rely on sound to obtain detailed information about their surroundings, communicate, navigate, reproduce, socialize, and avoid predators” FEIS at 3-75. “Noise-producing activities may negatively affect marine mammals during foraging, orientation, migration, response to predators, social interactions, or other activities.” FEIS at 3-74. The increase of noise can have “behavioral effects [that] can include changes to or cessation of biologically important behaviors such as socializing, breeding, calving, feeding or resting; changes in diving behavior (e.g., reduced or prolonged dive times, increased time at the surface or number of blows per surfacing, changes in swimming speed or direction); reduced/ increased vocal activities; visible startle response and/or flight responses (e.g., pinnipeds flushing into water from haulouts or rookeries) or aggressive behavior (e.g., tail/fluke slapping or jaw clapping); avoidance of areas where noise sources are located; and changes in historical migration routes.” FEIS at 3-76. NMFS acknowledges the incidental take of marine mammals during the construction of the Vineyard Wind project. *See* ROD at 50. And NMFS admits that choosing the “no action” alternative in connection with the NEPA review would “be the environmentally preferable alternative . . . since no construction activities resulting in harassment would occur.” ROD, p. 51. Notwithstanding NMFS’s cautions, BOEM approved the COP without requiring the appropriate protections for listed species.
- ii. In addition, harm to endangered North Atlantic Right Whales, which are now sometimes inadvertently taken by ship strikes, would be substantially exacerbated by the increased activities attendant to the construction, operation and decommissioning of the Vineyard Wind

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Project, including but not limited to pile driving, which will create massive sound for years, thereby having major impacts on this endangered species likely leading to takes.

c. Sea Turtles

- i. The modification of bottom habitat through the discharge of fill and habitat conversion will have long term effects on the habitats of sea turtles. ROD at 35. Additionally, the operations of offshore wind operations will cause a heightened risk for the discharge of toxic fluids and waste. FEIS at 3-103. The ingestion of plastic waste can cause side effects including “dietary dilution, chemical contamination, depressed immune system function, poor body condition as well as reduced growth rates, fecundity, reproductive success” and death. FEIS at 3-103.
- ii. Construction activities could temporarily displace animals into areas that have a lower foraging quality or result in higher risk of interactions with ships or fishing gear. FEIS at 3-105. A greater risk of interaction with fishing gear can cause entanglement, ingestion, injury, and death. FEIS 3-108. Potential impacts on sea turtles from multiple construction activities within the same calendar year could affect migration, feeding, breeding, and individual fitness. FEIS at 3-105.

d. The approval of the COP notwithstanding these severe impacts on natural resources of the outer Continental Shelf such as fish, marine mammals, and sea turtles violated 43 U.S.C. § 1337(p)(4)(D) and its implementing regulations, was arbitrary and capricious, an abuse of discretion, otherwise not in accordance with law, and inconsistent with the facts found by or presented to BOEM.

6. 43 U.S.C. § 1337(p)(4)(I) states that “The Secretary *shall* ensure that any activity under this subsection is carried out in a manner that provides for . . . (I) *prevention of interference* with reasonable uses . . . of the exclusive economic zone, the high seas, and the territorial seas.” (emphasis added). The term “shall” denotes a mandatory and not a discretionary duty. *N.C. Fisheries Ass'n v. Gutierrez*, 518 F. Supp. 2d 62, 97 (D.D.C. 2007). In turn, 43 U.S.C. § 1337(p)(4)(J) requires the Secretary to consider the “use of the sea or seabed . . . for a . . . sealane . . . or navigation.” Accordingly, the use of the sea for a sealane or navigation are protected reasonable uses under OCSLA, and the plain statutory language requires the Secretary to prevent interference with those uses.

The implementing regulations add that lessees such as Vineyard Wind must demonstrate that the activities proposed under a COP will not “unreasonably interfere with other uses of the OCS.” See 30 C.F.R. § 585.621(c) (emphasis added). Reading the statute and regulations together, the Secretary must carry out the duties under Section 1337(p), including decisions regarding whether to approve or disapprove a COP, in a manner that

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prevents unreasonable interference with the use of the sea for a sealane or navigation. Nothing in the statutory or regulatory language expressly or impliedly limits the term “interference” only to interference with legal rights.

BOEM violated these statutory and regulatory requirements by approving the Vineyard Wind COP, which proposed wind energy activities that would unreasonably interfere with sealanes and navigation in the lease area, as follows:

a. Sealanes

- i. The Coast Guard has not established any designated transit lane, fairway or traffic separation scheme through the Vineyard Wind leasing area. Yet this is crucial for providing prevention of interference with the use of the project area for a “sealane . . . or navigation.” The spacing between wind turbines as provided in the COP is insufficient to permit safe travel by bottom trawl fishing vessels. This is demonstrated in the analysis contained in the FEIS. “The location of the proposed infrastructure within the WDA could impact transit corridors and access to preferred fishing locations.” FEIS at 3-214. Accordingly, “commercial and for-hire recreational fishing fleets may find it more challenging to safely transit to and from homeports as there may be less space for maneuverability and greater risk of allision or collision if there is a loss of steerage.” *Id.*
- ii. “Maneuverability within WDAs would vary depending on many factors, including vessel size, fishing gear or method used, and weather conditions.” FEIS at 3-207. “Trawl and dredge vessels require a relatively large space between turbines to maneuver their gear, as the gear does not directly follow the vessel.” DEIS at 3-184. While “trawling vessels require 180-degree turning diameter” of up to “0.86 nautical mile in good weather and sea conditions,” of course “larger diameters would be required in poor weather and sea conditions.” FEIS at 3-215. And because “commercial fishing vessels typically stay out at sea over multiple days,” it is inevitable “that vessels would be navigating at nighttime or during adverse weather conditions.” FEIS at 3-214. No wonder “BOEM expects navigation in the WDA to be difficult at night, or in challenging weather conditions such as fog.” FEIS, at 3-214. Additionally, “[t]he presence of structures (including transmission cable infrastructure) would have long-term impacts on commercial fisheries and for-hire fishing by increasing the risk of allisions, entanglement or gear loss/damage, and navigational hazards.” SEIS at 3-96.
- iii. BOEM uses the MARIPARS conducted by the Coast Guard as its overall navigational safety touchstone for decision/analysis. Alternative D, which was chosen by BOEM as its final preferred alternative in the FEIS, sets out the turbines in East-West orientation with a 1 nm spacing in an

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East-West manner, thereby establishing the spacing going northwest-southeast only at 0.7 nm wide. But Northwest-southeast is, in fact, the predominant transit (traffic/travel) direction. According to the FEIS, the USCG would only be able to conduct search and rescue operations safely on the diagonal only in the straight east-west and north-south corridors. Thus, in the most heavily transited direction, the USCG would not have the straightaway needed for effective rescues.

Contrary to BOEMs' final decision on sealanes, the 2020 Final Massachusetts and Rhode Island Port Access Route Study ("MARIPARS") provided quantitatively derived recommendations for turbine spacing and transit lane widths within the wind arrays. For an array developed in a uniform grid, aligned along cardinal headings with 1-nautical-mile spacing, the diagonal lanes would be approximately 0.7 nautical mile wide. The MARIPARS concluded that "(1) lanes for vessel transit should be oriented in a northwest to southeast direction, 0.6 NM [nautical mile] to 0.8 NM wide. That width would allow vessels the ability to maneuver in accordance with the COLREGS [International Regulations for Preventing Collisions at Sea] while transiting through the RI/MA WEA [Rhode Island/Massachusetts Wind Energy Area]; (2) lanes for commercial fishing vessels actively engaged in fishing should be oriented in an east to west direction, 1 NM wide; and (3) lanes for USCG search and rescue operations should be oriented in a north to south and east to west direction, 1 NM wide. Such an arrangement would ensure two lines of orientation for USCG helicopters to conduct search and rescue operations."

BOEM requires as a condition of COP approval that any movements in turbine location, as may be permissible pursuant to 30 C.F.R. § 585.634, do not shrink the diagonal lanes to less than 0.6 nautical mile. Thus, the USCG requires 1 nm wide sealanes to conduct search and rescue operations while the FEIS/ROD provide that the most heavily trafficked lanes by commercial fishing vessel transit can be 0.6 nm wide, almost 50% less than required by the U.S.C.G.

BOEM's utterly inadequate response to these concerns was: "Small variances throughout a wind energy facility should not significantly affect safety of navigation." *See* FEIS at ES-8, fn 6. This flies in the face of the fact that the larger the area of any WEA, the longer a vessel must transit through it, and therefore the more dangerous it is to the vessel. Currently the world's largest wind farm is 55 square miles and is part of a conglomerate wind lease area of about 110 square miles. The MA/RI WEA (the giant conglomerate lease area of which Vineyard Wind is a part) is over 1400 square miles, which is larger than the area of Rhode Island. The large area requires a corresponding large sealane.

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For example, an on-the-ground radar study in an offshore wind farm in the UK found serious radar interference at 1.5 nm from the turbines. With wind turbines on either side, the minimum sealane should be 4 nm between the rows of wind turbines. That would provide for a clear sealane free of radar interference of 1 nm. Notably, the turbines in the UK study were approximately 2 MW, much smaller than the Vineyard Wind giants consisting of 13 MW turbines. Accordingly, at the very least, BOEM should have conducted a modeling study of the impacts on marine radar from 13 MW turbines before making any decision regarding the appropriate width of sealanes in the project area.

By not considering the cumulative impacts to navigation through the whole WEA, in a southeast/northwest direction, BOEM impermissibly short-changed the availability and safety of sealanes and navigation concerns, thereby acting arbitrarily, capriciously, inconsistently with the facts found or presented to BOEM, and otherwise not in accordance with law, including but not limited to 43 U.S.C. §§ 1337(p)(4)(I) and (J) and their implementing regulations.

- b. As recognized in the FEIS, “[t]ransiting through the WDA could also create challenges associated with using navigational radar when there are many radar targets that may obscure smaller vessels and where radar returns may be duplicated under certain meteorological conditions like heavy fog.” FEIS at 3-214. Poor navigating conditions are the rule rather than the exception since commercial fishing vessels “would be navigating at nighttime or during adverse weather conditions” because they “typically stay out at sea over multiple days.” *Id.* Indeed, BOEM admits that it “expects navigation in the WDA to be difficult at night, or in challenging weather conditions such as fog.” *Id.* This interference with navigational radar presents yet another significant danger to safety that was not adequately considered by BOEM.
- c. BOEM’s approval of the COP notwithstanding the foregoing instances of unreasonable interference with reasonable uses of the project area for sealanes and navigation violated 43 U.S.C. §§ 1337(p)(4)(I) and (J) and their implementing regulations, was arbitrary, capricious, an abuse of discretion, otherwise not in accordance with law, and inconsistent with the facts found or duly presented to BOEM.

7. 43 U.S.C. § 1337(p)(4)(F) states that “The Secretary *shall* ensure that any activity under this subsection is carried out in a manner that provides for . . . (F) protection of national security interests of the United States.” The term “shall” denotes a mandatory and not a discretionary duty. *N.C. Fisheries Ass'n v. Gutierrez*, 518 F. Supp. 2d 62, 97 (D.D.C. 2007). The regulations parrot the statutory language. *See* 30 C.F.R. § 585.102(a)(6). The implementing regulations add that lessees such as Vineyard Wind must demonstrate that the activities proposed under a COP will not “unreasonably interfere with . . . National

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Security or defense.” *See* 30 C.F.R. § 585.621(c) (emphasis added). Reading the statute and regulations together, the Secretary must carry out the duties under § 1337(p), including decisions regarding whether to approve or disapprove a COP, in a manner that *prevents unreasonable interference* with National Security or Defense.

BOEM violated these statutory and regulatory requirements by approving the Vineyard Wind COP, which proposed wind energy activities that would unreasonably interfere with National Security or Defense in the lease area, as follows:

- a. National Security / Defense
 - i. Wind turbines located in the radar line of sight of air defense radars can adversely impact the ability of those units to detect and track incoming aircraft. *See Report to the Congressional Defense Committees, “The Effect of Windmill Farms on Military Readiness,” Department of Defense Office of the Director of Defense and Research Engineering, 2006, p 4.* Among the radar types utilized by the Department of Defense that would be vulnerable to interference by offshore wind turbines are near-shore military “terminal area” air traffic control radars, “enroute” air traffic control radars, air defense long-range air surveillance radars, ground based military unique radars, and missile tracking radars. In 2016, the federal interagency Wind Turbine Radar Interference Mitigation Working Group acknowledged radar interference as an impediment to air traffic control, homeland security, and national defense. *See Federal Interagency Wind Turbine Radar Interference Mitigation Strategy,* available at <https://www.energy.gov/sites/prod/files/2016/06/f32/Federal-Interagency-Wind-Turbine-Radar-Interference-Mitigation-Strategy-02092016rev.pdf>.
 - ii. Nor can this problem be solved by overlapping radar coverage. In 2017, the Wind Turbine Radar Interference Mitigation Working Group determined that radar interference caused by similar offshore wind leases off Massachusetts and Rhode Island could not be solved by overlapping coverage mitigation approaches and that such approaches could not restore low altitude radar coverage. *See Ground Based Coastal Air Surveillance Wind Turbine-Radar Interference Vulnerability Study Public Summary,* available at <https://www.energy.gov/sites/prod/files/2017/12/f46/Final%20Coastal%20Radar%20Public%20Summary%20-%20Comments%20Incorporated.pdf>.
- b. The approval of the COP notwithstanding these severe impacts on National Security and Defense violated 43 U.S.C. § 1337(p)(4)(I) and its implementing regulations, was arbitrary and capricious, an abuse of discretion, and

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inconsistent with the incontrovertible facts found by or duly presented to BOEM.

**VIOLATIONS OF ESA COMMITTED BY THE DEPARTMENT OF
COMMERCE, THE NATIONAL MARINE FISHERIES SERVICE,
THE DEPARTMENT OF THE INTERIOR, THE BUREAU OF OCEAN ENERGY
MANAGEMENT, AND THEIR OFFICERS AND/OR EMPLOYEES**

All of the foregoing facts set forth above are hereby incorporated here.

A. Procedural and Substantive Violations of ESA and its Implementing Regulations

1. Throughout the ESA consultation process in connection with the Vineyard Wind Project, the agencies impermissibly gave greater weight to the potential economic costs associated with denial of the project than to the potential negative impacts of approving the project associated with extinction, conservation, and recovery of listed species in the project area, thereby failing to adhere to the ESA's statutory mandates and the Supreme Court's instructions in *Tennessee Valley Authority v. Hill*. Specifically, 16 U.S.C. 1536(a)(1) states that “[a]ll . . . Federal agencies shall . . . utilize their authorities in furtherance of the purposes of [the ESA] by carrying out programs for the conservation of endangered species and threatened species.” The duty to advance and assist the conservation of species is discharged, in large part, through consultation by agencies such as BOEM and the Corps of Engineers with NMFS. A program of conservation is one that brings the species to the point of recovery and delisting. *See* 16 U.S.C. 1532(3). In approving the COP, NMFS and the other relevant agencies impermissibly ignored the overarching instructions of the United States Supreme Court regarding how to interpret these foundational ESA mandates:

The plain intent of Congress in enacting [the ESA] was to halt and reverse the trend toward species extinction, whatever the cost. This is reflected not only in the stated policies of the Act, but in literally every section of the statute. All persons, including federal agencies, are specifically instructed not to ‘take’ endangered species, meaning that no one is ‘to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect’ such life forms. Agencies in particular are directed . . . to use . . . *all* methods and procedures which are necessary to preserve endangered species.

Tennessee Valley Authority v. Hill, 437 U.S. 153, 184-85 (1978) (emphasis in original; cleaned up).

Numerous lower courts from coast to coast have applied this strict standard to the protection of listed species. *See e.g., City of Tacoma v. FERC*, 460 F.3d 53, 75 (D.C. Cir. 2006) (concluding that Endangered Species Act imposes an obligation on each federal agency to ensure protection of each listed species); *In re Am. Rivers & Idaho Rivers United*, 372 F.3d 413, 414 (D.C. Cir. 2004) (same); *Sierra Club v. Glickman*, 156 F. 3d 606, 616

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(5th Cir. 1998) (same); *Pyramid Tribe v. Navy*, 848 F. 2d 1410, 1416 (9th Cir. 1990); *Defenders of Wildlife*, 2007 WL 641439 (E.D. Wash. Feb. 26, 2007) (same); *see also Def's of Wildlife v. Andrus*, 428 F. Supp. 167 (D.D.C. 1977) (“The terms ‘conserve’, ‘conserving’, and ‘conservation’ mean to use and the use of *all* methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary.”) (emphasis added). By systematically and continually favoring the economic considerations of approving the project over the adverse impacts to listed species, the agencies violated the strict standards imposed by *Tennessee Valley Authority v. Hill*. *See, e.g.* ROD at 1-11; FEIS at 3-81, 3-7, 3-8.

2. The biological opinion was prepared in accordance with unlawful regulatory standards created by impermissible changes to regulations promulgated in 2019 (the “2019 Regulations”). Those changes are not authorized by the ESA and are antithetical to *Tennessee Valley Authority v. Hill*. Moreover, the agencies appear to be conceding in litigation that the regulatory changes were inappropriate. *See California v. Haaland*, Case No. 4:19-cv-06013-JST (N.D. Cal.); *Center for Biological Diversity v. Haaland*, Case No. 4:19-cv-05206-JST (N.D. Cal.); *Animal Legal Defense Fund v. U.S. Department of Interior*, No. 4:19-cv-06812-JST (N.D. Cal.). Specifically, the interagency consultation provisions of the 2019 Regulations impermissibly: (a) limit the circumstances under which agency action would be deemed to destroy or adversely modify designated critical habitat by requiring the action to affect such habitat “as a whole,” (b) limit the scope of analysis of effects by altering the definitions of “effects of the action” and “environmental baseline” and requiring that the effects be both a “but for” result of the agency action and “reasonably certain to occur” based on “clear and substantial information,” (c) limit the instances where changed circumstances would require re-initiation of consultation, (d) limit agencies’ duties to ensure mitigation of adverse effects and unlawfully delegates to other agencies the ability to make biological determinations that NMFS is required to make, and (e) allow for broad-based “programmatic” and “expedited” consultations that lack the required site-specific and in-depth analysis of proposed agency action. Using the unlawful standard set forth in the 2019 Regulations, the agencies impermissibly narrowed and limited the description of the effects of the Vineyard Wind Project and the cumulatively foreseeable onshore and offshore impacts. Accordingly, the consultation process was fatally flawed from the beginning and cannot serve to support the approval of the COP.

3. 16 U.S.C. §1536(a)(2) states that “[each Federal agency shall . . . insure that any action authorized . . . by such agency is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of [critical] habitat of such species unless such agency has been granted an exemption for such action by the Committee [established under 16 U.S.C. 1536(h)].” The “Committee” referred to in the statute is colloquially known as the “God Squad.” BOEM, NMFS and the Corps of Engineers violated 16 U.S.C. § 1536(a)(2) by failing to seek an exemption from the God Squad once it was clear that critical habitat of the North Atlantic Right Whale would result in destruction or adverse modification due to the Vineyard Wind Project. *See Ctr. for Biological Diversity v. Salazar*, 770 F. Supp. 2d 68 (D.D.C. 2011)

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(quoting 16 U.S.C. § 1536(a)(2) (holding that "[e]ach Federal agency shall, in consultation with and with the assistance of the Secretary, insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species"); *Western Watersheds Project v. Bernhardt*, 468 F. Supp. 3d 29, 48 (D.D.C. 2020) (holding that agencies must give the benefit of the doubt to each species in question and to place the burden of risk and uncertainty on the proposed action and that “requiring Plaintiffs to show jeopardy to the existence of a species in order to secure injunctive relief would stand the ESA on its head”); *see also Envt'l. Prot. Infor v. Simpson*, 255 F. 3d 1073, 1080 (9th Cir. 2001); *W. Watersheds Project v. Matejko*, 468 F. 3d 1099, 1108 (9th Cir. 2006); *Sierra Club v. Marsh*, 816 F. 2d 1376, 1386 (9th Cir. 1987).

4. 50 C.F.R. § 402.14(g)(4) of the current regulations requires NMFS to “[a]dd the effects of the action *and* cumulative effects to the environmental baseline [in determining] whether the action is likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat.” (Emphasis added.) *See Am. Rivers & Ala. Rivers All. v. FERC*, 895 F.3d 32, 38 (D.C. Cir. 2018). NMFS violated this requirement by failing to properly consider the cumulative effects of the Vineyard Wind project with the likely effects of other wind generation projects contemplated by BOEM in the North Atlantic and other areas of the Outer Continental Shelf.

5. 50 C.F.R. §402.14(g)(5) of the current regulations requires NMFS to inform BOEM of “reasonable and prudent alternatives” that BOEM and the applicant can take to avoid jeopardy to listed species. *See United States Fish & Wildlife Serv. v. Sierra Club, Inc.*, 141 S. Ct. 777, 784 (2021); *Turbal v. Hodel*, 859 F. 2d 651 (9th Cir. 1988). NMFS did not provide an adequate assessment of reasonable and prudent alternatives to BOEM in connection with several listed species, including, but not by way of limitation, the North Atlantic Right Whale.

B. The Biological Opinion Is Defective In Numerous Ways

1. In preparing a biological opinion, NMFS must use “the best scientific and commercial data available.” *See* 16 U.S.C. § 1536(a)(2). *See Shafer & Freeman Lakes Envtl. Conservation Corp. v. FERC*, 992 F.3d 1071, 1089 (D.C. Cir. 2021). Such data must support the conclusions drawn in the biological opinion regarding jeopardy and adverse modification, and a NMFS biological opinion is arbitrary and capricious if it fails to consider the relevant factors and articulate a rational connection between the facts found and the choice made. *See United States Sugar Corp. v. EPA*, 830 F.3d 579, 606 (D.C. Cir. 2016); *Center for Biological Diversity v. U.S. Bureau of Land Management*, 698 F. 3d 1101, 1121 (9th Cir. 2012); *Water Keeper Alliance v. U.S. Dep't of Def.*, 271 F. 3d. 21, 25 (1st Cir. 2001). Moreover, BOEM cannot “abrogate its responsibility to ensure that its actions will no[t] jeopardize a listed species; its decision to rely on a . . . biological opinion must not have been arbitrary or capricious,” especially where, as here, the biological opinion is deeply flawed. *See, e.g., Haw. Longline Ass'n v. Nat'l Marine Fisheries Serv.*,

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281 F. Supp. 2d 1, 25 (D.D.C. 2003); *Strahan v. Roughead*, 910 F. Supp. 2d 358, 381 (D. Mass. 2012); *see also Wild Fish Conservancy v. Salazar*, 628 F. 3d 513, 532 (9th Cir. 2010). In turn, 50 C.F.R. 402.14(h) of the current regulations sets forth the required contents of biological opinions issued by NMFS. The biological opinion issued by NMFS in connection with the Vineyard Wind Project is deeply flawed and violates these statutory and regulatory requirements in several ways, including but not limited to the following:

- a. The biological opinion does not properly establish the environmental baseline, in violation of 50 C.F.R. § 402.02 of the current regulations defining the term “environmental baseline.” *See Am. Rivers & Ala. Rivers All. v. FERC*, 895 F.3d 32, 38 (D.C. Cir. 2018); *Nat'l Wildlife Fed'n v. NMFS*, 481 F. 3d 1224 (9th Cir. 2007).
- b. The biological opinion does not properly set forth the “[e]ffects of the action,” in violation of 50 C.F.R. § 402.02. Such effects must include “direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action.” *See Medina County Envil. Action Ass'n v. Surface Transp. Bd.*, 602 F. 3d 687 (5th Cir, 2010); *Oceana, Inc. v. Evans*, 384 F. Supp. 2d 203 (D.D.C. 2005). By way of example but not by way of limitation, the loss of physical space available to the North Atlantic Right Whale resulting from construction and operation of the Vineyard Wind Project has not been adequately analyzed. *See Riverside Irrigation District v. Andrews*, 758 F. 2d 508 (10th Cir. 1985).
- c. The biological opinion does not adequately address the cumulative effects of the Vineyard Wind Project on listed species. *See Nat'l Wildlife Fed'n v. Norton*, 332 F. Supp. 2d 179 (D.D.C. 2004).
- d. The biological opinion does not properly consider the impacts of the Vineyard Wind Project on both the survival and recovery of listed species in the project area. *See Wildlife Federation v. NMFS*, 481 F. 3d 1224, 1238-39 (9th Cir. 2007).
- e. The incidental take statement associated with the biological opinion does not properly outline the reasonable and prudent alternatives and the conditions for complying with those alternatives that would prevent a violation of ESA Section 7(a)(2). *See 16 U.S.C. §§ 1536(b)(4), 1536(b)(3)(A); Gifford Pinchot Task Force v. FWS*, 378 F. 3d 1059 (9th Cir. 2004) (addressing diminishment of critical habitat); *National Wildlife Fed'n v. NMFS*, 481 F. 3d 1224, 1227 (9th Cir. 2007) (addressing jeopardy).
- f. The biological opinion ignored or downplayed “the best scientific and commercial data available,” 16 U.S.C. § 1536(a)(2), by not adequately considering the work of a Harvard University alternative energy researcher, David Keith, who has extensively studied the impact of wind turbine

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generators on the environment and who found that such devices are worse in the short-term for the marine environment than coal or natural gas. “The direct [adverse] impacts of wind power are instant, while the benefits accumulate slowly . . . If your perspective is the next 10 years, wind power actually has – in some respects – more climate impact than coal or gas.” *See* Cell Press, “*Large-scale US wind power would cause warming that would take roughly a century to offset.*” ScienceDaily 4 October 2018, <https://www.sciencedaily.com/releases/2018/10/181004112553.htm>; *see also* Miller and Keith, Climatic Impacts of Wind Power, Joule (2018), <https://doi.org/10.1016/j.joule.2018.09.009>; <https://seas.harvard.edu/directory/dkeith> (the “Harvard Wind Study”). According to the Harvard Wind Study, temperatures in the area of wind farms are raised around 1-degree Celsius by the projects themselves, meaning that the ocean around the location of various off-shore wind farms proposed for New York, Connecticut, Massachusetts, and Rhode Island would be warming at a greater rate than would otherwise occur. That warming would likely extend to the Gulf of Maine. Notwithstanding this readily available “best scientific and commercial data,” neither the biological opinion nor the incidental take permit properly account for the additional stress on the North Atlantic Right Whale and its habitats caused by the localized increase in temperatures attributable to the Vineyard Wind Project, coupled with similar wind power projects in the area, including potential impacts on essential food supply for the North Atlantic Right Whale. The failure of the agencies to consider an important aspect of the problem, i.e., the risk of diminished or elimination of the food supply of the North American Right Whale, is in direct violation of the ESA. *See* 16 U.S.C. 1536(a)(2); *see also* *Rapid Climate-Driven Circulation Changes Threaten Conservation of Endangered North Atlantic Right Whales*, by Nicholas R. Record, et al (the “Record Paper”), published on BOEM’s website (“The North Atlantic right whales primarily migrate into the [Vineyard Wind] area and engage in short-term feeding moving onto feeding grounds throughout the Gulf of Maine.”).

- g. The biological opinion is legally flawed for the additional reasons set forth in items 1 through 49 on pages 3 through 11 of the 60-Day Notice letter dated May 24, 2021, from David P. Hubbard of the law firm of Gatzke Dillon & Balance, LLP, to Gina M. Raimondao (Secretary of Commerce), Benjamin Friedman (NOAA Administrator), and Amanda Lefton (Director, Bureau of Ocean Energy Management) on behalf of the Nantucket Residents Against Turbines (the “Nantucket Residents Against Turbines 60-Day Notice Letter”). All the violations noted in the Nantucket Residents Against Turbines 60-Day Notice Letter items 1 through 49 on pages 3 through 11 are hereby incorporated herein as though fully set forth herein. A true and correct copy of the Nantucket Residents Against Turbines 60-Day Notice Letter is included as Exhibit A of the instant notice letter for the convenience of the agencies receiving this notice letter.

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- h. The biological opinion impermissibly ignores or downplays the significance of the fact that approximately 100 North Atlantic Right Whales, comprising approximately 25% of worldwide population, have been sited in the Vineyard Wind Lease area, according to the best scientific and commercial data available. See <https://whalemap.ocean.del.ca/WhaleMap/>; see also https://content.govdelivery.com/accounts/USNOAAFISHERIES/bulletins/22_b3b69. Notwithstanding the fact that a substantial threat to the North American Right Whale is from vessel strikes, numerous vessels are expected to be involved in the construction of the Vineyard Wind project, including but not limited to tugboats, barge cranes, and hopper scows, many of which would be substantially larger than fishing vessels and operations vessels. See e.g., DEIS at 3-52, 3-61, 3-68, 3-78, 3-79. Accordingly, substantial takes of the listed species associated with construction activities can be anticipated. The biological opinion does not adequately deal with this major threat to the survival or recovery goals of the species. See Biological Op. at 53–55.
- i. The biological opinion impermissibly ignores or downplays the best scientific and commercial data available with regard to the substantial negative impacts of pile driving during construction on marine mammals such as the North Atlantic Right Whale, and other endangered species, including, but not by way of limitation, permanent threshold shifts in hearing, which render them unable to navigate or communicate. Pile driving can also cause the species to leave and not return to an area and mask biological communication. See *NOAA Fisheries Technical Guidance for assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing*, April 1, 2018, <https://www.fisheries.noaa.gov/resource/document/technical-guidance-assessing-effects-anthropogenic-sound-marine-mammal-hearing>. See also, *Assessing noise impact of offshore wind farm construction may help protect marine mammals*, November 4, 2013, <https://phys.org/news/2013-11-noise-impact-offshore-farm-marine.html>. The biological opinion fails to adequately assess noise impact from the construction of the Vineyard Wind project. See Biological Op. at e.g., 264, 275-77.
- j. The biological opinion also impermissibly ignores or downplays the high frequency and low frequency of underwater noise that would be made by the larger turbines after construction and during operation and the effect of such noise on the North Atlantic Right Whale. Scientific studies regarding the negative impacts of ambient noise on whales were available well before the issuance of the biological opinion. See, e.g., Roagosa, et al., “Underwater Ambient Noise in Baleen Whale Migratory Habitat off the Azores, *Frontiers in Marine Science*, 2011, <https://www.frontier.org/articles/10.3389/fmars.2017.00109/full>. (“High levels of low frequency noise in this area could displace whales or interfere with foraging behavior, impacting energy intake during a critical stage of their annual cycle [and] in the long term

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behavioral disturbance and physiological stress caused by noise could lead to population-level effects.”). Although the FEIS notes in passing that North American Right Whales engage in foraging and [that] mothers with calves were sighted [in the project area] in recent surveys, and although the FEIS acknowledges that “the habitat within the vicinity of the WDA has a higher ecological significance than previously known,” noise sensitivity of the species set forth in the scientific literature were downplayed and minimized both in the biological opinion and, consequently, in the FEIS. Failure to properly consider the best scientific and commercial data available in studies analyzing the adverse impact of ambient noise on listed species in the area is arbitrary, capricious and otherwise not in accordance with law.

C. The Failure to Reinitiate the Consultation Process Was Impermissible

1. BOEM impermissibly failed to reinitiate consultation with NMFS under 50 C.F.R. § 402.16 of both the current and prior regulations, which would have required reconsideration of the biological opinion after BOEM realized that the COP may require modification based upon studies of the project area that were not completed at the time of the issuance of the biological opinion and the incidental take statement. *See Envtl. Prot. Info. Ctr. v. Simpson Timber Co.*, 255 F. 3d 1073, 1076 (9th Cir. 2001); *see also W. Watersheds Project v. Matejko*, 468 F. 3d 1099, 1108 (9th Cir. 2006).
2. BOEM impermissibly failed to reengage NMFS in the consultation process regarding the North Atlantic Right Whale and other listed species in the project area once Vineyard Wind conclusively decided to increase the project design envelope by selecting the new, prototype GE Haliade-X 13-14 MW turbine that is in use only at one facility at the Port of Rotterdam, Netherlands. At the time Vineyard Wind made the definitive decision to use the larger turbine, the biological opinion had not adequately addressed the impacts on endangered species of such turbine. It was only at the time of the publication of the SEIS that the agencies suggested the larger turbines may be used in lieu of the originally planned 8-10 MW turbines. The biological opinion, which was finalized on September 11, 2020, addressed in an impermissibly cursory way the “anticipated commercial viability” of as few as 57 and as many as 100 offshore wind turbine generators varying between 8 MW and 14 MW each, without accounting for the fact that the electrical platforms, onshore and offshore cabling, and onshore operation and maintenance facilities would differ substantially depending upon the size, location, and MW capacity of each turbine selected for the project. By failing to carefully examine and document the impact on listed species of these differing electrical platforms and related onshore and offshore supporting facilities, the agencies violated the ESA and its implementing regulations. *See* Biological Op. at 7. This is made clear by the following timeline.
 - a. On December 1, 2020, several months after the biological opinion had been issued, Vineyard Wind withdrew its construction and operations plan (the “COP”) from review. The stated reason was to allow for better evaluation of the larger (up to 14 MW) wind turbines.

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- b. On December 16, 2020, BOEM published a decision in the Federal Register terminating the review process.
- c. On January 22, 2021, Vineyard Wind notified BOEM that it had completed its review and had concluded that the new, prototype, larger turbine did not warrant any modifications to the COP. Vineyard Wind informed BOEM that it was rescinding its withdrawal of the COP and asked BOEM to resume the COP review process at the point it had been terminated on December 16, 2020, without any further consultation with NMFS.
- d. BOEM resumed the review, concluding impermissibly that there was no need to reengage in the consultation process notwithstanding the fact that NMFS did not have an opportunity to review in detail Vineyard Wind's final selection of the larger turbines and the associated impacts of that selection on listed species in the project area.
- e. Among other things, the original, DEIS noted that the "Hammer size" needed for a maximum-case scenario of an 8-10 MW equipment is 4,000 kj, but after the agencies provided in the SEIS that the project design envelope could be increased substantially by the use of the much larger 13-14 MW units, the "Hammer size" in the SEIS remained unchanged, which is a physical impossibility given the greatly increased size of each individual wind turbine generating station and the hammer power necessary to install the larger equipment. Compare DEIS Appendix G at G-2 to SEIS Appendix E at E-2. Comments making this objection were duly filed. *See* Seafreeze SEIS Comments at 2. The biological opinion impermissibly focuses on the construction effects on listed species only of a maximum hammer size of 4,000 kj, regardless of how large or small each wind electricity generating unit is considered. *See* Biological Op. at 8 (Table 3.1), 11, and 122. That decision by NMFS was arbitrary, capricious, and an abuse of discretion, as well as irrational.
- f. Similarly, the DEIS noted that the maximum diameter of an 8 MW monopile foundation is 25 ft. and the maximum diameter of a 10 MW turbine foundation is 34 ft., but after the agencies provided in the SEIS that the project design envelope could be increased substantially by the use of the much larger 13-14 MW units the maximum diameter of the 14-MW turbine remained unchanged, which is a physical impossibility given the greatly increased size and length requirements of the larger turbines. Compare DEIS Appendix G at G-2 to SEIS Appendix E at E-2. Comments making this objection were duly filed. *See* Seafreeze SEIS Comments at 2. Thus, the biological opinion is based upon faulty assumptions regarding the size of each turbine, and consequently, impermissibly underestimates the potential impact of construction of the larger units on listed species in the area.

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- g. BOEM's failure to reengage the consultation process under the foregoing circumstances is a violation of the ESA. *See Nat'l Parks Conservation Ass'n v. Jewell*, 62 F. Supp. 3d 7,12-13 (D.D.C. 2014) (holding that "actions that have any chance of affecting listed species or critical habitat—even if it is later determined that the actions are 'not likely' to do so—require at least some consultation under the ESA.") (quoting *Karuk Tribe of Cal. v. U.S. Forest Serv.*, 681 F.3d 1006, 1027 (9th Cir. 2012)); *Sierra Club v. Marsh*, 816 F. 2d 1376, 1389 (9th Cir. 1987); *Mayo v. Jarvis*, 177 F. Supp. 3d 91, 102-03 (D.D.C. 2016) (citing 50 C.F.R. § 402.16) (holding that "FWS and the applicable agency [must] reinitiate formal consultation in four situations, including if 'the amount or extent of [the] taking specified in the incidental take statement is exceeded,' if '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,' or if 'the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion'"); *Nat'l Wildlife Fed. V. NMFS*, 481 F. 3d 1224 (9th Cir. 2007) (opining that consultation must be re-initiated where environmental baseline was faulty); *Nat'l Wilderness Inst. v. United States Army Corps of Eng'Rs*, No. 01-0273 (TFH), 2005 U.S. Dist. LEXIS 5159 at *9 (D.D.C. Mar. 23, 2005) (quoting 16 U.S.C. § 1536(d) (holding that "after initiation or re-initiation of consultation, an agency is prohibited from making 'any irreversible or irretrievable commitment of resources with respect to the agency action which has the effect of foreclosing the formulation or implementation of any reasonable and prudent alternative measure.'")); *Envt'l. Prot. Infor v. Simpson*, 255 F. 3d 1073, 1080 (9th Cir. 2001); *Friends of the Capital Crescent Trail v. Fed. Transit Admin.*, 255 F. Supp. 3d 60, 72 (D.D.C. 2017); *W. Watersheds Project v. Matejko*, 468 F. 3d 1099, 1108 (9th Cir. 2006).

D. Failure to Account for Likely Catastrophic Weather Events Was Arbitrary and Capricious

There is a serious question as to whether the large Haliade-X equipment can survive a Category 3 or greater Atlantic Hurricane, and no engineering reports, tests or other studies were provided to or addressed by the agencies regarding the structural integrity and safety of the 13-14 MW Haliade-X wind turbines that will be used in the Vineyard Wind Project Area. An adverse weather event of a category 3 or greater hurricane could lead to a catastrophic release of the oil and other contaminants from the wind turbine generators, thus causing the take, and possibly extinction, of the North Atlantic Right Whale and other listed species in the project area.

The draft EIS stated at 2-18: "The WTGs would be designed to endure sustained wind speeds of up to 112 mph (182.2 kph) and gusts of 157 mph (252.7 kph)." As commenters pointed out, this means that the equipment would not survive a Category 3 or

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greater Atlantic storm. Curiously, the final EIS omitted the referenced language regarding the capability of the equipment to sustain the indicated wind speeds, even though the project design envelope had been extended from a maximum of 10 MW described in the DEIS to a maximum of 14 MW units described in the SEIS. And the biological opinion ignored the issue entirely. In the process, the FEIS did not take a hard look or make an informed decision of the extent to which either the larger or smaller Haliade-X equipment could survive a category 3 or greater hurricane in the North Atlantic and the likely devastation that would occur to the marine environment, including to the North Atlantic Right Whale and other endangered species, in the project area. Prior reported incidences of winds exceeding a wind turbine's survival speed should have altered the agencies to the likelihood of such a catastrophic scenario. *See* <https://www.windpowermonthly.com/article/957297/cyclone-winds-exceeded-survival-margins>. Failure to take these issues into account was arbitrary, capricious and an abuse of discretion.

Neither the biological opinion nor any other decision document associated with the Vineyard Wind Project addressed the additional stress on and possible catastrophic consequences to the endangered marine population and their habitat caused by these foreseeable hurricane events and their impact on the large Haliade-X technology, in violation of, *e.g.*, 16 U.S.C. § 1536(a)(2) and 50 C.F.R. § 402.02.

VIOLATIONS OF THE CLEAN WATER ACT BY THE DEPARTMENT OF DEFENSE, THE ARMY CORPS OF ENGINEERS, AND THEIR OFFICERS AND/OR EMPLOYEES

All of the foregoing facts set forth above are hereby incorporated here.

A. The Corps of Engineers' Failure to Review Alternatives Outside of the Lease Area Was Arbitrary and Capricious.

1. Section 404(a) of the CWA 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. 33 U.S.C. § 1344(a). In making permitting decisions, the Corps must follow the 404(b)(1) Guidelines. *See id.* § 1344(b); *Mingo Logan Coal Co. v. United States* EPA, 70 F. Supp. 3d 151, 155-56 (D.D.C. 2014). The Guidelines prohibit the Corps from granting a Section 404 permit "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." 40 C.F.R. §230.10(a); *see Monongahela Power Co. v. Marsh*, 809 F. 2d 41, 51 (D.C. 1987). The Corps' regulations further require the Corps to conduct a public interest review for each proposed discharge, and prohibit the Corps from granting a permit that (1) would not comply with [EPA's] 404(b)(1) Guidelines and/or (2) would be contrary to the public interest." 33 C.F.R. § 320.4(a)(1); *see Sierra Club v. United States Army Corps of Engineers*, 990 F. Supp. 2d 9 (D.D.C. 2013).

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- a. Under EPA's 404(b)(1) Guidelines, an alternative to the proposed discharge 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." 40 C.F.R. § 230.10(a)(2); *See Sierra Club v. Van Antwerp*, 661 F. 3d 1147, 1152 (D.C. Cir. 2011). Alternatives need not be in locations that are presently owned or leased by a permit applicant so long as they are otherwise practicable and could "reasonably be obtained, utilized, expanded or managed in order to fulfill the basic purpose of the proposed activity." *See Newport Galleria Grp. v. Deland*, 618 F. Supp. 1179, 1182 (D.D.C. 1985) (citing 40 CFR § 230.10(a)(2). “[P]racticable alternatives include, but are not limited to activities which do not involve a discharge of dredged or fill material into the waters of the United States or ocean waters,” *see* 40 C.F.R. § 230.10(a)(1)(i), such as onshore renewable energy generation.
- b. The only alternative locations actually considered were those located within the Vineyard Wind lease area. There is no justification for limiting the consideration of alternatives under the 404 Guidelines to different versions of the Project in the lease area versus a dead-on-arrival no action alternative. 40 C.F.R. § 230.10(a)(2); *see Antwerp*, 661 F. 3d 1147 (D.C. Cir. 2011) (opining that “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”).
- c. The Corps correctly concluded that the project is *not* water dependent, but then illogically restricted the analysis to a solely water dependent purposes, i.e., placing wind turbines in the water simply because the applicant wanted to develop a wind farm in the specified area of the lease. “[A]n applicant cannot define a project in order to preclude the existence of any alternative sites and thus make what is practicable appear impracticable.” *Van Antwerp*, 661 F. 3d at 1153 (citing *Sylvester v. U.S. Army Corps of Engineers*, 882 F.2d 407, 409 (9th Cir. 1989).

2. The Corps erroneously concluded that the project would not discharge into a special aquatic site, *see* ROD at 31, in violation of the presumption set forth in 40 C.F.R. § 230.10(a)(3). *See Van Antwerp*, 661 F. 3d at 1150.

- a. A special aquatic site is one of the type of sites listed in 40 C.F.R. §230.40 (sanctuaries and refuges), § 230.41 (wetlands), § 230.42 (mud flats), §230.43 (vegetated shallows), § 230.44 (coral reefs), § 230.45 (riffle and pool complexes). *See Deland*, 618 F. Supp. 1179, 1181 n.1 (D.D.C. 1985).
- b. Appendix K of the FEIS states that there is a 10-mile impact zone for special aquatic sites. *See* Index number 12930-082, p. K-862 (“The analysis for the SEIS for each resource was based on a specific geographic analysis area. As stated in Table A-1, the geographic analysis area for water resources included

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a 10-mile (16.1-kilometer) radius around the WDA, the OECC, and vessel approach routes to port facilities that would be used by the proposed Project.”). Figure ES-1, at p. ES-7 shows the Project elements. There are special aquatic sites within the Project’s 10-mile impact zone, as follows:

- i. Coral (40 C.F.R. § 230.44) exists off Woods Hole, Massachusetts which is within the 10-mile impact zone of the Offshore Export Cable Corridor (“OECC”). *See, <https://www.nbcboston.com/news/local/massachusetts-woods-hole-researchers-cape-cod>*
- ii. Eel grass (40 C.F.R. § 230.43) exists in Edgartown Harbor which is within the 10-mile impact zone of the OECC.
- iii. Wetlands (40 C.F.R. § 230.41) exist in Eel Pond in Edgartown which is within the 10-mile impact zone of the OECC.
- c. The Corps’ conclusion that the project does not affect a special aquatic site is erroneous, arbitrary and capricious and not supported by the evidence.
- d. Where, as here, 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, unless clearly demonstrated otherwise.” *See* 40 C.F.R. § 230.10(a)(3) (emphasis added); *Nat'l Wildlife Fed'n v. Norton*, 332 F. Supp. 2d 170, 186 n. 13 (D.D.C. 2004) (“The Corps has a duty to evaluate whether practicable alternatives exist to a project that will result in the filling of a jurisdictional wetland. . . . the regulations create a rebuttable presumption that there are, in fact, practicable and environmentally preferable alternatives to discharging dredged and fill material into [special] aquatic sites.”). By failing to adequately review less damaging practical alternatives outside of the lease area, and by failing to articulate why no such alternatives exist, the Corps acted arbitrarily and capriciously. *See All. to Save the Mattaponi v. United States Army Corps of Engineers*, 606 F. Supp. 2d 121, 130 (D.D.C. 2009) (*Mattaponi I*) (opining that [t]he Corps must adequately explain why there is no less-damaging practicable alternative. If the Corps cannot so explain based on the record before it, it must reconsider its determination based on an adequate analysis of the alternatives.”)

3. The Corps violated 40 C.F.R. § 230.1(c) by failing to demonstrate that the discharges attributable to the project will not have an unacceptable impact on the aquatic ecosystem. *See All. to Save the Mattaponi v. United States Army Corps of Engineers*, 810 F. Supp. 2d 160, 163 (D.D.C. 2011) (*Mattaponi II*).

- a. 40 C.F.R. § 230.1(c) states that “dredged or fill material should not be discharged into the aquatic ecosystem unless it can be demonstrated that such

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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.” Probable impacts of other activities include the foreseeable thousands of wind turbines that will dot the Outer Continental Shelf, as explained in the FEIS, the ROD and other relevant documents.

- b. In violation of 40 C.F.R. § 230.1(c), the Corps impermissibly failed to demonstrate that discharges from the additional wind turbines will not have “an unacceptable adverse impact.” Accordingly, the Corps’ action is arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law. *See Mattaponi I*, 606 Supp. 2d at 131-134.
4. For the Corps to issue a permit for a proposed project, the use must be in the public interest. *See* 33 CFR § 320.4(a)(1).
 - a. The Corps failed to show in the documentation that the project meets the public interest test. *See Mattaponi I*, 606 F. Supp. 2d at 136 (“This regulation requires the district engineer to weigh the benefits that reasonably may be expected to accrue from the proposal against its reasonably foreseeable detriments, considering all relevant factors.”).
 - i. The documentation fails to address (1) the rise in temperatures at and near the Project area attributable to the WTGs, (2) the potential vulnerabilities to the electric grid by concentrating so much electricity from one source, namely wind energy), (3) the impact on the loss of thousands of jobs in the fishing industry, (4) jeopardy to and modification of critical habitat of endangered species, and (5) adverse impacts on food supply.
 - ii. Accordingly, the Corps’ action is arbitrary, capricious, an abuse of discretion, not supported by the evidence, a violation of the Guidelines, and otherwise not in accordance with law. *See Mattaponi I*, 606 F. Supp. 2d at 136.
 - b. The Corps failed to properly consider the public interest in dealing with the adverse impacts of the Vineyard Wind Project on horseshoe crabs in the area.
 - i. Horseshoe crabs are a species native to the East Coast of the United States, which is the only place in the world with a currently stable and healthy population of horseshoe crabs. These animals live on the seafloor, are slow moving, and bury into sand/mud. *See* Atlantic States Marine Fisheries Commission Horseshoe Crab Information and FMP at <http://www.asmfc.org/species/horseshoe-crab>. Horseshoe crab blood produces limulus amebocyte lysate (“LAL”), which is used to detect

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bacteria in medical treatments to prevent death of patients. The FDA requires all drugs, injectable or implantable medical devices, including vaccines, in the United States to first be tested for bacterial endotoxins, with LAL considered the gold standard of endotoxin testing. Accordingly, horseshoe crabs are an essential and necessary component to the entire U.S. medical field and public health. *See* https://bioscience.lonza.com/lonza_bs/CH/en/endotoxin-testing and <https://www.usatoday.com/story/news/health/2020/06/15/covid-19-coronavirus-vaccine-tested-horseshoe-crab-blood/3190180001/> and https://www.unionleader.com/news/health/coronavirus/horseshoe-crabs-essential-to-finding-covid-19-vaccine-in-america/article_9fb7ea1e-b99b-5218-a54a-54054cf035c6.html?utm_medium=social&utm_source=email&utm_campaign=user-share.

- ii. LAL from horseshoe crabs is used for vaccine preparations before release to the American public. *See* https://bioscience.lonza.com/lonza_bs/CH/en/endotoxin-testing. LAL is being used in testing COVID19 vaccines by horseshoe crab biomedical facilities in both Massachusetts and Maryland. The horseshoe crabs used in these facilities are sourced from adjacent waters off the Maryland/Delaware and Massachusetts coasts. *See* <https://www.acciusa.com/> and <https://lonza.com/news/2020-05-01-04-50>.
- iii. The Vineyard Wind lease is on horseshoe crab habitat, and the COP proposes to run electrical export cables through horseshoe crab habitat/harvest areas. Vineyard Wind cable laying along with associated dredging and filling operations would occur through Massachusetts Division of Marine Fisheries survey areas for horseshoe crabs and spawning beach areas. *See* <https://www.mass.gov/service-details/horseshoe-crab-monitoring> and <https://www.mass.gov/doc/2018-horseshoe-crab-compliance-report/download>. Horseshoe crabs are found within the Vineyard Wind SEIS's "Coastal Habitats Geographic Analysis Area," "Benthic Geographic Analysis Area" and "Water Quality Geographic Analysis Area." *See* SEIS, Appendix A, p. A-26, p. A-27 and p. A-39. The horseshoe crab population and resource will suffer if turbine foundations and scour protection pave over thousands of square miles of their sand/mud habitat and are installed directly on top of the crabs, which would also be directly impacted by electromagnetic fields ("EMF") from massive underwater power cables both inside and outside the proposed wind farms, as well as injured or killed during cable installation.
- iv. Neither the Corps of Engineers nor the other agencies approving the project have conducted appropriate impacts analysis of offshore wind

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farm construction to the U.S. medical supply based on threats to horseshoe crabs. Yet the agencies have stated that since horseshoe crabs bury into the sediment in winter their already slow avoidance response to construction is increased by the contemplated construction activities, with slower avoidance responses subjecting them to “increased injury or mortality during dredging and cable installation” and that “immobile benthic species ...in the direct path of construction vessels would experience direct mortality or injury.” Vineyard Wind COP, Volume III, Section 6 Biological Resources, p. 6-144. The lack of appropriate attention to the potential devastating impacts of the project on horseshoe crabs (and therefore on U.S. medical supplies of life-protecting substances) is in violation of 33 CFR § 320.4(a)(1) and is arbitrary, capricious, and otherwise not in accordance with law.

**VIOLATIONS OF THE MMPA BY THE DEPARTMENT OF COMMERCE
AND NMFS AND THEIR OFFICES AND/OR EMPLOYEES**

All of the foregoing facts set forth above are hereby incorporated here.

A. It Was Impermissible for NMFS to Issue the Incidental Harassment Authorization.

1. NMFS violated the MMPA by authorizing the take and harassment of marine mammals in the Incidental Harassment Authorization (“IHA”), particularly the North Atlantic Right Whale, without properly considering the best scientific evidence available and accounting for, analyzing, and documenting the stress on such mammals and their habitat that will occur for longer than one year caused by:
 - (a) increase in localized temperatures in the project area attributable to the operation of the WTGs, which will cause ongoing take for the life of the project;
 - (b) potential catastrophic oil spills from the WTGs attributable to category 3 or higher hurricanes descending upon the project area;
 - (c) vessel strikes resulting in takes during construction and maintenance activities, *see, e.g.*, FEIS at 3-84, 3-94
 - (d) ocean noise from construction and operation activities, *see e.g.*, FEIS Appendix H at H-4; FEIS at 3-78;
 - (e) the sudden increase in the project design envelope from the publication of the DEIS to the publication of the SEIS without corresponding studies and analyses of the impacts on marine mammals in the project area resulting from necessary changes to the type of equipment required for construction and operation;
 - (f) dredged material causing turbidity increases and long term sedimentation;

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(g) loss of physical space available to the North Atlantic Right Whale resulting from construction and operation of the Vineyard Wind Project; and

(h) failure to account for the significance of the fact that approximately 100 North Atlantic Right Whales, comprising approximately 25% of worldwide population, have been sighted in the general vicinity of the Vineyard Wind Lease area and that the very existence of the species is put at risk because of the project, according to the best scientific and commercial data available.

(i) The failure to conduct the above studies and analyses, and the failure to allow for full public comment on these crucial issues in connection with the Vineyard Wind Project did not provide information sufficient for the agencies to make the required determinations under the MMPA. These failures violate the MMPA and constitute acts that are arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law. *See e.g., Committee for Humane Legislation, Inc. v. Richardson*, 414 F. Supp. 297, 308-09 (D.D.C. 1976), aff'd 540 F. 2d 1141 (D.C. Cir. 1976) (opining that, the "primary goal of the MMPA is to ensure the well-being of . . . marine mammals," and "even the use of the best technology available cannot justify results inconsistent with the purpose of the Act."). Notably, the purpose of the Act is "to achieve an *optimum* sustainable population for each species of marine mammals." *Id.* at 310 (emphasis added). And the take of marine mammals "may not be authorized if the impact is to the disadvantage of the mammals involved." *Id.* at 308. *See also Kokechik Fishermen's Asso. v. Sec'y of Commerce*, 839 F. 2d 795, 800 (D.C. Cir. 1988) ("Secretary [of Commerce] is obligated to determine that the permit applicant has carried its burden of proving that the taking sought does not disadvantage the species involved and is consistent with the policies and purposes of the [MMPA]."); *Fed'n of Japan Salmon Fisheries Coop. Assoc. v. Baldridge*, 679 F. Supp. 37, 39 (D.D.C. 1987) (holding that [mammal] population stocks should not be permitted to diminish beyond the point at which they cease to be a significant functioning element in the ecosystem of which they are a part, and consistent with this major objective, they should not be permitted to diminish below their optimum sustainable population.").

2. NMFS and the other agencies have impermissibly failed to provide (1) substantial evidence that the takes from the Project as set forth above will only affect small numbers of marine mammals; (2) substantial evidence that the project would have a negligible impact on the affected marine mammal species or stocks and a mitigable impact on their availability for subsistence uses; and (3) any evidence that the project will be completed within one year of the issuance of the IHA. *See e.g., Pac. Ranger, LLC v. Pritzker*, 211 F. Supp. 3d 196, 213 (D.D.C. 2016); U.S.C. 1371 (D)(i); FEIS at 3-80.

3. The Vineyard Wind Project will be decommissioned, *see, e.g.*, FEIS at ES4.1.2, in accordance with 30 C.F.R. Part 585 and other BOEM requirements. Vineyard Wind must remove all installations and clear the seabed of all obstructions created by the Project. The

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need to decommission the Project makes it impermissible for NMFS to issue *any* type of permit under the MMPA because the take will continue to occur even beyond the end of the useful life of the Project, thereby far exceeding both the one-year statutory limitation on an IHA and the five-year statutory limitation on permitting under a LOA. *See Waterman S.S. Corp. v. Burnley*, 691 F. Supp., 1524, 1534 (D.D.C. 1988).

VIOLATIONS OF NEPA COMMITTED BY THE DEPARTMENTS OF INTERIOR, COMMERCE AND DEFENSE AND THE BUREAU OF OCEAN ENERGY MANAGEMENT, THE NATIONAL MARINE FISHERIES SERVICE, AND THE UNITED STATES ARMY CORPS OF ENGINEERS, AS WELL AS THEIR OFFICERS AND/OR EMPLOYEES

All of the foregoing facts set forth above are hereby incorporated here.

A. BOEM, the Corps of Engineers, and NMFS Defined the Purpose of the Proposed Action in an Unreasonably Narrow Way, Thereby Impermissibly Pre-ordaining the Approval of the Construction and Operations Plan.

1. The ROD states:

“The *purpose* of the . . . action . . . is to determine whether to approve, approve with modifications, or disapprove the COP to construct, operate, and decommission an approximately 800 MW, commercial scale wind energy facility within the area of Lease OCS-A 0501 to meet *New England’s demand* for renewable energy. More *specifically*, the proposed Project would deliver power to the New England Energy grid to contribute to *Massachusetts’ renewable energy requirements* - *particularly*, the Commonwealth’s mandate that *distribution companies* jointly and competitively *solicit proposals* for offshore wind energy generation (220 Code of Massachusetts Regulations 23.04(5).” (Emphasis added).

See ROD § 2.2. By its own terms, the purpose of the federal action is to ensure that Massachusetts’ energy requirements, as imposed by state law, are met. By unreasonably linking the purpose of the action to seeking compliance with Massachusetts’ law, BOEM, the Corps of Engineers, and NMFS impermissibly pre-ordained the result of the NEPA process by allowing the Massachusetts legal tail to wag the federal NEPA and energy policy dog. “[An] agency may not define the objectives of its action in terms so unreasonably narrow that only one alternative . . . would accomplish the agency’s action, and the EIS would become a foreordained formality.” *See Citizens against Burlington, Inc. v. Busey*, 938 F. 2d 190, 196 (D.C. Cir. 1991); *Young v. GSA*, 99 F. Supp. 2d 59, 71 (D.D.C. 2000) (agency cannot define its objectives in unreasonably narrow terms).

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2. In addition, the ROD states, “. . . specifically, the proposed Project would *deliver power* to the New England Energy grid to contribute to Massachusetts’ *renewable energy requirements*.” See ROD § 2.2 (emphasis added). The agencies violated NEPA by defining the “specific” purpose of the action in such unreasonably narrow terms, thereby setting the stage to ensure that state “renewable energy requirements” were achieved. In so doing, the agencies relied on factors which Congress had not intended to be considered during the NEPA process. See 42 U.S.C. § 4331(b)-(c) (spelling out the specific factors Congress intended for agencies to consider under NEPA, none of which includes ensuring that state energy mandates are achieved); *see also Nat'l Ass'n of Home Builders v. Defs. of Wildlife*, 551 U.S. 644, 658 (2007) (opining that is it arbitrary and capricious for an agency’s decision to rely “on factors Congress did not wish it to consider”).

3. Further, the ROD states that the purpose of the action is linked “particularly [to] the Commonwealth’s mandate that *distribution companies* . . . solicit proposals for offshore energy generation.” See ROD § 2.2 (emphasis added). Ensuring compliance by distribution companies with Massachusetts’ energy policies is not and cannot be a reasonable purpose of the action taken by the agencies in approving the COP. That purpose is neither within the goals of NEPA nor within the goals of any of the statutes administered by BOEM, the Corps of Engineers or NMFS. Accordingly, it was both *ultra vires* and arbitrary and capricious for the agencies to consider the achievement of such an irrelevant and unreasonably narrow purpose as the springboard of the NEPA process in the Vineyard Wind Project. See *Theodore Roosevelt Conservation P'ship v. Salazar*, 661 F. 3d 66, 73 (D.C. Cir. 2011) (opining that agencies must take a hard look “at the factors relevant to the definition of purpose” or face rejection of “an unreasonably narrow definition of objectives” as arbitrary and capricious); *Klamath-Siskiyou Wildlands Center v. Graham*, 899 F. Supp. 2d 948, 058 (E.D. Cal. 2012) (stating that agencies must shape the project’s purpose and need statement according to applicable statutory and regulatory requirements).

4. Moreover, the ROD states “Vineyard Wind’s contractual obligation with the Commonwealth of Massachusetts to deliver the generated energy to the Massachusetts power grid was used as a criteria for the evaluation of alternatives as the ability to deliver to the power grid limits where the project can be located geographically.” See ROD at 32. It is impermissible to use the project sponsor’s private contractual obligations to define the need for the project or to limit the reasonable range of alternatives.

B. BOEM, the Corps of Engineers, and NMFS violated NEPA and its Implementing Regulations Because the EIS Did Not Properly Consider a Reasonable Range of Alternatives to the Proposed Action.

1. 40 C.F.R. 1500.2(e)² provides: “Federal agencies shall *to the fullest extent possible* . . . [u]se the NEPA process to identify and assess the reasonable alternatives to proposed

² As set forth in more detail *infra* in Section D.7, the ROD states that the agencies prepared the FEIS and the ROD under CEQ’s prior NEPA regulations and not the current ones because “BOEM’s NEPA review of the proposed Project began prior to . . . September 14, 2020,” the effective date of the current

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actions that will avoid or minimize adverse effects of these actions upon the quality of the human environment.” (Emphasis added). In turn, 40 C.F.R. § 1502.14 characterizes the identification and assessment of alternatives as “the heart of the environmental impact statement.” The regulations require agencies to “rigorously explore and *objectively evaluate* all reasonable alternatives to proposed actions” *Id.* at 1502.14(a). (Emphasis added). The agencies acted arbitrarily and capriciously by utterly discounting and failing to take a hard look at alternatives to placing the project in the lease area. And the agencies actually acknowledge that their failure to review such alternatives will result in the decimation of the commercial fishing industry and related shoreside businesses in the lease area. See ROD at 39 (“[D]ue to the placement of the turbines it is likely that the entire 75,614-acre area will be abandoned by commercial fisheries due to difficulties with navigation.”). *See Anglers Conservation Network v. Pritzker*, 139 F. Supp. 3d 102, 119 (D.C. 2015) (holding that NOAA violated NEPA and acted arbitrarily when it failed to take a “hard look” at the impacts of and alternatives to its proposed refusal to add river herring and shad to a fishery); *Union Neighbors United, Inc. v. Jewel*, 831 F. 3d 564, 576-77 (D.C. Cir. 2016) (holding that the Fish and Wildlife Service acted arbitrarily when it failed to consider economically feasible alternatives to an energy company’s wind farm proposal that would result in fewer bat kills).

2. The range of alternatives analyzed in detail by the agencies was impermissibly narrow because the need and purpose of the action, as set forth above, was unduly narrowly defined. *See e.g., Citizens against Burlington*, 938 F. 2d at 196; *Theodore Roosevelt Conservation*, 661 F. 3d at 73.

3. The range of alternatives analyzed in detail by the agencies was impermissibly narrow because commenters proposed significant, concrete, and reasonable alternatives during the comment process and those alternatives were impermissibly dismissed from consideration by the agencies. *See DOT v. Public Citizen*, 541 U.S. 752, 764-65 (2004) (opining that “significant and viable alternatives” proffered by the public must be fully and fairly considered); *Oceana, Inc. v. Locke*, 831 F. Supp. 2d 95, 131 (D.D.C. 2011) (noting that “concrete alternative proposals” made by interested parties merit full and fair consideration). *American Oceans Campaign v. Daley*, 183 F. Supp. 2d 1, 19-21 (D.D.C. 2000) (opining that NMFS violated NEPA where it impermissibly failed to consider

regulations. *See* ROD at 3 fn 1. However, the COP was approved and both the FEIS and the ROD were issued by the agencies well after September 14, 2020. Accordingly, the current regulations should have been used in connection with the analysis in the FEIS and the ROD, and it was arbitrary and capricious for the agencies to use the prior version of the regulations to demonstrate compliance. The burden is on the agency to demonstrate compliance with CEQ’s current NEPA regulations, which the agencies have failed to do in the FEIS and the ROD. For purposes of demonstrating that the FEIS and ROD do not meet the legal requirements of NEPA even under the superseded regulations, the analyses set forth in this 60-day notice letter focuses on the version of the regulations in effect before September 14, 2020, in order to maintain consistency with the citations and analyses set forth in the FEIS and ROD. Based on recent case law construing the current regulations, however, this notice letter also cites and refers to the current regulations as and where appropriate.

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reasonable alternatives). Among others, the following reasonable alternatives proffered during the comment period were impermissibly dismissed from consideration:

- a. Concrete proposals were made by Seafreeze Shoreside that the COP should not be approved unless and until interference by the Vineyard Wind Project with essential HF Radar supporting search and rescue efforts could be fully analyzed. *See Seafreeze Comments Re: BOEM-2020-0005-0001 “Supplemental to the Draft Environmental Impact Statement for Vineyard Wind LLCs Proposed Wind Energy Facility Offshore Massachusetts and Public Meetings,”* dated July 27, 2020 (the “Seafreeze SEIS Comments”) at 62. The agencies summarily dismissed this reasonable proposal and decided without adequate explanation to approve the COP and only then determine the extent of HF Radar interference after-the-fact, making the decision procedurally flawed and substantively arbitrary and capricious.
- b. Without adequate explanation, the agencies and summarily dismissed comments pointing out that the flawed structural analysis of the MARIPARS should be changed before the approval of the COP and reasonable alternatives associated therewith. *See id.* at 60. The summary dismissal of the proposal without adequate explanation was procedurally flawed and substantively arbitrary and capricious.
- c. Without adequate explanation, the agencies summarily dismissed concrete proposals to eliminate certain important fishery areas of the lease from the COP, constituting a reasonable alternative impermissibly dismissed. *See id.* at 2. The summary dismissal of the proposal without adequate explanation was procedurally flawed and substantively arbitrary and capricious.
- d. Without adequate explanation, the agencies summarily dismissed concrete proposals that the cumulative impacts of Vineyard Wind’s decision to increase the project design envelope using larger turbines should be carefully analyzed in order to address reasonable alternatives. *See id.* at 2-3. The summary dismissal of the proposal without adequate explanation was procedurally flawed and substantively arbitrary and capricious.
- e. Without adequate explanation, the agencies summarily dismissed concrete proposals to consider the devastating impact of the Vineyard Wind Project specifically on the longfin squid fishery, which is by far the largest fishery in the project area. This reasonable alternative was impermissibly dismissed. *See id.* at 43. The summary dismissal of the proposal without adequate explanation was procedurally flawed and substantively arbitrary and capricious.
- f. Without adequate explanation, the agencies summarily dismissed concrete proposals regarding the manner in which compensation packages should be

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developed for commercial fishermen and related shoreside industries negatively impacted by the Vineyard Wind Project. *See, e.g., id.* at 51. These were reasonable alternatives essentially ignored by the agencies. Particularly egregious was the arbitrary and capricious refusal to properly analyze the RI DEM economic analysis, which was not incorporated into the compensation/value/mitigation review, notwithstanding the fact that RI DEM is listed as a cooperating agency. The summary dismissal of the proposal without adequate explanation was procedurally flawed and arbitrary and capricious.

- g. Without adequate explanation, the agencies summarily dismissed the alternatives suggested by the High Frequency Radar Wind Turbine Interference Community Working Group Report dated June 2019. For the convenience of the agencies, a copy of the report is attached as Exhibit A. The summary dismissal of the proposal without adequate explanation was procedurally flawed and arbitrary and capricious.
- h. The agencies acted arbitrarily and capriciously in rejecting a viable alternative proffered by the Responsible Offshore Development Alliance (“RODA”). *See Flaherty v. Pritzker*, 17 F. Supp. 3d 52, 59 (D.D.C. 2014) (noting that the D.C. Circuit “has repeatedly observed” that arbitrary agency action in rejecting alternatives that were considered is impermissible); *see also Sierra Club v. Van Antwerp*, 709 F. Supp. 2d 1254, 1273 (S.D. Fla. 2009). RODA proposed a significant alternative to the proposed project, which was initially delineated by BOEM as Alternative F, setting forth proposed transit lanes in the lease area to ensure safety and viability of commercial fishing operations. In connection with Alternative F, BOEM issued a notice in the Federal Register informing all adjacent lessees to ensure that their construction and operation plans must provide for appropriate transit lanes allowing for the safety and viability of commercial fishing operations and that “Lessee may not construct any surface structures in such vessel transit corridors.” *See Commercial Leasing for Wind Power on the Outer Continental Shelf: Atlantic Wind Lease Sale 4A Offshore Massachusetts*, 83 Fed. Reg. 53089, 53091 (October 19, 2018). Commercial fishermen and fishing organizations strongly supported Alternative F’s general concept of a clear vessel transit lane, while the project sponsor and certain other commenters representing the offshore wind industry, along with certain environmental advocacy groups and the Commonwealth of Massachusetts opposed Alternative F on the ground that its adoption would lead to project delays and increased costs that could make it impracticable to complete the project. The comments against the adoption of Alternative F did not adequately address the issues raised by the fishing community regarding safety and the continuing viability of commercial fishing in the area without the type of transit lane suggested by Alternative F. BOEM sided with the wind industry commenters but did not adequately explain why the concerns of the fishing community were rejected

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in favor of those championed by the wind industry. Accordingly, rejection of Alternative F was arbitrary and capricious. *See Public Emples. for Envtl. Responsibility v. Hopper*, 827 F. 3d 1077, 1083 (D.C. Cir. 2016) (holding that BOEM’s refusal to explain the reasoning and consequences of its failure to take a “hard look” at all available relevant information in connection with the Cape Wind project was arbitrary and capricious).

C. The Agencies Violated NEPA by Failing to Comply with the Requirements for Analysis of Cumulative Impacts

1. 40 C.F.R. 1508.7 defines the term “cumulative impact” as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably *foreseeable* future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.” (Emphasis added). *See Del. Riverkeeper Network v. FERC*, 753 F. 3d 1304 (D.C. Cir. 2014) (opining that the federal Energy Regulatory Commission acted arbitrarily and impermissibly when it approved a pipeline that was part of a program involving three other pipeline projects); *Hammond v. Norton*, 370 F. Supp. 2d 226, 267 (D.D.C. 2005) (opining that the Bureau of Land Management acted arbitrarily and impermissibly when it allowed two pipeline projects to be reviewed separately and not as connected actions).

2. BOEM violated this requirement by failing to analyze cumulative impacts when performing the Environmental Assessment (“EA”) in connection with the determination of whether or not to grant the lease to the corporate predecessor of Vineyard Wind. BOEM knew that the “foreseeable” future actions would include not only the initial studies authorized by the lease and the development of the Vineyard Wind COP but also BOEM’s own plans to develop vast areas in the Outer Continental Shelf outside of lease area for wind energy generation under the Energy Policy Act of 2005, BOEM’s implementing regulations, and applicable executive orders. By issuing the Finding of No Significant Impact (“FONSI”) in the EA without reviewing the environmental impacts of those “foreseeable” future leasing actions, BOEM violated 40 C.F.R. 1508.7. *See Theodore Roosevelt Conservation P’ship. v. Salazar*, 616 F. 3d 497, 514 (D.C. Cir. 2010) (opining that mandatory compliance with the cumulative impact requirement early in the planning stages prevents “agencies from dividing one project into multiple individual actions each of which has an insignificant environmental impact, but which collectively have a substantial impact”).

3. When reviewing the COP, BOEM, the Corps of Engineers, and NMFS violated the requirement to fully analyze cumulative impacts by failing to adequately take into account in the FEIS and ROD the “foreseeable” impacts outside of the COP area in connection with BOEM’s concrete plans to develop vast areas throughout the Outer Continental Shelf on the Atlantic, Pacific, and Gulf Coasts for wind energy generation, as set forth in the Energy Policy Act of 2005, BOEM’s implementing regulations, and applicable executive orders. *See Nat. Res. Defense Council, Inc. v. Hodel*, 865 F. 2d 288, 298-300 (D.C. Cir. 1988)

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(requiring an inter-regional cumulative effects analysis in light of evidence that marine species would travel between project areas). Without explanation, even the woefully inadequate discussion of cumulative impacts in the SEIS were not included in any recognizable form in the FEIS of the ROD. This failure is procedurally flawed and arbitrary and capricious and is a fatal flaw in the agencies' NEPA analysis. *See Fund For Animals v. Hall*, 448 F. Supp. 2d 127, 134-137 (D.D.C. 2006) (invalidating the issuance of six final agency rules that expanded hunting in 37 national wildlife refuges because the Fish and Wildlife Service acted arbitrarily when it failed to examine cumulative effects of increased sport hunting prior to issuing the final rules).

D. Other NEPA Violations

1. When preparing the EA and the EIS, the agencies failed to comply with the requirements of 40 C.F.R. §§ 1502.22(a)-(b), which instruct agencies how to deal with situations in which there is “incomplete information relevant to reasonably foreseeable significant adverse impacts.” This failure caused the agency to arbitrarily limit not only the consideration of cumulative impacts but also thwarted their “reasoned choice among alternatives,” in direct violation of NEPA and its implementing regulations.

- a. By way of example, but not by way of limitation, the first indication that each wind turbine would be dramatically increased from a maximum of 10 MW to a Haliade-X prototype of a maximum of 13-14 MW appeared in the Supplemental Environmental Impact Statement dated June 2020 (the SEIS”). *See* SEIS at 1-3; 1-4 fn 13; 3-30, 3-79; 3-131 fn 15; Appendix A at A-18. The SEIS refers to the equipment as “the largest turbine now commercially available.” SEIS at 1-3. The equipment is in use only at one place worldwide, that is, on land located in the Port of Rotterdam, Netherlands. The equipment has never been pile-driven directly into the ocean floor. It contains substantial quantities of oil, with the serious potential of catastrophic oil spills. *See OCSLA violations and MMPA violations supra.*
- b. Vineyard Wind submitted a draft Oil Spill Response Plan for review by BOEM on June 28, 2021, over a month after the approval of the COP/ROD. *See* COP Appendix 1-F. Furthermore, the pile driving technology needed to place the equipment in the lease area, and the noise associated with construction and operation of the large turbines have been recently documented to cause substantial interference with marine life and resources. *See “How could operational underwater sound from future offshore wind turbines impact marine life?”* 149 J. of the Acoustical Soc'y of America 1791 (2021), <https://doi.org/10.1121/10.0003760>. In addition, the DEIS indicated that a certain hammer size and monopole diameter would be needed to construct the then-maximum project design envelope that had been set at 10 MW. When that maximum project design envelope had been increased to 13-14 MW in the SEIS, the agencies never bothered to amend the discussion and

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analysis of the required hammer size and monopole diameter. That failure was procedurally flawed and arbitrary and capricious.

- c. Moreover, although the SEIS and FEIS recognize in a cursory fashion the potential impacts of the construction and operation of wind turbine generating project in the lease area and beyond, neither document meets the stringent requirements of 40 C.F.R. §§ 1502.22(a)-(b). *See, e.g.*, FEIS at 3-81 (summarily dismissing “biologically significant consequences”); FEIS Appendix H at H-4 (refusal to quantify acoustic impacts associated with pile driving on marine species); SEIS at 3-7 (summarily dismissing noise from trenching of export cables over the “assumed 4-year construction period” while observing that the “intensity and extent of the resulting impacts on coastal habitat are difficult to generalize”); SEIS 3-8 (summarily dismissing cumulative noise impacts). This documentation falls far short of the stringent requirements of 40 C.F.R. §§ 1502.22(a)-(b) regarding how to deal with “incomplete information relevant to reasonably foreseeable significant adverse impacts.”
- d. These glaring omissions by the agencies were procedurally flawed and arbitrary and capricious. The D.C. Circuit recently held that that an agency acted arbitrarily and impermissibly when it failed to adequately deal with the regulatory requirements regarding incomplete information. *See Vecinos para el Bienestar de la Comunidad Costera v. FERC*, Case No. 20-1045, slip op. at 11-12 (D.C. Cir. Aug. 3, 2021).

2. The agencies violated 40 CFR § 1508.25 by impermissibly limiting the scope of both the EA and the EIS to the Vineyard Wind Project, which is only one of many foreseeable actions pursuant to statutory, regulatory, and executive order requirements to develop the Outer Continental Shelf for wind energy generation. The agencies acknowledge in the ROD that “BOEM’s decision on Vineyard Wind’s Cop is needed to carry out its duty . . . in furtherance of the United States Policy to make OCS energy resources available for expeditious and orderly development.” Thus, the Vineyard Wind Project is one of many “interdependent parts of a larger action and depends on the larger action for [its] justification.” 40 C.F.R. § 1508.25(a)(1)(iii). *See Wilderness Soc’y v. Salazar*, 603 F. Supp. 2d 52, 68 (D.D.C. 2009), citing *Kleppe v. Sierra Club*, 427 U.S. 390, 413 (1976) (holding that scope of NEPA analysis had to include multiple coal development areas because “all coal-related activity in that region is . . . related”).

- a. While BOEM suggested that it analyzed the “reasonably foreseeable effects measured by installed power capacity,” FEIS, p. 1-5, it did not adequately analyze the cumulative environmental impact of offshore wind development in the neighboring lease areas, let alone in the broader Atlantic, Pacific or Gulf Coasts. Thus, the scope of analysis was inappropriately narrow and was therefore arbitrary, capricious, or otherwise not in accordance with law.

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- b. Additionally, the FEIS considered only 22 GW of Atlantic offshore wind development is reasonably foreseeable. FEIS, p. 1-6. However, the *already-pledged* target commitment totaled approximately 30 GW, thereby making the FEIS analysis inadequate. *See* <https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/29/fact-sheet-biden-administration-jump-starts-offshore-wind-energy-projects-to-create-jobs/>. Accordingly, the limitation on the scope of the analysis to 22 GW was arbitrary and capricious.
- c. The proper degree of scoping would have informed BOEM's judgment on cumulative impact. However, because BOEM failed to correctly identify the scope of analysis, its resulting cumulative impact analysis was fundamentally flawed and, as a result, was arbitrary and capricious.

3. The agencies violated 40 C.F.R. § 1506.6 by failing to make “diligent efforts to involve the public in preparing and implementing their NEPA procedures.” There are numerous instances in which such diligent efforts were not made, including, e.g.:

- a. In many instances, BOEM did not directly engage with the public, choosing instead to rely on state agencies and their appointed boards. For example, BOEM heavily and impermissibly relied upon the Rhode Island Fisheries Advisory Board (the “FAB”), which was a subsidiary agency of the Rhode Island Coastal Resources Management Council (the “CRMC”). For its part, the FAB also failed to engage with a significant and particularly relevant portion of the public. Specifically, both the offshore squid trawl industry and the shore side businesses were excluded from the FAB and were not permitted to participate in the process that developed mitigation measures. Instead, negotiations between the FAB, CRMC, and Vineyard Wind were conducted privately. To date, substantial information set forth in reports, data, or proposals involved in those negotiations have not been made public. This lack of both the opportunity to actively participation and access to relevant documents meant that significant portions of the public with an important stake in the outcome of these negotiations had no input in an essential aspect of the NEPA process. BOEM also impermissibly delegated to Massachusetts the chore of negotiating certain commercial fishing mitigation measures, which Massachusetts pursued without substantial input from those most affected, i.e. commercial fishermen. This failure by the agencies to comply with 40 C.F.R. 1506.6 was arbitrary, capricious, and otherwise not in accordance with law.
- b. The offshore fishing industry from the state of New York was also denied any ability to participate in this process. Neither the Massachusetts nor the Rhode Island state-formed task forces notified stakeholders from other states nor featured any members to represent the interests of those working within the fishing industry in New York. The task forces also failed to include any of New York's economic catch data and consider the traditional fishing grounds

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that have been of historical importance to the trawl fleet of New York. Thus, New York fishermen lacked input on receiving compensation for mitigation purposes and were left with no safe, direct, and sufficiently wide transit lane to either travel to or from their fishing grounds. These omissions by the agencies were arbitrary, capricious, or otherwise not in accordance with law.

4. The agencies violated 40 C.F.R. § 1503.4(a)(5) and acted arbitrarily and capriciously by failing to adequately explain why specific comments submitted during the comment period “do not warrant further agency response.” The agencies’ responses failed to adequately cite “the sources, authorities, or reasons which support the agency’s position [and did not] indicate those circumstances which would trigger agency reappraisal or further response.” In responding to public comments, this regulatory provision requires agencies to take “into account the needs and goals of the parties involved.” *Citizens against Burlington, Inc. v. Busey*, 938 F. 2d 190, 196 (D.C. Cir. 1991). And agencies must give comments “good faith attention.” *Warm Springs Dam Task Force v. Gribble*, 565 F. 2d 549, 554 (9th Cir. 1977). Specific instances in which the agencies violated 40 C.F.R. 1503.4(a)(5) include but are not limited to:

- a. BOEM gave inadequate attention to Comment 1063-002, which expressed concern regarding the assumptions made in relation to a comprehensive and appropriate fisheries mitigation and compensation plan. In particular, the comment contended that “Vineyard Wind is not offering a comprehensive or appropriate mitigation or compensation plan to RI fishing vessels and businesses that would reduce impacts from ‘major.’” *See* FEIS, p. K-195.
- b. BOEM failed to adequately address Comment 0076-004, which questions the sufficiency of the purpose and need statement for the purposes of NEPA. *See* FEIS, K-51. Specifically, attempting to justify the project by reference to an executive order extolling the virtues of renewable energy and Massachusetts’ arbitrarily self-imposed clean energy demands is insufficient under NEPA. BOEM failed to explain adequately its reliance on these two sources and/or supplement its purpose and need statement in order to fully comply with NEPA.
- c. Comment 13185-017 pointed out that the agencies had “failed to consider cumulative impacts of these mitigation plans, without any prediction or assurance of how compensatory mitigation for other projects will be decided.” FEIS, p. K-1262. In response, and without further explanation, BOEM claimed that “it was not necessary to develop or specify compensatory mitigation programs for other projects that are under development.” *Id.*
- d. Comment 13185-018 addressed the failure to “include analysis of indirect impacts or multiplier impacts to shoreside businesses” as well as the lack of “peer review or public input.” FEIS, p. K-1262. In response, BOEM only cited Vineyard Wind’s compensation funds that are dependent on entities

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being able to “demonstrate losses *directly related* to the Vineyard Wind 1 Project.” *Id.* (emphasis added). BOEM’s response did not address the issue of peer review or public participation, nor cumulative losses associated with future planned wind energy projects in the immediate vicinity of Vineyard Wind.

- e. The agencies failed to adequately address the comments made by Seafreeze Ltd in connection with the SEIS regarding the increase in megawatt capacity of each wind turbine generator to a maximum of 13-14 MW made at the last-minute without appropriate analysis. *See* Seafreeze Ltd Comments dated July 27, 2020, at 2-3, 7, 10-13, 30, 33-34, 55-56, 61, 70.

5. The agencies violated 40 C.F.R. § 1503.4(b) by failing to attach “all substantive comments received on the draft statement (or summaries thereof where the response has been exceptionally voluminous) to the final statement.”

6. BOEM violated NEPA and the APA at the time it issued the lease to the predecessor of Vineyard Wind by failing to conduct an EIS. By conducting only an EA in connection with the issuance of the lease, EPA violated NEPA procedurally and acted arbitrarily and capriciously. And even the EA itself was insufficient under NEPA. The agencies acted impermissibly by:

- a. Improperly segmenting its NEPA analysis and failing to consider the foreseeable impacts of a wind energy farm in the lease area on fisheries, ocean and benthic fish habitat, protected species, and navigation prior to issuing the Final Lease Notice. In conducting any NEPA analysis, an agency cannot “segment” its “NEPA review [by] divid[ing] connected, cumulative, or similar federal actions into separate projects and thereby fail[ing] to address the true scope and impact of the activities that should be under consideration.” *Del. Riverkeeper Network v. FERC*, 753 F. 3d 1304, 1313 (D.C. Cir. 2014). Rather, an agency must consider “connected actions” within the same EA, which includes actions that are “interdependent parts of a larger action and depend on the larger action for justification.” *Id* at 1314 (citing 40 C.F.R. § 1508.25). *See WildEarth Guardians v. Zinke*, 368 F. Supp. 3d 41, 63, 67-75 (D.D.C. 2019) (Department of Interior acted arbitrarily when it failed to give a “hard look” at the leasing stage analysis of greenhouse gas emissions by (1) failing to quantify drilling-related emissions in aggregate, and (2) failing to discuss the cumulative effects of emission).
- b. Failing to consider a reasonable range of alternative locations for the construction of the wind energy farm. The record shows that no alternatives to the actual lease location were considered because the location was pre-ordained by BOEM. 40 C.F.R. § 1502.14(a) mandates that an agency must “rigorously explore and objectively evaluate *all* reasonable alternatives,” at the EA stage. *See Flaherty v. Bryson*, 850 F. Supp. 2d 38, 72 (D.D.C. 2012).

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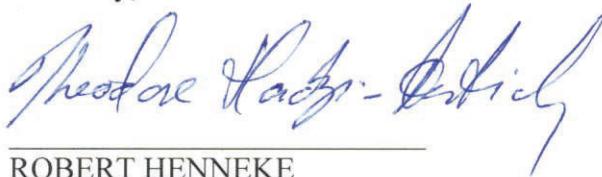
7. The ROD states that the agencies prepared the FEIS and the ROD under CEQ's prior NEPA regulations that were in effect before September 14, 2020, because "BOEM's NEPA review of the proposed Project *began* prior to . . . September 14, 2020." *See ROD at 3 fn 1* (emphasis added). However, both the FEIS and the ROD were issued by the agencies well after the effective date of the current regulations. The FEIS was issued in March 2021, while the ROD was issued in May of 2021. Accordingly, the current regulations should have been used in connection with the analysis in the FEIS and the ROD, and it was arbitrary and capricious for the agencies to use the prior version of the regulations to demonstrate compliance with NEPA's procedural requirements.

Nevertheless, for purposes of demonstrating that the FEIS and ROD do not comply even with the prior CEQ regulations, this notice letter cites to the version of the regulations in effect before September 14, 2020, in order to maintain consistency with the citations and analyses set forth in the FEIS and ROD and in order to demonstrate that the process used by the agencies and the substantive results reached were inconsistent with decades of judicial decisions made under the prior regulations. *See fn 1 hereof*. However, because the agencies impermissibly used a prior version of the CEQ regulations to determine whether the FEIS and ROD met the procedural requirements of NEPA, the agencies must rescind both the FEIS and ROD and conduct the compliance analysis using the version of the regulations currently in effect.

Of course, the burden is on the agencies to show compliance with the current CEQ NEPA regulations, which set forth the procedural details applicable to compliance with NEPA at the time the FEIS and ROD were adopted by the agencies. *See Sierra Club v. Watkins*, 808 F. Supp. 852, 859 (D.D.C. 1991) (NEPA establishes a "strict standard of compliance" with procedural requirements), citing *Calvert Cliffs' Coordinating Comm., Inc. v. United States Atomic Energy Comm'n*, 449 F. 2d 1109, 1112 (D.C. Cir. 1971); *see also Bennet v. Spear*, 520 U.S. 154, 172 (1997) ("It is rudimentary administrative law that discretion as to the substance of the ultimate decision does not confer discretion to ignore the required procedures of decisionmaking.").

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Sincerely,



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*Counsel for XIII Northeast Fishery Sector, Inc.,
Heritage Fisheries, Inc. & Nat. W. Inc.,
Seafreeze Shoreside, Inc., Long Island Commercial
Fishing Assoc., Inc., and Old Squaw Fisheries, Inc.*

Pursuant to 28 U.S.C. § 1746 and 43 U.S.C. § 1349, I declare under penalty of perjury that the foregoing facts contained in this notice letter are true and correct to the best of my knowledge and belief.

DATED: September 17, 2021


John Haran, Executive Director
XIII NORTHEAST FISHERY SECTOR, INC.

Pursuant to 28 U.S.C. § 1746 and 43 U.S.C. § 1349, I declare under penalty of perjury that the foregoing facts contained in this notice letter are true and correct to the best of my knowledge and belief.

DATED: September 17, 2021



Thomas E. Williams, Sr., President
HERITAGE FISHERIES, INC. & NAT. W. INC.

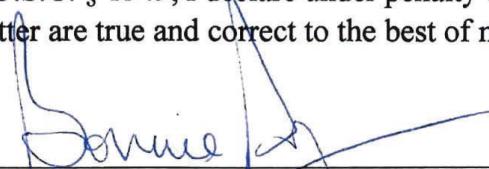
Pursuant to 28 U.S.C. § 1746 and 43 U.S.C. § 1349, I declare under penalty of perjury that the foregoing facts contained in this notice letter are true and correct to the best of my knowledge and belief.

DATED: September 17, 2021

Arthur R Ventrone
Arthur R. Ventrone, Treasurer
SEAFREEZE SHORESIDE, INC.

Pursuant to 28 U.S.C. § 1746 and 43 U.S.C. § 1349, I declare under penalty of perjury that the foregoing facts contained in this notice letter are true and correct to the best of my knowledge and belief.

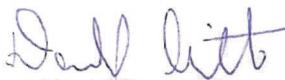
DATED: September 17, 2021



Bonnie Brady, Executive Director
LONG ISLAND COMMERCIAL FISHING ASSOC., INC.

Pursuant to 28 U.S.C. § 1746 and 43 U.S.C. § 1349, I declare under penalty of perjury that the foregoing facts contained in this notice letter are true and correct to the best of my knowledge and belief.

DATED: September 17, 2021



David Aripotch, President
OLD SQUAW FISHERIES, INC.

EXHIBIT A



May 24, 2021

By E-Mail

Gina M. Raimondo, Secretary of Commerce
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Re: 60-Day Notice of Intent to Sue: Violations of Endangered Species Act Section 7 – Legally Deficient Biological Opinion for Vineyard Wind Offshore Energy Project and Related Incidental Take Authorization and Incidental Harassment Authorization

To whom it may concern:

This firm represents Nantucket Residents Against Turbines (“ACK Rats”), whose members live and/or own property on Nantucket Island, Massachusetts. The members of ACK Rats will be affected by the proposed Vineyard Wind offshore wind energy project (the “Vineyard Wind Project”) recently approved by the Bureau of Ocean Energy Management (“BOEM”). The Vineyard Wind Project will consist of up to 100 wind turbines located on a federal leasehold of 166,866 acres (Lease Area OCS-A 0501), located approximately 14 miles south of Nantucket Island and Martha’s Vineyard.

On September 11, 2020, the National Marine Fisheries Service (“NOAA Fisheries”) issued a Biological Opinion (BiOp) for the Vineyard Wind Project, granting Vineyard Wind authority to “take” a variety of federally-listed species that reside in or use the Project Area, as that term is defined in the BiOp. Among the listed species for which take authority was granted is the North Atlantic right whale (“right whale”), one of the most imperiled animals in the world. Despite the right whale’s declining population and rapid slide toward extinction, the BiOp inexplicably determined that the Vineyard Wind project – which is located in one of the last right whale foraging and nursery strongholds on the Atlantic coast and which will involve thousands of miles of vessel

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trips through right whale habitat – will not jeopardize the species. As explained below, this determination is not supported by the evidence and thus is arbitrary and capricious, resulting in a violation of the Endangered Species Act (ESA). The BiOp’s findings regarding Project-related impacts on other federally-listed species, including the Atlantic sturgeon and four sea turtle taxa, also lack evidentiary support and thus are arbitrary and capricious.

On behalf of ACK Rats, we have reviewed the BiOp closely and determined that it fails to meet the legal requirements set forth in the ESA, as interpreted and applied by the federal courts of the United States. Therefore, pursuant to ESA section 11(g)(2)(A)(i), ACK Rats hereby provides the following 60-Day Notice of Intent to Sue NOAA Fisheries and BOEM 60-days over the BiOp. (16 U.S.C. § 1540(g)(2)(A)(i).) If NOAA Fisheries and BOEM do not correct the defects discussed below within the 60-day notice period, ACK Rats will file an action in federal district court and request an order declaring the BiOp invalid.

Procedural Objection to the Vineyard Wind Biological Opinion

NOAA Fisheries issued the BiOp for the Vineyard Wind project on September 11, 2020. Approximately three months later, on December 1, 2020, Vineyard Wind formally withdrew its entire project from further consideration by BOEM. This withdrawal effectively rendered moot the BiOp issued on September 11, 2020.

Then, on or about January 22, 2021, Vineyard Wind “reapplied” to BOEM for approval of the offshore wind project it had previously withdrawn. BOEM and NOAA Fisheries should have treated this “reapplication” as a new application requiring an updated BiOp. BOEM and NOAA Fisheries, however, did not prepare a new or updated BiOp. Thus, the new Vineyard Wind Project – i.e., the one for which Vineyard Wind applied on January 22, 2021 – currently has no valid BiOp and no take authorization. To the extent, BOEM and NOAA Fisheries believe the BiOp issued on September 11, 2020 “covers” the new Project, they are in error. Simply put, the September 2020 BiOp addressed a project that was formally and completely withdrawn. The new project, regardless of its similarities to the withdrawn project, requires its own BiOp.

Legal Requirements for Biological Opinions

Under ESA section 7(a)(2), “[e]ach federal agency *shall . . . insure* that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the adverse modification of [critical] habitat of such species.” 16 U.S.C. § 1536(a)(2) (emphasis added); see also *Water Keeper Alliance v. U.S. Dep’t of Def.*, 271 F.3d 21,25 (1st Cir. 2001). To satisfy its duty to protect against jeopardy or adverse modification, agencies must give the benefit of the doubt to the species in question – here, the right whale and other species discussed in the BiOp – and to place the burden of risk and uncertainty on the proposed action. See *Sierra Club v. Marsh*, 816 F.2d 1376, 1386 (9th Cir. 1987).

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The ESA's substantive protections are implemented, in part, through consultation between the acting agency (here, BOEM) and the agency with jurisdiction over the conservation and recovery of the listed species in question (here, NOAA Fisheries). 16 U.S.C. §1536. When there is evidence that a proposed action may adversely affect a listed species, the wildlife agency (NOAA Fisheries) must prepare a biological opinion that evaluates the impacts of the proposed action on listed species and their critical habitat. If NOAA Fisheries finds that the proposed action is likely to jeopardize a listed species or adversely modify critical habitat, NOAA Fisheries must propose reasonable and prudent alternatives, if available, that will mitigate the proposed action so as to avoid jeopardy and/or adverse modification of critical habitat. 16 U.S.C. § 1536(b); *Idaho Dep't of Fish & Game v. Nat'l Marine Fisheries Service*, 56 F.3d 1071 (9th Cir. 1995).

In addition, ESA section 7(a)(1) mandates that federal agencies "utilize their authorities in furtherance of the purposes of this chapter by carrying out programs for the conservation or endangered species and threatened species listed" under the Act. 16 U.S.C. § 1536(a)(1). Like the duty to avoid jeopardy, the duty to advance and assist the conservation of listed species is discharged, in part, through the acting agency's consultation with NOAA Fisheries. *Id.* A program of "conservation" is one that brings the species to the point of recovery and delisting. 16 U.S.C. § 1532(3).

Finally, when preparing a biological opinion, NOAA Fisheries must use "the best scientific and commercial data available." 16 U.S.C. § 1536(a)(2); 50 CFR Part 402.14(g)(8). Further, the scientific data must support the ultimate conclusions drawn in the biological opinion regarding jeopardy and adverse modification. In other words, a biological opinion is arbitrary and capricious if it fails to "consider the relevant factors and articulate a rational connection between the facts found and the choice made." *Center for Biological Diversity v. U.S. Bureau of Land Management*, 698 F.3d 1101, 1121 (9th Cir. 2012), citing *Natural Res. Def. Council v. U.S. Dep't of the Interior*, 113 F.3d 1121, 1124 (9th Cir. 1997).

Substantive Defects in the Biological Opinion

Even if NOAA Fisheries and BOEM intend to use the September 2020 BiOp for purposes of granting take authorization for the 2021 Vineyard Wind project, the BiOp itself is legally deficient for the reasons set forth below:

1. The BiOp is unclear as to the number and size of the wind turbine generators (WTGs). It is critical that this information be stable and reliable, because when the number of WTGs goes down, the size of the WTGs goes up. And the larger the WTG, the more pile driving it requires. The BiOp must analyze and explain whether the switch from fewer but larger

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WTGs will alter, one way or the other, the amount and intensity of pile driving in the Project Area.

2. The BiOp never provides the number of estimated vessel miles traveled, which is the only meaningful metric when determining vessel strike risks on North Atlantic right whales and other marine animals, such as the federally-listed Atlantic sturgeon and the four federally-listed sea turtles identified in the BiOP.¹ It is not enough to disclose the number of vessel trips; it is the *length* of those trips that determines whether and to what extent the vessels pose a risk to federally-listed whales, fish, and turtles.
3. The BiOp cites no evidence for the claim that each monopile will require only 3 hours of pile driving. This is a critical omission, given that the BiOp’s “no jeopardy” finding and take authorization determinations rely on Vineyard Wind’s assertion that no more than 3 hours of pile driving will occur with respect to each monopile.
4. The BiOp indicates that some of the monopiles may be installed via vibratory driving as opposed to impact driving. Yet, the BiOp does not analyze the effects of this pile driving method on right whales or the other federally-listed species known to reside in or use the Project Area.
5. The BiOp does not clearly or adequately disclose how many vessel trips and vessel miles will be required to lay the cables that (1) connect the WTGs together and (2) connect the Project’s wind array to onshore transfer facilities. As a result, the BiOp underreports and/or under-analyzes the impacts of vessel strikes on right whales and other federally-listed species.
6. The BiOp admits that procurement for offshore installation activities will require vessel trips from a variety of mainland ports. However, the BiOp also admits that the ports of origin are currently unknown. This makes it impossible to calculate the number of vessel miles that will be traveled to and from the wind array for purposes of WTG installation. Without this information, it is likewise impossible to determine the vessel strike risk to right whales and other federally-listed species.
7. The vessel miles traveled issue is especially important in scenarios where procurement ships will be traveling from ports in Canada (e.g., Sheets Port, St. John, and Halifax), as these ports are more than 400 miles from the WGA installation site. Moreover, ships from

¹ The four federally-listed sea turtles are (1) the loggerhead sea turtle, (2) the leatherback sea turtle, (3) the green sea turtle, and (4) the Kemp’s Ridley sea turtle.

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these ports will travel through seas known to be used by the right whale and other federally-listed species. In failing to account for the vessel miles traveled by ships transiting between the project installation site and Canadian ports, the BiOp underreports the vessel strike risks to right whales, Atlantic sturgeon, and federally-listed sea turtles.

8. The BiOp’s “No Jeopardy” determination as to project impacts on right whales is based on the successful implementation of various “detect and avoid” measures. These measures, however, are so diluted by exceptions, qualifications, and loopholes as to be functionally meaningless. Thus, they cannot be used to support any “take” or “no jeopardy” determination. In issuing a BiOp that does not protect right whales from jeopardy, NOAA Fisheries has violated Section 7 of the ESA. 16 U.S.C. § 1536(a)(2).
9. The BiOp is inconsistent and unclear as to when project-related vessels must travel at speeds less than 10 knots. The BiOp refers to so many overlapping exceptions and qualifications to the 10-knot speed limit that one has no idea what rule will be enforced under any given circumstance. Strict compliance and enforcement of the 10-knot vessel speed limit is imperative to reducing vessel strikes on right whales, Atlantic sturgeon, and federally-listed sea turtles. Reduced vessels speeds would also minimize harm to these species (including mortality) if vessel strikes occur.
10. The BiOp indicates that Vineyard Wind will engage in “soft start” pile driving consisting of three single hammer strikes at 40 percent hammer energy, followed by at least a one-minute delay before full energy hammer strikes begin. Although the BiOp does not discuss the purpose of the “soft start” procedure, it is clearly being proposed as a means of “warning” whales and other federally-listed species and encouraging them to leave the action area. Consequently, the “soft start” functions as a form of active, purposeful harassment/hazing that is not incidental to the action in question (i.e., construction and operation of offshore wind farms.) Such purposeful harassment/hazing is a “take” not authorized under the ESA.
11. The BiOp’s “take” determinations and “no jeopardy” finding vis-à-vis right whales are based, in part, on the implementation of “seasonal” protections for the species. The BiOp acknowledges, however, that right whales are present in the project action area year-round. Thus, the proposed seasonal protections will not adequately safeguard the resident/non-migratory population of whales. For this reason, the BiOp fails to provide an adequate take analysis and further fails to protect right whales from jeopardy.
12. The BiOp’s “take” and “no jeopardy” determinations rely heavily on the ability of vessel-based Protected Species Observers (PSOs) to visually scan the ocean surface and detect

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right whales at distances sufficient to allow the vessel to alter course and avoid a collision. The BiOp also relies on PSOs to locate whales that might enter the project impact area during pile driving. There is no evidence, however, that PSOs are effective at detecting right whales under these conditions or for these purposes. First, the BiOp only requires two PSOs to be on watch at any given time. Second, the Project Area, as defined in the BiOp, is huge and cannot be surveilled by two PSOs at a time. Third, PSOs cannot see whales more than a few feet below the surface, and many whale strikes happen below the draft-depth of vessels. Fourth, the PSOs will not be able to effectively detect whales on the surface unless the seas are almost completely calm, a situation that rarely occurs in the Project Area. Moderate to high seas – with corresponding swells – will obscure whales during the brief moments when they surface to breathe or feed. Moreover, Nantucket and the seas around it are among the foggiest areas in the entire country, especially during June and July, two of the months when project-related pile driving is scheduled to occur. The fog rolls in quickly, often too fast for the kind of adjustments Vineyard Wind would have to make to avoid collisions with whales. Fifth, unlike some marine mammals, right whales have no dorsal fin, which makes them even harder to detect visually on the water’s surface. For these reasons, the BiOp’s reliance on the PSO “detect and avoid” measures proposed by Vineyard Wind is misplaced and will result in excessive take of right whales. Such take will also result in jeopardy to the species. Reliance on PSOs to protect other federally-listed species in the Project Area is likewise misplaced.

13. The Reasonably Prudent Measures (RPMs) described in the BiOp provide a “feasibility” exception to pile during limitations, under which Vineyard Wind can continue pile driving even in the presence of right whales or other listed species if halting the pile driving work is not feasible. This exception makes the pile driving protections and limitations meaningless, as it gives Vineyard Wind complete discretion as to when and under what circumstances they can be disregarded. In other words, the BiOp is deficient because it does not define “feasibility” or describe the criteria that must be met before Vineyard Wind can claim that a given pile during limitation is “not feasible.”
14. The RPMs described in the BiOp provide a “practicability” exception to pile during limitations, under which Vineyard Wind can continue pile driving even in the presence of right whales or other listed species if halting the pile driving work is not practicable. This exception makes the pile driving protections and limitations meaningless, as it gives Vineyard Wind complete discretion as to when and under what circumstances they can be disregarded. In other words, the BiOp is deficient because it does not define the term “practicable” or describe the criteria that must be met before Vineyard Wind can claim that a given pile during limitation is “not practicable.”

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15. Vessel speed limits are subject to a host of exceptions, qualifications, and loopholes, thereby reducing their ability to protect right whales and other listed species from unauthorized take and jeopardy.
16. The seasonal restriction on pile driving (Jan 1- April 30) does not protect year-round resident whales.
17. The BiOp fails to provide an adequate, complete, and legally compliant analysis of project impacts on the survival and recovery of the right whale. This is an especially glaring omission, given the precarious state of right whale populations in New England. Recent reports – i.e., post-COVID – indicate the right whale is having something of a “baby boom”, as 18 calves have been spotted during the last calving season. This likely is the result of COVID-related reductions in large vessels in the area. The BiOp must examine whether this nascent recovery will be impeded or stopped altogether by the Project and the renewal of intense human activity in or near right whale calving areas.
18. The BiOp relies on the 2005 Recovery Plan for the right whale, but that plan is now 15 years old and does not account for recent data showing sharp declines in right whale population numbers.
19. The BiOp fails to acknowledge that the PSOs will not be able to see effectively at night. There is not prohibition on vessels transiting at night; nor does the BiOp prohibit pile driving at night, provided it begins in the daylight hours.
20. The BiOp does not require that PSOs be independent of Vineyard Wind. Without such independence, the PSOs will be subject to “corporate capture” and thus less likely to call for a shutdown of vessel traffic or pile driving when right whales and other listed species may be present in the Project Area.
21. The BiOp is unclear whether all transit vessels will be assigned PSOs. The PSO requirement seems to apply only to pile driving activities. Transit vessels are allowed to rely on crew members, all of whom will be incentivized to keep boats running, even if whales are detected. This protocol, to the extent it can be called one, provides little assurance that right whales and other federally-listed species will be adequately protected.
22. To protect right whales and other federally-listed species, the BiOp applies a 10-knot speed limit to vessels 65 feet or greater in length. However, Vineyard Wind can circumvent this speed limit by using ships that are 64 feet in length or less. The BiOp fails to assess this contingency or provide RPMs that would address it.

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L A W Y E R S

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23. The BiOp does not address the project's construction and operational impacts on right whale echolocation and navigation.
24. The BiOp does not consistently address or analyze impacts on right whales for the entire "Project area" as defined on page 35.
25. The BiOp does not clearly or adequately analyze whether the WTGs, when operational, will emit noise or vibrations capable of affecting whales and other federally-listed species.
26. The BiOp fails to adequately assess project-related impacts on right whales in light of recent evidence showing that the species has shifted its feeding grounds to areas in and near the WDA and other portions of the Project Area. (See, pp. 50, 98.)
27. The BiOp's no jeopardy determination is based on unsubstantiated and/or outdated whale carcass recovery percentages. As a result, the BiOp underestimates the number of right whales the Project will take and correspondingly fails to make a proper jeopardy finding.
28. The BiOp's no jeopardy determination fails to account for recent sharp declines in right whale populations. It also fails to account for the extremely low abundance number for the species, which is now less than 400 individuals. Given the low number of right whales and the consistent loss of calf-bearing females, the BiOp should analyze and explain how project-related take of any individual could be absorbed without jeopardizing the species as a whole. The BiOp, however, provides no such analysis or explanation and is therefore deficient as a matter of law.
29. The data discussed in the BiOp demonstrates that the right whale is in serious peril and headed toward extinction; yet the BiOp concludes that the Project will not hasten this trend nor impede the species' recovery. This conclusion is not supported by the evidence. To the contrary, most of the recent right whale sightings have occurred south of Nantucket Island, precisely where the Vineyard Wind Project is to be installed. This suggests a high likelihood of project-to-whale conflict and interaction, resulting in potential harm to the species. (See p. 98.)
30. The BiOp admits that human-derived threats to the right whale are worsening (p. 53) but does not factor this trend into the jeopardy analysis.
31. The BiOp admits that "North Atlantic right whales' resilience to perturbations is expected to be very low" (p. 54) but does not address this fact in its jeopardy analysis.

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32. The BiOp recognizes that shipping, along with commercial fishing, accounts for most right whale injuries and deaths (p. 55), but inexplicably concludes that project-related vessels will be able to avoid all contact with the species.
33. The BiOp acknowledges that right whales spend most of their time (72%) within 33 feet of the water's surface, making them "particularly vulnerable to ship strike . . ." (p. 98.) Yet, the BiOp's "take" and "no jeopardy" determinations ignore this finding and, in the absence of any evidence or analysis, conclude that no right whales will sustain vessel strikes. This is the quintessence of an arbitrary and capricious determination by a federal agency.
34. The BiOp indicates that right whale "hot spots" are located just offshore of the Muskeget Channel and within the Project Area (namely, the offshore export cable corridor or "OECC"). Again, this suggests a high probability of interaction between project-related activities and right whales, leading to adverse impacts, including take and potential jeopardy. Yet the BiOp ignores these facts.
35. The BiOp provides clear evidence of recent mortal vessel strikes on right whales. (pp. 108-109.) But then the BiOp disregards this evidence when making determinations as to take and jeopardy. This is arbitrary and capricious.
36. The BiOp fails to assess vessel strike risk to right whales and other federally-listed species in the context of the already-crowded shipping lanes in or near the Project Area. In addition, the BiOp assumes that right whales and other federally-listed species will move out of Project Area as an "avoidance response" to pile drilling noise; however, if this is true, these animals, in their efforts to swim away from the pile driving noise, will likely enter areas of high vessel traffic, increasing the risk of ship strikes. This impact is not analyzed in the BiOp.
37. The BiOp's analysis of operational noise and vibration impacts on right whales and other federally-listed species is inadequate, as it is based data from wind turbines that are substantially smaller and emit less noise than those proposed for the Vineyard Wind Project. In a recent article in *The Journal of the Acoustical Society of America*, titled "How Could Operational Underwater Sound from Future Offshore Wind Turbines Impact Marine Life?", scientists found that 10 MW wind turbines with gear boxes create enough noise to cause behavioral changes in marine mammals more than 6 kilometers away.² The affective distance is reduced to 1.4 kilometers when the wind turbines use direct drive technology

² Uwe Stober and Frank Thomsen, "How Could Operational Underwater Sound From Future Offshore Wind Turbines Impact Marine Life?", *The Journal of the Acoustical Society of America*, 149, 1791 (2021).

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instead of gear boxes, but the BiOp does not indicate whether Vineyard Wind will be employing gear boxes or direct drives to operate the Project's WTGs. Nor does the BiOp require, as a Reasonable and Prudent Measure, that Vineyard Wind equip each WTG with direct drive technology as a means of reducing operational noise impacts on right whales and other listed species. This represents a failure on the part of NOAA Fisheries to adequately protect right whales and the other listed species within its jurisdiction. Note that this article referenced above recommended that impact studies, such as the SEIS and BiOp for Vineyard Wind, pay close attention to "taxa that are sensitive to low frequency sound, such as baleen whales and fishes." As NOAA Fisheries is aware, right whales are baleen whales and thus warrant the special attention described in the article.

38. According to the BiOp, Vineyard Wind has given itself the option of using wind turbines of various sizes, including turbines larger than those originally studied in the EIS. The BiOp must correct this omission by analyzing operational underwater noise generated by the largest turbines contemplated for the Project. To our knowledge, such an analysis has not yet been conducted.
39. The BiOp improperly accepts Vineyard Wind's position that the project will result in no Level A harassment of right whales. That position is based on the unproven and unsubstantiated efficiency of Vineyard Wind's proposed "detect & avoid" measures – the very same measures that include a host of exceptions, qualifications, and loopholes. (See, p. 138.)
40. BiOp improperly and without evidence assumes that PSOs will be able to adequate surveil a right whale clearance zone that is 10 kilometers in size, as is proposed from 5/1 to 5/14 and 11/1 to 12/31. (p. 140.)
41. The BiOp, without technical or scientific support, assumes that right whales and other listed species disrupted by pile driving will return to their original locations once the 3-hour pile driving session ends. (See p. 149.)
42. The BiOp improperly limits its evaluation of vessel strikes to the WDA and OECC. (pp. 186-187.) It should include the entire Project Area, which consists of the WDA, the OECC, and the vessel transit corridors.
43. The BiOp admits that it can only predict increases in vessel traffic for the WDA and OECC – not the entire Project Area. The BiOp says that "this is the only portion of the action area that we have an estimate of baseline trips." (p.208.) This leaves out the areas where vessels will be transiting between mainland ports and the WDA.

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U.S. Department of Commerce

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44. The BiOp does not clearly indicate whether the proposed “minimization measures” are mandatory and enforceable.
45. The BiOp lists the Dynamic Management Areas (DMAs) established for right whales between 2014 and 2020. (pp. 199-205.) The list shows that the vast majority of these DMAs are located South of Nantucket, in or near the Project Area. This demonstrates that the Project Area is a major right whale population area, thus increasing the likelihood of project-related conflicts with the whales. The BiOp did not take these data into account when making determinations as to right whale “take” and “jeopardy”.
46. The BiOp acknowledges that vessel strikes can occur when whales are below the water’s surface and cannot be visually detected. (p. 206.) Nevertheless, the BiOp’s take and jeopardy determinations ignore this fact.
47. The BiOp admits that carcass recovery is a poor means for determining the number of whale deaths. (p.207.) Yet the BiOp uses this metric, despite its unreliability, to conclude that no right whales will be killed by vessel strikes.
48. The BiOp’s “reasonable and prudent measures” (RPMs) do not appear to include steps to protect right whales from vessel strikes. Rather, the RPMs appear focused exclusively on pile driving noise impacts.
49. The BiOp’s environmental baseline does not account for the other proposed offshore wind projects currently proposed on federal leaseholds adjacent to or in the vicinity of the Vineyard Wind leasehold (Lease Area OCS-A 0501). BOEM and NOAA Fisheries are aware of these nearby projects, as they were the subject of the Supplement to the Environmental Impact Statement (SEIS) that BOEM recently adopted via a Record of Decision on May 11, 2021. These planned offshore wind projects, when combined with Vineyard Wind, will occupy approximately 1,400,000 acres or more than 2060 square miles, which is roughly the size of the state of Delaware. By not including these other offshore wind projects in the environmental baseline, the BiOp grossly underreports the potential impacts on right whales and other listed species from vessel strikes and other human activities connected to the installation and operation of the proposed wind arrays.

Conclusion

For the reasons discussed in this 60-Day Notice, NOAA Fisheries and BOEM cannot rely on the BiOp issued on September 11, 2020 for purposes of authorizing Vineyard Wind to take of federally-listed species incidental to the 2021 Vineyard Wind Project. Further, the BiOp’s

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L A W Y E R S

Gina M. Raimondo, Secretary
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deficiencies render it incapable of supporting a “no jeopardy” finding as to project-related threats and impacts to the right whale.

In summary, not only was the BiOp prepared in response to a project that was formally withdrawn in December 2020, the BiOp itself is substantively deficient and does not meet the minimum legal requirements of the ESA. By adopting the BiOp and authorizing Vineyard Wind to take and jeopardize the survival of federally-listed species, including the right whale, NOAA Fisheries has acted arbitrarily and capriciously in violation of federal law. Note also that BOEM may not “abrogate its responsibility to ensure that its actions will not jeopardize right whales merely by relying on a biological opinion.” *Strahan v. Roughead*, 910 F.Supp. 358, 381 (D.Mass. 2012). This is especially true when the biological opinion is flawed. *Id. See also Wild Fish Conservancy v. Salazar*, 628 F.3d 513, 532 (9th Cir. 2010).

If NOAA Fisheries does not correct the deficiencies described herein within the 60-day notice period provided by statute, ACK Rats will file suit in federal court and request an order invalidating the BiOp. Thank you for your attention to this matter.

Sincerely,



David P. Hubbard
Gatzke Dillon & Ballance, LLP
Counsel for ACK Rats

EXHIBIT B

Dear Customer,

The following is the proof-of-delivery for tracking number: 283819635426

Delivery Information:

Status:	Delivered	Delivered To:	Receptionist/Front Desk
Signed for by:	A.SHABAZZ	Delivery Location:	1401 CONSTITUTION AVE NW
Service type:	FedEx Priority Overnight		
Special Handling:	Deliver Weekday; Adult Signature Required		WASHINGTON, DC, 20230
		Delivery date:	Sep 20, 2021 12:51

Shipping Information:

Tracking number:	283819635426	Ship Date:	Sep 17, 2021
		Weight:	1.0 LB/0.45 KG

Recipient:

Richard W. Spinrad, Ph.D., U.S. Department of Commerce
1401 CONSTITUTION AVE NW
#5128
WASHINGTON, DC, US, 20230

Shipper:

Yvonne Simental, Texas Public Policy Foundation
901 Congress Avenue
Austin, TX, US, 78701

Reference	CAF / Seafreeze
Department Number	Oceans and Atmosphere



Dear Customer,

The following is the proof-of-delivery for tracking number: 283792531288

Delivery Information:

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Signed for by:	P.SMITH	Delivery Location:	1849 C ST NW 1621
Service type:	FedEx Priority Overnight		
Special Handling:	Deliver Weekday; Adult Signature Required		WASHINGTON, DC, 20240
		Delivery date:	Sep 20, 2021 09:54

Shipping Information:

Tracking number:	283792531288	Ship Date:	Sep 17, 2021
		Weight:	1.0 LB/0.45 KG

Recipient: Robert Anderson, U.S. Department of the Interior 1849 C. ST NW WASHINGTON, DC, US, 20240	Shipper: Yvonne Simental, 901 Congress Avenue Austin, TX, US, 78701
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Reference	CAF / Seafreeze
Department Number	Principal Deputy Solicitor

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Dear Customer,

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Signed for by:	D.LRI	Delivery Location:	150 S MAIN ST
Service type:	FedEx Priority Overnight		
Special Handling:	Deliver Weekday; Adult Signature Required		PROVIDENCE, RI, 02903
		Delivery date:	Sep 20, 2021 08:43

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Tracking number:	283809643456	Ship Date:	Sep 17, 2021
		Weight:	1.0 LB/0.45 KG

Recipient:

Peter Neronha, Attorney General, State of RI
150 S MAIN ST
PROVIDENCE, RI, US, 02903

Shipper:

Yvonne Simental,
901 Congress Avenue
Austin, TX, US, 78701

Reference

CAF / Seafreeze



Dear Customer,

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Signed for by:	J.BARNES	Delivery Location:	1 ASHBURTON PL
Service type:	FedEx Priority Overnight		
Special Handling:	Deliver Weekday; Adult Signature Required		BOSTON, MA, 02108
		Delivery date:	Sep 20, 2021 10:20

Shipping Information:

Tracking number:	283811225798	Ship Date:	Sep 17, 2021
		Weight:	1.0 LB/0.45 KG

Recipient:

Maura Healey, Attorney General, State of MA
1 ASHBURTON PL
20th Floor
BOSTON, MA, US, 02108

Shipper:

Yvonne Simental, Texas Public Policy Foundation
901 Congress Avenue
Austin, TX, US, 78701

Reference

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Dear Customer,

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Delivery Information:

Status:	Delivered	Delivered To:	Mailroom
Signed for by:	D.HILL	Delivery Location:	441 G ST NW
Service type:	FedEx Priority Overnight		
Special Handling:	Deliver Weekday; Adult Signature Required		WASHINGTON, DC, 20314
		Delivery date:	Sep 20, 2021 10:29

Shipping Information:

Tracking number:	283809292740	Ship Date:	Sep 17, 2021
		Weight:	1.0 LB/0.45 KG

Recipient:
Lt. Gen. Scott A. Spellmon, U.S. Corps of Engineers
441 G ST NW
WASHINGTON, DC, US, 20314

Shipper:
Yvonne Simental,
901 Congress Avenue
Austin, TX, US, 78701

Reference CAF / Seafreeze
Department Number Commander & Chief of Engineers



Dear Customer,

The following is the proof-of-delivery for tracking number: 283815305430

Delivery Information:

Status:	Delivered	Delivered To:	Receptionist/Front Desk
Signed for by:	S.LAJOIE	Delivery Location:	700 PLEASANT ST 510
Service type:	FedEx Priority Overnight		
Special Handling:	Deliver Weekday; Adult Signature Required		NEW BEDFORD, MA, 02740
		Delivery date:	Sep 20, 2021 09:58

Shipping Information:

Tracking number:	283815305430	Ship Date:	Sep 17, 2021
		Weight:	1.0 LB/0.45 KG

Recipient:

Lars Thaaning Pedersen, Vineyard Wind, Inc.
700 PLEASANT ST
STE 510
NEW BEDFORD, MA, US, 02740

Shipper:

Yvonne Simental, Texas Public Policy Foundation
901 Congress Avenue
Austin, TX, US, 78701

Reference

CAF / Seafreeze

Department Number

Chief Executive Officer



Dear Customer,

The following is the proof-of-delivery for tracking number: 283792227380

Delivery Information:

Status:	Delivered	Delivered To:	Receptionist/Front Desk
Signed for by:	A.SHABAZZ	Delivery Location:	1401 CONSTITUTION AVE NW
Service type:	FedEx Priority Overnight		
Special Handling:	Deliver Weekday; Adult Signature Required		WASHINGTON, DC, 20230
		Delivery date:	Sep 20, 2021 12:51

Shipping Information:

Tracking number:	283792227380	Ship Date:	Sep 17, 2021
		Weight:	1.0 LB/0.45 KG

Recipient:

Leslie Kiernan, U.S. Department of Commerce
1401 CONSTITUTION AVE NW
WASHINGTON, DC, US, 20230

Shipper:

Yvonne Simental,
901 Congress Avenue
Austin, TX, US, 78701

Reference	CAF / Seafreeze
Department Number	General Counsel



Dear Customer,

The following is the proof-of-delivery for tracking number: 283811898789

Delivery Information:

Status:	Delivered	Delivered To:	Mailroom
Signed for by:	H.FELT	Delivery Location:	THE CAPITOL
Service type:	FedEx Priority Overnight		
Special Handling:	Deliver Weekday; Adult Signature Required		ALBANY, NY, 12224
		Delivery date:	Sep 20, 2021 09:18

Shipping Information:

Tracking number:	283811898789	Ship Date:	Sep 17, 2021
		Weight:	1.0 LB/0.45 KG

Recipient:

Letitia James, Office of the Attorney General
1 Empire State Plaza
The Capitol
ALBANY, NY, US, 12224

Shipper:

Yvonne Simental, Texas Public Policy Foundation
901 Congress Avenue
Austin, TX, US, 78701

Reference	CAF / Seafreeze
Department Number	State of New York



Dear Customer,

The following is the proof-of-delivery for tracking number: 283792324100

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Signed for by:	P.SMITH	Delivery Location:	1849 C ST NW 1621
Service type:	FedEx Priority Overnight		
Special Handling:	Deliver Weekday; Adult Signature Required		WASHINGTON, DC, 20240
		Delivery date:	Sep 20, 2021 09:54

Shipping Information:

Tracking number:	283792324100	Ship Date:	Sep 17, 2021
		Weight:	1.0 LB/0.45 KG

Recipient:
Laura Daniel-Davis, U.S. Department of the Interior
1849 C. ST NW
WASHINGTON, DC, US, 20240

Shipper:
Yvonne Simental,
901 Congress Avenue
Austin, TX, US, 78701

Reference	CAF / Seafreeze
Department Number	Land and Mineral Management

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Dear Customer,

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Signed for by:	A.ANTHONY	Delivery Location:	4800 MARK CENTER DR
Service type:	FedEx Priority Overnight		
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		Delivery date:	Sep 20, 2021 09:15

Shipping Information:

Tracking number:	283793167788	Ship Date:	Sep 17, 2021
		Weight:	1.0 LB/0.45 KG

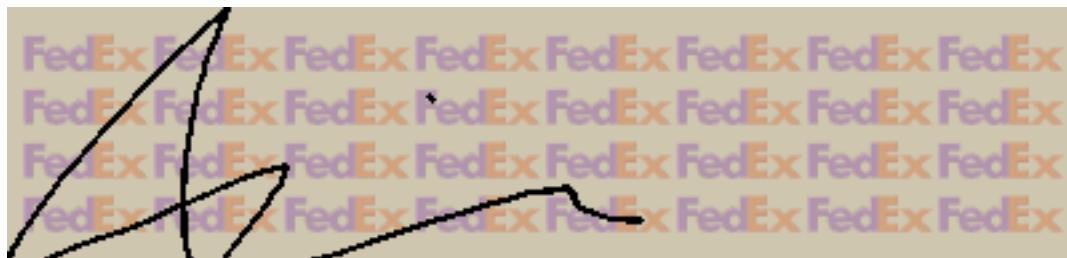
Recipient:

Lloyd J. Austin III, U.S. Department of Defense
1000 DEFENSE PENTAGON
WASHINGTON, DC, US, 20301

Shipper:

Yvonne Simental,
901 Congress Avenue
Austin, TX, US, 78701

Reference	CAF / Seafreeze
Department Number	U.S. Secretary of Defense



Dear Customer,

The following is the proof-of-delivery for tracking number: 283817899500

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Status:	Delivered	Delivered To:	Mailroom
Signed for by:	H.FELT	Delivery Location:	THE CAPITOL
Service type:	FedEx Priority Overnight		
Special Handling:	Deliver Weekday; Adult Signature Required		ALBANY, NY, 12224
		Delivery date:	Sep 20, 2021 09:18

Shipping Information:

Tracking number:	283817899500	Ship Date:	Sep 17, 2021
		Weight:	1.0 LB/0.45 KG

Recipient:

Kathy Hochul, Governor, State of New York
NYS Executive Chamber
NY State Capitol Building
ALBANY, NY, US, 12224

Shipper:

Yvonne Simental, Texas Public Policy Foundation
901 Congress Avenue
Austin, TX, US, 78701

Reference

CAF / Seafreeze



Dear Customer,

The following is the proof-of-delivery for tracking number: 283792182027

Delivery Information:

Status:	Delivered	Delivered To:	Receptionist/Front Desk
Signed for by:	A.SHABAZZ	Delivery Location:	1401 CONSTITUTION AVE NW
Service type:	FedEx Priority Overnight		
Special Handling:	Deliver Weekday; Adult Signature Required		WASHINGTON, DC, 20230
		Delivery date:	Sep 20, 2021 12:51

Shipping Information:

Tracking number:	283792182027	Ship Date:	Sep 17, 2021
		Weight:	1.0 LB/0.45 KG

Recipient:
Janet Coit, U.S. Department of Commerce
1401 CONSTITUTION AVE NW
#5128
WASHINGTON, DC, US, 20230

Shipper:
Yvonne Simental,
901 Congress Avenue
Austin, TX, US, 78701

Reference CAF / Seafreeze
Department Number National Marine Fisheries Serv



Dear Customer,

The following is the proof-of-delivery for tracking number: 283814567390

Delivery Information:

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Signed for by:	Z.FERRIS	Delivery Location:	696 VIRGINIA RD
Service type:	FedEx Priority Overnight		
Special Handling:	Deliver Weekday; Adult Signature Required		CONCORD, MA, 01742
		Delivery date:	Sep 20, 2021 10:06

Shipping Information:

Tracking number:	283814567390	Ship Date:	Sep 17, 2021
		Weight:	1.0 LB/0.45 KG

Recipient:

John A. Atilano II, U.S. Army Corps of Engineers
696 VIRGINIA RD
CONCORD, MA, US, 01742

Shipper:

Yvonne Simental, Texas Public Policy Foundation
901 Congress Avenue
Austin, TX, US, 78701

Reference	CAF / Seafreeze
Department Number	New England District



Dear Customer,

The following is the proof-of-delivery for tracking number: 283819902319

Delivery Information:

Status:	Delivered	Delivered To:	Receptionist/Front Desk
Signed for by:	A.SHABAZZ	Delivery Location:	1401 CONSTITUTION AVE NW
Service type:	FedEx Priority Overnight		
Special Handling:	Deliver Weekday; Adult Signature Required		WASHINGTON, DC, 20230
		Delivery date:	Sep 20, 2021 12:51

Shipping Information:

Tracking number:	283819902319	Ship Date:	Sep 17, 2021
		Weight:	1.0 LB/0.45 KG

Recipient:
Gina Raimondo, U.S. Department of Commerce
1401 CONSTITUTION AVE NW
WASHINGTON, DC, US, 20230

Shipper:
Yvonne Simental, Texas Public Policy Foundation
901 Congress Avenue
Austin, TX, US, 78701

Reference CAF / Seafreeze
Department Number Secretary of Commerce



Dear Customer,

The following is the proof-of-delivery for tracking number: 283809992739

Delivery Information:

Status:	Delivered	Delivered To:	Receptionist/Front Desk
Signed for by:	D.DANIEL	Delivery Location:	82 SMITH ST
Service type:	FedEx Priority Overnight		
Special Handling:	Deliver Weekday; Adult Signature Required		PROVIDENCE, RI, 02903
		Delivery date:	Sep 20, 2021 10:19

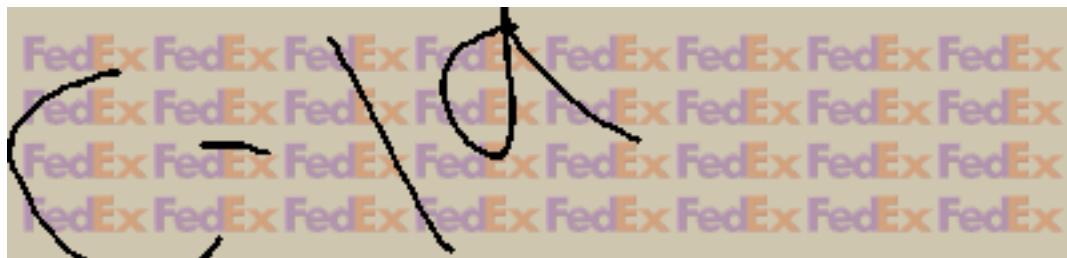
Shipping Information:

Tracking number:	283809992739	Ship Date:	Sep 17, 2021
		Weight:	1.0 LB/0.45 KG

Recipient:
Daniel McKee, Office of the Governor
82 SMITH ST
PROVIDENCE, RI, US, 02903

Shipper:
Yvonne Simental, Texas Public Policy Foundation
901 Congress Avenue
Austin, TX, US, 78701

Reference CAF / Seafreeze
Department Number Governor, Rhode Island



Dear Customer,

The following is the proof-of-delivery for tracking number: 283818512595

Delivery Information:

Status:	Delivered	Delivered To:	Mailroom
Signed for by:	P.SMITH	Delivery Location:	1849 C ST NW 1621
Service type:	FedEx Priority Overnight		
Special Handling:	Deliver Weekday; Adult Signature Required		WASHINGTON, DC, 20240
		Delivery date:	Sep 20, 2021 09:54

Shipping Information:

Tracking number:	283818512595	Ship Date:	Sep 17, 2021
		Weight:	1.0 LB/0.45 KG

Recipient: Deb Haaland, U.S. Department of the Interior 1849 C ST NW WASHINGTON, DC, US, 20240	Shipper: Yvonne Simental, Texas Public Policy Foundation 901 Congress Avenue Austin, TX, US, 78701
--	--

Reference	CAF / Seafreeze
Department Number	Secretary of the Interior

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Dear Customer,

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Delivery Information:

Status:	Delivered	Delivered To:	Mailroom
Signed for by:	A.HARVEY	Delivery Location:	1315 E WEST HWY
Service type:	FedEx Priority Overnight		
Special Handling:	Deliver Weekday; Adult Signature Required		SILVER SPRING, MD, 20910
		Delivery date:	Sep 20, 2021 10:04

Shipping Information:

Tracking number:	283810285558	Ship Date:	Sep 17, 2021
		Weight:	1.0 LB/0.45 KG

Recipient:
Catherine Marzin, U.S. Department of Commerce
1315 E WEST HWY
13th Floor
SILVER SPRING, MD, US, 20910

Shipper:
Yvonne Simental, Texas Public Policy Foundation
901 Congress Avenue
Austin, TX, US, 78701

Reference CAF / Seafreeze
Department Number NOAA Fisheries



Dear Customer,

The following is the proof-of-delivery for tracking number: 283808958152

Delivery Information:

Status:	Delivered	Delivered To:	Shipping/Receiving
Signed for by:	A.ANTHONY	Delivery Location:	4800 MARK CENTER DR
Service type:	FedEx Priority Overnight		
Special Handling:	Deliver Weekday; Adult Signature Required		WASHINGTON, DC, 20301
		Delivery date:	Sep 20, 2021 09:15

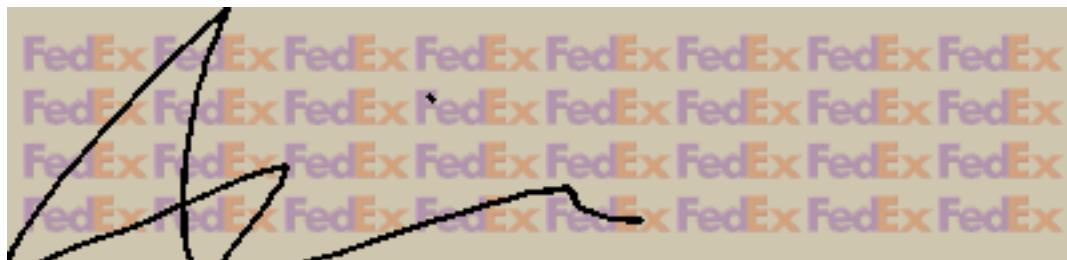
Shipping Information:

Tracking number:	283808958152	Ship Date:	Sep 17, 2021
		Weight:	1.0 LB/0.45 KG

Recipient:
Caroline Krass, U.S. Department of Defense
1000 DEFENSE PENTAGON
WASHINGTON, DC, US, 20301

Shipper:
Yvonne Simental,
901 Congress Avenue
Austin, TX, US, 78701

Reference CAF / Seafreeze
Department Number General Counsel



Dear Customer,

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Special Handling:	Deliver Weekday; Adult Signature Required		BOSTON, MA, 02133
		Delivery date:	Sep 20, 2021 08:55

Shipping Information:

Tracking number:	283812487890	Ship Date:	Sep 17, 2021
		Weight:	1.0 LB/0.45 KG

Recipient:
Charlie Baker, Office of the Governor
24 BEACON ST
#360
BOSTON, MA, US, 02133

Shipper:
Yvonne Simental, Texas Public Policy Foundation
901 Congress Avenue
Austin, TX, US, 78701

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Dear Customer,

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		Delivery date:	Sep 20, 2021 09:54

Shipping Information:

Tracking number:	283792413014	Ship Date:	Sep 17, 2021
		Weight:	1.0 LB/0.45 KG

Recipient:
Amanda Lefton, The Bureau of Ocean Energy Mgmt
1849 C Street NW
WASHINGTON, DC, US, 20240

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Yvonne Simental,
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Austin, TX, US, 78701

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EXHIBIT C



May 24, 2021

By E-Mail

Gina M. Raimondo, Secretary of Commerce
U.S. Department of Commerce
1401 Constitution Ave NW
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Amanda Lefton, Director
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Re: 60-Day Notice of Intent to Sue: Violations of Endangered Species Act Section 7 – Legally Deficient Biological Opinion for Vineyard Wind Offshore Energy Project and Related Incidental Take Authorization and Incidental Harassment Authorization

To whom it may concern:

This firm represents Nantucket Residents Against Turbines (“ACK Rats”), whose members live and/or own property on Nantucket Island, Massachusetts. The members of ACK Rats will be affected by the proposed Vineyard Wind offshore wind energy project (the “Vineyard Wind Project”) recently approved by the Bureau of Ocean Energy Management (“BOEM”). The Vineyard Wind Project will consist of up to 100 wind turbines located on a federal leasehold of 166,866 acres (Lease Area OCS-A 0501), located approximately 14 miles south of Nantucket Island and Martha’s Vineyard.

On September 11, 2020, the National Marine Fisheries Service (“NOAA Fisheries”) issued a Biological Opinion (BiOp) for the Vineyard Wind Project, granting Vineyard Wind authority to “take” a variety of federally-listed species that reside in or use the Project Area, as that term is defined in the BiOp. Among the listed species for which take authority was granted is the North Atlantic right whale (“right whale”), one of the most imperiled animals in the world. Despite the right whale’s declining population and rapid slide toward extinction, the BiOp inexplicably determined that the Vineyard Wind project – which is located in one of the last right whale foraging and nursery strongholds on the Atlantic coast and which will involve thousands of miles of vessel



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trips through right whale habitat – will not jeopardize the species. As explained below, this determination is not supported by the evidence and thus is arbitrary and capricious, resulting in a violation of the Endangered Species Act (ESA). The BiOp’s findings regarding Project-related impacts on other federally-listed species, including the Atlantic sturgeon and four sea turtle taxa, also lack evidentiary support and thus are arbitrary and capricious.

On behalf of ACK Rats, we have reviewed the BiOp closely and determined that it fails to meet the legal requirements set forth in the ESA, as interpreted and applied by the federal courts of the United States. Therefore, pursuant to ESA section 11(g)(2)(A)(i), ACK Rats hereby provides the following 60-Day Notice of Intent to Sue NOAA Fisheries and BOEM 60-days over the BiOp. (16 U.S.C. § 1540(g)(2)(A)(i).) If NOAA Fisheries and BOEM do not correct the defects discussed below within the 60-day notice period, ACK Rats will file an action in federal district court and request an order declaring the BiOp invalid.

Procedural Objection to the Vineyard Wind Biological Opinion

NOAA Fisheries issued the BiOp for the Vineyard Wind project on September 11, 2020. Approximately three months later, on December 1, 2020, Vineyard Wind formally withdrew its entire project from further consideration by BOEM. This withdrawal effectively rendered moot the BiOp issued on September 11, 2020.

Then, on or about January 22, 2021, Vineyard Wind “reapplied” to BOEM for approval of the offshore wind project it had previously withdrawn. BOEM and NOAA Fisheries should have treated this “reapplication” as a new application requiring an updated BiOp. BOEM and NOAA Fisheries, however, did not prepare a new or updated BiOp. Thus, the new Vineyard Wind Project – i.e., the one for which Vineyard Wind applied on January 22, 2021 – currently has no valid BiOp and no take authorization. To the extent, BOEM and NOAA Fisheries believe the BiOp issued on September 11, 2020 “covers” the new Project, they are in error. Simply put, the September 2020 BiOp addressed a project that was formally and completely withdrawn. The new project, regardless of its similarities to the withdrawn project, requires its own BiOp.

Legal Requirements for Biological Opinions

Under ESA section 7(a)(2), “[e]ach federal agency *shall . . . insure* that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the adverse modification of [critical] habitat of such species.” 16 U.S.C. § 1536(a)(2) (emphasis added); see also *Water Keeper Alliance v. U.S. Dep’t of Def.*, 271 F.3d 21,25 (1st Cir. 2001). To satisfy its duty to protect against jeopardy or adverse modification, agencies must give the benefit of the doubt to the species in question – here, the right whale and other species discussed in the BiOp – and to place the burden of risk and uncertainty on the proposed action. See *Sierra Club v. Marsh*, 816 F.2d 1376, 1386 (9th Cir. 1987).



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The ESA's substantive protections are implemented, in part, through consultation between the acting agency (here, BOEM) and the agency with jurisdiction over the conservation and recovery of the listed species in question (here, NOAA Fisheries). 16 U.S.C. §1536. When there is evidence that a proposed action may adversely affect a listed species, the wildlife agency (NOAA Fisheries) must prepare a biological opinion that evaluates the impacts of the proposed action on listed species and their critical habitat. If NOAA Fisheries finds that the proposed action is likely to jeopardize a listed species or adversely modify critical habitat, NOAA Fisheries must propose reasonable and prudent alternatives, if available, that will mitigate the proposed action so as to avoid jeopardy and/or adverse modification of critical habitat. 16 U.S.C. § 1536(b); *Idaho Dep't of Fish & Game v. Nat'l Marine Fisheries Service*, 56 F.3d 1071 (9th Cir. 1995).

In addition, ESA section 7(a)(1) mandates that federal agencies “utilize their authorities in furtherance of the purposes of this chapter by carrying out programs for the conservation or endangered species and threatened species listed” under the Act. 16 U.S.C. § 1536(a)(1). Like the duty to avoid jeopardy, the duty to advance and assist the conservation of listed species is discharged, in part, through the acting agency’s consultation with NOAA Fisheries. *Id.* A program of “conservation” is one that brings the species to the point of recovery and delisting. 16 U.S.C. § 1532(3).

Finally, when preparing a biological opinion, NOAA Fisheries must use “the best scientific and commercial data available.” 16 U.S.C. § 1536(a)(2); 50 CFR Part 402.14(g)(8). Further, the scientific data must support the ultimate conclusions drawn in the biological opinion regarding jeopardy and adverse modification. In other words, a biological opinion is arbitrary and capricious if it fails to “consider the relevant factors and articulate a rational connection between the facts found and the choice made.” *Center for Biological Diversity v. U.S. Bureau of Land Management*, 698 F.3d 1101, 1121 (9th Cir. 2012), citing *Natural Res. Def. Council v. U.S. Dep't of the Interior*, 113 F.3d 1121, 1124 (9th Cir. 1997).

Substantive Defects in the Biological Opinion

Even if NOAA Fisheries and BOEM intend to use the September 2020 BiOp for purposes of granting take authorization for the 2021 Vineyard Wind project, the BiOp itself is legally deficient for the reasons set forth below:

1. The BiOp is unclear as to the number and size of the wind turbine generators (WTGs). It is critical that this information be stable and reliable, because when the number of WTGs goes down, the size of the WTGs goes up. And the larger the WTG, the more pile driving it requires. The BiOp must analyze and explain whether the switch from fewer but larger

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WTGs will alter, one way or the other, the amount and intensity of pile driving in the Project Area.

2. The BiOp never provides the number of estimated vessel miles traveled, which is the only meaningful metric when determining vessel strike risks on North Atlantic right whales and other marine animals, such as the federally-listed Atlantic sturgeon and the four federally-listed sea turtles identified in the BiOP.¹ It is not enough to disclose the number of vessel trips; it is the *length* of those trips that determines whether and to what extent the vessels pose a risk to federally-listed whales, fish, and turtles.
3. The BiOp cites no evidence for the claim that each monopile will require only 3 hours of pile driving. This is a critical omission, given that the BiOp’s “no jeopardy” finding and take authorization determinations rely on Vineyard Wind’s assertion that no more than 3 hours of pile driving will occur with respect to each monopile.
4. The BiOp indicates that some of the monopiles may be installed via vibratory driving as opposed to impact driving. Yet, the BiOp does not analyze the effects of this pile driving method on right whales or the other federally-listed species known to reside in or use the Project Area.
5. The BiOp does not clearly or adequately disclose how many vessel trips and vessel miles will be required to lay the cables that (1) connect the WTGs together and (2) connect the Project’s wind array to onshore transfer facilities. As a result, the BiOp underreports and/or under-analyzes the impacts of vessel strikes on right whales and other federally-listed species.
6. The BiOp admits that procurement for offshore installation activities will require vessel trips from a variety of mainland ports. However, the BiOp also admits that the ports of origin are currently unknown. This makes it impossible to calculate the number of vessel miles that will be traveled to and from the wind array for purposes of WTG installation. Without this information, it is likewise impossible to determine the vessel strike risk to right whales and other federally-listed species.
7. The vessel miles traveled issue is especially important in scenarios where procurement ships will be traveling from ports in Canada (e.g., Sheets Port, St. John, and Halifax), as these ports are more than 400 miles from the WGA installation site. Moreover, ships from

¹ The four federally-listed sea turtles are (1) the loggerhead sea turtle, (2) the leatherback sea turtle, (3) the green sea turtle, and (4) the Kemp’s Ridley sea turtle.

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these ports will travel through seas known to be used by the right whale and other federally-listed species. In failing to account for the vessel miles traveled by ships transiting between the project installation site and Canadian ports, the BiOp underreports the vessel strike risks to right whales, Atlantic sturgeon, and federally-listed sea turtles.

8. The BiOp's "No Jeopardy" determination as to project impacts on right whales is based on the successful implementation of various "detect and avoid" measures. These measures, however, are so diluted by exceptions, qualifications, and loopholes as to be functionally meaningless. Thus, they cannot be used to support any "take" or "no jeopardy" determination. In issuing a BiOp that does not protect right whales from jeopardy, NOAA Fisheries has violated Section 7 of the ESA. 16 U.S.C. § 1536(a)(2).
9. The BiOp is inconsistent and unclear as to when project-related vessels must travel at speeds less than 10 knots. The BiOp refers to so many overlapping exceptions and qualifications to the 10-knot speed limit that one has no idea what rule will be enforced under any given circumstance. Strict compliance and enforcement of the 10-knot vessel speed limit is imperative to reducing vessel strikes on right whales, Atlantic sturgeon, and federally-listed sea turtles. Reduced vessels speeds would also minimize harm to these species (including mortality) if vessel strikes occur.
10. The BiOp indicates that Vineyard Wind will engage in "soft start" pile driving consisting of three single hammer strikes at 40 percent hammer energy, followed by at least a one-minute delay before full energy hammer strikes begin. Although the BiOp does not discuss the purpose of the "soft start" procedure, it is clearly being proposed as a means of "warning" whales and other federally-listed species and encouraging them to leave the action area. Consequently, the "soft start" functions as a form of active, purposeful harassment/hazing that is not incidental to the action in question (i.e., construction and operation of offshore wind farms.) Such purposeful harassment/hazing is a "take" not authorized under the ESA.
11. The BiOp's "take" determinations and "no jeopardy" finding vis-à-vis right whales are based, in part, on the implementation of "seasonal" protections for the species. The BiOp acknowledges, however, that right whales are present in the project action area year-round. Thus, the proposed seasonal protections will not adequately safeguard the resident/non-migratory population of whales. For this reason, the BiOp fails to provide an adequate take analysis and further fails to protect right whales from jeopardy.
12. The BiOp's "take" and "no jeopardy" determinations rely heavily on the ability of vessel-based Protected Species Observers (PSOs) to visually scan the ocean surface and detect

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right whales at distances sufficient to allow the vessel to alter course and avoid a collision. The BiOp also relies on PSOs to locate whales that might enter the project impact area during pile driving. There is no evidence, however, that PSOs are effective at detecting right whales under these conditions or for these purposes. First, the BiOp only requires two PSOs to be on watch at any given time. Second, the Project Area, as defined in the BiOp, is huge and cannot be surveilled by two PSOs at a time. Third, PSOs cannot see whales more than a few feet below the surface, and many whale strikes happen below the draft-depth of vessels. Fourth, the PSOs will not be able to effectively detect whales on the surface unless the seas are almost completely calm, a situation that rarely occurs in the Project Area. Moderate to high seas – with corresponding swells – will obscure whales during the brief moments when they surface to breathe or feed. Moreover, Nantucket and the seas around it are among the foggiest areas in the entire country, especially during June and July, two of the months when project-related pile driving is scheduled to occur. The fog rolls in quickly, often too fast for the kind of adjustments Vineyard Wind would have to make to avoid collisions with whales. Fifth, unlike some marine mammals, right whales have no dorsal fin, which makes them even harder to detect visually on the water’s surface. For these reasons, the BiOp’s reliance on the PSO “detect and avoid” measures proposed by Vineyard Wind is misplaced and will result in excessive take of right whales. Such take will also result in jeopardy to the species. Reliance on PSOs to protect other federally-listed species in the Project Area is likewise misplaced.

13. The Reasonably Prudent Measures (RPMs) described in the BiOp provide a “feasibility” exception to pile during limitations, under which Vineyard Wind can continue pile driving even in the presence of right whales or other listed species if halting the pile driving work is not feasible. This exception makes the pile driving protections and limitations meaningless, as it gives Vineyard Wind complete discretion as to when and under what circumstances they can be disregarded. In other words, the BiOp is deficient because it does not define “feasibility” or describe the criteria that must be met before Vineyard Wind can claim that a given pile during limitation is “not feasible.”
14. The RPMs described in the BiOp provide a “practicability” exception to pile during limitations, under which Vineyard Wind can continue pile driving even in the presence of right whales or other listed species if halting the pile driving work is not practicable. This exception makes the pile driving protections and limitations meaningless, as it gives Vineyard Wind complete discretion as to when and under what circumstances they can be disregarded. In other words, the BiOp is deficient because it does not define the term “practicable” or describe the criteria that must be met before Vineyard Wind can claim that a given pile during limitation is “not practicable.”

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15. Vessel speed limits are subject to a host of exceptions, qualifications, and loopholes, thereby reducing their ability to protect right whales and other listed species from unauthorized take and jeopardy.
16. The seasonal restriction on pile driving (Jan 1- April 30) does not protect year-round resident whales.
17. The BiOp fails to provide an adequate, complete, and legally compliant analysis of project impacts on the survival and recovery of the right whale. This is an especially glaring omission, given the precarious state of right whale populations in New England. Recent reports – i.e., post-COVID – indicate the right whale is having something of a “baby boom”, as 18 calves have been spotted during the last calving season. This likely is the result of COVID-related reductions in large vessels in the area. The BiOp must examine whether this nascent recovery will be impeded or stopped altogether by the Project and the renewal of intense human activity in or near right whale calving areas.
18. The BiOp relies on the 2005 Recovery Plan for the right whale, but that plan is now 15 years old and does not account for recent data showing sharp declines in right whale population numbers.
19. The BiOp fails to acknowledge that the PSOs will not be able to see effectively at night. There is not prohibition on vessels transiting at night; nor does the BiOp prohibit pile driving at night, provided it begins in the daylight hours.
20. The BiOp does not require that PSOs be independent of Vineyard Wind. Without such independence, the PSOs will be subject to “corporate capture” and thus less likely to call for a shutdown of vessel traffic or pile driving when right whales and other listed species may be present in the Project Area.
21. The BiOp is unclear whether all transit vessels will be assigned PSOs. The PSO requirement seems to apply only to pile driving activities. Transit vessels are allowed to rely on crew members, all of whom will be incentivized to keep boats running, even if whales are detected. This protocol, to the extent it can be called one, provides little assurance that right whales and other federally-listed species will be adequately protected.
22. To protect right whales and other federally-listed species, the BiOp applies a 10-knot speed limit to vessels 65 feet or greater in length. However, Vineyard Wind can circumvent this speed limit by using ships that are 64 feet in length or less. The BiOp fails to assess this contingency or provide RPMs that would address it.

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23. The BiOp does not address the project's construction and operational impacts on right whale echolocation and navigation.
24. The BiOp does not consistently address or analyze impacts on right whales for the entire "Project area" as defined on page 35.
25. The BiOp does not clearly or adequately analyze whether the WTGs, when operational, will emit noise or vibrations capable of affecting whales and other federally-listed species.
26. The BiOp fails to adequately assess project-related impacts on right whales in light of recent evidence showing that the species has shifted its feeding grounds to areas in and near the WDA and other portions of the Project Area. (See, pp. 50, 98.)
27. The BiOp's no jeopardy determination is based on unsubstantiated and/or outdated whale carcass recovery percentages. As a result, the BiOp underestimates the number of right whales the Project will take and correspondingly fails to make a proper jeopardy finding.
28. The BiOp's no jeopardy determination fails to account for recent sharp declines in right whale populations. It also fails to account for the extremely low abundance number for the species, which is now less than 400 individuals. Given the low number of right whales and the consistent loss of calf-bearing females, the BiOp should analyze and explain how project-related take of any individual could be absorbed without jeopardizing the species as a whole. The BiOp, however, provides no such analysis or explanation and is therefore deficient as a matter of law.
29. The data discussed in the BiOp demonstrates that the right whale is in serious peril and headed toward extinction; yet the BiOp concludes that the Project will not hasten this trend nor impede the species' recovery. This conclusion is not supported by the evidence. To the contrary, most of the recent right whale sightings have occurred south of Nantucket Island, precisely where the Vineyard Wind Project is to be installed. This suggests a high likelihood of project-to-whale conflict and interaction, resulting in potential harm to the species. (See p. 98.)
30. The BiOp admits that human-derived threats to the right whale are worsening (p. 53) but does not factor this trend into the jeopardy analysis.
31. The BiOp admits that "North Atlantic right whales' resilience to perturbations is expected to be very low" (p. 54) but does not address this fact in its jeopardy analysis.

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32. The BiOp recognizes that shipping, along with commercial fishing, accounts for most right whale injuries and deaths (p. 55), but inexplicably concludes that project-related vessels will be able to avoid all contact with the species.
33. The BiOp acknowledges that right whales spend most of their time (72%) within 33 feet of the water's surface, making them "particularly vulnerable to ship strike . . ." (p. 98.) Yet, the BiOp's "take" and "no jeopardy" determinations ignore this finding and, in the absence of any evidence or analysis, conclude that no right whales will sustain vessel strikes. This is the quintessence of an arbitrary and capricious determination by a federal agency.
34. The BiOp indicates that right whale "hot spots" are located just offshore of the Muskeget Channel and within the Project Area (namely, the offshore export cable corridor or "OECC"). Again, this suggests a high probability of interaction between project-related activities and right whales, leading to adverse impacts, including take and potential jeopardy. Yet the BiOp ignores these facts.
35. The BiOp provides clear evidence of recent mortal vessel strikes on right whales. (pp. 108-109.) But then the BiOp disregards this evidence when making determinations as to take and jeopardy. This is arbitrary and capricious.
36. The BiOp fails to assess vessel strike risk to right whales and other federally-listed species in the context of the already-crowded shipping lanes in or near the Project Area. In addition, the BiOp assumes that right whales and other federally-listed species will move out of Project Area as an "avoidance response" to pile drilling noise; however, if this is true, these animals, in their efforts to swim away from the pile driving noise, will likely enter areas of high vessel traffic, increasing the risk of ship strikes. This impact is not analyzed in the BiOp.
37. The BiOp's analysis of operational noise and vibration impacts on right whales and other federally-listed species is inadequate, as it is based data from wind turbines that are substantially smaller and emit less noise than those proposed for the Vineyard Wind Project. In a recent article in *The Journal of the Acoustical Society of America*, titled "How Could Operational Underwater Sound from Future Offshore Wind Turbines Impact Marine Life?", scientists found that 10 MW wind turbines with gear boxes create enough noise to cause behavioral changes in marine mammals more than 6 kilometers away.² The affective distance is reduced to 1.4 kilometers when the wind turbines use direct drive technology

² Uwe Stober and Frank Thomsen, "How Could Operational Underwater Sound From Future Offshore Wind Turbines Impact Marine Life?", *The Journal of the Acoustical Society of America*, 149, 1791 (2021).

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instead of gear boxes, but the BiOp does not indicate whether Vineyard Wind will be employing gear boxes or direct drives to operate the Project's WTGs. Nor does the BiOp require, as a Reasonable and Prudent Measure, that Vineyard Wind equip each WTG with direct drive technology as a means of reducing operational noise impacts on right whales and other listed species. This represents a failure on the part of NOAA Fisheries to adequately protect right whales and the other listed species within its jurisdiction. Note that this article referenced above recommended that impact studies, such as the SEIS and BiOp for Vineyard Wind, pay close attention to "taxa that are sensitive to low frequency sound, such as baleen whales and fishes." As NOAA Fisheries is aware, right whales are baleen whales and thus warrant the special attention described in the article.

38. According to the BiOp, Vineyard Wind has given itself the option of using wind turbines of various sizes, including turbines larger than those originally studied in the EIS. The BiOp must correct this omission by analyzing operational underwater noise generated by the largest turbines contemplated for the Project. To our knowledge, such an analysis has not yet been conducted.
39. The BiOp improperly accepts Vineyard Wind's position that the project will result in no Level A harassment of right whales. That position is based on the unproven and unsubstantiated efficiency of Vineyard Wind's proposed "detect & avoid" measures – the very same measures that include a host of exceptions, qualifications, and loopholes. (See, p. 138.)
40. BiOp improperly and without evidence assumes that PSOs will be able to adequate surveil a right whale clearance zone that is 10 kilometers in size, as is proposed from 5/1 to 5/14 and 11/1 to 12/31. (p. 140.)
41. The BiOp, without technical or scientific support, assumes that right whales and other listed species disrupted by pile driving will return to their original locations once the 3-hour pile driving session ends. (See p. 149.)
42. The BiOp improperly limits its evaluation of vessel strikes to the WDA and OECC. (pp. 186-187.) It should include the entire Project Area, which consists of the WDA, the OECC, and the vessel transit corridors.
43. The BiOp admits that it can only predict increases in vessel traffic for the WDA and OECC – not the entire Project Area. The BiOp says that "this is the only portion of the action area that we have an estimate of baseline trips." (p.208.) This leaves out the areas where vessels will be transiting between mainland ports and the WDA.



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44. The BiOp does not clearly indicate whether the proposed “minimization measures” are mandatory and enforceable.
45. The BiOp lists the Dynamic Management Areas (DMAs) established for right whales between 2014 and 2020. (pp. 199-205.) The list shows that the vast majority of these DMAs are located South of Nantucket, in or near the Project Area. This demonstrates that the Project Area is a major right whale population area, thus increasing the likelihood of project-related conflicts with the whales. The BiOp did not take these data into account when making determinations as to right whale “take” and “jeopardy”.
46. The BiOp acknowledges that vessel strikes can occur when whales are below the water’s surface and cannot be visually detected. (p. 206.) Nevertheless, the BiOp’s take and jeopardy determinations ignore this fact.
47. The BiOp admits that carcass recovery is a poor means for determining the number of whale deaths. (p.207.) Yet the BiOp uses this metric, despite its unreliability, to conclude that no right whales will be killed by vessel strikes.
48. The BiOp’s “reasonable and prudent measures” (RPMs) do not appear to include steps to protect right whales from vessel strikes. Rather, the RPMs appear focused exclusively on pile driving noise impacts.
49. The BiOp’s environmental baseline does not account for the other proposed offshore wind projects currently proposed on federal leaseholds adjacent to or in the vicinity of the Vineyard Wind leasehold (Lease Area OCS-A 0501). BOEM and NOAA Fisheries are aware of these nearby projects, as they were the subject of the Supplement to the Environmental Impact Statement (SEIS) that BOEM recently adopted via a Record of Decision on May 11, 2021. These planned offshore wind projects, when combined with Vineyard Wind, will occupy approximately 1,400,000 acres or more than 2060 square miles, which is roughly the size of the state of Delaware. By not including these other offshore wind projects in the environmental baseline, the BiOp grossly underreports the potential impacts on right whales and other listed species from vessel strikes and other human activities connected to the installation and operation of the proposed wind arrays.

Conclusion

For the reasons discussed in this 60-Day Notice, NOAA Fisheries and BOEM cannot rely on the BiOp issued on September 11, 2020 for purposes of authorizing Vineyard Wind to take of federally-listed species incidental to the 2021 Vineyard Wind Project. Further, the BiOp’s

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deficiencies render it incapable of supporting a “no jeopardy” finding as to project-related threats and impacts to the right whale.

In summary, not only was the BiOp prepared in response to a project that was formally withdrawn in December 2020, the BiOp itself is substantively deficient and does not meet the minimum legal requirements of the ESA. By adopting the BiOp and authorizing Vineyard Wind to take and jeopardize the survival of federally-listed species, including the right whale, NOAA Fisheries has acted arbitrarily and capriciously in violation of federal law. Note also that BOEM may not “abrogate its responsibility to ensure that its actions will not jeopardize right whales merely by relying on a biological opinion.” *Strahan v. Roughead*, 910 F.Supp. 358, 381 (D.Mass. 2012). This is especially true when the biological opinion is flawed. *Id. See also Wild Fish Conservancy v. Salazar*, 628 F.3d 513, 532 (9th Cir. 2010).

If NOAA Fisheries does not correct the deficiencies described herein within the 60-day notice period provided by statute, ACK Rats will file suit in federal court and request an order invalidating the BiOp. Thank you for your attention to this matter.

Sincerely,



David P. Hubbard
Gatzke Dillon & Ballance, LLP
Counsel for ACK Rats

EXHIBIT D



United States Department of the Interior

BUREAU OF OCEAN ENERGY MANAGEMENT
WASHINGTON, DC 20240-0001

Ms. Rachel Pachter
Chief Development Officer
Vineyard Wind 1 LLC
700 Pleasant Street, Suite 510
New Bedford, Massachusetts 02740

Dear Ms. Pachter:

This letter informs you that the Bureau of Ocean Energy Management (BOEM) approves the Construction and Operations Plan (COP) that Vineyard Wind 1 LLC submitted on December 19, 2017, for the Vineyard Wind 1 Offshore Wind Energy Project on commercial lease OCS-A 0501 offshore Massachusetts. BOEM's approval is subject to the enclosed conditions, pursuant to 30 C.F.R. § 585.628(f)(1).

In conjunction with this COP approval, and pursuant to both 30 C.F.R. § 585.200(b) and Section 6 of lease OCS-A 0501, BOEM hereby grants the project easement Vineyard Wind 1 requested in the COP. Please find enclosed updated copies of Addenda A and D, depicting the project easement for commercial lease OCS-A 0501.

To maintain compliance with the approved COP, Vineyard Wind 1 LLC must submit annual reports certifying compliance with the enclosed conditions of approval, pursuant to 30 C.F.R. § 585.633(b). These reports are due annually starting on December 31, 2021.

The first year's rent payment of \$17,155 for the project easement is due within 45 days of receipt of this letter. For the next year and for each subsequent year, annual rent for the entire lease area – which now includes the project easement area – is due on each Lease Anniversary. Accordingly, the next annual rent payment is due on April 1, 2022.

This letter constitutes a final BOEM decision that may be appealed pursuant to 30 C.F.R. § 585.118.

If you have any questions, please contact Meredith Lilley, Energy Program Specialist, Office of Renewable Energy Programs, at meredith.lilley@boem.gov or (703) 787-1037.

Sincerely,

JAMES
BENNETT

Digitally signed by JAMES
BENNETT
Date: 2021.07.15
22:14:16 -04'00'

James F. Bennett
Program Manager
Office of Renewable Energy Programs

Enclosures

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF OCEAN ENERGY MANAGEMENT

Conditions of Construction and Operations Plan Approval
Lease Number OCS-A 0501
July 15, 2021

The Lessee's right to conduct activities under the approved Construction and Operations Plan (COP) is subject to the following conditions. The Department of the Interior (DOI) reserves the right to amend these conditions or impose additional conditions authorized by law or regulation on any future approvals of COP revisions.

The Lessee must maintain a full copy of these terms and conditions on every project-related vessel and is responsible for the implementation of, or the failure to implement, each of these terms and conditions by the Lessee's contractors, consultants, operators, or designees.

Section:

1. [GENERAL PROVISIONS](#)
2. [TECHNICAL CONDITIONS](#)
3. [NAVIGATIONAL AND AVIATION SAFETY CONDITIONS](#)
4. [NATIONAL SECURITY CONDITIONS](#)
5. [CONDITIONS RELATED TO PROTECTED SPECIES AND HABITAT](#)
6. [CONDITIONS RELATED TO COMMERCIAL FISHERIES, FOR-HIRE RECREATIONAL FISHING, AND ENVIRONMENTAL JUSTICE](#)
7. [CONDITIONS RELATED TO CULTURAL RESOURCES](#)

Attachments:

1. [LIST OF ACRONYMS](#)
2. [RHODE ISLAND AND MASSACHUSETTS STRUCTURE LABELING PLOT](#)

1 GENERAL PROVISIONS

1.1 Adherence to the Approved COP, Statutes, Regulations, Permits, and Authorizations (Planning) (Construction) (Operations) (Decommissioning).¹ Vineyard Wind 1 LLC (Lessee)² must conduct all activities as proposed in its approved COP for the Vineyard Wind 1 Project (Project) and these associated terms and conditions. Additionally, the Lessee must comply with all applicable requirements in commercial lease OCS-A 0501 (Lease), statutes, regulations, and permits and authorizations issued by Federal and state agencies for the Project. The Bureau of Ocean Energy Management (BOEM) and/or the Bureau of Safety and Environmental Enforcement (BSEE), as applicable,³ may issue a notice of noncompliance, pursuant to 30 C.F.R. § 585.400(b), if it is determined that the Lessee failed to comply with any provision of its approved COP, the Lease, the Outer Continental Shelf Lands Act (OCSLA), or OCSLA's implementing regulations. BOEM and/or BSEE may also take additional actions pursuant to 30 C.F.R. § 585.400, where appropriate.

1.2 Effectiveness (Construction) (Operations). This COP approval becomes effective on the date BOEM notifies the Lessee that its COP has been approved, and will remain effective until the termination of the Lease, which has an operations term of 33 years from the date of COP approval. This COP approval does not authorize the commencement of Outer Continental Shelf (OCS) construction activities prior to June 1, 2022.

1.3 Consistency with Other Agreements and Authorizations (Planning) (Construction) (Operations) (Decommissioning). In the event that these terms and conditions are, or become, inconsistent with the terms and conditions of the Project's Biological Opinion (BiOp) issued on September 11, 2020, Incidental Harassment Authorizations (IHAs) issued for the Project, the Section 106 Memorandum of Agreement (Section 106 MOA) executed on May 7, 2021, or amendments thereto, the language in the BiOp, IHAs, Section 106 MOA, or amendments thereto, will prevail. Activities authorized herein will be subject to any terms and conditions and reasonable and prudent measures resulting from a BOEM-reinitiated consultation for the Project's BiOp.

¹ Parenthetical indicators of “(Planning) (Construction) (Operations) and/or (Decommissioning)” at the start of a condition denote the primary development stage(s) to which the condition is relevant.

² Throughout this document, the term “Lessee” includes the Lessee and its designated operator(s), as well as the Lessee’s or designated operator’s agents, which may include: contractors; sub-contractors; consultants; operators; designees; and any other entity, organization, or person who is directly or indirectly conducting activities associated with this COP approval on behalf of the Lessee.

³ At the time these terms and conditions were drafted, DOI’s BOEM and BSEE were in the process of transferring enforcement authorities from BOEM to BSEE. These terms and conditions were drafted to best reflect the expected transfer of those authorities. When conditions describe Lessee submissions to DOI, the Lessee should coordinate with BOEM and confirm whether the submittal should be made to BOEM or BSEE.

2 TECHNICAL CONDITIONS

2.1 Unexploded Ordnance and/or Discarded Military Munitions Investigation (Planning).

The Lessee must investigate the areas of potential disturbance for the presence of unexploded ordnance (UXO) and/or discarded military munitions (DMM) and evaluate the risk in accordance with the As Low as Reasonably Practical (ALARP) risk mitigation principle. Implementation of the ALARP risk mitigation principle is achieved with the following steps: (i) desktop study (DTS); (ii) investigation surveys to determine the presence of objects; (iii) identification surveys to determine the nature of the identified objects; (iv) UXO removal; (v) UXO relocation and/or construction re-routing; and (vi) installation.

2.1.1 UXO/DMM DTS (Planning). The Lessee must submit a DTS to DOI for review and concurrence no later than the date the Fabrication and Installation Report (FIR) is submitted to DOI. The DTS must include an evaluation of the installation risk based on: the proposed construction methodologies; the entire Project footprint; areas of potential disturbance (anchorage areas, turbine and scour protection, cable route, etc.); the probability of UXO/DMM presence; and the mobility of sediments and UXO/DMM. The DTS must also identify the specific types of UXO/DMM that qualify as munitions of concern, and potential mitigation strategies, such as removal and re-routing. Finally, the DTS must provide specific recommendations for the Investigation Survey, as appropriate, including:

2.1.1.1 The areas to be surveyed;

2.1.1.2 Survey line spacing and sensor heights;

2.1.1.3 The width of the survey corridor;

2.1.1.4 The minimum iron content for targets;

2.1.1.5 Details about the testing and proofing of survey methods; and

2.1.1.6 A request for a waiver of the requirements included in Sections 2.1.2 through 2.1.5 if the Lessee does not believe further UXO/DMM study is necessary to ensure safe construction and installation activities.

2.1.2 UXO/DMM Investigation Survey Plan (Planning). Unless a waiver request is approved pursuant to Section 2.1.1.6, the Lessee must submit an Investigation Survey Plan to DOI for review and concurrence prior to the installation of facilities in the Investigation Survey area. The Investigation Survey Plan must describe the areas that need further investigation as discussed in the DTS. The Investigation Survey Plan must include information on the proposed survey vessel, equipment, methodologies, and schedule for the Investigation Survey of

the areas identified and must provide the anticipated date of submittal of its UXO/DMM Investigation Survey Report to DOI as described in Section 2.1.3 below.

If the Investigation Survey Plan is not consistent with the recommendations included in the DTS, the Investigation Survey Plan must discuss in detail the deviations and the associated rationale.

2.1.3 **UXO/DMM Investigation Survey Report (Planning)**. Unless a waiver request is approved pursuant to Section 2.1.1.6, the Lessee must submit an Investigation Survey Report for DOI review and concurrence prior to the installation of facilities in the Investigation Survey area. This report must include the following:

- 2.1.3.1 A detailed discussion of utilized methodologies;
- 2.1.3.2 A summary and detailed description of the findings;
- 2.1.3.3 A separate list of those findings that identify any conditions different from those anticipated and discussed in the DTS;
- 2.1.3.4 Recommendations for the Identification Survey methods and equipment, if appropriate;
- 2.1.3.5 A statement attesting that the installation methods and UXO/DMM mitigation strategies discussed in the FIR and the DTS are suitable given the results of the Investigation Survey. Alternatively, the Lessee may submit a detailed discussion of alternative installation methods and/or UXO/DMM mitigation strategies the Lessee has determined to be appropriate given the results of the Investigation Survey; and
- 2.1.3.6 A request for a waiver of the requirements included in Sections 2.1.4 and 2.1.5, if the Lessee does not believe further UXO/DMM study is necessary to ensure safe construction and installation activities in the Investigation Survey area.

2.1.4 **UXO/DMM Identification Survey Plan (Planning)**. Unless a waiver request is approved pursuant to Section 2.1.1.6 or 2.1.3.6, the Lessee must submit an Identification Survey Plan to DOI for review and concurrence prior to the installation of facilities in the Identification Survey area. The Identification Survey Plan must describe the areas that need further investigation as discussed in the DTS and the Investigation Survey Report. The Identification Survey Plan must: include information on the proposed survey vessel, equipment, methodologies, and schedule for the Identification Survey of the

areas identified; and provide the anticipated date of submittal of its UXO/DMM Identification Survey Report to DOI. As described in Section 2.1.5, the Identification Survey Report must be submitted to DOI prior to commencing installation activities in the Identification Survey area. If the Identification Survey Plan is not consistent with the recommendations included in the DTS and Investigation Survey Report, the Identification Survey Plan must discuss in detail the deviations and the associated rationale.

2.1.5 **UXO/DMM Identification Survey Report** (Planning). Unless a waiver request is approved pursuant to Section 2.1.1.6 or 2.1.3.6, the Lessee must submit an Identification Survey Report for DOI review and concurrence prior to the installation of facilities in the Identification Survey area. This report must include the following:

- 2.1.5.1 A detailed discussion of utilized methodologies;
- 2.1.5.2 A summary and detailed description of the findings;
- 2.1.5.3 A separate list of findings that identify conditions different from those anticipated and discussed in the DTS and the Investigation Survey Report; and
- 2.1.5.4 A statement attesting that the installation methods and UXO/DMM mitigation strategies discussed in the FIR, DTS, and/or Investigation Survey Report are consistent with the results of the Identification Survey, accepted engineering practices, and applicable best management practices. Alternatively, the Lessee may submit a detailed discussion of alternative installation methods and/or UXO/DMM mitigation strategies that the Lessee has determined to be appropriate given the results of the Identification Survey, accepted engineering practices, and applicable best management practices.

2.1.6 **UXO/DMM Survey Results Implementation** (Construction). The Lessee must implement the mitigation methods identified in the approved COP, DTS, and the subsequent survey report(s) following the resolution of all comments provided by DOI. The Lessee must make the information on implementation and installation activities associated with Section 2.1 available to the approved Certified Verification Agent (CVA) and DOI for review as part of the FIR prior to commencing commercial activities.

2.2 **Safety Management System** (Planning) (Construction) (Operations) (Decommissioning). Pursuant to 30 C.F.R. § 585.810, a lessee, designated operator, contractor, or subcontractor constructing, operating, or decommissioning renewable

energy facilities on the OCS must have a Safety Management System (SMS). The Lessee must provide a description of the SMS that will guide all activities described in the approved COP (hereafter the “Wind Development Area (WDA)’s Primary SMS”). BSEE will supply further guidance on the WDA’s Primary SMS content and process until DOI concurs that the SMS is fully functional.

- 2.2.1 The WDA’s Primary SMS must include a diving safety program or describe how it will ensure a contractor has a diving safety program that is in accordance with the U.S. Coast Guard (Coast Guard) regulations for Commercial Diving Operations at 46 C.F.R. part 197, subpart B, or updated standards, as appropriate. In so providing a diving safety program, the Lessee is required to consult with the Coast Guard.
- 2.2.2 The WDA’s Primary SMS must include a fall protection program, and, separately, describe how the WDA’s Primary SMS will ensure that contractors working at height will have a fall protection program that complies with the American National Standards Institute (ANSI)/American Society of Safety Engineers (ASSE) Z-359.2 Minimum Requirements for a Comprehensive Managed Fall Protection Program, or an updated version of this standard or a related standard.
- 2.2.3 The WDA’s Primary SMS must identify and assess risks to health, safety, and the environment associated with the offshore wind farm structures and operations, and must include an overview of the physical and procedural barrier(s) that will be used and maintained to mitigate the identified risks. The annual SMS reports (see Section 2.2.5) must discuss the operability and physical condition of the identified barriers and any changes made to the barrier systems.
- 2.2.4 The WDA’s Primary SMS is expected to evolve as activities progress from site characterization through construction, operations, and eventually to decommissioning, typically, by acknowledging the new risks that will be faced by a shifting workforce, and by incorporating work practices and operating procedures specific to managing those risks. Pursuant to 30 C.F.R. § 585.811, the WDA’s Primary SMS must be fully functional for all relevant activities prior to their commencement. The Lessee must demonstrate, to DOI’s satisfaction, the functionality of the WDA’s Primary SMS no later than 30 calendar days prior to beginning the relevant activities, as described in the approved COP. The Lessee can demonstrate the WDA’s Primary SMS functionality through various means. The following list provides examples, neither exhaustive nor prescriptive, of ways the WDA’s Primary SMS functionality can be demonstrated.

2.2.4.1 If the Lessee has a similar SMS that is functioning elsewhere, the Lessee can demonstrate the proper functioning of the SMS by sharing certifications of that SMS from a recognized accreditation organization (e.g., International Organization for Standardization (ISO)/International Electric Code (IEC) 450001, ANSI Z10, API RP 75 4th or later edition) or by sharing reports of third-party or internal audits of the SMS. The Lessee must also share an explanation of how the Lessee has adapted the audited SMS to become the WDA's Primary SMS.

2.2.4.2 If the Lessee does not have a similar SMS that is functioning elsewhere, demonstration of functionality should include at least one of the following activities:

- A desktop exercise in which the Lessee evaluates how the WDA's Primary SMS functions in response to different scenarios, including an evaluation of the strengths and weaknesses of Lessee's preparedness to control various risks;
- A description of the personnel who have been trained on the WDA's Primary SMS, an overview of the training content, and a description of controls the Lessee has put in place to ensure trained personnel's understanding of and adherence to the WDA's Primary SMS; or
- A detailed description of how the Lessee intends to monitor whether the implementation of the WDA's Primary SMS is achieving the desired goals, and an overview of how the SMS will be adjusted as necessary to control identified risks.

2.2.5 The Lessee is also required to provide BSEE with annual reports, by the anniversary date of DOI's initial concurrence with the WDA's Primary SMS, highlighting: (1) changes that have been made to the WDA's Primary SMS; (2) successes and challenges regarding the implementation of the WDA's Primary SMS; and (3) evidence of the functionality of the WDA's Primary SMS, specifically how the WDA's Primary SMS has driven continual improvement in safety and environmental performance. If DOI determines that changes to the WDA's Primary SMS were significant, DOI will review the changes and ask for any additional details or clarification as required. The Lessee must revise and resubmit its WDA's Primary SMS description if DOI does not concur with the Lessee's changes.

2.2.6 In addition to maintaining an acceptable and functional WDA Primary SMS, the Lessee, designated operator, contractor, and subcontractor constructing, or operating, or decommissioning renewable energy facilities on the OCS, are required to follow the policies and procedures of the specific SMS applicable to their activities, and to take corrective action whenever there is a failure to follow the specific SMS or the specific SMS failed to ensure safety.

2.3 **Oil Spill Response Plan (Planning)**. Pursuant to 30 C.F.R. § 585.627(c), the Lessee must submit an Oil Spill Response Plan (OSRP) in compliance with 33 U.S.C. § 1321, including information identified in 30 C.F.R. part 254 that is applicable to the Lessee's activities. The Lessee must submit the OSRP directly to BSEE (at bseeosrd-gomr@bsee.gov). Before the installation of any component of the Lessee's facilities that may handle or store oil on the OCS, BSEE must review and accept the Lessee's OSRP. The Lessee's OSRP must be consistent with the National Contingency Plan and appropriate Area Contingency Plan(s), as defined in 30 C.F.R. § 254.6. In order to continue operating, the Lessee must operate in accordance with the OSRP accepted by BSEE.

The Lessee's OSRP must contain the following information:

2.3.1 **Facility Information**. The OSRP must describe the type and amounts of oil on the facilities covered under the Lessee's OSRP, and design parameters intended to monitor for oil spills.

2.3.1.1 As used herein, "Oil," as defined by Clean Water Act at 33 U.S.C. 1321(a), means oils of any kind or in any form, including, but not limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil. However, "oil," does not include animal fats, oils, and greases, and fish and marine mammal oils, or oils of vegetable origin, including oils from seeds, nuts, or kernels. Dielectric fluids, as an example, meets this definition of oil. "Facility," for the purposes of the Lessee's OSRP, is a facility as defined in 30 C.F.R. § 585.112 that contains or stores oil.

2.3.2 **Copies of Safety Data Sheets**. The OSRP must include copies of safety data sheets (SDS) for any oils present on any facility in quantities equal to or greater than 100 gallons.

2.3.3 **The Worst-Case Discharge Volume**. The OSRP must include the worst-case discharge (WCD) volume for each type of facility covered in the plan.

2.3.3.1 The "Worst-Case Discharge Volume" is the highest cumulative volume of oil and all other oil-based substances contained on a single

facility, such as an electrical service platform (ESP) or wind turbine generator (WTG).

2.3.3.2 Calculating the Lessee's WCD volume(s):

- For all facilities (e.g., wind turbine generators (WTGs) or other support structures) other than ESPs and transmission lines, the WCD is the highest total volume of oil and oil-based substances contained onboard or within the facility, including all cables containing oil that are connected to the facility, except for transmission lines.
- For an ESP, the WCD is the highest total volume of oil and oil-based substances contained within the facility, including all cables containing oil that are connected to the facility, except for transmission lines.
- For transmission lines that contain oil, the WCD is the maximum volume of oil and oil-based substances that can be contained within the transmission line with the highest oil storage capacity and any storage tanks that may supply oil to the cable.

2.3.4 **Response Organization.** The OSRP must identify a trained Qualified Individual (QI), and an alternate, who have full authority to implement removal actions and ensure immediate notification of appropriate Federal officials and response personnel. The OSRP must provide these individuals' 24-hour contact information, including phone numbers and e-mail addresses. In the OSRP that covers the ESP(s), the Lessee must also designate trained members of the Lessee's Incident Management Team (IMT), and provide their 24-hour contact information, including phone numbers and e-mail addresses. If a contract has been established with an IMT, evidence of such a contract must be provided in the Lessee's OSRP.

2.3.4.1 “Qualified Individual” means an English-speaking representative of the Lessee located in the United States, available on a 24-hour basis, and with full authority to obligate funds, carry out removal actions, and communicate with the appropriate Federal officials and the persons providing personnel and equipment in removal operations.

2.3.4.2 “Incident Management Team” means the group of personnel identified to staff the organizational structure to manage the overall response to an incident in accordance with the Lessee's OSRP. The

IMT consists of the Incident Commander, Command and General Staff, and other personnel assigned to key Incident Command System positions designated in the Lessee's OSRP.

- 2.3.4.3 “Oil Spill Removal Organization” (OSRO) is an entity contracted by the Lessee to provide spill response equipment and/or manpower in the event of an oil spill.
- 2.3.4.4 “Spill Response Operating Team” (SROT) means the trained persons who respond to spills and deploy and operate oil-spill response equipment.
- 2.3.5 **Notification Procedures**. The OSRP must describe the procedures for spill notification. Notification procedures must include the 24-hour contact information for:
 - 2.3.5.1 The QI and an alternate, including phone numbers and e-mail addresses;
 - 2.3.5.2 IMT members, if applicable;
 - 2.3.5.3 Federal, state, and local regulatory agencies that must be notified when a spill occurs, including but not limited to the National Response Center;
 - 2.3.5.4 An OSRO and SROT that are available to respond; and
 - 2.3.5.5 Other response organizations and subject matter experts that the Lessee will rely on for the Lessee's response.
- 2.3.6 **Spill Mitigation Procedures**. The OSRP must describe the different discharge scenarios that could occur from the Lessee's facilities and the mitigation procedures by which the offshore facility operator and any listed/contracted OSROs (if required) would respond to such discharges. The mitigation procedures must address responding to both smaller spills (with slow, low-volume leakage) and larger spills to include the largest WCD covered under the Lessee's OSRP (refer to definition above).
- 2.3.7 **Trajectory Analysis**. The OSRP that covers the ESP(s) must include a stochastic spill trajectory analysis from the ESP(s). The trajectory analysis must:
 - 2.3.7.1 Be based on the WCD volume from the ESP that is closest to shore;

- 2.3.7.2 Be conducted for the longest period of time that the discharged oil would reasonably be expected to persist on the water's surface, or 14 calendar days, whichever is shorter; and
- 2.3.7.3 Identify the probabilities for oiling on the water's surface and on shorelines, and minimum travel times for the transport of the oil over the duration of the model simulation. Oiling probabilities and minimum travel times must be calculated for exposure threshold concentrations reaching 10 grams per square meter. Stochastic analysis must incorporate a minimum of 100 different trajectory simulations using random start dates selected over a multi-year period.
- 2.3.8 **Resources at Risk.** The OSRP must include a concise list of the sensitive resources that are located near the Lessee's offshore facility and could be oiled by a spill. In lieu of listing sensitive resources, the Lessee may identify the areas that could be oiled by a spill from the Lessee's facility and provide hyperlinks to corresponding Environmentally Sensitive Index Maps and/or Geographic Response Strategies for those areas from the appropriate Area Contingency Plans.
- 2.3.9 **Contractual Agreements.** The OSRP must include a list of OSROs and SROTs that are available to respond to the WCD of oil from the Lessee's offshore facilities and their contact information.
 - 2.3.9.1 If the Lessee's OSRP covers only WTGs, the Lessee may provide a Letter of Intent (LOI) in lieu of a contract from each OSRO and SROT in the Lessee's plan acknowledging that it has agreed to be listed in the Lessee's OSRP.
 - 2.3.9.2 In the OSRP that covers the ESP(s), the Lessee is required to ensure the availability of the OSRO and SROT resources necessary to respond through a contract or membership agreement. If a contract has been established with an OSRO and SROT, evidence of such contracts or membership agreements must be provided in the Lessee's plan. An LOI is not required from any OSRO or SROT that has been ensured to be available through a contract.
 - 2.3.9.3 The OSRP must also include a map(s) that shows equipment storage sites and staging location(s) for the oil spill response equipment that would be deployed by the facility operators or the OSRO(s) listed in the plan in the event of a discharge.

2.3.10 Training. The OSRP must include a description of the annual training necessary to ensure that the QI, IMT, OSRO and SROT (as applicable) are sufficiently trained to perform their respective duties. The Lessee's OSRP must provide the most recent dates of applicable training(s). The Lessee must ensure that the Lessee's QI, IMT, OSRO, and SROT personnel receive annual training. The training must be sufficient for personnel to perform their duties. Training records must be maintained and retained for 3 years and must be provided to BSEE upon request.

2.3.11 Response Plan Exercise. The OSRP must include a triennial exercise plan for review and concurrence by BSEE to ensure that the Lessee is able to respond quickly and effectively whenever oil is discharged from the Lessee's facilities. The Lessee must conduct an annual scenario-based notification exercise, an annual scenario-based IMT tabletop exercise, and, during the triennial exercise period, at least one functional exercise. If the Lessee's plan includes an OSRO and/or SROT contract, an annual deployment exercise of the Lessee's contracted response equipment is required. BSEE will advise on the options the Lessee has to satisfy these requirements and may require changes in the type, frequency, or location of the required exercises, exercise objectives, equipment to be deployed and operated, or deployment procedures or strategies. BSEE may evaluate the results of the exercises and advise the Lessee of any needed changes in response equipment, procedures, tactics, or strategies. BSEE may periodically initiate unannounced exercises to test the Lessee's spill preparedness and response capabilities. Exercise records must be maintained and retained for 3 years and must be provided to DOI upon request.

2.3.12 Response Equipment. The OSRP that covers the ESP(s) must: include a list, or a hyperlink to a list, of the oil spill response equipment that is available to the Lessee through OSRO contracts; and identify the location of the equipment depots where the equipment is stored. The Lessee must: ensure that the Lessee's contracted response equipment is maintained in proper operating condition; further ensure that all maintenance, modification, and repair records are kept for a minimum of 3 years; and provide these records to BSEE upon request. The Lessee or the Lessee's OSRO must provide BSEE with physical access to the Lessee's equipment storage depots and perform functional testing of the Lessee's response equipment upon BSEE's request. BSEE may require maintenance, modifications, or repairs to response equipment or require the Lessee to remove response equipment from the Lessee's plan if it does not operate in accordance with its intended purpose.

2.3.13 OSRP Maintenance. If the Lessee makes a significant change to its OSRP that would reduce the Lessee's ability to respond to: a spill, a significant increase in

the Lessee's WCD, removal of a contracted IMT, OSRO, or SROT from the Lessee's plan, or a significant change in the applicable area contingency plans, the Lessee must revise its OSRP to remedy these problems and provide notice to BSEE no more than 15 calendar days after said change for review and concurrence. The Lessee must review and update the entire OSRP as needed at intervals not to exceed once every 3 years, starting from the date the OSRP was initially accepted. The Lessee must send a written notification to BSEE upon completion of this review and submit any updates for concurrence. BSEE may require changes to the Lessee's OSRP if BSEE determines that the OSRP is outdated or contains significant inadequacies through review of the Lessee's OSRP, information obtained during exercises or actual spill responses, or other relevant information obtained by BSEE.

2.4 **Cable Routings** (Planning). The Lessee must submit the final Cable Burial Risk Assessment (CBRA) and engineered cable routings for all cable routes on the OCS to DOI for review prior to or with the submittal of the FDR. The final CBRA must include information on: (a) natural and man-made hazards; (b) sediment mobility, including high and low seabed levels expected over the Project lifetime; (c) feasibility and effort level information required to meet burial targets; and (d) profile drawings of the cable routings illustrating cable-burial targets along with the stable seabed depth. The Lessee must resolve any DOI-identified comments and concerns about the CBRA to DOI's satisfaction prior to the installation of cables and related facilities authorized in the Lessee's approved COP.

2.5 **Cable Protection Measures** (Planning) (Construction) (Operations). As described in the approved COP, the export and inter-link cable is expected to be installed using simultaneous lay and bury via jet plowing, or one of the other techniques listed in Section 4.2.3.3.2 of Volume I of the approved COP. Other methods may be needed in areas of coarser or more consolidated sediment, rocky bottom, or other difficult conditions to ensure a proper burial depth, and it is expected that achieving proper burial depth may be difficult in some areas. In these areas, where proper burial depth cannot be achieved, the Lessee will employ cable protection measures through techniques such as placing rocks or prefabricated flexible concrete coverings on top of the cable (referred to as concrete mattresses), or using half-shell pipes/similar products made from composite materials/cast iron with suitable corrosion protection.

As described in the approved COP, the use of cable protection measures will not exceed 10 percent of the total cable routing. This is in accordance with the initial CBRA's estimated length of cable protection of 3.4 miles (5.5 kilometers), or 8.4 percent of the cable route.

2.5.1 For the purpose of the approved COP, DOI has determined the proper burial depth to be a minimum of 4.9 feet (1.5 meters) along Federal sections of the

export cable, inter-link, and inter-array cables, as measured from the stable seabed to the top of the cable. This depth is consistent with the approved COP and the cable burial performance assessment provided in the initial CBRA. The Lessee must employ cable protection measures when proper burial depth is not achieved and provide DOI with detailed drawings/information of the actual burial depths and locations where protective measures were used, when the post-installation reports are submitted.

- 2.5.2 If the Lessee cannot comply with the requirements in Section 2.5.1, the Lessee must provide for DOI's review information explaining any proposed alteration of the requirements in that Section, including the need for the proposed alteration, and must resolve any DOI concerns and objections to such alteration to DOI's satisfaction prior to or with the FIR submission.
- 2.6 Crossing Agreements (Planning). The Lessee must provide final cable crossing agreements for active, in-service submarine cables, or other types of infrastructure, such as pipelines, to DOI no later than 30 calendar days prior to cable installation.
- 2.7 Post-Installation Cable Monitoring (Construction) (Operations). The Lessee must provide DOI with a cable monitoring report within 60 calendar days following each inter-array and export cable inspection to determine cable location, burial depths, the state of the cable, and site conditions. Inspections of the inter-array and export cables must: include high resolution geophysical (HRG) methods, involving, for example, multi-beam bathymetric survey equipment; and identify seabed features, natural and man-made hazards, and site conditions along Federal sections of the cable routing.
 - 2.7.1 On the OCS, the Lessee must conduct the initial inter-array and export cable inspection within 6 months of commissioning, and subsequent inspections at Years 1 and 2, and every 3 years thereafter, and within 180 calendar days after a major storm event (as defined in the Post-Storm Monitoring Plan, described in Section 2.10). If DOI determines that conditions along the cable corridor warrant adjusting the frequency of inspections following the Year 2 survey (e.g., due to changes in cable burial or seabed conditions that may impact cable stability or other users of the seabed), then DOI may require the Lessee to submit a revised monitoring plan to DOI for review and concurrence.
 - 2.7.2 In addition to required inspections, the Lessee must continuously monitor the export cable with the use of an as-built Distributed Temperature Sensing System. If DOI determines that the Distributed Temperature Sensing data indicates that burial conditions have deteriorated or changed significantly and remedial actions are warranted, then the Lessee must submit the following to BOEM (at renewable_reporting@boem.gov) and BSEE (at OSWsubmittals@bsee.gov) within 45 calendar days of the date DOI notifies

the Lessee of its determination: the Distributed Temperature Sensing data, a seabed stability analysis, and a report of remedial actions taken or scheduled. All remedial actions must be consistent with those described in the approved COP and completed in accordance with the schedule provided in the remedial-action report. DOI will review the report of remedial actions and provide comments, if any, on the report within 60 calendar days of its submittal. The Lessee must resolve all comments on the report to DOI's satisfaction. If DOI provides no comments on the report within 60 calendar days of its submittal, then the Lessee may conclusively presume DOI's concurrence with the report.

- 2.7.3 The Lessee must provide to DOI the Distributed Temperature Sensing data, cable monitoring survey data, and cable conditions analysis for each year as part of the Annual Certification of Compliance, as required by 30 C.F.R. § 585.633(b).
- 2.8 **WTG and ESP Foundation Depths (Planning)**. Information on seabed conditions has been provided to depths of up to 131 feet (40 meters) at WTG locations and a depth of 246 feet (75 meters) at ESP locations. If foundation depths are anticipated to exceed these depths, the Lessee must provide for DOI's review with the FDR submission additional information on seabed conditions and geotechnical design parameters, as well as a pile drivability assessment for the additional depths, as requested by DOI. In the event that the specific location of certain Project components differs from the 1 nautical mile x 1 nautical mile layout for which geotechnical investigations have been performed, the Lessee must perform additional borings and/or Cone Penetration Test (CPT) probes at any new locations not already covered by previous investigations extending to depths at least 33 feet (10 meters) below expected foundation tip elevation, along with a pile drivability assessment for each site. The Lessee must provide this data in the FDR along with final foundation designs.
- 2.9 **Minimizing and Monitoring Foundation Scour Protection (Construction) (Operations) (Decommissioning)**. The Lessee must: minimize, to the maximum extent practicable based on design and engineering considerations, the footprint of scour protection measures at the WTG foundations; and inspect scour protection performance. The Lessee must submit an Inspection Plan to DOI and the National Marine Fisheries Service (NMFS) at least 60 calendar days prior to initiating the inspection program. DOI will review the Inspection Plan and provide comments, if any, on the plan within 60 calendar days of its submittal. The Lessee must resolve all comments on the Inspection Plan to DOI's satisfaction and receive DOI's written concurrence prior to initiating the inspection program. However, the Lessee may conclusively presume DOI's concurrence with the Inspection Plan if DOI provides no comments on the plan within 60 calendar days of its submittal.

2.9.1 The Lessee must carry out an initial foundation scour inspection within 6 months of installation completion of each foundation location, and subsequent inspections at a minimum of 20 percent of foundation locations at intervals of 3 years thereafter, and within 180 calendar days after a major storm event (as defined in the Post-Storm Monitoring Plan, described in Section 2.10).

2.9.2 The Lessee must provide DOI with a foundation scour monitoring report within 45 calendar days of completing each foundation scour inspection.

2.9.3 Should scour holes develop within 10 percent of the minimum local scour design values, or if spud depressions from installation affect scour protection stability, the Lessee must submit a plan for additional monitoring and/or mitigation to DOI for review and concurrence.

2.10 Post-Storm Monitoring Plan (Construction) (Operations) (Decommissioning). The Lessee must provide a plan for post-storm monitoring of the facility infrastructure, foundation scour protection, and cables to DOI for review and concurrence prior to commencing installation activities. This plan must: include a description of how the Lessee will measure or monitor environmental conditions; specify the condition thresholds for a major storm, and their associated technical justification(s), above which post-storm monitoring or mitigation is necessary; describe potential monitoring, mitigation, and damage identification methods; and state when the Lessee will notify DOI of post-storm related activities. DOI reserves the right to require post-storm mitigations to address conditions that could result in safety risks and/or impacts to the environment.

2.11 High-Frequency Radar Interference Analysis and Mitigation (Planning) (Construction) (Operations). The Project is within the line of sight (LOS) of seven oceanographic high-frequency (HF) radar systems (SeaSonde and Least Expensive Radar [LERA] types):

<u>Radar Name</u>	<u>Radar System</u>
SQUB	Short Range SeaSonde
LPWR	Medium Range LERA
HBSR	Medium Range LERA
NWTP	Medium Range LERA
MVCO	Long Range SeaSonde
NANT	Long Range SeaSonde
AMAG	Long Range SeaSonde

2.11.1 The Lessee must coordinate with the radar operators identified in the table above and the Surface Currents Program of the National Oceanic and

Atmospheric Administration (NOAA) Integrated Ocean Observing System Office to assess if the Project causes radar interference to the degree that radar performance is no longer within the specific radar systems' operational parameters or fails to meet mission objectives.

- 2.11.2 If, after the above coordination, the radar operator or the Surface Currents Program determines that the Project causes a radar system to fall outside of its operational parameters or fail to meet mission objectives, as soon as possible and no later than 30 calendar days from the date on which the determination was communicated, the Lessee must: (i) notify DOI of the determination; (ii) share time-series data of blade rotation rates, nacelle bearing angles, and other information about the operational state of each turbine in the WDA with the affected radar operator and the Surface Currents Program to aid interference mitigation; and (iii) if available, share real-time telemetry of surface currents and other oceanographic data measured at Project locations selected by the Lessee, in coordination with the affected radar operator and the Surface Currents Program.
- 2.11.3 If a mitigation measure other than that identified in Section 2.11.2 is agreed to by the Lessee, the affected radar operator, and the Surface Currents Program, then the Lessee must submit information on the proposed mitigation measure to DOI for its review and concurrence.

2.12 Commissioning Surveillance of Critical Safety Systems (Planning) (Construction).

Prior to commencing commercial operations, the Lessee must provide to DOI qualified third-party verification of proper installation and commissioning of all critical safety systems and equipment designed to prevent or ameliorate major accidents that could result in harm to health, safety, or the environment (hereinafter "critical safety systems"). The documentation provided to DOI must demonstrate that the qualified third party verified that the critical safety systems for the Project and equipment to be used were commissioned in conformity with the Original Equipment Manufacturer (OEM)'s standards and the Project's functional requirements, and are functioning properly prior to the start of commercial operations.

- 2.12.1 **Qualified Third Party.** A qualified third party must be a technical classification society, a licensed professional engineering firm, or a registered professional engineer capable of providing the necessary certifications, verifications, and reports. The qualified third party must not have been involved in the design of the Project.
- 2.12.2 **Critical Safety Systems and Equipment Risk Assessment.** The Lessee must conduct a risk assessment to identify the critical safety systems and equipment within its facility. The Lessee must submit the risk assessment to DOI and the qualified third party for review. The qualified third party must make a

recommendation to DOI on the acceptability of the risk assessment and its associated conclusions. DOI must concur with the qualified third-party recommendation(s) prior to the Lessee beginning commissioning activities.

2.12.3 **Commissioning Surveillance Requirements.** The qualified third party must evaluate whether the commissioning of the wind farms' critical safety systems and equipment, as identified in the risk assessment, are in conformance with the instructions in OEM manuals and the Project's functional requirements. Other tests to be performed during commissioning may be agreed upon with the Lessee.

This evaluation requires the examination of commissioning records and witnessing of tests. The qualified third party must witness the commissioning of the critical safety systems and equipment of at least one WTG per every 50 WTGs in the Project, rounding up to the nearest 50 (e.g., if 62 WTGs are to be installed, the qualified third party must witness the commissioning of two WTGs). The qualified third party must, at a minimum, verify that:

2.12.3.1 The installation procedures and/or commissioning instructions supplied by the manufacturer and identified in the Project's functional reequipments are adequate;

2.12.3.2 The instructions supplied by the manufacturer and identified in the Project's functional reequipments are followed during commissioning;

2.12.3.3 The systems and equipment function as designed; and

2.12.3.4 The final commissioning records are complete.

2.12.4 **Commissioning Surveillance Reporting.** The Lessee must submit commissioning surveillance records (for example, the final results and acceptance of the commissioning test by the qualified third party) or a Conformity Statement and supporting documentation (prepared in accordance with International Electrotechnical Commission System for Certification to Standards relating to Equipment for use in Renewable Energy applications (IECRE OD-502)) for the critical safety systems identified in Section 2.12.2. DOI must concur with the commissioning surveillance records or Conformity Statement and supporting documentation prior to the Project initiating commercial operations. If DOI has not responded to the commissioning surveillance records or Conformity Statement and supporting documentation submitted by the qualified third party within 3 working days, then the Lessee may presume concurrence.

2.13 As-Built Drawings (Construction) (Operations) (Decommissioning). The Lessee must compile, retain, and make available to DOI the following drawings and documents, as provided in the chart below.

<u>Drawing Type</u>	<u>Time frame to make available issued for construction drawings</u>	<u>Time frame to make available post-fabrication drawings</u>	<u>Time frame to make available final, stamped as-built drawings</u>
Complete set of structural drawing(s) including major structural components and evacuation routes	With FDR submittal	N/A	Within 1 calendar year of the facility commencing commercial operations ⁴
Front, side, and plan view drawings	With FDR submittal	N/A	Within 1 calendar year of the facility commencing commercial operations
Location plat for all Project facilities	With FDR submittal	N/A	Within 1 calendar year of the facility commencing commercial operations
Complete set of cable drawing(s)	With FDR submittal	Prior to Final FIR Non-Objection as contemplated in 30 C.F.R. § 585.700(b) ⁵	Within 90 calendar days of the facility commencing commercial operations
Piping and instrumentation diagram(s)		N/A	Within 90 calendar days of the facility commencing commercial operations
Safety flow diagram(s) ⁶	With FDR submittal	N/A	Within 90 calendar days of the facility commencing commercial operations
Electrical one-line drawing(s)		Prior to Final FIR Non-Objection	Within 90 calendar days of the facility commencing commercial operations
Cause and Effect Chart		Prior to Final FIR Non-Objection	Within 90 calendar days of the facility commencing commercial operations
Schematics of the fire and gas-detection system(s)		Prior to Final FIR Non-Objection	Within 90 calendar days of the facility commencing commercial operations

⁴ “Commercial operations” is defined at 30 C.F.R. § 585.112.

⁵ As-installed location must be submitted with the final FIR.

⁶ Safety flow diagrams should depict the location of critical safety systems and equipment designed to prevent or ameliorate major accidents that could result in harm to health, safety, or the environment.

3 NAVIGATIONAL AND AVIATION SAFETY CONDITIONS

3.1 Design Conditions (Planning) (Construction) (Operations).

3.1.1 **Marking.** The Lessee must mark each WTG and ESP with private aids to navigation. No sooner than 30 and no less than 15 calendar days prior to installation, the Lessee must file an application (form CG-2554), either in paper form or electronically, with the Commander of the First Coast Guard District to establish Private Aids to Navigation (PATON), per 33 C.F.R. part 66. Approval must be obtained before installation of the Lessee's facilities begins. The Lessee must:

3.1.1.1 Provide a lighting, marking, and signaling plan for review and concurrence by DOI and the Coast Guard at least 120 calendar days prior to installation. The plan must conform to applicable Federal law and regulations, and guidelines established by: the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) Recommendation R0139 (O-139) The Marking of Man-Made Offshore Structures; the Coast Guard's Local Notice to Mariners (D1 LNM: 33/20) on Ocean-Structure PATON Marking Guidance; and BOEM's Guidelines for Lighting and Marking of Structures Supporting Renewable Energy Development (April 28, 2021). Should any part of Recommendation O-139 conflict with Federal law or regulation, or if the Lessee seeks an alternative to Recommendation O-139, then the Lessee must consult with and gain approval from the Coast Guard;

3.1.1.2 Mark each individual WTG and ESP with clearly visible, unique, alpha-numeric identification characters consistent with the attached Rhode Island and Massachusetts Structure Labeling Plot;

3.1.1.3 Light each WTG and ESP in a manner that is visible by mariners in a 360-degree arc around the WTG and ESP;

3.1.1.4 Light each WTG with red obstruction lighting compatible with night-vision goggles and consistent with the Federal Aviation Administration (FAA) (Advisory Circular (AC) 70/7460-1M);

3.1.1.5 Provide signage, which is visible to mariners in a 360-degree arc around the structures, warning vessels of the air draft below the turbine blades as determined at highest astronomical tide;

- 3.1.1.6 Cooperate with the Coast Guard and NOAA to ensure that cable routes, ESPs, and WTGs are depicted on appropriate government-produced and commercially available nautical charts;
- 3.1.1.7 Provide mariner information sheets on the Lessee's website, with details on the location of the WTGs and ESP(s) and specifics such as blade clearance above sea level; and
- 3.1.1.8 Submit documentation to DOI within 90 calendar days of beginning commercial operations documenting compliance with Sections 3.1.1.1 through 3.1.1.7.

3.1.2 **Blade/Nacelle Control.** The Lessee must equip all WTG rotors (blade assemblies) with control mechanisms constantly operable from the Lessee's control center.

- 3.1.2.1 Control mechanisms must enable the Lessee to immediately initiate the shutdown of any requested WTGs upon notification from the Department of Defense (DoD) or the Coast Guard. The Lessee must include a formal shutdown procedure in its Emergency Response Plan's Standard Operating Procedures and test this procedure on a regular basis as outlined in the Lessee's annual inspection plan. The Lessee must submit the results of testing with the Project's annual inspection results.
- 3.1.2.2 The DoD or Coast Guard may request rotor shutdown. The Lessee must immediately initiate emergency shutdown when ordered by the DoD or Coast Guard. Coast Guard-requested shutdowns will be limited to those WTGs in the immediate vicinity of an emergency and limited to the period of time the Coast Guard determines is needed to safely respond to the emergency triggering the emergency shutdown. The Lessee may resume operations only upon notification from the entity (DoD or Coast Guard) that initiated the shutdown. DOI will coordinate with the Lessee and DoD or Coast Guard to facilitate issuance of said notice as soon as resuming operation of the WTGs is not expected to interfere with the emergency that prompted the shutdown.
- 3.1.2.3 The Lessee must work with the Coast Guard to establish the proper blade configuration during WTG shutdown for Coast Guard search and rescue air assets.
- 3.1.2.4 The Lessee must participate in Coast Guard periodic coordinated training and exercises to test and refine notification and shutdown

procedures, and to provide search and rescue training opportunities for Coast Guard Command Centers, vessels, and aircraft.

- 3.1.3 **Helicopter Landing Platforms.** If the Lessee's ESP(s) include helicopter landing platforms, the Lessee must design and build those platforms to accommodate Coast Guard HH60 rescue helicopters. The design must be verified by the DOI-approved CVA.
- 3.1.4 **Structure Micrositing.** The Lessee must not adjust approved structure locations in a way that narrows any northwest-southeast or northeast-southwest transit corridors to less than 0.6 nautical miles. The Lessee must submit the final as-built structure locations as part of the as-built documentation outlined in Section 2.13.
- 3.1.5 **Emergency Response Plan.** Prior to construction of the Project, the Lessee must submit an Emergency Response Plan to address non-routine events for review and concurrence by DOI and the Coast Guard. Annually, the Lessee must submit any revisions of the plan for review and concurrence by the Coast Guard. The Lessee must submit to DOI revisions to the Emergency Response Plan accepted by the Coast Guard. The Emergency Response Plan must demonstrate that the control center will be adequately staffed to execute the standard operating procedures, communications capabilities with the Coast Guard, and monitoring capabilities over the Project. The Emergency Response Plan must address the following, which the Lessee may modify with concurrence from the Coast Guard:
 - 3.1.5.1 **Standard Operating Procedures.** Methods for: (i) establishing and testing WTG rotor shutdown and braking; (ii) lighting control; (iii) notifying the Coast Guard of mariners in distress or potential/actual search and rescue incidents; (iv) notifying the Coast Guard of any events or incidents that may impact maritime safety or security; and (v) providing the Coast Guard with environmental data, imagery, communications and other information pertinent to search and rescue or marine pollution response.
 - 3.1.5.2 **Staffing.** The number of personnel intended to staff the control center to ensure continuous monitoring of WTG operations; communications and surveillance systems; hours of operation; job qualification requirements; and initial, on-the-job, and refresher training requirements.
 - 3.1.5.3 **Communications.** Description of the capabilities to be maintained by the control center to communicate with the Coast Guard and mariners within and in the vicinity of the WDA. Control center

communications capability must include, at a minimum, landline and wireless telephone for voice and data. Construction and operations vessel communications capability must include, at a minimum, Very High Frequency (VHF) marine radio.

3.1.5.4 Monitoring. The control center must maintain the capability to monitor the Lessee's installation and operations in real time, including at night and in periods of poor visibility, for: (i) determining the status of all PATONs, immediately reporting discrepancies to the local Coast Guard Sector Command Center (discrepancies must be corrected no later than 21 calendar days after detection); and (ii) searching for and locating mariners in distress upon notification of a maritime distress incident.

- The Lessee must test the monitoring systems to ensure functionality on a regular basis as outlined in the Lessee's annual inspection plan. The Lessee must submit the results of testing to DOI with the Project's annual inspection results.
- The Lessee must contact the Coast Guard immediately if real-time monitoring is unavailable for more than 1 hour. The Lessee must put in place an alternate monitoring plan(s) agreed to by the Coast Guard.
- The Lessee must notify DOI within 24 hours if real-time monitoring becomes unavailable for more than 1 hour.

3.1.5.5 Examples of Non-Routine Events. Non-routine events may include, but are not limited to, area oil spills, major storms, marine incidents, mariners taking refuge within and on the facility. As part of the coordination required under Section 3.1.5, the Lessee must consult with the Coast Guard on the events that must be covered within the Emergency Response Plan.

3.2 Installation Conditions (Planning) (Construction).

3.2.1 Schedule. At least 60 calendar days prior to commencing construction activities, the Lessee must provide DOI and the Coast Guard with a plan that describes the schedule and process for installing the WTGs and ESP(s), including all planned mitigations to be implemented to minimize any adverse impacts to navigation while installation is ongoing. No WTG or ESP installation work may commence at the project site (i.e., on or under the water), without prior review by DOI and the Coast Guard of the plan required under this provision. The Lessee must submit any significant revisions or

updates to the plan at least 60 calendar days prior to commencing the activities described in that update or revision. Appropriate Notice to Mariners submissions must accompany the plan.

- 3.2.2 **Cable Burial**. No later than 60 calendar days post-cable installation, the Lessee must submit to DOI and the Coast Guard a copy of the final submarine cable system route positioning list that depicts the precise location and burial depths of the entire cable system.
- 3.3 **Reporting Conditions** (Planning) (Construction) (Operations) (Decommissioning).
 - 3.3.1 **Complaints**. On a monthly basis, the Lessee must: (1) provide DOI with a description of any complaints received (written or oral) by boaters, fishermen, commercial vessel operators, or other mariners regarding impacts to navigation safety allegedly caused by construction or operations vessels, crew transfer vessels, barges, or other equipment; and (2) describe remedial action(s) taken in response to complaints received, if any. DOI reserves the right to require additional remedial action in accordance with 30 C.F.R. part 585.
 - 3.3.2 **Correspondence**. On a monthly basis, the Lessee must provide DOI and the Coast Guard with copies of any correspondence received from other Federal, state, or local agencies that mention or address navigation safety issues.
 - 3.3.3 **Maintenance Schedule**. On an annual basis, the Lessee must provide DOI and the Coast Guard with its maintenance schedule for any planned WTG or ESP maintenance. Appropriate Notice to Mariners submissions must accompany each maintenance schedule.
- 3.4 **Meeting Attendance** (Planning) (Construction) (Operations). As requested by DOI and the Coast Guard, the Lessee must attend meetings (e.g., Harbor Safety Committee, Area Committee) to provide briefs on the status of construction and operations, and on any problems or issues encountered with respect to navigation safety.
- 3.5 **Area Oil Spill Contingency Planning** (Planning) (Construction) (Operations). The Lessee must participate in any Coast Guard-supported efforts to develop area oil spill contingency plans.
- 3.6 **Periodic Review** (Planning) (Construction) (Operation). Throughout the life of the Project, the Coast Guard will continue to monitor the construction and operation of the Project for purposes of navigation safety and the execution of Coast Guard missions. To the extent it is technically and economically feasible, the Lessee must cooperate with the Coast Guard in this regard, including participation in Coast Guard exercises and evaluations.

4 NATIONAL SECURITY CONDITIONS

4.1 Confirmation that Structures Can Withstand Training Activities (Planning). To prevent interference with the 104th Fighter Wing's ability to train in Warning Area 105, the Lessee must confirm via letter to the United States Air Force (USAF) that the Lessee's structures in the WDA can withstand the daily sonic overpressures (sonic booms) and potential falling debris from chaff and flare dispensed by the USAF. The letter must be signed by an authorized representative of the Lessee and provided to USAF and BOEM no later than 15 calendar days after COP approval.

4.2 Hold and Save Harmless – United States Government. (Planning) (Construction) (Operation). Whether compensation for such damage or injury might be due under a theory of strict or absolute liability or otherwise, the Lessee assumes all risks of damage or injury to any person or property, which occur in, on, or above the OCS, in connection with any activities being performed by the Lessee in, on, or above the OCS, if the injury or damage to any person or property occurs by reason of the activities of any agency of the United States Government, its contractors, or subcontractors, or any of its officers, agents or employees, being conducted as a part of, or in connection with, the programs or activities of the individual military command headquarters (hereinafter “the appropriate command headquarters”) listed below:

United States Fleet Forces (USFF) N46
 1562 Mitscher Ave, Suite 250
 Norfolk, VA 23551
 (757) 836-6206

Notwithstanding any limitation of the Lessee's liability in Section 9 of the Lease, the Lessee assumes this risk whether such injury or damage is caused in whole or in part by any act or omission, regardless of negligence or fault, of the United States, its contractors or subcontractors, or any of its officers, agents, or employees. The Lessee further agrees to indemnify and save harmless the United States against all claims for loss, damage, or injury in connection with the programs or activities of the command headquarters, whether the same be caused in whole or in part by the negligence or fault of the United States, its contractors, or subcontractors, or any of its officers, agents, or employees and whether such claims might be sustained under a theory of strict or absolute liability or otherwise.

4.3 Falmouth Airport Surveillance Radar-8 and Nantucket Airport Surveillance Radar-9 Radar Systems. (Construction) (Operation). To mitigate impacts on the North American Aerospace Defense Command's (NORAD) operation of the Falmouth Airport Surveillance Radar-8 (ASR-8) and the Nantucket ASR-9 Radar, the Lessee must complete the following.

- 4.3.1 **Mitigation Agreement.** The Lessee must enter into a mitigation agreement with the DoD and the Department of the Air Force, for purposes of implementing Sections 4.3.2 and 4.3.3 below. If there is any discrepancy between Sections 4.3.2. and 4.3.3 and the terms of the mitigation agreement, the terms of the mitigation agreement will prevail. Within 15 calendar days of entering into the mitigation agreement, the Lessee must provide BOEM with a copy of the executed mitigation agreement. Within 45 calendar days of completing the requirements in Sections 4.3.2 and 4.3.3, the Lessee must provide BOEM with evidence of compliance with those requirements.
- 4.3.2 **NORAD Notification.** At least 30, but no more than 60, calendar days prior to completion of construction or initiation of commercial operations (whichever is earlier), the Lessee must notify NORAD for Radar Adverse-impact Management (RAM) scheduling, which is required for the Falmouth ASR-8; and
- 4.3.3 **Funding for RAM Execution.** At least 30, but no more than 60, calendar days prior to completion of construction or initiation of commercial operations (whichever is earlier), the Lessee must contribute funds in the amount of \$80,000 to NORAD toward the execution of the RAM.
- 4.4 **Distributed Acoustic Sensing Technology.** (Planning) (Construction) (Operation). To mitigate potential impacts on the Department of the Navy's (DON) operations, the Lessee must coordinate with the DoD/DON on any proposal to utilize distributed acoustic sensing (DAS) technology as part of the Project or associated transmission cables.
- 4.5 **Electromagnetic Emissions.** (Planning) (Construction) (Operation). Before entering any designated defense operating area, warning area, or water test area for the purpose of carrying out any survey activities under the approved COP, the Lessee must enter into an agreement with the commander of the appropriate command headquarters to coordinate the electromagnetic emissions associated with such survey activities. The Lessee must ensure that all electromagnetic emissions associated with such survey activities are controlled as directed by the commander of the appropriate command headquarters. The Lessee must provide BOEM with a copy of the agreement within 15 calendar days of entering into it. The Lessee must include a summary of associated activities in the Lessee's annual self-inspection reports.

5 CONDITIONS RELATED TO PROTECTED SPECIES⁷ AND HABITAT

5.1 General Environmental Conditions.

- 5.1.1 Aircraft Detection Lighting System (Construction) (Operations). The Lessee must use an FAA-approved Aircraft Detection Lighting System (ADLS), which will activate the FAA hazard lighting only when an aircraft is in the vicinity of the wind facility and will reduce the visibility of lighting at night and will reduce visual impacts at night. The Lessee must confirm the use of FAA-approved ADLS in the FIR.
- 5.1.2 Automated Information System on All Project Construction and Operations Vessels, Turbines, and ESPs (Construction) (Operations) (Decommissioning). The Lessee must ensure that an operational Automated Information System (AIS) is installed on all vessels associated with the construction, operation, and decommissioning of the Project. The Lessee must use AIS to mark the location of WTGs and ESPs as required by the Coast Guard. AIS is required to monitor the number of vessels and traffic patterns for analysis and compliance with vessel speed requirements and to make identification of infrastructure easier for non-Project vessels. The Lessee must submit to BOEM a report with the AIS data at the time it submits the certification of compliance required under 30 C.F.R. § 585.633(b).
- 5.1.3 Marine Debris⁸ Awareness and Elimination (Planning) (Construction) (Operations) (Decommissioning).
 - 5.1.3.1 Marine Debris Awareness Training. The Lessee must ensure that vessel operators, employees, and contractors engaged in offshore activities pursuant to the approved COP complete marine trash and debris awareness training annually. The training consists of two parts: (1) viewing a marine trash and debris training video or slide show (described below); and (2) receiving an explanation from management personnel that emphasizes their commitment to the requirements. The marine trash and debris training videos, training slide packs, and other marine debris related educational material may be obtained at <https://www.bsee.gov/debris> or by contacting BSEE. The training videos, slides, and related material may be downloaded

⁷ As used herein, the term “protected species” means species of fish, wildlife, or plant that have been determined to be endangered or threatened under Section 4 of the Endangered Species Act (ESA). ESA-listed species are provided in 50 C.F.R. 17.11-12. The term also includes marine mammals protected under the Marine Mammal Protection Act (MMPA).

⁸ Throughout this document, “marine debris” is defined as any object or fragment of wood, metal, glass, rubber, plastic, cloth, paper, or any other man-made item or material that is lost or discarded in the marine environment.

directly from the website. Operators engaged in marine survey activities must continue to develop and use a marine trash and debris awareness training and certification process that reasonably assures that their employees and contractors are in fact trained. The training process must include the following elements:

- Viewing of either a video or slide show by the personnel specified above;
- An explanation from management personnel that emphasizes their commitment to the requirements;
- Attendance measures (initial and annual); and
- Recordkeeping and the availability of records for inspection by DOI.

5.1.3.2 Training Compliance Report. By January 31 of each year, the Lessee must submit to DOI an annual report that describes its marine trash and debris awareness training process and certifies that the training process has been followed for the previous calendar year. The Lessee must send the reports via email to BOEM (at renewable_reporting@boem.gov) and to BSEE (at marinedebris@bsee.gov).

5.1.3.3 Marking. Materials, equipment, tools, containers, and other items used in OCS activities, which are of such shape or configuration that they are likely to snag or damage fishing devices, and could be lost or discarded overboard, must be clearly marked with the vessel or facility identification and properly secured to prevent loss overboard. All markings must clearly identify the owner and must be durable enough to resist the effects of the environmental conditions to which they may be exposed.

5.1.3.4 Recovery & Prevention. The Lessee must recover marine trash and debris that is lost or discarded in the marine environment while performing OCS activities when such incident is likely to: (a) cause undue harm or damage to natural resources, including their physical, atmospheric, and biological components, with particular attention to marine trash or debris that could entangle, or be ingested by, marine protected species; or (b) significantly interfere with OCS uses (e.g., because the marine trash or debris is likely to snag or damage fishing equipment, or presents a hazard to navigation). The Lessee must notify DOI within 48 hours when recovery activities are: (i) not

possible because conditions are unsafe; or (ii) not practicable because the marine trash and debris released is not likely to result in any of the conditions listed in (a) or (b) above. Notwithstanding this notification, DOI may still order the Lessee to recover the lost or discarded marine trash and debris if DOI finds the reasons provided by the Lessee in the notification unpersuasive. If the marine trash and debris is located within the boundaries of a potential archaeological resource/avoidance area, or a sensitive ecological/benthic resource area, the Lessee must contact DOI for approval prior to conducting any recovery efforts.

Recovery of the marine trash and debris should be completed as soon as practicable, but no later than 30 calendar days from the date on which the incident occurred. If the Lessee is not able to recover the marine trash or debris within 48 hours, the Lessee must submit a recovery plan to DOI explaining the recovery activities to recover the marine trash or debris (Recovery Plan). The Lessee must submit the Recovery Plan no later than 10 calendar days from the date on which the incident occurred. Unless DOI objects within 48 hours of the filing of the Recovery Plan, the Lessee can proceed with the activities described in the Recovery Plan. The Lessee must request and obtain approval of a time extension if recovery activities cannot be completed within 30 calendar days from the date on which the incident occurred. The Lessee must enact steps to prevent similar incidents and must submit a description of these actions to BOEM and BSEE within 30 calendar days from the date on which the incident occurred.

5.1.3.5 Reporting. The Lessee must report to DOI (using the email address listed on DOI's most recent incident reporting guidance) all lost or discarded marine trash and debris. This report must be made monthly, no later than the fifth day of the following month. The Lessee is not required to submit a report for those months in which no marine trash and debris was lost or discarded. The report must include the following:

- Project identification and contact information for the Lessee, operator, and/or contractor;
- The date and time of the incident;
- The lease number, OCS area and block, and coordinates of the object's location (latitude and longitude in decimal degrees);

- A detailed description of the dropped object, including dimensions (approximate length, width, height, and weight) and composition (e.g., plastic, aluminum, steel, wood, paper, hazardous substances, or defined pollutants);
- Pictures, data imagery, data streams, and/or a schematic/illustration of the object, if available;
- An indication of whether the lost or discarded item could be: a magnetic anomaly of greater than 50 nanoTesla; a seafloor target of greater than 1.6 feet (0.5 meters); or a sub-bottom anomaly of greater than 1.6 feet (0.5 meters) when operating a magnetometer or gradiometer, side scan sonar, or sub-bottom profile in accordance with DOI's most recent, applicable guidance;
- An explanation of how the object was lost; and
- A description of immediate recovery efforts and results, including photos.

In addition to the foregoing, the Lessee must submit a report within 48 hours of the incident (48-hour Report) if the marine trash or debris could: (a) cause undue harm or damage to natural resources, including their physical, atmospheric, and biological components, with particular attention to marine trash or debris that could entangle, or be ingested by, marine protected species; or (b) significantly interfere with OCS uses (e.g., because the marine trash or debris is likely to snag or damage fishing equipment, or presents a hazard to navigation). The information in the 48-hour Report must be the same as that listed for the monthly report, but only for the incident that triggered the 48-hour Report. The Lessee must report to DOI if the object is recovered and, as applicable, describe any substantial variance from the activities described in the Recovery Plan that were required during the recovery efforts. The Lessee must include and address information on unrecovered marine trash and debris in the description of the site clearance activities provided in the decommissioning application required under 30 C.F.R. § 585.906.

5.1.4 **As-Built Anchor Plats (Planning) (Construction) (Operations)**. The Lessee must ensure vessel operators use a state-of-the-art positioning system (e.g., a differential global positioning system (DGPS)) on their anchor handling vessel(s) and/or vessels deploying anchors for cable laying activities, dive support vessels, or other vessels used in construction and/or operation within

the WDA to ensure that any seafloor disturbances resulting from their use of anchors, including that caused by the anchors, anchor chains, and/or wire ropes, does not occur within the avoidance area for each seafloor feature and/or anomaly (i.e., magnetometer, side-scan sonar, sub-bottom profiler, and identified historic or pre-contact archaeological sites, biological habitat, UXO and other seafloor hazards). The Lessee must submit plats certified by a professional engineer showing the “as-placed” location of all anchors and any associated anchor chains and/or wire ropes on the seafloor for all seabed-disturbing activities. The plats must be at a scale of 1 inch = 1,000 feet (300 meters) with DGPS accuracy. Within 60 calendar days of completing any seabed-disturbing activity, the Lessee must submit the plats to BOEM (at renewable_reporting@boem.gov) and to BSEE (at env-compliance-arc@bsee.gov) to demonstrate that seabed-disturbing activities complied with avoidance requirements for seafloor features and/or anomalies.

5.1.5 Option to Comply with Most Current Measures (Planning) (Construction) (Operations) (Decommissioning). The Lessee may opt to comply with the most current measures related to protected species and habitat in place at the time an activity is undertaken under the Lease. At least 30 calendar days prior to undertaking an activity, the Lessee must notify DOI of its intention to comply with such measures in lieu of those required under the terms and conditions above in this Section 5. DOI reserves the right to object and/or request additional information on how the Lessee intends to comply with such measures. If DOI does not respond with objections within 15 calendar days of receipt of the Lessee’s notification, then the Lessee may conclusively presume DOI’s concurrence.

5.2 Avian and Bat Protection Conditions.

5.2.1 Bird Deterrent Devices (Construction) (Operations). To minimize bird attraction to operating turbines, the Lessee must install bird-deterrent devices on turbines and ESP(s). ~~OBJ-OB~~. The location of bird-deterrent devices will be proposed by the Lessee based on best management practices applicable to the appropriate operation, and safe installation, of bird-deterrent devices. The Lessee must confirm the location(s) of bird-deterrent devices as part of the as-built documentation it must submit.

5.2.2 Piping Plover Protection Plan (Construction). The Lessee must implement the Piping Plover Protection (PPP) Plan, titled *Piping Plover Protection Plan, Vineyard Wind Connector-Covell’s Beach Landing Site, Barnstable, MA (NHESP File No.: 17-37398; Date: 17 April 2019)*. The Lessee must submit any updates to the PPP Plan to DOI and receive DOI concurrence for all plan amendments. DOI will review any PPP Plan amendments and provide comments, if any, on the amendments within 30 calendar days of their

submittal. The Lessee must resolve all comments on the PPP Plan amendments to DOI's satisfaction prior to implementing them. The Lessee may conclusively presume DOI's concurrence with the PPP Plan amendments if DOI provides no comments on the amendments within 30 calendar days of their submittal. Following demobilization of construction equipment from the Covell's Beach parking area and by January 31, the Lessee must provide a copy of the summary report described in Section V of the PPP Plan to BOEM (at renewables_reporting@boem.gov).

5.2.3 Avian and Bat Monitoring Program (Construction) (Operations). At least 45 calendar days prior to the implementation of surveys, the Lessee must finalize, obtain concurrence from DOI, and implement the Monitoring Plan described in Appendix F.5 of the Final Environmental Impact Statement (FEIS) for the Project (*Vineyard Wind 1 Offshore Wind Farm: Framework for Avian and Bat Monitoring - Draft*) in coordination with interested stakeholders. DOI will review the Monitoring Plan and provide comments, if any, on the plan within 30 calendar days of its submittal. The Lessee must resolve all comments on the Monitoring Plan to DOI's satisfaction prior to implementing the plan. The Lessee may conclusively presume DOI's concurrence with the Monitoring Plan if DOI provides no comments on the plan within 30 calendar days of its submittal date.

The Monitoring Plan must include, at a minimum:

5.2.3.1 Monitoring. The installation of acoustic monitoring devices for birds and bats on the ESP(s); installation of Motus receivers on WTGs in the WDA and support with upgrades or maintenance of two onshore Motus receivers; up to 150 Motus tags per year for up to 3 years to track Roseate Terns, Common Terns, and/or nocturnal passerine migrants; pre- and post-construction boat surveys; and avian behavior point count surveys at the boat-based survey vessel or from turbine platforms.

5.2.3.2 Annual Monitoring Reports. The Lessee must submit to BOEM (at renewable_reporting@boem.gov) a comprehensive report after each full year of monitoring (pre- and post-construction) within 6 months of completion of the last boat-based avian survey. The report must include all data, analyses, and summaries regarding ESA-listed and non-ESA-listed birds and bats. DOI will use the annual monitoring reports to assess the need for reasonable revisions (based on subject matter expert analysis) to the Monitoring Plan. DOI reserves the right to require reasonable revisions to the Monitoring Plan and may require new technologies as they become available for use in offshore environments.

5.2.3.3 Post-Construction Quarterly Progress Reports. The Lessee must submit quarterly progress reports during the implementation of the Monitoring Plan to BOEM and the United States Fish and Wildlife Service (USFWS) by the 15th day of the month following the end of each quarter during the first full year that the Project is operational. The progress reports must include a summary of all work performed, an explanation of overall progress, and any technical problems encountered.

5.2.3.4 Monitoring Plan Revisions. Within 15 calendar days of submitting the annual monitoring report, the Lessee must meet with BOEM and USFWS to discuss the following: the monitoring results; the potential need for revisions to the Monitoring Plan, including technical refinements and/or additional monitoring; and the potential need for any additional efforts to reduce impacts. If DOI determines after this discussion that revisions to the Monitoring Plan are necessary, DOI may require the Lessee to modify the Monitoring Plan. If the reported monitoring results deviate substantially from the impact analysis included in the FEIS the Lessee must make recommendations for new mitigation measures or monitoring methods.

5.2.3.5 Raw Data. The Lessee must store the raw data from all avian and bat surveys and monitoring activities according to accepted archiving practices. Such data must remain accessible to DOI and USFWS, upon request, for the duration of the Lease. The Lessee must work with BOEM to ensure the data is publicly available.

5.2.4 Annual Bird Mortality Reporting (Construction) (Operations) (Decommissioning). By January 31 of each year, the Lessee must submit an annual report to BOEM (at renewable_reporting@boem.gov) and BSEE (at protectedspecies@bsee.gov) and USFWS documenting any dead (or injured) birds or bats found on vessels and structures during construction, operations, and decommissioning. The report must contain the following information: the name of species, date found, location, a picture to confirm species identity (if possible), and any other relevant information. Carcasses with Federal or research bands must be reported to the United States Geological Survey Bird Band Laboratory, at <https://www.pwrc.usgs.gov/bbl/>.

5.2.5 Tree Clearing Time-of-Year Restriction (Construction). The Lessee must not clear trees greater than 3 inches (7.6 centimeters) in diameter at breast height from June 1 to July 31 of any year to protect northern long-eared bats. The Lessee may choose to conduct presence/probable absence surveys pursuant to current USFWS protocols for purposes of requesting and obtaining a waiver from this time-of-year restriction on tree clearing. The Lessee must

submit any requests for waivers from this time-of-year restriction to DOI and such requests must be approved in writing by DOI.

5.3 Benthic Habitat and Ecosystem Monitoring Conditions.

5.3.1 **Benthic Monitoring Plan (Planning).** The Lessee must consider any new information obtained from 5.4.2 (below) and, when appropriate, revise the approved Benthic Monitoring Plan. The Lessee must submit any revisions to the approved benthic monitoring plan to BOEM (at renewable_reporting@boem.gov) and BSEE (at benthic.ecology@bsee.gov). The Lessee must consult with NMFS, the Massachusetts Department of Environmental Protection (MassDEP), and the Massachusetts Division of Marine Fisheries on revisions to the monitoring plan. DOI will review the Benthic Monitoring Plan revisions and provide comments, if any, on the revisions within 30 calendar days of their submittal. The Lessee must resolve all comments on the Benthic Monitoring Plan revisions to DOI's satisfaction prior to implementing them. The Lessee may conclusively presume DOI's concurrence with the Benthic Monitoring Plan revisions if DOI provides no comments on the revisions within 30 calendar days of their submittal. If recovery of impacted benthic habitat is not observed within 5 years, DOI, in consultation with NMFS, reserves the right to require additional monitoring.

5.3.2 **Evaluation of Additional Benthic Habitat Data Prior to Cable Laying (Planning) (Construction).** At least 90 calendar days prior to construction, the Lessee must collect and process a minimum of 75 benthic grabs over the entire length of the Offshore Export Cable Corridor (OECC) with no fewer than 42 of the processed samples drawn from the eastern Muskeget section. At least 90 calendar days prior to construction, the Lessee must also process 60 underwater video transects over the entire length of the OECC, with approximately 28 of the transects from the eastern Muskeget section. The Lessee must use the data collected from benthic grabs and video transects to avoid eelgrass, hard bottom, and structurally complex habitats – including juvenile cod Habitat Areas of Particular Concern (HAPC) – to the maximum extent practicable without deviating from the approved route corridor.

5.3.3 **Optical Surveys of Benthic Invertebrates and Habitat (Operations).** The Lessee must conduct optical drop camera surveys targeting benthic invertebrates and their habitat for durations of, at a minimum, 1 year during pre-construction, 1 year during construction, and 3 years post-construction. Stations must be established on a 0.9-mile (1.5-kilometer) grid, with four (4) samples taken at each station twice per year. The drop camera surveys must emulate the 2012 and 2013 drop camera surveys conducted in the WDA in order to support a Before-After-Control-Impact study design (University of Massachusetts Dartmouth's School for Marine Science and Technology Fishermen

Workshops Report & Studies Recommendations 26 Mar 2019).⁹ The Lessee may adapt the survey methodology over time based on the results obtained and feedback from stakeholders. The Lessee must submit any revisions to the Optical Survey Plan to NMFS and to BOEM at least 30 calendar days before conducting surveys. DOI will review the Optical Survey Plan revisions and provide comments, if any, on them within 30 calendar days of their submittal. The Lessee must resolve all comments on the Optical Survey Plan revisions to DOI's satisfaction before conducting surveys. The Lessee may conclusively presume DOI's concurrence with the Optical Survey Plan revisions if DOI provides no comments on the revisions within 30 calendar days of their submittal.

5.3.4 **Plankton Surveys (Operations)**. The Lessee must conduct plankton surveys to estimate the relative abundance and distribution of planktonic species for durations of, at a minimum, 1 year during pre-construction, 1 year during construction, and 3 years post-construction. These surveys may be conducted in conjunction with other surveys (e.g., ventless trap surveys or bottom trawl surveys).

5.3.5 **Passive Acoustic Monitoring (Planning) (Construction) (Operations)**. The Lessee must deploy moored or autonomous Passive Acoustic Monitoring (PAM) devices to record ambient noise and marine mammal species vocalizations in the WDA a minimum of 30 calendar days before construction activities begin, during all construction activities, and for at least 3 years of operation. The archival recorders must have a minimum capability of detecting and storing acoustic data on vessel noise, pile driving, WTG operation, and marine mammal vocalizations in the WDA. The Lessee must submit the results to BOEM (at renewable_reporting@boem.gov) and BSEE (at protectedspecies@bsee.gov) within 90 calendar days of recorder collection and annually within 90 calendar days of the anniversary of the initial recorder deployments. The underwater acoustic monitoring must follow: standardized measurement and processing methods and visualization metrics developed by the Atlantic Deepwater Ecosystem Observatory Network (ADEON) for the U.S. Mid- and South Atlantic Outer Continental Shelf (see <https://adeon.unh.edu/>); and NMFS requirements for marine mammal detections. At least one buoy must be independently deployed within the WDA, or one or more buoys must be deployed in coordination with other regional acoustic monitoring efforts within the Rhode Island and Massachusetts lease areas. No later than 30 calendar days prior to the first buoy deployment, the Lessee must submit its PAM Plan to BOEM (at renewable_reporting@boem.gov) and BSEE (at protectedspecies@bsee.gov),

⁹ Available at: <https://www.vineyardwind.com/fisheries-science>.

and receive DOI's concurrence on it. DOI will review the PAM Plan and provide comments, if any, on the plan within 30 calendar days of its submittal. The Lessee must resolve all comments on the PAM Plan to DOI's satisfaction prior to implementing the plan. The Lessee may conclusively presume DOI's concurrence with the PAM Plan if DOI provides no comments on the plan within 30 calendar days of its submittal.

5.3.6 **Trawl Survey for Finfish and Squid (Construction) (Operations)**. The Lessee must conduct trawl surveys a minimum of 1 year before, 1 year during, and 3 years after construction. The surveys must not commence until BOEM has notified the Lessee that all necessary ESA section 7 consultations addressing this action have concluded. Specific post-construction protocols for the trawl survey must include:

5.3.6.1 **Year 1 post-construction**. The Lessee must conduct one year of post-construction trawl surveys, consisting of 40 tows (20 in the WDA, and 20 in control areas) four times during the year, with one survey conducted each season. The Lessee must sample a minimum subset of 3 tows in the spring and fall in both the WDA and control sites for biological parameters, including: weight; length to the nearest centimeter, consistent with the species-specific measurement type (e.g., total vs. fork) identified in the Northeast Observer Program Biological Sampling Guide; age through age-length keys; stomach contents; and sex and spawning condition (e.g., spent, ripe, ripe and running, etc.) consistent with Northeast Fisheries Science Center sex and maturity codes. If readily available and feasible to install on a survey vessel, the Lessee must also employ a conductivity, temperature, and depth instrument or similar device to measure environmental parameters. The Lessee must also, in conjunction with the spring and fall trawl surveys in the WDA, sample a minimum subset of 1 spring and 1 fall tow for zooplankton, ichthyoplankton, and fish eggs using a paired 23.6-inch (60 cm) Bongo and a paired 7.9-inch (20 cm) Bongo. Zooplankton, ichthyoplankton, and fish eggs must be processed following Northeast Fisheries Science Center protocols in terms of species identification, length measurements, and staging.

5.3.6.2 **Years 2-3 post-construction**. The Lessee must maintain the sampling protocols governing the Year 1 post-construction surveys; however, the survey frequency may be reduced to two times per year in the spring and fall.

5.3.7 **Ventless Trap Surveys (Planning) (Construction) (Operations)**. The Lessee must conduct a ventless trap survey a minimum of 1 year before, 1 year during,

and 3 years after construction. The ventless trap survey must follow the protocols of the coast-wide ventless trap survey. The traps must use weak-link technology to minimize whale-entanglement risk, and no sampling may occur between November and early May. For lobsters (*Homarus americanus*) in all pots, the Lessee must record the following information: trap number and trap type; enumeration; carapace length (millimeters) measured with calipers; sex (determined by examining the first pair of swimmerets); cull status (claws missing, buds, or regenerated); V-notch status (presence or absence); mortality (alive or dead); incidence of shell disease (none, light, moderate, severe); presence or absence of eggs; and gross egg stage. For the sampling of all Jonah crabs (*Cancer borealis*), the Lessee must sample two (2) traps (1 vented, 1 ventless) selected randomly and record the following: enumeration; carapace width; sex; ovigery status; incidence of shell disease; cull status, mortality. For all non-sampled traps, the Lessee must enumerate individuals of each species, and record: the station number; start latitude and longitude; end latitude and longitude; start time/date; end time/date; bait type; trap type; and water depth. The ventless trap surveys must not commence until BOEM informs the Lessee that all necessary ESA consultations addressing this action have concluded.

5.3.8 [Periodic Underwater Surveys, Reporting of Monofilament and Other Fishing Gear Around WTG Foundations \(Operations\) \(Decommissioning\)](#). The Lessee must monitor indirect impacts associated with charter and recreational fishing gear lost from expected increases in fishing around WTG foundations by surveying 10 WTGs in the WDA annually. The Lessee may conduct surveys by remotely operated vehicles, divers, or other means to determine the frequency and locations of marine debris. The Lessee must report the results of the surveys to BOEM (at renewable_reporting@boem.gov) and BSEE (at marinedebris@bsee.gov) in an annual report, submitted by April 30, for the preceding calendar year. Annual reports must be submitted in Word format. Photographic and videographic materials must be provided on a portable drive in a lossless format such as TIFF or Motion JPEG 2000. Annual reports must include survey reports that include: the survey date; contact information of the operator; the location and pile identification number; photographic and/or video documentation of the survey and debris encountered; any animals sighted; and the disposition of any located debris (i.e., removed or left in place). Required data and reports may be archived, analyzed, published, and disseminated by BOEM.

5.4 [Pre-Seabed Disturbance Conditions](#).

5.4.1 [Cable Installation Timing \(Construction\)](#). Non-Horizontal Directional Drilling (non-HDD) cable-laying operations in the northern part of the OECC within

Nantucket Sound must not occur between April 1 and June 30 of any year. Should non-HDD cable laying be required in the northern portion of the OECC within Nantucket Sound between April 1 and June 30 due to environmental or technical reasons, the Lessee must submit a justification to BOEM, MassDEP, the Massachusetts Division of Marine Fisheries, and NMFS, at least 30 days prior to March 1. BOEM will review the justification and provide comments, if any, on it within 30 calendar days of its submittal. The Lessee must resolve all comments on the justification to BOEM's satisfaction and receive BOEM's written concurrence before conducting any non-HDD activities between April 1 and June 30. However, the Lessee may conclusively presume BOEM's concurrence with the justification if BOEM provides no comments on the justification within 30 calendar days of its submittal.

- 5.4.2 **Dredge Disposal Sites** (Planning) (Construction). If dredging of sand waves is necessary in the OECC, the Lessee must clearly identify a limited number of dredge disposal sites within known sand-wave areas. The Lessee must use the benthic habitat data collected pursuant to Section 5.3 to confirm, to the maximum extent practicable, that these dredge disposal sites do not contain resources that may be damaged by sediment deposition. The Lessee must receive BOEM concurrence to dispose in the identified locations and also report the locations of dredge disposal sites to the United States Army Corps of Engineers (USACE), BOEM (at renewable_reporting@boem.gov), MassDEP, and the Massachusetts Office of Coastal Zone Management within 30 calendar days of disposal of materials. The Lessee must report these locations in latitude and longitude degrees to the nearest 10 thousandth of a decimal degree (roughly the nearest meter). DOI will review the proposed dredge-disposal locations and provide comments, if any, on the locations within 30 calendar days of receipt of the proposal. The Lessee must resolve all comments on the proposed locations to DOI's satisfaction. The Lessee may conclusively presume DOI's concurrence with the dredge-disposal locations if DOI provides no comments on them within 30 calendar days of their submittal.
- 5.4.3 **Anchoring Plan** (Planning) (Construction). At least 30 calendar days prior to conducting seabed-disturbing activities, the Lessee must submit to DOI for review and comment an Anchoring Plan for all areas where anchoring is being used within 1,640 feet (500 meters) of sensitive habitats, resources, and submerged infrastructure, including hard bottom and structurally complex habitats. If the Lessee receives new data on benthic habitats (see Section 5.3.2), then the Lessee must submit to DOI an updated Anchoring Plan that demonstrates how the Lessee will avoid and minimize impacts to benthic habitat. The Anchoring Plan must include the planned location of anchoring activities, sensitive habitats and their locations, seabed features, potential hazards, and any related facility-installation activities (such as cable, WTG,

and ESP installation). DOI will require all vessels deploying anchors to use mid-line anchor buoys to reduce the amount of anchor chain or line that touches the seafloor, unless the Lessee demonstrates, and DOI accepts, that (i) the use of mid-line anchor buoys to reduce the amount of anchor chain or line that touches the seafloor is not technically and economically practical or feasible; or (ii) a different alternative is as safe and provides the same or greater environmental protection. The Lessee must provide the Anchoring Plan for DOI and NOAA review and comment before construction begins. DOI will review the Anchoring Plan and provide comments, if any, on the plan within 30 calendar days of its submittal. Before construction may commence, the Lessee must resolve all comments on the Anchoring Plan. If DOI provides no comments on the Anchoring Plan within 45 calendar days of receiving it, then the Lessee may conclusively presume DOI's concurrence with the plan.

- 5.4.4 Final Cable Protection in Hard Bottom (Operations). No later than 3 months prior to the placement of cable protection equipment, the Lessee must submit to BOEM, BSEE, and NMFS a plan for monitoring the effectiveness of natural and engineered cable protection equipment in the OECC. The plan must include a section on monitoring the effects of cable protection equipment on juvenile cod HAPC. The Lessee must submit this plan to BOEM (at renewable_reporting@boem.gov) and BSEE (at benthic.ecology@bsee.gov) for review and comment at least 30 calendar days prior to implementation of provisions in the plan or 3 months prior to the placement of cable protection equipment, whichever is sooner.
- 5.4.5 Post-Installation Cable Monitoring (Operations). See Section 2.7.
- 5.4.6 Monitoring and Minimizing Foundation Scour Protection (Construction) (Operations). See Section 2.9.

5.5 Protected Species Detection and Vessel Strike Avoidance Conditions.

- 5.5.1 Vessel Crew Training Requirements (Planning) (Construction) (Operations) (Decommissioning). The Lessee must provide Project-specific training on the identification of sea turtles and marine mammals, the associated regulations, and best practices for avoiding vessel collisions to all vessel crew members prior to the start of in-water construction activities. Confirmation of the training and understanding of the requirements must be documented on a training course log sheet. The Lessee must provide the log sheets to BOEM upon request. Reference materials must be available aboard all Project vessels for the identification of sea turtles and marine mammals. The Lessee must communicate the process for reporting sea turtles and marine mammals (including live, entangled, and dead individuals) to the designated vessel contact and all crew members, and must post reporting instructions that include

the communication channel(s) in highly visible locations aboard all Project vessels. The Lessee must communicate its expectation for all crew members to report sightings of sea turtles and marine mammals to the designated vessel contacts.

5.5.2 **Vessel Observer Requirements (Planning) (Construction) (Operations)**
(Decommissioning). The Lessee must ensure that vessel operators and crew members maintain a vigilant watch for marine mammals and sea turtles, and reduce vessel speed, alter the vessel's course, or stop the vessel as necessary to avoid striking marine mammals or sea turtles. Vessel personnel must be provided an Atlantic reference guide to help identify marine mammals and sea turtles that may be encountered in the WDA. Vessel personnel must also be provided BSEE-approved material regarding North Atlantic Right Whale (NARW) Seasonal Management Areas (SMAs), sightings information, and reporting. When not on active watch duty, members of the monitoring team must consult NMFS' NARW sightings for the presence of NARWs in the WDA. All vessels transiting to and from the WDA and traveling over 10 knots (18.5 kilometers per hour) must have a Visual Observer for NARW (Visual Observer) on duty at all times, during which the Visual Observer will monitor a vessel strike avoidance zone around the vessel. The Lessee must also have a Trained Lookout for sea turtles (Trained Lookout) on all vessels during all phases of the Project between June 1 and November 30 to observe for sea turtles and communicate with the captain to take required avoidance measures as soon as possible if one is sighted. If a vessel is carrying a Visual Observer for the purposes of maintaining watch for NARWs, a Trained Lookout for sea turtles is not required, and the Visual Observer must maintain watch for marine mammals and sea turtles. If the Trained Lookout is a vessel crew member, the aforementioned lookout obligations must be its designated role and primary responsibility while the vessel is transiting. Any designated crew observers should be trained in the identification of sea turtles and in regulations and best practices for avoiding vessel collisions. The Trained Lookout must check seaturtlesightings.org prior to each trip and report any detections of sea turtles in the vicinity of the planned transit to all vessel operators/captains and lookouts on duty that day.

5.5.3 **Vessel Communication of Threatened and Endangered Species Sightings (Planning) (Construction) (Operations) (Decommissioning).** The Lessee must ensure that whenever multiple Project vessels are operating, any visual detections of ESA-listed species (marine mammals and sea turtles) are communicated, in near real time, to a third-party Protected Species Observer (hereafter, PSO) and/or vessel captains associated with other Project vessels.

5.5.4 Vessel Speed Requirements November 1 through May 14 (Planning) (Construction) (Operations) (Decommissioning).

5.5.4.1 The Lessee must ensure that from November 1 through May 14, all vessels travel at 10 knots (18.5 kilometers per hour) or less when transiting to, from, or within the WDA, except within Nantucket Sound (unless an active Dynamic Management Area (DMA) is in place) and except for crew transfer vessels as described below in 5.5.5.

5.5.4.2 From November 1 through May 14, crew transfer vessels may travel at more than 10 knots (18.5 kilometers per hour) if: (i) there is at least one Visual Observer on duty at all times aboard the vessel to visually monitor for whales; and (ii) simultaneous real-time PAM is conducted. If a NARW is detected via visual observation or PAM within or approaching the transit route, all crew transfer vessels must travel at 10 knots (18.5 kilometers per hour) or less for the remainder of that day.

5.5.5 Crew Transfer Vessel Speed Requirements in DMAs (Planning) (Construction) (Operations) (Decommissioning). The Lessee must ensure that all vessels, regardless of length, travel at 10 knots (18.5 kilometers per hour) or less within any NMFS-designated DMA, with the following exception for crew transfer vessels, as described in the approved COP. The Lessee must submit a NARW Strike Management Plan to BOEM and NMFS at least 90 calendar days prior to implementation in order for crew transfer vessels to travel greater than 10 knots (18.5 kilometers per hour) between May 15 and October 31 for periods when DMAs are established. The plan must provide details on how the required vessel and/or aerial-based surveys, and PAM, will be conducted to clear the transit corridor of NARW presence during a DMA. The plan must also provide details on the vessel-based observer protocol on transiting vessels and PAM required between November 1 and May 14, as well as any further efforts to minimize potential impacts. DOI will review the NARW Strike Management Plan and provide comments, if any, on the plan within 30 calendar days of its submittal. The Lessee must resolve all comments on the NARW Strike Management Plan to DOI's satisfaction and receive DOI's written concurrence prior to implementing the plan. The Lessee may conclusively presume DOI's concurrence with the NARW Strike Management Plan if DOI provides no comments on the plan within 90 calendar days of its submittal.

Crew transfer vessels traveling within any designated DMA must travel at 10 knots (18.5 kilometers per hour) or less, unless DOI has concurred with the NARW Strike Management Plan and a lead PSO confirms that NARWs are

clear of the transit route and WDA for 2 consecutive calendar days, as confirmed by a lack of detections of NARW vocalizations by PAM and by vessel-based surveys conducted during daylight hours. Alternatively, an aerial survey may be completed under the NARW strike management plan once the lead aerial observer determines adequate visibility to complete the survey. If the vessel transit route is confirmed clear of NARW by one of these measures, vessels may transit within a DMA if they have at least two Trained Lookouts and/or PSOs on duty to monitor for NARWs. If a NARW is observed within or approaching the transit route, vessels must operate at 10 knots (18.5 kilometers per hour) or less until clearance of the transit route for 2 consecutive calendar days is confirmed by the procedures described above.

5.5.6 **Vessel Speed Requirements in SMAs (Planning) (Construction) (Operations) (Decommissioning)**. The Lessee must ensure that from November 1 through May 14, all vessels must travel at 10 knots (18.5 kilometers per hour) or less when transiting to, from, or within the WDA, except within Nantucket Sound (unless an active DMA is in place) and except for crew transfer vessels as described below. From November 1 through May 14, crew transfer vessels may travel at more than 10 knots (18.5 kilometers per hour) if there is at least one Visual Observer on duty at all times aboard the vessel to visually monitor for whales, and if simultaneous real-time PAM is conducted. If a NARW is detected via visual observation or PAM within or approaching the transit route, all crew transfer vessels must travel at 10 knots (18.5 kilometers per hour) or less for the remainder of that day. For all other vessels traveling outside the WDA, all vessels greater than or equal to 65 feet (19.8 meters) in overall length must comply with the 10-knot (18.5 kilometers per hour) speed restriction in any SMA (see <https://www.fisheries.noaa.gov/national/endangered-species-conservation/reducing-ship-strikes-north-atlantic-right-whales>).

5.5.7 **Reporting of All NARW Sightings (Planning) (Construction) (Operations) (Decommissioning)**. The Lessee must immediately report all NARWs observed at any time by PSOs or vessel personnel on any Project vessels, during any Project-related activity, or during vessel transit to: BOEM (at renewable_reporting@boem.gov); the NOAA Fisheries 24-hour Stranding Hotline number (866-755-6622); the Coast Guard (via channel 16); and WhaleAlert (through the WhaleAlert app at <http://www.whalealert.org/>). The report must include the time, location, and number of animals.

5.5.8 **Vessel Strike Avoidance of Marine Mammals (Non-Geophysical Survey Vessels) (Planning) (Construction) (Operations) (Decommissioning)**. The Lessee must ensure that all vessel operators and crews maintain a vigilant watch for all marine mammals and reduce vessel speed, stop the vessel, or alter

the vessel's course, regardless of vessel size, to avoid striking any marine mammal except when taking such measures would threaten the safety of the vessel or crew. Vessel operators must reduce vessel speeds to 10 knots (18.5 kilometers per hour) or less when mother/calf pairs, pods, or large assemblages of cetaceans are observed within the path of the vessel.

5.5.8.1 Whales: The vessel operator must implement vessel strike avoidance measures when any whale is sighted within a 180-degree radius of the forward path of the vessel (90 degrees port to 90 degrees starboard) at a distance of 1,640 feet (500 meters) or less from a survey vessel. Trained crew or PSOs must notify the vessel captain of any whale observed or detected within 1,640 feet (500 meters) of the survey vessel within 180 degrees. Upon notification, the vessel captain must immediately implement vessel strike avoidance procedures to maintain a separation distance of 1,640 feet (500 meters) or to reduce vessel speed to allow the animal to travel away from the vessel. The vessel must come to a full stop when an ESA-listed whale is within 656 feet (200 meters) of an underway vessel, except when taking such a measure would threaten the safety of the vessel or crew. If a whale is observed but cannot be confirmed as a species other than a NARW, the vessel operator must assume that it is a NARW and execute the required vessel strike avoidance measures to avoid the animal.

5.5.8.2 Small cetaceans and seals: For small cetaceans and seals, all vessels must maintain a minimum separation distance of 164 feet (50 meters) to the maximum extent practicable, except when those animals voluntarily approach the vessel. When marine mammals are sighted while a vessel is underway, the vessel operator must take the following actions to avoid violating the 164-foot (50-meter) separation distance: attempt to remain parallel to the animal's course, and avoid excessive speed or abrupt changes in vessel direction until the animal has left the area, except when taking such measures would threaten the safety of the vessel or crew. If marine mammals are sighted within the 164-foot separation distance, the vessel operator must reduce vessel speed and shift the engine to neutral, not engaging the engines until animals are beyond 164 feet (50 meters) from the vessel.

5.5.9 Vessel Strike Avoidance of Sea Turtles (Non-Geophysical Survey Vessels) (Planning) (Construction) (Operations) (Decommissioning). The Lessee must ensure that, during all phases of the Project, vessel operators and crew members are maintaining a vigilant watch for all sea turtles, and reducing vessel speed, stopping the vessel, or altering the vessel's course, regardless of

vessel size, to avoid striking any sea turtles, except when taking such measures would threaten the safety of the vessel or crew. All vessels must maintain a minimum separation distance of 328 feet (100 meters) from sea turtles.

Trained crew lookouts must monitor seaturtlesightings.org daily and prior to each trip, and must report any detections of sea turtles in the vicinity of the planned transit route to all vessel operators, captains, and lookouts on duty that day. If a sea turtle is sighted within 328 feet (100 meters) of the operating vessels' forward path, the vessel operator must safely slow down to 4 knots (7.4 kilometers per hour) and may resume normal vessel operations once the vessel has passed the sea turtle. If a sea turtle is sighted within 164 feet (50 meters) of the forward path of the operating vessel, the vessel operator must shift to neutral when safe to do so, and then proceed away from the turtle at a speed of 4 knots (7.4 kilometers per hour) or less until there is a separation distance of at least 328 feet (100 meters), at which time normal vessel operations may be resumed. Between June 1 and November 30, vessels must avoid transiting through areas of visible jellyfish aggregations or floating vegetation lines or mats. In the event that operational safety prevents avoidance of such areas, vessels must slow to 4 knots (7.4 kilometers per hour) while transiting through such areas.

5.6 Detected or Injured Protected Species and Non-Protected Fish Reporting Requirements.

5.6.1 Detected or Impacted Protected Species Reporting (Planning) (Construction) (Operations) (Decommissioning). The Lessee is responsible for reporting dead or injured protected species, regardless of whether they were observed during operations or due to Project activities. The Lessee must report any potential take, strikes, or dead/injured protected species caused by Project vessels to the NMFS Protected Resources Division (at incidental.take@noaa.gov), NOAA Fisheries 24-hour Stranding Hotline number (866-755-6622), BOEM (at renewable_reporting@boem.gov), and BSEE (at protectedspecies@bsee.gov) as soon as practicable, but no later than 24 hours from the time the incident took place (Detected or Impacted Protected Species Report). In the event that an injured or dead marine mammal or sea turtle is sighted, regardless of the cause, the Lessee must report the incident to the NMFS Protected Resources Division (at incidental.take@noaa.gov), NOAA Fisheries 24-hour Stranding Hotline number (866-755-6622), BOEM (at renewable_reporting@boem.gov), and BSEE (at protectedspecies@bsee.gov) as soon as practicable (taking into account crew and vessel safety), but no later than 24 hours from the sighting (Protected Species Incident Report). Staff responding to the hotline call will provide any instructions for the handling or disposing of any injured or dead protected species by individuals authorized to collect, possess, and transport sea turtles.

5.6.1.1 The Detected or Impacted Protected Species Report must include the following information:

- Time, date, and location (latitude/longitude) of the first discovery (and updated location information if known and applicable);
- Species identification (if known) or a description of the animal(s) involved;
- Condition of the animal(s) (including carcass condition if the animal is dead);
- Observed behaviors of the animal(s), if alive;
- If available, photographs or video footage of the animal(s); and
- General circumstances under which the animal was discovered.

5.6.1.2 The Protected Species Incident Report must include the following information:

- Time, date, and location (latitude/longitude) of the incident;
- Species identification (if known) or description of the animal(s) involved;
- Lessee and vessel(s) information;
- Vessel's speed during and leading up to the incident;
- Vessel's course/heading and what operations were being conducted (if applicable);
- Status of all sound sources in use (if applicable);
- Description of avoidance measures/requirements that were in place at the time of the strike and what additional measures were taken, if any, to avoid the strike;
- Environmental conditions (e.g., wind speed and direction, Beaufort scale, cloud cover, visibility) immediately preceding the strike;
- Estimated size and length of animal that was struck;

- Description of the behavior of the animal immediately preceding and following the strike;
- Estimated fate of the animal (e.g., dead, injured but alive, injured and moving, blood or tissue observed in the water, status unknown, disappeared); and
- To the extent practicable, photographs or video footage of the animal(s).

5.6.2 Detected and/or Impacted Dead Non-ESA-Listed Fish (Planning) (Construction) (Operations) (Decommissioning). In addition, any occurrence of dead non-ESA-listed fish of 10 or more individual fish within established shutdown and/or monitoring zones must also be reported to BOEM (at renewable_reporting@boem.gov) as soon as practicable (taking into account crew and vessel safety), but no later than 24 hours after the sighting.

5.7 Pile Driving/Impact Hammer Activity Conditions.

5.7.1 Pile-Driving Time-of-Year Restriction (Construction). The Lessee must not conduct any pile-driving activities between December 1 and April 30. Pile driving must not occur in December unless unanticipated delays due to weather or technical problems arise that necessitate extending pile driving through December, and the pile driving is approved by BOEM in accordance with the following procedures. The Lessee must notify BOEM in writing by November 1 that the Lessee believes that circumstances require pile driving in December. The Lessee must submit to BOEM (at renewable_reporting@boem.gov) for written concurrence an enhanced survey plan for December 1 through December 31 to minimize the risk of exposure of NARWs to pile-driving noise, including noise from daily pre-construction surveys. BOEM will review the enhanced survey plan and provide comments, if any, on the plan within 30 calendar days of its submittal. The Lessee must resolve all comments on the enhanced survey plan to BOEM's satisfaction and receive BOEM's written concurrence before any pile driving occurs. However, the Lessee may conclusively presume BOEM's concurrence with the enhanced survey plan if BOEM provides no comments on the plan within 90 calendar days of its submittal. The Lessee must also follow the time-of-year enhanced mitigation measures specified in the applicable BiOp. The Lessee must confirm adherence to this time-of-year restriction on pile driving in the pile-driving reports submitted with the FIR.

5.7.2 Pile-Driving Weather and Time Restrictions (Construction). The Lessee must ensure effective visual monitoring in all cardinal directions and must not commence pile driving until at least 1 hour after civil sunrise to minimize

the effects of sun glare on visibility. The Lessee must not commence pile driving within 1.5 hours of civil sunset to minimize the potential for pile driving to continue after civil sunset when visibility will be impaired.

Additionally, pile driving must only commence when all clearance zones are fully visible (i.e., not obscured by darkness, rain, fog, etc.) for at least 30 minutes between civil sunrise and civil sunset. The lead PSO must determine when sufficient light exists to allow effective visual monitoring in all cardinal directions. The lead PSO must call for a delay until the clearance zone is visible in all directions or must implement the Alternative Monitoring Plan. If conditions (e.g., darkness, rain, fog, etc.) prevent the visual detection of marine mammals in the clearance zones, the Lessee must not initiate construction activities until the full extent of all clearance zones are fully visible as determined by the lead PSO. The Lessee must develop and implement measures for enhanced monitoring in the event that poor visibility conditions unexpectedly arise and stopping pile driving would risk human safety or pile instability. The Lessee must prepare and submit an Alternative Monitoring Plan to NMFS and BOEM at least 90 calendar days prior to commencing the first pile-driving activities for the Project. DOI will review the Alternative Monitoring Plan and must provide comments, if any, on the plan within 30 calendar days of its submittal. The Lessee must resolve all comments on the Alternative Monitoring Plan to DOI's satisfaction prior to implementing the plan. If BOEM provides no comments on the Alternative Monitoring Plan within 90 calendar days of its submittal, then the Lessee may conclusively presume BOEM's concurrence with the plan. The Alternative Monitoring Plan proposed by the Lessee may include deploying additional observers, employing alternative monitoring technologies such as night vision, thermal, infrared, and/or using of PAM technologies, with the goal of ensuring the ability to maintain all clearance and shutdown zones for all ESA-listed species in the event of unexpected poor-visibility conditions.

5.7.3 **PSO Requirements (Planning) (Construction) (Operations)**
(Decommissioning). The Lessee must use PSOs provided by a third party. PSOs must have no Project-related tasks other than to observe, collect and report data, and communicate with and instruct relevant vessel crew regarding the presence of protected species and mitigation requirements (including brief alerts regarding maritime hazards). PSOs and/or PAM operators must have completed a commercial PSO training program for the Atlantic with an overall examination score of 80 percent or greater (Baker et. al 2013). The Lessee must provide training certificates for individual PSOs to BOEM upon request. PSOs and PAM operators must be approved by NMFS prior to the start of a survey. Application requirements to become a NMFS-approved PSO for construction activities can be found at <https://www.fisheries.noaa.gov/new-england-mid-atlantic/careers-and-opportunities/protected-species-observers>, or

for geological and geophysical surveys by sending an inquiry to nmfs.psoreview@noaa.gov.

5.7.3.1 PSOs:

- 5.7.3.1.1 At least one lead PSO must be on duty at all times as the lead PSO or as the PSO monitoring coordinator during pile driving.
- 5.7.3.1.2 At least one lead PSO must be present on each HRG survey vessel.
- 5.7.3.1.3 PSOs on transit vessels must be approved by NMFS, but need not be authorized as a lead or unconditionally approved PSO.
- 5.7.3.1.4 Lead PSOs must have prior approval from NMFS as an unconditionally approved PSO.
- 5.7.3.1.5 All PSOs on duty must be clearly listed and the lead PSO identified on daily data logs for each shift.
- 5.7.3.1.6 A sufficient number of PSOs, consistent with the BiOp and as prescribed in the final IHA, must be deployed to record data in real time and effectively monitor the required clearance, shutdown, or monitoring zone for the Project, including: visual surveys in all directions around a pile; PAM; and continuous monitoring of sighted NARWs. Where applicable, the number of PSOs deployed must meet the NARW enhanced seasonal monitoring requirements.
- 5.7.3.1.7 A PSO must not be on watch for more than 4 consecutive hours, and must be granted a break of no fewer than 2 hours after a 4-hour watch.
- 5.7.3.1.8 A PSO must not work for more than 12 hours in any 24- hour period (NMFS 2013) unless an alternative schedule is authorized in writing by BOEM.
- 5.7.3.2 Visual monitoring must occur from the vantage point on the associated operational platforms that allows for 360-degree visual coverage around a vessel.

- 5.7.3.3 The Lessee must ensure that suitable equipment is available to PSOs, including binoculars, range-finding equipment, a digital camera, and electronic data recording devices (e.g., a tablet) to adequately monitor the distance of the watch and shutdown zones, to determine the distance to protected species during surveys, to record sightings and verify species identification, and to record data.
- 5.7.3.4 PSO observations must be conducted while free from distractions and in a consistent, systematic, and diligent manner.
- 5.7.4 **Daily Pre-Construction Surveys (Planning) (Construction) (Operations) (Decommissioning)**. To establish the numbers, surface presence, behavior, and travel directions of protected species in the area, the Lessee must conduct daily PAM and visual surveys before pile driving begins. These surveys must follow standard protocols and data collection requirements specified by BOEM. In addition to standard daily surveys, the Lessee must submit to BOEM (at renewable_reporting@boem.gov) an enhanced survey plan for May 1 through May 31 to minimize the risk of exposure of NARWs to pile-driving noise. BOEM will review the enhanced survey plan and provide comments, if any, on the plan within 30 calendar days of its submittal. The Lessee must resolve all comments on the enhanced survey plan to BOEM's satisfaction prior to implementing the plan. If BOEM provides no comments on the enhanced survey plan within 90 calendar days of its submittal, then the Lessee may conclusively presume BOEM's concurrence with the plan.
- 5.7.5 **Pile-Driving Monitoring Plan Requirements (Construction)**. At least 90 calendar days prior to commencing the first pile-driving activities for the Project, the Lessee must submit a Pile-Driving Monitoring (PDM) Plan to BOEM (at renewable_reporting@boem.gov), BSEE (at protectedspecies@bsee.gov), and NMFS for review. DOI will review the PDM Plan and provide comments, if any, on the plan within 30 calendar days of its submittal. The Lessee must resolve all comments on the PDM Plan to DOI's satisfaction prior to implementing the plan. If DOI provides no comments on the PDM Plan within 90 calendar days of its submittal, then the Lessee may conclusively presume DOI's concurrence with the plan.

5.7.5.1 The PDM Plan must:

- 5.7.5.1.1 Contain information on the visual and PAM components of monitoring, describing all equipment, procedures, and protocols;

- 5.7.5.1.2 Demonstrate a near-real-time capability of detection capability to 6.21 miles (10 kilometers) from the pile-driving location;
- 5.7.5.1.3 Ensure that the full extent of the distance over which harassment may occur from piles is monitored for marine mammals (160 dB RMS) and sea turtles (175 dB RMS) to document all potential take;
- 5.7.5.1.4 Include a PAM Plan with a 75-percent detection confidence by the PAM operator to determine that a possible NARW vocalization originated from within the clearance and shutdown zones. Any possible NARW vocalization must be reported as a detection if it is determined by the PSO to be within the clearance and shutdown zones;
- 5.7.5.1.5 Include the number of NMFS-approved PSOs and/or monitors that will be employed, the platforms and/or vessels upon which they will be deployed, and contact information for the PSO provider(s);
- 5.7.5.1.6 Include an Alternative Monitoring Plan that includes measures for enhanced monitoring capabilities in the event that poor visibility conditions unexpectedly arise, and pile driving cannot be stopped. The Alternative Monitoring Plan must also include measures for deploying additional observers, using night vision goggles (for all marine mammals and sea turtles), or using PAM (for marine mammals) with the goal of ensuring the ability to maintain all clearance and shutdown zones in the event of unexpected poor visibility conditions; and
- 5.7.5.1.7 Describe a communication plan detailing the chain of command, mode of communication, and decision authority. PSOs must be previously approved by NMFS to conduct mitigation and monitoring duties for pile-driving activity. In accordance with the PDM Plan, the Lessee must use an adequate number of PSOs, as determined by NMFS and BOEM, to monitor the area of the clearance and shutdown zones. The PDM Plan must also describe seasonal and species-specific clearance and shutdown zones, including time-of-year requirements for NARWs.

5.7.5.2 A copy of the PDM Plan must be in the possession of the Lessee representative, the PSOs, impact-hammer operators, and/or any other relevant designees operating under the authority of the approved COP and carrying out the requirements of the PDM Plan on site.

5.7.6 **Soft Start for Pile Driving (Construction).** The Lessee must implement soft-start techniques for impact pile driving. The soft start must include an initial set of three strikes from the impact hammer at reduced energy, followed by a 1-minute waiting period. This process must be repeated a total of three times prior to the initiation of pile driving. Soft start is required for any impact driving, including at the beginning of the day, for each new pile or pile segment started, and at any time following a cessation of impact pile driving of 30 minutes or longer. The Lessee must confirm the use of a soft-start technique for pile driving and document the timing of each application in PSO reports and in pile-driving reports submitted with the FIR.

5.7.7 **Pile-Driving Sound Source Verification Plan (Construction).** The Lessee must ensure that the required 6 dB re 1 μ Pa noise attenuation is met by conducting field verification during pile driving. At least 90 calendar days prior to commencing the first pile-driving activities for the Project, the Lessee must submit a Sound Source Verification (SSV) Plan to the USACE, BOEM (at renewable_reporting@boem.gov), and NMFS (at incidental.take@noaa.gov) for review and comment. DOI will review the SSV Plan and provide comments, if any, on the plan within 30 calendar days of its submittal. The Lessee must resolve all comments on the SSV Plan to DOI's satisfaction prior to implementing the plan. The Lessee may conclusively presume DOI's concurrence with the SSV Plan if DOI provides no comments on the plan within 90 calendar days of its submittal. The Lessee must execute the SSV and report the associated findings to BOEM for at least 1 monopile and 1 jacket foundation. The Lessee must conduct additional field measurements if installing piles with a diameter greater than the initial piles or if using a greater hammer size or energy, or if additional foundations will be measured to support any request to decrease the distance of the clearance and shutdown zones. The Lessee must complete SSV on at least 3 foundations for BOEM to consider reducing zone distances. The Lessee will ensure that the location selected for any SSV for each pile type is representative of the rest of the piles of that type to be installed and that the SSV results are representative to predict actual installation noise propagation for subsequent piles. The SSV plan must describe how the effectiveness of the sound attenuation methodology will be evaluated. The SSV plan must be sufficient to document sound propagation from the pile and distances to isopleths for potential injury and harassment. The measurements must be compared to the Level A and

Level B harassment zones for marine mammals and to the injury and behavioral disturbance zones for sea turtles and Atlantic sturgeon.

5.7.8 Adaptive Refinement of Clearance Zones, Shutdown Zones, and Monitoring Protocols (Construction). The Lessee must reduce unanticipated impacts on marine mammals and sea turtles through near-term refinement of clearance and shutdown zones by refining pile-driving monitoring protocols based on monthly and/or annual monitoring results. Any modifications to monitoring protocols must be approved by DOI and NMFS prior to executing the modified protocols. Any reduction in the size of the clearance and shutdown zones for each foundation type must be based on at least 3 SSV measurements submitted to BOEM for review.

5.7.9 Pile-Driving Clearance Zones (No-go Zones) for Sea Turtles (Construction). The Lessee must minimize the exposure of ESA-listed sea turtles to noise that may result in injury or behavioral disturbance during pile-driving operations by tasking the PSOs to establish a minimum of 1,640-foot (500-meter) clearance and shutdown zone for sea turtles during all pile-driving activities. Adherence to the 1,640-foot (500-meter) clearance and shutdown zones must be reflected in the PSO reports.

5.7.10 Pile-Driving Clearance Zones (No-go Zones) for Marine Mammals (Construction). The Lessee must use PAM and visual monitoring by PSOs during pile-driving activities following the standard protocols and data collection requirements specified in Section 5.7.17.3 . The Lessee must ensure that PSOs establish the following clearance zones for NARWs to be used between 60 minutes prior to pile-driving activities and 30 minutes post-completion of pile-driving activity:

5.7.10.1 At all times of the year, any unidentified whale sighted by a PSO within 3,281 feet (1,000 meters) of the pile must be treated as if it were a NARW. If the PAM operator has 75-percent or greater confidence that a vocalization originated from a NARW located within 6.2 miles (10 kilometers) of the pile-driving location, the detection will be treated as a NARW detection.

5.7.10.2 The PSO must treat a NARW visually detected at any distance from the pile-driving vessel as a detection that triggers the required pre-construction delay or shutdowns during pile installation, regardless of the minimum distance from the clearance or shutdown zone, as follows:

5.7.10.2.1 May 1 to May 14. The Lessee must establish a PAM and visual clearance (and monitoring) zone of 6.21 miles (10

kilometers) for NARWs for all foundation types *before* pile driving occurs. The Lessee may choose to use either aerial or vessel-based surveys for visual clearance from May 1 to May 14. Upon detection of a NARW within the 6.21-mile (10- kilometer) clearance zone, pile driving must be postponed and must not commence until the following day or a follow-up aerial or vessel-based survey confirms that all NARWs have departed the 6.21-mile (10-kilometer) extended PAM and visual clearance zones (as determined by the lead PSO). The Lessee also must establish a PAM and visual shutdown zone of 1.99 miles (3.20 kilometers) and must employ either visual or PAM detection *during* pile driving. Once pile driving has commenced, pile driving must cease upon detection of a NARW within the PAM or visual shutdown zone for the appropriate pile type, and may not resume until the animal has voluntarily left and been visually confirmed beyond the relevant zone or when 30 minutes have elapsed without redetection.

5.7.10.2.2 May 15 to May 31. The Lessee must establish a PAM monitoring zone of 6.21 miles (10 kilometers) to raise awareness of NARW presence in the area. The Lessee must establish a PAM clearance zone of 3.11 miles (5 kilometers within the monitoring distance) for monopiles and a PAM clearance zone of 1.99 miles (3.2 kilometers) for jacket piles *before* pile driving occurs. The Lessee must establish a visual clearance zone of 1.24- miles (2 kilometers) for monopiles, and a visual clearance zone of 1 mile (1.6 kilometers) for jacket piles for NARWs. No pile driving may commence unless all clearance zones for the appropriate pile type have been free of NARW for 30 minutes immediately prior to pile driving. The Lessee also must establish a PAM and visual shutdown zone of 1.99 miles (3.2 kilometers) for all types of foundation piles *during* pile driving. Once pile driving has commenced, pile driving must cease upon detection of a NARW within the PAM or visual shutdown zone for the appropriate pile type, and may not resume until the animal has voluntarily left and been visually confirmed beyond the relevant zone or when 30 minutes have elapsed without redetection.

5.7.10.2.3 June 1 to October 31. The Lessee must establish a PAM clearance zone of 3.11 miles (5 kilometers within the monitoring distance) for monopiles and a PAM clearance zone of 1.99 miles (3.2 kilometers) for jacket piles *before* pile driving occurs. The Lessee must establish a visual clearance zone of 1.24 miles (2 kilometers) for monopiles, and a visual clearance zone of 1 mile (1.6 kilometers) for jacket piles for NARWs. No pile driving may commence unless all clearance zones for the appropriate pile type have been free of NARW for 30 minutes immediately prior to pile driving. The Lessee also must establish a PAM and visual shutdown zone of 1.99 miles (3.2 kilometers) for all types of foundation piles *during* pile driving. Once pile driving has commenced, pile driving must cease upon detection of a NARW within the PAM or visual shutdown zone for the appropriate pile type, and may not resume until the animal has voluntarily left and been visually confirmed beyond the relevant zone or when 30 minutes have elapsed without redetection.

5.7.10.2.4 November 1 to December 31 (if pile driving authorized in December). The Lessee must establish a 6.21-mile (10 kilometer) PAM clearance (and monitoring) zone for all foundation types *before* pile driving occurs. The Lessee must establish a visual clearance zone of 1.24 miles (2 kilometers) for monopiles, and a visual clearance zone of 1 mile (1.6 kilometers) for jacket piles for NARWs *before* pile driving occurs. The Lessee may choose to use either aerial or vessel-based surveys for visual clearance from November 1 to December 31. Upon detection of a NARW within the 6.21-mile (10-kilometer) clearance zone, pile driving must be postponed and not commence until the following day or a follow-up aerial or vessel-based survey confirms that all NARWs have departed the 6.21-mile (10- kilometer) extended PAM and 1.24 miles (2 kilometers) visual clearance zones (as determined by the lead PSO). The Lessee must establish a shutdown zone of 1.99 miles (3.2 kilometers) with either a visual or PAM detection. Once pile driving has commenced, pile driving must cease upon detection of a NARW within the PAM or visual shutdown zone for the appropriate pile type, and may not resume until the animal has voluntarily left and

been visually confirmed beyond the relevant zone or when 30 minutes have elapsed without redetection.

5.7.10.3 For all pile-driving activity, the Lessee must monitor for all marine mammals over the entire Level B distance and document impacts and any potential take. The Lessee must designate shutdown zones with radial distances as follows:

- 5.7.10.3.1 All other mysticete whales (including humpback, fin, sei, and minke whales): 1,640-foot (500-meter) shutdown zone at all times;
- 5.7.10.3.2 Harbor porpoises: 394-foot (120-meter) shutdown zone at all times; and
- 5.7.10.3.3 All other marine mammals not listed above (including dolphin and pinnipeds): 164-foot (50-meter) shutdown zone at all times.

5.7.11 Pile-Driving Noise Reporting and Clearance or Shutdown Zone Adjustment (Construction).

The Lessee must complete and review the initial field-measurement results of at least 3 monopile foundations. The Lessee may request modification of the clearance and shutdown zones based on the field measurements of 3 foundations, but must meet or exceed minimum seasonal distances for threatened and endangered species specified in the BiOp. If the field measurements indicate that the isopleths of concern are larger than those considered in the approved COP, the Lessee, in coordination with BOEM, NMFS, and USACE, must implement additional sound attenuation measures and/or enhanced clearance and/or shutdown zones before driving any additional piles. The Lessee must submit the initial results of the field measurements to NMFS, USACE, and BOEM (at renewable_reporting@boem.gov) as soon as they are available. NMFS, USACE, and BOEM will discuss the results as soon as feasible. BOEM and NMFS will provide direction to the Lessee on the requirements for any additional modifications to the sound attenuation system or for changes to the clearance and shutdown zones.

5.7.12 Pile-Driving Work within a Designated DMA or Right Whale Slow Zone (Construction).

Between June 1 and October 31, if a designated DMA or Right Whale Slow Zone is within 2.56 miles (4.12 kilometers) from pile-driving work for monopiles or 2.0 miles (3.22 kilometers) for jacket foundations (the predicted Level B harassment zones), the PAM system detection must extend to the largest practicable detection zone. The PSO must treat any PAM

detection of NARW(s) in the clearance and shutdown zones the same as a visual detection and trigger the required delays or shutdowns in pile installation.

- 5.7.13 Protocols for Shutdown and Power-Down when Marine Mammals/Sea Turtles are Sighted During Pile Driving (Construction). The PAM operator must notify the visual PSO of all marine mammal detections. Any PAM or visual detection of marine mammals or sea turtles within the shutdown zones during pile-driving activities trigger the required delays in pile installation. Upon a PAM or visual detection of a marine mammal, or visual detection of a sea turtle, entering or within the relevant shutdown zone during pile driving, the Lessee must shut down the pile-driving hammer (unless stopping pile-driving activities would risk human safety or pile instability, in which case reduced hammer energy must be used where practicable). The Lessee must report the decision not to shut down pile-driving equipment to BOEM and NMFS within 24 hours of the decision, with a detailed explanation of the imminent risk presented and the animals potentially impacted.
- 5.7.14 Pile Driving Restart Procedures for Marine Mammal/Sea Turtle Detections (Construction). The Lessee must delay pile-driving activity and/or cease hammer use when marine mammals or sea turtles are observed entering or within the relevant clearance or shutdown zones prior to the initiation of pile driving or during active hammer use (unless activities would risk human safety or pile instability). Impact hammer use must not resume until:
 - 5.7.14.1 The PSO maintains an active track of the animal(s) during the entire detection period and verifies that the animal(s) voluntarily exited the clearance or shutdown zone and that the animal(s) headed away from the clearance or shutdown area;
 - 5.7.14.2 A 30-minute clearance time has elapsed after the PSO lost track of any mysticetes, sperm whales, Risso's dolphins, and pilot whales – without re-detection; or
 - 5.7.14.3 A 15-minute clearance time has elapsed after the PSO lost track of a sea turtle or any other marine mammals – without re-detection.
- 5.7.15 Enhanced Time-of-Year Pile-Driving Restart Procedures for NARW Detections (Construction). The Lessee must stop pile-driving activities (unless activities would risk human safety or pile instability) any time a NARW is observed or detected within the 1.99-mile (3.2-kilometer) shutdown zone, and must not resume:

- 5.7.15.1 Between May 1 to 14. Until the following day or a follow-up aerial or vessel-based survey confirms that all NARW(s) have departed the 6.21-mile (10-kilometer) extended PAM and visual clearance zones for any foundation type (as determined by the lead PSO); or
- 5.7.15.2 Between May 15 to October 31. Until 30 minutes of monitoring confirms that all NARW(s) have left the 1.24-mile (2-kilometer) clearance zone (monopiles) or the 1.0-mile (3.2 kilometer) clearance zone (jacket piles); or
- 5.7.15.3 November 1 to November 30. Until the following day, or after a vessel-based survey confirms that NARWs have left the 6.21-mile (10-kilometer) extended PAM and visual clearance zones for any foundation type (as determined by the lead PSO).

5.7.16 Submittal of Raw Field Data Collection of Marine Mammals and Sea Turtles in the Pile-Driving Shutdown Zone (Construction). Within 24 hours of detection, the Lessee must report to BOEM (at renewable_reporting@boem.gov) the sighting of all marine mammals and/or sea turtles in the shutdown zone that results in a shutdown or a power-down. In addition, the PSO provider must submit the data report (raw data collected in the field) and must include the daily form with the date, time, species, pile identification number, GPS coordinates, time and distance of the animal when sighted, time the shutdown or power-down occurred, behavior of the animal, direction of travel, time the animal left the shutdown zone, time the pile driver was restarted or powered back up, and any photographs that may have been taken.

5.7.17 Weekly Pile-Driving Reports (Construction). Weekly PSO and PAM monitoring reports must be submitted to NMFS and DOI during the pile-driving and construction period of the Project. Weekly reports must document the daily start and stop times of all pile-driving activities, the daily start and stop times of associated observation periods by the PSOs, details on the deployment of PSOs, and a record of all detections of marine mammals and sea turtles. DOI will work with the Lessee to ensure that no confidential business information is released in the monitoring reports.

5.7.17.1 The third-party PSO providers must submit the weekly monitoring reports to BOEM (at renewable_reporting@boem.gov) and NMFS (at incidental.take@noaa.gov) every Wednesday during construction for the previous week (Sunday through Saturday) of monitoring of pile-driving activity. Weekly reports can consist of raw data. Required data and reports provided to DOI may be archived, analyzed, published, and disseminated by BOEM. PSO data must be reported

weekly (Sunday through Saturday) from the start of visual monitoring and/or PAM efforts during pile-driving activities, and every week thereafter until the final reporting period, upon the conclusion of pile-driving activity. Any editing, review, and quality assurance checks must be completed only by the PSO provider prior to submission to NMFS and DOI.

5.7.17.2 The Lessee must submit to BOEM (at renewable_reporting@boem.gov) and BSEE (at protectedspecies@bsee.gov) a final report of PSO monitoring 90 calendar days following the completion of pile driving.

5.7.17.3 Reporting Instructions for Pile-Driving PSO Monitoring Reports.

5.7.17.3.1 Weekly summary monitoring reports must include: summaries of pile-driving activities (5.7.17.3.3); vessel operations (including port departures, number of vessels, type of vessel(s), and route); protected species sightings; vessel strike-avoidance measures taken; and any equipment shutdowns or takes that may have occurred. PSO providers must submit PSO data in Excel format every 7 calendar days. The data must be collected in accordance with standard reporting forms, software tools, or electronic data forms authorized by BOEM for the particular activity. The forms must be filled out for each vessel with PSOs aboard. Unfilled cells must be left empty and must not contain “NA.” The reports must be submitted in Word and Excel formats (not as a pdf). All dates must be entered as YYYY-MM-DD. All times must be entered in 24 Hour UTC as HH:MM. New entries should be made on the Effort form each time a pile segment changes or weather conditions change, and at least once an hour as a minimum. Before submittal, the forms must always be checked for completeness and have any problems resolved. The file name must follow this format: Lease#_ ProjectName_PSOData_YearMonthDay to YearMonthDay.xls

5.7.17.3.2 Data fields must be reported in Excel format as weekly reports during construction. Data categories must include Project, Operations, Monitoring Effort, and Detection. Data must be generated through software applications or otherwise recorded electronically by PSOs. Applications

developed to record PSO data are encouraged as long as the data fields listed below can be recorded and exported to Excel. Alternatively, BOEM has developed an Excel spreadsheet, with all the necessary data fields, that is available upon request.

5.7.17.3.3 Required data fields include:

Project Information:

- Project Name
- Lease Number
- State Coastal Zones
- PSO Contractor(s)
- Vessel Name(s)
- Reporting Date(s)
- Visual monitoring equipment used (e.g., bionics, magnification, IR cameras, etc.)
- Distance finding method used
- PSO names (last, first) and training
- Observation height above sea surface

Operations Information:

- Date (YYYY-MM-DD)
- Hammer type used (make and model)
- Greatest hammer power used for each pile
- Pile identifier and pile number for the day (e.g., pile 2 of 3 for the day)
- Pile diameters
- Pile length

- Pile locations (latitude and longitude)

Monitoring Effort Information:

- Date (YYYY-MM-DD)
- Noise Source (ON=Hammer On; OFF=Hammer Off)
- PSO name(s) (Last, First)
- If visual, how many PSOs on watch at one time?
- Time pre-clearance visual monitoring began in UTC (HH:MM)
- Time pre-clearance monitoring ended in UTC (HH:MM)
- Time pre-clearance PAM monitoring began in UTC (HH:MM)
- Time PAM monitoring ended in UTC (HH:MM)
- Duration of pre-clearance PAM and visual monitoring
- Time power-up/ramp-up began
- Time equipment full power was reached
- Duration of power-up/ramp-up
- Time pile driving began (hammer on)
- Time pile-driving activity ended (hammer off)
- Duration of activity
- Duration of visual detection
- Wind speed (knots), from direction
- Swell height (meters)
- Water depth (meters)
- Visibility (km)

- Glare severity
- Latitude (decimal degrees), longitude (decimal degrees)
- Compass heading of vessel (degrees)
- Beaufort scale
- Precipitation
- Cloud coverage (%)
- Did a shutdown/power-down occur?
- Time shutdown was called for (UTC)
- Time equipment was shut down (UTC)
- Habitat or prey observations
- Marine debris sighted

Detection Information:

- Date (YYYY-MM-DD)
- Sighting ID (V01, V02, or sequential sighting number for that day) (multiple sightings of the same animal or group should use the same ID)
- Date and time at first detection in UTC (YY-MM-DDT HH:MM)
- Time at last detection in UTC (YY-MM-DDT HH:MM)
- PSO name(s) (Last, First)
- Effort (ON=Hammer On; OFF=Hammer Off)
- If visual, how many PSOs on watch at one time?
- Start time of observations
- End time of observations

- Duration of visual observation
- Wind speed (knots), from direction
- Swell height (meters)
- Water depth (meters)
- Visibility (km)
- Glare severity
- Latitude (decimal degrees), longitude (decimal degrees)
- Compass heading of vessel (degrees)
- Beaufort scale
- Precipitation
- Cloud coverage (%)
- Sightings including common name, scientific name, or family
- Certainty of identification
- Number of adults
- Number of juveniles
- Total number of animals
- Bearing to animal(s) when first detected (ship heading + clock face)
- Range from vessel (reticle distance in meters)
- Description (include features such as overall size; shape of head; color and pattern; size, shape, and position of dorsal fin; height, direction, and shape of blow, etc.)
- Detection narrative (note behavior, especially changes in relation to survey activity and distance from source vessel)

- Direction of travel/first approach (relative to vessel)
- Behaviors observed: indicate behaviors and behavioral changes observed in sequential order (use behavioral codes)
- If any bow-riding behavior observed, record total duration during detection (HH:MM)
- Initial heading of animal(s) (degrees) Final heading of animal(s) (degrees)
- Shutdown zone size during detection (meters)
- Was the animal inside the shutdown zone?
- Closest distance to vessel (reticle distance in meters)
- Time at closest approach (UTC HH:MM)
- Time animal entered shutdown zone (UTC HH:MM)
- Time animal left shutdown zone (UTC HH:MM)
- If observed/detected during ramp-up/power-up: first distance (reticle distance in meters), closest distance (reticle distance in meters), last distance (reticle distance in meters), behavior at final detection
- Did a shutdown/power-down occur?
 - Time shutdown was called for (UTC)
 - Time equipment was shut down (UTC)
- Detections with PAM

5.8 Geophysical Survey Conditions

5.8.1 Marine Mammal and Sea Turtle Geophysical Survey Clearance and Shutdown Zones (Planning) (Construction) (Operations) (Decommissioning). The Lessee must ensure that all vessels that operate sub-bottom survey equipment (e.g., boomer, sparker, and bubble-gun categories) below 180 kiloHertz (kHz) can establish minimum clearance and shutdown zone distances for ESA-listed species of marine mammals and sea turtles. For situational awareness, a monitoring zone (500 meters in all directions) for ESA-listed species must be

monitored around all vessels operating boomer, sparker, or bubble-gun equipment. The clearance and shutdown zones must be monitored by approved PSOs at all times.

5.8.1.1 The Lessee must implement clearance zones of 1,640 feet (500 meters) for NARWs and 656 feet (200 meters) for all other ESA-listed whales and sea turtles. Lessee must comply with any applicable Incidental Take Authorizations (ITAs) as required by NMFS for non-ESA listed marine mammals. Unless otherwise required by an ITA, the Lessee must monitor default clearance and shutdown zones of 328 feet (100 meters) for all non-ESA-listed marine mammals. The clearance and shutdown zones must be established with accurate distance finding methods (e.g., reticle binoculars, range-finding sticks, calibrated video cameras, and software). If the shutdown zones cannot be adequately monitored for animal presence (i.e., the lead PSO determines conditions are such that marine mammals cannot be reliably sighted within the shutdown zones), then the survey must be stopped until such time that the shutdown zones can be reliably monitored. For marine mammals, these requirements are for sound sources that are operating within the hearing range of marine mammals (below 180 kHz).

5.8.2 Geophysical Survey Off-Effort PSO Monitoring (Planning) (Construction) (Operations) (Decommissioning). During daylight hours when survey equipment is not operating, the Lessee must ensure that visual PSOs conduct, as rotation schedules allow, observations for comparison of sighting rates and behavior with and without use of the acoustic source and between acquisition periods. Off-effort PSO monitoring must be reflected in the monthly PSO monitoring reports.

5.8.3 Geophysical Survey Vessel Strike-Avoidance and Equipment Shutdown Protocols (Planning) (Construction) (Operations) (Decommissioning). Anytime a survey vessel is underway (transiting or surveying), a PSO must monitor a Vessel Strike Avoidance Zone (500 meters or greater from any sighted ESA-listed whale or other unidentified large marine mammal and 200 meters or greater from any other ESA-listed species visible at the surface) to ensure detection of that animal in time to take necessary measures to avoid striking the animal. If the survey vessel does not require a PSO for the type of survey equipment used, a trained crew lookout or PSO must be used.

5.8.3.1 If any whale is identified within 656-1,640 feet (200-500 meters) of the forward path of any vessel (defined as 90 degrees port to 90 degrees starboard), the vessel operator must steer a course away from the whale at 10 knots (18.5 kilometers/hour) or less until the

1,640 -foot (500-meter) minimum separation distance has been established. If an ESA-listed whale or other unidentified marine mammal is sighted within 656 feet (200 meters) of the forward path of a vessel, the vessel operator must reduce speed by immediately shifting the engine to neutral. Engines must not be engaged until the whale has moved outside of the vessel's path and beyond 1,640 feet (500 meters). If stationary, the vessel must not engage engines until the ESA-listed whale or other large unidentified whale has moved beyond 1,640 feet (500 meters).

- 5.8.3.2 If a sea turtle or manta ray is sighted within 656 feet (200 meters) of the operating vessel's forward path, the vessel operator must slow down to 4 knots (unless doing so would put the safety of the vessel or crew at risk) and may resume normal vessel operations once the vessel has passed the sea turtle or manta ray. If a sea turtle or manta ray is sighted within 656 feet (200 meters) of the forward path of the operating vessel, the vessel operator must shift to neutral (unless doing so would put the safety of the vessel or crew at risk) and then proceed away from the sea turtle or manta ray at a speed of 4 knots (7.4 kilometers per hour) or less until there is a separation distance of at least 565 feet (200 meters), at which time normal vessel speeds may be resumed.
- 5.8.3.3 During summer and fall, when sea turtles are most likely to be present in the survey area, vessels must avoid transiting through areas of visible jellyfish aggregations or floating vegetation (e.g., sargassum lines or mats). In the event that doing so would put the safety of the vessel or crew at risk, vessels must slow to 4 knots while transiting through such areas.
- 5.8.4 Geophysical Survey Clearance of Shutdown Zone and Restart Protocols Following Shutdowns (Planning) (Construction) (Operations) (Decommissioning). The Lessee must comply with the following requirements for geophysical survey shutdown zone monitoring, survey equipment powerup, and post-shutdown shutdown protocols for all ESA-listed species, in addition to any applicable ITA requirements under the MMPA for marine mammals.
 - 5.8.4.1 For threatened and endangered marine mammals and sea turtles, a 1,640-foot (500-meter) clearance zone for NARWs, 656 feet (200 meters) for other ESA-listed whales, 328 feet (100 meters) for non-listed marine mammals, and 164 feet (50 meters) for sea turtles must be established around each vessel operating boomer, sparker, or bubble-gun equipment. Before any noise-producing survey equipment is deployed, the clearance zones must be monitored for

30 minutes. If any ESA-listed species is observed within the clearance zone during the 30-minute pre-clearance period, the 30-minute clock must be paused. If the PSO confirms that the animal has exited the zone and headed away from the survey vessel, the 30-minute clock that was paused may resume. The pre-clearance clock will reset to 30 minutes if the animal dives or visual contact is otherwise lost during the clearance period.

- 5.8.4.2 For non-ESA-listed marine mammals, Lessee must comply with NMFS Project-specific mitigation and any applicable ITAs. If an ITA is not obtained, the Lessee must adhere to the following measures for non-ESA-listed species. Prior to powering up survey equipment, a 328-foot (100-meter) clearance zone must be clear of all: non-ESA-listed small cetaceans and seals for 15 minutes; and humpback whales, *Kogia*, and beaked whales for 30 minutes. If any non-ESA-listed marine mammal is observed within the clearance zone during the monitoring period, the clock must be paused for 15 or 30 minutes depending on the species sighted. If the PSO confirms that the animal has exited the shutdown zone and is headed away from the survey vessel, the clock that was paused may resume. The clock will reset to 15 minutes for small cetaceans and seals or 30 minutes for humpback whales, *Kogia*, and beaked whales if an observed marine mammal dives and is not resighted by the PSO.
- 5.8.4.3 Following pre-clearance and commencement of equipment operation, any time any marine mammal is sighted by a PSO within the applicable shutdown zone, the PSO must immediately notify the resident engineer or other authorized individual, who must shut down the survey equipment. Geophysical survey equipment may be allowed to continue operating if small cetaceans or seals voluntarily approach the vessel to bow ride, as determined by the PSO on duty, when the sound sources are at full operating power. Following a shutdown, the survey equipment may resume operating immediately only if visual monitoring of the shutdown zone continues throughout the shutdown, the animals causing the shutdown were visually followed and confirmed by PSOs to be outside of the shutdown zone and heading away from the vessel, and the shutdown zone remains clear of all protected species. The clock will reset to 15 minutes for small cetaceans and seals or 30 minutes for humpback whales, *Kogia*, and beaked whales if an observed marine mammal dives and is not resighted by the PSO.

5.8.4.4 Following a shutdown due to protected species sightings or any other reason, power-up of the equipment may begin immediately if: (a) the shutdown is less than 30 minutes; (b) visual monitoring of the shutdown zones continued throughout the shutdown; (c) any animal(s) causing a shutdown were visually followed and confirmed by PSOs to be outside of the shutdown zones and heading away from the vessel; and (d) the shutdown zones remain clear of all threatened and endangered species. If all these conditions (a, b, c, and d) are not met, then, before survey equipment can be turned back on, the clearance of the shutdown zone must be completed for threatened and endangered species, humpback whales, *Kogia*, and beaked whales for 30 minutes of observation, and 15 minutes for all other marine mammals.

5.8.5 Monthly HRG Survey Reporting for Protected Species (Planning) (Construction) (Operations) (Decommissioning). The Lessee must ensure that monthly reporting of survey activities is submitted to BOEM (at renewable_reporting@boem.gov) by the PSO provider on the 15th of each month for each vessel conducting survey work. Any editing, review, and quality assurance checks must be completed only by the PSO provider prior to submission to BOEM. The PSOs may record data electronically, but the data fields listed below must be recorded and exported to an Excel file. Alternatively, BOEM has developed an Excel spreadsheet with all the necessary data fields that is available upon request. The Lessee must submit final monthly reports to BOEM in coordination with PSO Providers within 90 calendar days following completion of a survey. Final monthly reports must contain vessel departure and return ports, PSO names and training certifications, the PSO provider contact information, dates of the survey, a vessel track, a summary of all PSO documented sightings of protected species, survey equipment shutdowns that occurred, any vessel strike-avoidance measures taken, takes of protected species that occurred, and any observed injured or dead protected species. PSOs must be approved by NMFS prior to the start of a survey, and the Lessee must submit documentation of NMFS' approval upon request to BOEM (at renewable_reporting@boem.gov). Application requirements to become a NMFS-approved PSO for geological and geophysical surveys can be obtained by sending an inquiry to nmfs.psoreview@noaa.gov. DOI will work with the Lessee to ensure that DOI does not release confidential business information found in the monitoring reports.

5.8.5.1 Instructions for HRG Survey Reports. The following data fields for PSO reports of geological and geophysical surveys must be reported in Excel format (.xml file):

Project Information:

- Project Name
- Lease Number
- State Coastal Zones
- Survey Contractor
- Vessel Name(s)
- Survey Type (typically HRG)
- Reporting start and end dates
- Visual monitoring equipment used (e.g., bionics, magnification, IR cameras, etc.)
- Distance finding method used
- PSO names (last, first) and training
- Observation height above sea surface

Operations Information:

- Vessel name(s)
- Sound sources, including equipment type, power levels, and frequencies used
- Greatest RMS source Level

Monitoring Effort Information:

- Date (YYYY-MM-DD)
- Noise source (ON=source on; OFF=source off)
- If visual, how many PSOs on watch at one time?
- PSOs (Last, First)
- Start time of observations
- End time of observations

- Duration of visual observation
- Wind speed (knots), from direction
- Swell (meters)
- Water depth (meters)
- Visibility (km)
- Glare severity
- Block name and number
- Location: Latitude and Longitude;
- Time pre-clearance visual monitoring began in UTC (HH:MM)
- Time pre-clearance monitoring ended in UTC (HH:MM)
- Duration of pre-clearance visual monitoring
- Was pre-clearance conducted during day or night?
- Time power-up/ramp-up began
- Time equipment full power was reached
- Duration of power-up/ramp-up
- Time survey activity began (equipment on)
- Time survey activity ended (equipment off)
- Survey Duration
- Did a shutdown/power-down occur?
 - Time shutdown was called for (UTC)
 - Time equipment was shut down (UTC)
- Vessel positions (logged every 30 seconds)
- Habitat or prey observations
- Marine debris sighted

Detection Information:

- Date (YYYY-MM-DD)
- Sighting ID (V01, V02, or sequential sighting number for that day) (multiple sightings of the same animal or group should use the same ID)
- Date and time at first detection in UTC (YY-MM-DDT HH:MM)
- Time at last detection in UTC (YY-MM-DDT HH:MM)
- PSO name(s) (Last, First)
- Effort (ON=Source On; OFF=Source Off)
- Latitude (decimal degrees dd.ddddd), longitude (decimal degrees dd.ddddd) dd.ddddd), longitude (decimal degrees dd.ddddd)
- Compass heading of vessel (degrees)
- Water depth (meters)
- Swell height (meters)
- Beaufort scale
- Precipitation
- Visibility (km)
- Cloud coverage (%)
- Glare
- Sightings including common name, scientific name, or family
- Certainty of identification
- Number of adults
- Number of juveniles
- Total number of animals
- Bearing to animal(s) when first detected (ship heading + clock face)
- Range from vessel (reticle distance in meters)

- Description (include features such as overall size; shape of head; color and pattern; size, shape, and position of dorsal fin; height, direction, and shape of blow, etc.)
- Detection narrative (note behavior, especially changes in relation to survey activity and distance from source vessel)
- Direction of travel/first approach (relative to vessel)
- Behaviors observed: indicate behaviors and behavioral changes observed in sequential order (use behavioral codes)
- If any bow-riding behavior observed, record total duration during detection (HH:MM)
- Initial heading of animal(s) (degrees)
- Final heading of animal(s) (degrees)
- Source activity at initial detection
- Source activity at final detection (on or off)
- Shutdown zone size during detection (meters)
- Was the animal inside the shutdown zone?
- Closest distance to vessel (reticle distance in meters)
- Time at closest approach (UTC HH:MM)
- Time animal entered shutdown zone (UTC HH:MM)
- Time animal left shutdown zone (UTC HH:MM)
- If observed/detected during ramp-up/power-up: first distance (reticle distance in meters), closest distance (reticle distance in meters), last distance (reticle distance in meters), behavior at final detection
- Shutdown or power-down occurrences
 - Time shutdown was called for (UTC)
 - Time equipment was shut down (UTC)
- Detections with IR? (Y/N)

6 CONDITIONS RELATED TO COMMERCIAL FISHERIES, FOR-HIRE RECREATIONAL FISHING, AND ENVIRONMENTAL JUSTICE

6.1 Communication with the Fishing Community (Planning) (Construction) (Operations) (Decommissioning). The Lessee must establish clear daily two-way communication channels among fishermen and the Project construction vessel operators during construction activities in the WDA and ports utilized by Project vessels. The Lessee is responsible for ensuring that this communication is executed by all contractors and sub-contractors.

6.2 Data Sharing with the Fishing Community (Operations). The Lessee must make available to the fishing community electronic chart information showing the as-built location of Project infrastructure – including the cables, cable protection measures, turbine foundations, turbine foundation scour protection, and ESP(s) – no later than 1 year after the date on which the Project commences commercial operations (Commercial Operations Date or COD).

6.3 Fisheries Compensation and Mitigation Funds (Planning) (Construction) (Operations) (Decommissioning).

6.3.1 No later than 1 year after the approval of the COP, the Lessee must establish the following compensation/mitigation funds to compensate commercial fishermen for losses directly related to the Project and mitigate other impacts:

6.3.1.1 Rhode Island Compensation Fund - \$4,200,000 (Record of Decision, Appendix A, Mitigation Measure No. 75);

6.3.1.2 Massachusetts Compensation Fund - \$19,185,016 (Record of Decision, Appendix A, Mitigation Measure No. 76);

6.3.1.3 Other States' Compensation Fund - \$3,000,000 (Record of Decision, Appendix A, Mitigation Measure No. 77) Rhode Island Fisherman's Future Viability Trust - \$12,500,000 (Record of Decision, Appendix A, Mitigation No. 78); and

6.3.1.4 Massachusetts Fisheries Innovation Fund - \$1,750,000 (Record of Decision, Appendix A, Mitigation No. 79).

6.3.2 The Lessee must establish the compensation/mitigation funds listed in Section 6.3.1 in accordance with consistency certifications issued for the Project under the Coastal Zone Management Act. The Lessee must require the administrator of each compensation/mitigation fund (Administrator/Trustee) to notify BOEM that the compensation/mitigation fund has been established and is processing claims to mitigate impacts to fisheries. Notification can be accomplished by the Administrator/Trustee transmitting to BOEM an annual

financial statement of the trust/fund. The Administrator/Trustee submit the required notification by December 31 of each year, beginning on the second anniversary of the Project's COD. The notification must be signed by the Administrator/Trustee.

- 6.3.3 No later than 1 year after the approval of the COP, the Lessee must host at least 1 outreach event, held virtually or in person, with the federally recognized tribes that are interested in and could be eligible for the funds listed in Section 6.3.1, based on geographic location. The following federally recognized tribes must be invited to the outreach event at least 28 calendar days in advance of the event: the Mashpee Wampanoag Tribe, the Wampanoag of Gay Head (Aquinnah); the Mashantucket Pequot Indian Tribe; the Mohegan Tribe of Indians of Connecticut; the Shinnecock Indian Nation; the Narraganset Indian Tribe; and the Delaware Tribe of Indians. In advance of sending an invitation, the Lessee must solicit input from the Tribes about their availability to meet and must make reasonable efforts to maximize participation of tribal representatives. If a Tribe informs the Lessee that it is not able or does not wish to participate, the Lessee must make available to that Tribe any materials from the event along with a recording of the event or a summary.
- 6.4 Survey Monitoring Program (Planning) (Construction) (Operations) (Decommissioning). The Lessee must participate in good faith with the establishment of the Federal Survey Monitoring Program. Participation includes, but is not limited to, the sharing of information and engagement in scientific studies needed to understand the impact of wind energy development on: (I) marine ecosystems and the human communities that use these marine ecosystems; and (II) the following surveys: (a) NOAA Spring and Autumn Bottom Trawl surveys; (b) NOAA Ecosystem Monitoring surveys; (c) NOAA NARW aerial surveys; (d) NOAA aerial and shipboard marine mammal and sea turtle surveys; (e) NOAA Atlantic surfclam and ocean quahog surveys; (f) NOAA and industry-based Atlantic sea scallop surveys; and (g) any other surveys in the region impacted by wind energy development.
- 6.5 Environmental Data Sharing with Federally Recognized Tribes (Planning) (Construction) (Operations) (Decommissioning). No later than 90 calendar days after COP approval, the Lessee must contact the federally recognized tribes participating in government-to-government consultations with BOEM for the Project in order to solicit their interest in receiving access to the results of non-proprietary/non-business confidential reports or portions of reports generated as a result of: the Benthic Monitoring Plan; optical surveys of benthic invertebrates and habitat; evaluation of additional benthic habitat data in Muskeget Channel prior to cable lay operations; trawl survey for finfish and squid; reporting of all NARW sightings; injured or dead protected species reporting (turtles and NARW); NARW PAM monitoring; PSO

reports (e.g., weekly pile-driving reports); and pile-driving schedule and changes thereto. At a minimum, the Lessee must contact and offer this access to the following federally recognized tribes: the Mashpee Wampanoag Tribe; the Wampanoag of Gay Head (Aquinnah); the Mashantucket Pequot Indian Tribe; the Mohegan Tribe of Indians of Connecticut; the Shinnecock Indian Nation; the Narraganset Indian Tribe; and the Delaware Tribe of Indians. For any of these federally recognized tribes confirming interest in receiving the results of these non-proprietary/non-business confidential reports or portions of reports, the Lessee must provide such materials no later than 30 calendar days after the information becomes available.

6.6 Coordination with Federally Recognized Tribes in Local Hiring Plan (Planning) (Construction) (Operations) (Decommissioning). No later than 6 months after COP approval, the Lessee must prepare and implement a local hiring plan to maximize Vineyard Wind's direct hiring of southeastern Massachusetts residents. Components of the plan must include coordination with unions, training facilities, schools, the Mashpee Wampanoag Tribe, and the Wampanoag Tribe of Gay Head (Aquinnah).

7 CONDITIONS RELATED TO CULTURAL RESOURCES

7.1 Remove Six Northeastern Turbine Placement Locations (Planning) (Construction). The Lessee must not construct wind turbines in the 6 northeastern-most turbine placement locations depicted in the proposed layout closest to Martha's Vineyard, Nantucket, and adjacent islands, as shown in Figure 2.1-2 of the FEIS. The Lessee must provide as-built documents showing turbine locations within 1 year of installation.

7.2 Apply Paint Color No Lighter than RAL (Reichs-Ausschuß für Lieferbedingungen und Gütesicherung) 9010 Pure White and No Darker than RAL 7035 Light Grey to the Turbines (Planning) (Construction) (Operations). The Lessee must paint the wind turbines an off white/grey color (no lighter than RAL 9010 Pure White and no darker than RAL 7035 Light Grey) prior to commencing commercial operations. The BOEM-approved CVA or the Lessee must confirm the paint color as part of the FIR.

7.3 Fund a Restoration and Stabilization Project at Gay Head Light (Planning) (Construction). The Lessee must fund and conduct, at a cost not to exceed \$137,500, a restoration and stabilization project for the Gay Head Light to address the advanced state of corrosion of the lantern curtain wall in accordance with both the Section 106 MOA and the Gay Head Light Treatment Plan (Attachment 4 of the Section 106 MOA), and in a manner acceptable to BOEM. The Lessee must fund and commence the restoration and stabilization project prior to initiating construction of any offshore Project elements within the WDA on the OCS included as part of this undertaking. Prior to initiating such construction, the Lessee must provide BOEM with documentation demonstrating that the Massachusetts Historical Commission has approved the restoration and stabilization project plans.

7.4 Fund an Ethnographic Study and Prepare a National Register of Historic Places Nomination Package for the Chappaquiddick Island Traditional Cultural Property (Planning) (Construction). The Lessee must fund and conduct, at a cost not to exceed \$150,000, an ethnographic study of and prepare a National Register of Historic Places (NRHP) nomination package for the Chappaquiddick Island Traditional Cultural Property (TCP) in accordance with both the Section 106 MOA and the Chappaquiddick Island Traditional Cultural Property Treatment Plan (Attachment 5 of the Section 106 MOA), and in a manner acceptable to BOEM. The Lessee must fund and commence the study prior to initiating construction of any offshore Project elements within the WDA on the OCS included as part of this undertaking. Documentation confirming the funding and commencement of the study must be submitted to BOEM prior to the initiation of such construction.

7.5 Fund an Ethnographic Study and Prepare an NRHP Nomination Package for the Vineyard Sound and Moshup's Bridge TCP (Planning) (Construction). The Lessee must fund and conduct, at a cost not to exceed \$150,000, an ethnographic study of and prepare an NRHP nomination package for the Vineyard Sound and Moshup's Bridge TCP in accordance with both the Section 106 MOA and the Vineyard Sound and Moshup's Bridge Traditional Cultural Property Treatment Plan (Attachment 6 of the Section 106 MOA), and in a manner acceptable to BOEM. The Lessee must fund and commence the study prior to initiating construction of any offshore Project elements within the WDA on the OCS included as part of this undertaking. Documentation confirming the funding and commencement of the study must be submitted to BOEM prior to the initiation of such construction.

7.6 Avoid Identified Shipwrecks, Debris Fields, and Submerged Landform Features that Can be Avoided (Planning) (Construction) (Operations) (Decommissioning). The Lessee must avoid all identified potential shipwrecks and potentially significant debris fields—as well as the following submerged ancient landform features identified during marine archaeological surveys of the WDA and OECC—by a distance no less than that required under Stipulations II.A and II.B of the Section 106 MOA: Channel Group 18; Channel Group 19; Channel Group 20; PSW-1/OECC KP 25.45; PSW-2/OECC KP 27.5; PSW-3/NHAL KP 1.0; PSW-4/NHAL KP 2.9; PSW-5/NHAL KP 3.5; Channel Group 23; Channel Group 26; Channel Group 27; Channel Group 28; Channel Group 30; Channel Group 31; Channel Group 33; Channel Group 34; and Channel Group 46. If the Lessee determines that it cannot avoid any of the listed submerged ancient landform features, the potential shipwrecks, or potentially significant debris fields as required under Stipulations II.A and II.B of the Section 106 MOA, the Lessee must notify BOEM prior to entering or disturbing the seabed in the excluded area. BOEM will notify the Lessee of any additional requirements, which may include additional investigations to confirm the nature of the resource, additional investigations to determine the resource's eligibility for the National Register of Historic Places, and data recovery excavations. If any vessel conducting work on behalf of the Lessee

enters or impacts the seafloor within the avoidance areas noted above, the Lessee must submit an incident report to BOEM within 24 hours.

7.7 Conduct Mitigation Investigations of 19 Previously Identified Submerged Landform Features that Cannot be Avoided (Planning) (Construction). The Lessee must fund mitigation investigations of the 19 submerged ancient landform features identified during marine archaeological surveys of the WDA and OECC that remain in the Area of Potential Effects (APE) and cannot be avoided due to the undertaking's design constraints. The Lessee must execute all aspects of this condition of COP approval in accordance with the Section 106 MOA and the Treatment Plan for Submerged Ancient Landform Features (Attachment 8 of the Section 106 MOA), and in a manner acceptable to BOEM. The Lessee must fund and commence these measures prior to the initiation of any offshore, seabed-disturbing Project elements included as part of this undertaking, and the core samples described in the Treatment plan for Ancient Submerged Landform Features (Attachment 8 of the Section 106 MOA) must be collected prior to any construction disturbance within 1,640 feet (500 meters) of the 19 unavoidable submerged ancient landform features. All aspects of the Treatment Plan for Submerged Ancient Landform Features (Attachment 8 of the Section 106 MOA) and associated reports and training, must be completed within 5 years of the date of execution of the Section 106 MOA. The report(s) prepared must be submitted to BOEM (at renewable_reporting@boem.gov) and to BSEE (at env-compliance-arc@bsee.gov).

7.8 Archaeological Survey Required (Planning). In accordance with the provisions of the MOA implementing 36 C.F.R. § 800.4(b)(2), the Lessee must provide to BOEM the results of a marine archaeological resources assessment, and supporting data, in accordance with BOEM's *Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 C.F.R. Part 585*, for all portions of the marine archaeological APE that were not previously available for BOEM's Section 106 review of the approved COP. The Lessee must provide these materials at least 90 calendar days prior to any intended seafloor disturbance within 1,640 feet (500 meters) of this portion of the APE.

7.8.1 The Lessee must ensure that the analysis of archaeological survey data collected in support of this assessment and the preparation of archaeological reports created in support of this assessment are conducted by a Qualified Marine Archaeologist. A Qualified Marine Archaeologist must meet the Secretary of the Interior's Professional Qualifications Standards (48 Fed. Reg. 44738- 44739) and possess experience in conducting HRG surveys and in processing and interpreting the resulting data for archaeological potential.

7.8.2 The Lessee must inform the Qualified Marine Archaeologist that they may be present during data collection and seabed-disturbing activities performed in support of this assessment. In the event that this Qualified Marine

Archaeologist indicates that they wish to be present, the Lessee must facilitate the Qualified Marine Archaeologist's presence, as requested by the Qualified Marine Archaeologist, and provide the Qualified Marine Archaeologist the opportunity to inspect data quality.

7.9 **Avoid or Investigate and Mitigate Submerged Potential Historic Properties Identified as a Result of Future Marine Archaeological Resources Identification Surveys** (Planning) (Construction) (Operations) (Decommissioning). The Lessee must avoid or investigate any potential archaeological resources or submerged ancient landform features identified as a result of the completion of marine archaeological resource identification surveys that will be performed in all portions of the marine archaeological resources APE not previously surveyed, as required under Section 7.8, above. Avoidance or additional investigations will be performed according to the following:

7.9.1 **Avoidance of Potential Archaeological Resources.** Where feasible, the Lessee will avoid any potential archaeological resource (i.e., one or more geophysical survey anomalies or targets with the potential to be an archaeological resource, as determined by BOEM) identified as a result of marine archaeological resource identification surveys performed under Section 7.8, above, by a distance of no less than 984 feet (300 meters) from the known extent of the resource, unless the buffer would preclude the installation of facilities at their engineered locations, but in no event may the buffer be less than 328 feet (100 meters) from the known extent of the resource.

7.9.2 **Additional Investigation of Potential Archaeological Resources.** If the Lessee determines that avoidance of the potential archaeological resource is not possible, the Lessee must investigate and assess the potential resource to BOEM's and Massachusetts State Historic Preservation Officer's satisfaction using acceptable methodologies that meet industry standard ground truthing techniques to determine whether it constitutes an identified archaeological resource. The Lessee must perform the additional investigations in accordance with Stipulation III.B.2 of the Section 106 MOA.

7.9.3 **Avoidance of Submerged Ancient Landform Features.** The Lessee must evaluate and determine the feasibility of avoiding submerged ancient landform features with the potential to contain archaeological resources identified as a result of future marine archaeological resource identification surveys performed under Section 7.8, above, and must avoid as many features as possible unless the avoidance would preclude the installation of facilities at their engineered locations. The Lessee must report its evaluation(s) and determination(s) in accordance with Stipulation III.A. of the Section 106 MOA.

7.9.4 Mitigation of Unavoidable Submerged Ancient Landform Features. If the Lessee determines that avoidance of the identified submerged ancient landform features with the potential to contain archaeological resources is not possible, the Lessee must conduct additional mitigation investigations to resolve the adverse effect pursuant to 36 C.F.R. § 800.6. The Lessee will perform the same mitigation that will be used to resolve effects to the known 19 unavoidable submerged landform features, including conducting additional investigations and development of educational and documentary materials, in accordance with Stipulation II.C, Stipulation III.B.4, and the Treatment Plan for Submerged Ancient Landform Features with the Potential to Contain Pre-Contact Period Archaeological Sites (Attachment 8) of the Section 106 MOA and referenced in Section 7.7. The Lessee must fund and commence these measures prior to the initiation of any offshore seabed-disturbing Project elements included as part of this undertaking, and all core samples must be collected prior to any construction disturbance within 1,640 feet (500 meters) of the 19 unavoidable submerged ancient landform features and any other identified submerged ancient landform features determined by the Lessee to be unavoidable pursuant to Section 7.9.3. All aspects of the Treatment Plan for Submerged Ancient Landform Features (Attachment 8) of the Section 106 MOA, and associated reports and training must be completed within 5 years of the date of execution of that Agreement. The report(s) prepared must be submitted to BOEM (at renewable_reporting@boem.gov) and to BSEE (at env-compliance-arc@bsee.gov).

7.9.5 Mitigation of Unavoidable National Register Eligible Archaeological Resources. For any archaeological resources determined eligible for listing on the National Register (i.e., historic properties) under Stipulation III.A of the MOA, the Lessee will complete a Phase III Archaeological Data Recovery mitigation, pursuant to 36 C.F.R. § 800.6. The Lessee will fund and complete these measures prior to the initiation of construction of any Project elements within 1,640 feet (500) meters of the identified resource.

7.9.6 Archaeological Monitoring of Onshore Cable Route Corridor Construction (Construction). The Lessee must ensure that a qualified archaeologist performs terrestrial archaeological monitoring during all ground disturbing activities in areas of moderate to high archaeological sensitivity, to include construction activities within the staging areas for the horizontal directional drill or open trenching in the landfall area and during installation of upland cable within the identified zones of high and moderate archaeological sensitivity along existing roads, as defined by the Vineyard Wind's cultural resource consultant. The Lessee must perform the archaeological monitoring in accordance with Stipulation IV of the Section 106 MOA.

7.10 Post-Review Discoveries (Planning) (Construction) (Operations) (Decommissioning).

If, while conducting activities under the approved COP, the Lessee discovers a potential archaeological resource, such as the presence of a shipwreck (e.g., a sonar image or visual confirmation of an iron, steel, or wooden hull, wooden timbers, anchors, concentration of historic objects, piles of ballast rock), prehistoric artifacts, relict landforms, or other items potentially of an archaeological nature within the WDA, then the Lessee must:

- 7.10.1 Immediately halt seabed-disturbing activities within the area of discovery;
- 7.10.2 As soon as practicable and no later than 24 hours after the discovery, notify BOEM (at renewable_reporting@boem.gov) and BSEE (at 504-388-3464 and env-compliance-arc@bsee.gov) for additional instructions;
- 7.10.3 Notify DOI in writing via written report, describing the discovery in detail, including a narrative description of the manner of discovery (e.g., date, time, heading, weather, information from logs); a narrative description of the potential resource, including measurements; images of the potential resource that may have been captured; portions of raw and processed datasets relevant to the discovery area; and any other information considered by the Lessee to be relevant to DOI's understanding of the potential resource. Provide the notification to BOEM (at renewable_reporting@boem.gov) and to BSEE (at env-compliance-arc@bsee.gov) within 72 hours of its discovery. DOI may request additional information and/or request revisions to the report;
- 7.10.4 Keep the location of the discovery confidential and take no action that may adversely affect the archaeological resource until DOI has made an evaluation and instructs the Lessee on how to proceed, including when activities may recommence; and
- 7.10.5 Conduct any additional investigations and submit documentation as directed by DOI to determine if the resource is eligible for listing in the National Register of Historic Places (30 C.F.R. § 585.802(b)). The Lessee must satisfy this requirement only if: (1) the site has been impacted by the Lessee's Project activities; and/or (2) impacts to the site or to the APE cannot be avoided. If investigations indicate that the resource is potentially eligible for listing in the National Register of Historic Places, DOI will instruct the Lessee how to protect the resource or how to mitigate adverse effects to the site. If DOI incurs costs in protecting the resource, then DOI may charge, under Section 110(g) of the National Historic Preservation Act, the Lessee reasonable costs for carrying out preservation responsibilities under OCSLA (30 C.F.R. § 585.802(c-d)).

7.11 No Impact without Approval (Planning) (Construction) (Operations) (Decommissioning). The Lessee must not knowingly impact a potential archaeological resource without DOI's prior authorization. If a possible impact to a potential archaeological resource occurs, the Lessee must: immediately halt operations; report the incident with 24 hours to BOEM (at renewable_reporting@boem.gov) and BSEE (at 504-388-3464 and env-compliance-arc@bsee.gov); and provide a written report to BOEM (at renewable_reporting@boem.gov) and BSEE (at env-compliance-arc@bsee.gov) within 72 hours.

7.12 PAM Placement Review (Construction) (Operations) (Decommissioning). The Lessee may only place PAMs in locations where an analysis of the results of geophysical surveys has been completed. This analysis must include a determination by a Qualified Marine Archaeologist as to whether any potential archaeological resources are present in the area. This activity may have been performed already as part of the Lessee's submission of archaeological resources reports in support of its approved COP. Except as allowed by DOI under Stipulation 4.2.6 of the Lease and Section 7.11 above, the PAM placement activities must avoid potential archaeological resources by a minimum of 328 feet (100 meters), and the avoidance distance must be calculated from the maximum discernible extent of the archaeological resource. If the placement area was not previously reviewed and certified by a Qualified Marine Archaeologist in support of the Lessee's approved COP, a Qualified Marine Archaeologist must certify, in an annual letter to DOI, that the Lessee's PAM placement activities did not impact potential historic properties identified as a result of the Qualified Marine Archaeologist's determination, except as follows: in the event that the PAM placement activities did impact potential historic properties identified in the archaeological surveys without the DOI's prior authorization, the Lessee and the Qualified Marine Archaeologist who prepared the report must instead provide to DOI a statement documenting the extent of these impacts. This statement must be made to DOI in accordance with Stipulation 4.2.7 of the Lease and Section 7.10, above. BOEM reserves the right to require additional mitigation measures based on a review of the results and supporting information.

ATTACHMENT 1: LIST OF ACRONYMS

AC	Advisory Circular
ADEON	Atlantic Deepwater Ecosystem Observatory Network
ADLS	Aircraft Detection Lighting System
AIS	Automated Information System
ALARP	As Low as Reasonably Practical
ANSI	American National Standards Institute
APE	Area of Potential Effects
ASR	Airport Surveillance Radar
ASSE	American Society of Safety Engineers
BiOp	Biological Opinion
BOEM	Bureau of Ocean Energy Management
BSEE	Bureau of Safety and Environmental Enforcement
CBRA	Cable Burial Risk Assessment
COD	Commercial Operations Date
COP	Construction and Operations Plan
CPT	Cone Penetration Testing or Cone Penetration Test
CVA	Certified Verification Agents
CZM	Coastal Zone Management
DAS	Distributed Acoustic Sensing
DGPS	Differential Global Positioning System
DMA	Dynamic Management Area
DMM	Discarded Military Munitions
DoD	Department of Defense
DOI	Department of the Interior
DON	Department of the Navy
DTS	Desktop Study
ESA	Endangered Species Act
ESP	Electrical Service Platform
FAA	Federal Aviation Administration
FDR	Facility Design Report
FEIS	Final Environmental Impact Statement
FIR	Fabrication and Installation Report
HAPC	Habitat Areas of Particular Concern
HD	High Definition
HDD	Horizontal Directional Drilling
HF	High Frequency
HRG	High Resolution Geophysical
IALA	International Association of Marine Aids to Navigation and Lighthouse Authorities

IEC	International Electric Code
IHA	Incidental Harassment Authorization
IMT	Incident Management Team
ISO	International Organization for Standardization
ITA	Incidental Take Authorization
LERA	Least Expensive Radar
LOI	Letter of Intent
LOS	Line of Sight
MassDEP	Massachusetts Department of Environmental Protection
MOA	Memorandum of Agreement
NARW	North Atlantic Right Whale
NMFS	NOAA National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NORAD	North American Aerospace Defense Command
NRHP	National Register of Historic Places
OCS	Outer Continental Shelf
OCSLA	Outer Continental Shelf Lands Act
OECC	Offshores Export Cable Corridor
OEM	Original Equipment Manufacturer
OSRO	Oil Spill Removal Organization
OSRP	Oil Spill Response Plan
PAM	Passive Acoustic Monitoring or Passive Acoustic Monitor(s)
PATON	Private Aids to Navigation
PDM	Pile-Driving Monitoring
PPP	Piping Plover Protection
PSO	Protected Species Observer
QI	Qualified Individual
RAL	Reichs-Ausschuß für Lieferbedingungen und Gütesicherung
RAM	Radar Adverse-impact Management
SDS	Safety Data Sheets
SMA	Seasonal Management Area
SMS	Safety Management System
SROT	Spill Response Operating Team
SSV	Sound Source Verification
TCP	Traditional Cultural Property
USACE	United States Army Corps of Engineers
USAF	United States Air Force
USFF	United States Fleet Forces
USFWS	United States Fish and Wildlife Service
UXO	Unexploded Ordnance
VHF	Very High Frequency

WCD Worst-Case Discharge
WDA Wind Development Area
WTG Wind Turbine Generator

**ATTACHMENT 2: RHODE ISLAND AND MASSACHUSETTS STRUCTURE
LABELING PLOT (WEST)**

**ATTACHMENT 2: RHODE ISLAND AND MASSACHUSETTS STRUCTURE
LABELING PLOT (EAST)**

AJ 29	AJ 30	AJ 31	AJ 32	AJ 33	AJ 34	AJ 35	AJ 36	AJ 37	AJ 38	AJ 39	AJ 40	AJ 41	AJ 42	AJ 43	AJ 44	AJ 45	AJ 46	AJ 47	AJ 48	AJ 49	AJ 50	AJ 51	AJ 52	AJ 53	AJ 54	AJ 55	AJ 56	AJ 57
AK 29	AK 30	AK 31	AK 32	AK 33	AK 34	AK 35	AK 36	AK 37	AK 38	AK 39	AK 40	AK 41	AK 42	AK 43	AK 44	AK 45	AK 46	AK 47	AK 48	AK 49	AK 50	AK 51	AK 52	AK 53	AK 54	AK 55	AK 56	AK 57
AL 29	AL 30	AL 31	AL 32	AL 33	AL 34	AL 35	AL 36	AL 37	AL 38	AL 39	AL 40	AL 41	AL 42	AL 43	AL 44	AL 45	AL 46	AL 47	AL 48	AL 49	AL 50	AL 51	AL 52	AL 53	AL 54	AL 55	AL 56	AL 57
AM 29	AM 30	AM 31	AM 32	AM 33	AM 34	AM 35	AM 36	AM 37	AM 38	AM 39	AM 40	AM 41	AM 42	AM 43	AM 44	AM 45	AM 46	AM 47	AM 48	AM 49	AM 50	AM 51	AM 52	AM 53	AM 54	AM 55	AM 56	AM 57
AN 29	AN 30	AN 31	AN 32	AN 33	AN 34	AN 35	AN 36	AN 37	AN 38	AN 39	AN 40	AN 41	AN 42	AN 43	AN 44	AN 45	AN 46	AN 47	AN 48	AN 49	AN 50	AN 51	AN 52	AN 53	AN 54	AN 55	AN 56	AN 57
AP 29	AP 30	AP 31	AP 32	AP 33	AP 34	AP 35	AP 36	AP 37	AP 38	AP 39	AP 40	AP 41	AP 42	AP 43	AP 44	AP 45	AP 46	AP 47	AP 48	AP 49	AP 50	AP 51	AP 52	AP 53	AP 54	AP 55	AP 56	AP 57
AQ 29	AQ 30	AQ 31	AQ 32	AQ 33	AQ 34	AQ 35	AQ 36	AQ 37	AQ 38	AQ 39	AQ 40	AQ 41	AQ 42	AQ 43	AQ 44	AQ 45	AQ 46	AQ 47	AQ 48	AQ 49	AQ 50	AQ 51	AQ 52	AQ 53	AQ 54	AQ 55	AQ 56	AQ 57
AR 29	AR 30	AR 31	AR 32	AR 33	AR 34	AR 35	AR 36	AR 37	AR 38	AR 39	AR 40	AR 41	AR 42	AR 43	AR 44	AR 45	AR 46	AR 47	AR 48	AR 49	AR 50	AR 51	AR 52	AR 53	AR 54	AR 55	AR 56	AR 57
AS 29	AS 30	AS 31	AS 32	AS 33	AS 34	AS 35	AS 36	AS 37	AS 38	AS 39	AS 40	AS 41	AS 42	AS 43	AS 44	AS 45	AS 46	AS 47	AS 48	AS 49	AS 50	AS 51	AS 52	AS 53	AS 54	AS 55	AS 56	AS 57
AT 29	AT 30	AT 31	AT 32	AT 33	AT 34	AT 35	AT 36	AT 37	AT 38	AT 39	AT 40	AT 41	AT 42	AT 43	AT 44	AT 45	AT 46	AT 47	AT 48	AT 49	AT 50	AT 51	AT 52	AT 53	AT 54	AT 55	AT 56	AT 57
AU 29	AU 30	AU 31	AU 32	AU 33	AU 34	AU 35	AU 36	AU 37	AU 38	AU 39	AU 40	AU 41	AU 42	AU 43	AU 44	AU 45	AU 46	AU 47	AU 48	AU 49	AU 50	AU 51	AU 52	AU 53	AU 54	AU 55	AU 56	AU 57
AV 29	AV 30	AV 31	AV 32	AV 33	AV 34	AV 35	AV 36	AV 37	AV 38	AV 39	AV 40	AV 41	AV 42	AV 43	AV 44	AV 45	AV 46	AV 47	AV 48	AV 49	AV 50	AV 51	AV 52	AV 53	AV 54	AV 55	AV 56	AV 57
AW 29	AW 30	AW 31	AW 32	AW 33	AW 34	AW 35	AW 36	AW 37	AW 38	AW 39	AW 40	AW 41	AW 42	AW 43	AW 44	AW 45	AW 46	AW 47	AW 48	AW 49	AW 50	AW 51	AW 52	AW 53	AW 54	AW 55	AW 56	AW 57
AX 29	AX 30	AX 31	AX 32	AX 33	AX 34	AX 35	AX 36	AX 37	AX 38	AX 39	AX 40	AX 41	AX 42	AX 43	AX 44	AX 45	AX 46	AX 47	AX 48	AX 49	AX 50	AX 51	AX 52	AX 53	AX 54	AX 55	AX 56	AX 57
AY 29	AY 30	AY 31	AY 32	AY 33	AY 34	AY 35	AY 36	AY 37	AY 38	AY 39	AY 40	AY 41	AY 42	AY 43	AY 44	AY 45	AY 46	AY 47	AY 48	AY 49	AY 50	AY 51	AY 52	AY 53	AY 54	AY 55	AY 56	AY 57
AZ 29	AZ 30	AZ 31	AZ 32	AZ 33	AZ 34	AZ 35	AZ 36	AZ 37	AZ 38	AZ 39	AZ 40	AZ 41	AZ 42	AZ 43	AZ 44	AZ 45	AZ 46	AZ 47	AZ 48	AZ 49	AZ 50	AZ 51	AZ 52	AZ 53	AZ 54	AZ 55	AZ 56	AZ 57
BA 29	BA 30	BA 31	BA 32	BA 33	BA 34	BA 35	BA 36	BA 37	BA 38	BA 39	BA 40	BA 41	BA 42	BA 43	BA 44	BA 45	BA 46	BA 47	BA 48	BA 49	BA 50	BA 51	BA 52	BA 53	BA 54	BA 55	BA 56	BA 57
BB 29	BB 30	BB 31	BB 32	BB 33	BB 34	BB 35	BB 36	BB 37	BB 38	BB 39	BB 40	BB 41	BB 42	BB 43	BB 44	BB 45	BB 46	BB 47	BB 48	BB 49	BB 50	BB 51	BB 52	BB 53	BB 54	BB 55	BB 56	BB 57
BC 29	BC 30	BC 31	BC 32	BC 33	BC 34	BC 35	BC 36	BC 37	BC 38	BC 39	BC 40	BC 41	BC 42	BC 43	BC 44	BC 45	BC 46	BC 47	BC 48	BC 49	BC 50	BC 51	BC 52	BC 53	BC 54	BC 55	BC 56	BC 57
BD 29	BD 30	BD 31	BD 32	BD 33	BD 34	BD 35	BD 36	BD 37	BD 38	BD 39	BD 40	BD 41	BD 42	BD 43	BD 44	BD 45	BD 46	BD 47	BD 48	BD 49	BD 50	BD 51	BD 52	BD 53	BD 54	BD 55	BD 56	BD 57
BE 29	BE 30	BE 31	BE 32	BE 33	BE 34	BE 35	BE 36	BE 37	BE 38	BE 39	BE 40	BE 41	BE 42	BE 43	BE 44	BE 45	BE 46	BE 47	BE 48	BE 49	BE 50	BE 51	BE 52	BE 53	BE 54	BE 55	BE 56	BE 57
BF 29	BF 30	BF 31	BF 32	BF 33	BF 34	BF 35	BF 36	BF 37	BF 38	BF 39	BF 40	BF 41	BF 42	BF 43	BF 44	BF 45	BF 46	BF 47	BF 48	BF 49	BF 50	BF 51	BF 52	BF 53	BF 54	BF 55	BF 56	BF 57
BG 29	BG 30	BG 31	BG 32	BG 33	BG 34	BG 35	BG 36	BG 37	BG 38	BG 39	BG 40	BG 41	BG 42	BG 43	BG 44	BG 45	BG 46	BG 47	BG 48	BG 49	BG 50	BG 51	BG 52	BG 53	BG 54	BG 55	BG 56	BG 57
BH 29	BH 30	BH 31	BH 32	BH 33	BH 34	BH 35	BH 36	BH 37	BH 38	BH 39	BH 40	BH 41	BH 42	BH 43	BH 44	BH 45	BH 46	BH 47	BH 48	BH 49	BH 50	BH 51	BH 52	BH 53	BH 54	BH 55	BH 56	BH 57
BJ 29	BJ 30	BJ 31	BJ 32	BJ 33	BJ 34	BJ 35	BJ 36	BJ 37	BJ 38	BJ 39	BJ 40	BJ 41	BJ 42	BJ 43	BJ 44	BJ 45	BJ 46	BJ 47	BJ 48	BJ 49	BJ 50	BJ 51	BJ 52	BJ 53	BJ 54	BJ 55	BJ 56	BJ 57
BK 29	BK 30	BK 31	BK 32	BK 33	BK 34	BK 35	BK 36	BK 37	BK 38	BK 39	BK 40	BK 41	BK 42	BK 43	BK 44	BK 45	BK 46	BK 47	BK 48	BK 49	BK 50	BK 51	BK 52	BK 53	BK 54	BK 55	BK 56	BK 57
BL 29	BL 30	BL 31	BL 32	BL 33	BL 34	BL 35	BL 36	BL 37	BL 38	BL 39	BL 40	BL 41	BL 42	BL 43	BL 44	BL 45	BL 46	BL 47	BL 48	BL 49	BL 50	BL 51	BL 52	BL 53	BL 54	BL 55	BL 56	BL 57
BM 29	BM 30	BM 31	BM 32	BM 33	BM 34	BM 35	BM 36	BM 37	BM 38	BM 39	BM 40	BM 41	BM 42	BM 43	BM 44	BM 45	BM 46	BM 47	BM 48	BM 49	BM 50	BM 51	BM 52	BM 53	BM 54	BM 55	BM 56	BM 57
BN 29	BN 30	BN 31	BN 32	BN 33	BN 34	BN 35	BN 36	BN 37	BN 38	BN 39	BN 40	BN 41	BN 42	BN 43	BN 44	BN 45	BN 46	BN 47	BN 48	BN 49	BN 50	BN 51	BN 52	BN 53	BN 54	BN 55	BN 56	BN 57
BP 29	BP 30	BP 31	BP 32	BP 33	BP 34	BP 35	BP 36	BP 37	BP 38	BP 39	BP 40	BP 41	BP 42	BP 43	BP 44	BP 45	BP 46	BP 47	BP 48	BP 49	BP 50	BP 51	BP 52	BP 53	BP 54	BP 55	BP 56	BP 57
BQ 29	BQ 30	BQ 31	BQ 32	BQ 33	BQ 34	BQ 35	BQ 36	BQ 37	BQ 38	BQ 39	BQ 40	BQ 41	BQ 42	BQ 43	BQ 44	BQ 45	BQ 46	BQ 47	BQ 48	BQ 49	BQ 50	BQ 51	BQ 52	BQ 53	BQ 54	BQ 55	BQ 56	BQ 57
BR 29	BR 30	BR 31	BR 32	BR 33	BR 34	BR 35	BR 36	BR 37	BR 38	BR 39	BR 40	BR 41	BR 42	BR 43	BR 44	BR 45	BR 46	BR 47	BR 48	BR 49	BR 50	BR 51	BR 52	BR 53	BR 54	BR 55	BR 56	BR 57
BS 29	BS 30	BS 31	BS 32	BS 33	BS 34	BS 35	BS 36	BS 37	BS 38	BS 39	BS 40	BS 41	BS 42	BS 43	BS 44	BS 45	BS 46	BS 47	BS 48	BS 49	BS 50	BS 51	BS 52	BS 53	BS 54	BS 55	BS 56	BS 57
BT 29	BT 30	BT 31	BT 32	BT 33	BT 34	BT 35	BT 36	BT 37	BT 38	BT 39	BT 40	BT 41	BT 42	BT 43	BT 44	BT 45	BT 46	BT 47	BT 48	BT 49	BT 50	BT 51	BT 52	BT 53	BT 54	BT 55	BT 56	BT 57
BU 29	BU 30	BU 31	BU 32	BU 33	BU 34	BU 35	BU 36	BU 37	BU 38	BU 39	BU 40	BU 41	BU 42	BU 43	BU 44	BU 45	BU 46	BU 47	BU 48	BU 49	BU 50	BU 51	BU 52	BU 53	BU 54	BU 55	BU 56	BU 57
BV 29	BV 30	BV 31	BV 32	BV 33	BV 34	BV 35	BV 36	BV 37	BV 38	BV 39	BV 40	BV 41	BV 42	BV 43	BV 44	BV 45	BV 46	BV 47	BV 48	BV 49	BV 50	BV 51	BV 52	BV 53	BV 54	BV 55	BV 56	BV 57

**ATTACHMENT 2: RHODE ISLAND AND MASSACHUSETTS STRUCTURE
LABELING PLOT (COORDINATES)**

Lease Number	Owner	Longitude	Latitude	Row	Column
OCS-A 0520	Equinor	-70.39488769	41.00441358	AU	41
OCS-A 0520	Equinor	-70.37287161	41.00467794	AU	42
OCS-A 0520	Equinor	-70.41654634	40.98746685	AV	40
OCS-A 0520	Equinor	-70.3945361	40.98773526	AV	41
OCS-A 0520	Equinor	-70.37252557	40.98799947	AV	42
OCS-A 0520	Equinor	-70.4381939	40.97051619	AW	39
OCS-A 0520	Equinor	-70.4161895	40.97078864	AW	40
OCS-A 0520	Equinor	-70.3941848	40.97105689	AW	41
OCS-A 0520	Equinor	-70.37217981	40.97132095	AW	42
OCS-A 0520	Equinor	-70.43783183	40.95383809	AX	39
OCS-A 0520	Equinor	-70.41583296	40.95411038	AX	40
OCS-A 0520	Equinor	-70.3938338	40.95437848	AX	41
OCS-A 0520	Equinor	-70.37183434	40.95464237	AX	42
OCS-A 0520	Equinor	-70.45983039	40.95356161	AX	38
OCS-A 0520	Equinor	-70.43747006	40.93715994	AY	39
OCS-A 0520	Equinor	-70.41547672	40.93743207	AY	40
OCS-A 0520	Equinor	-70.39348309	40.93770001	AY	41
OCS-A 0520	Equinor	-70.37148917	40.93796375	AY	42
OCS-A 0520	Equinor	-70.45946308	40.93688361	AY	38
OCS-A 0520	Equinor	-70.48145581	40.9366031	AY	37
OCS-A 0520	Equinor	-70.43710859	40.92048173	AZ	39
OCS-A 0520	Equinor	-70.41512078	40.9207537	AZ	40
OCS-A 0520	Equinor	-70.39313268	40.92102149	AZ	41
OCS-A 0520	Equinor	-70.37114428	40.92128508	AZ	42
OCS-A 0520	Equinor	-70.34915559	40.92154447	AZ	43
OCS-A 0520	Equinor	-70.32716662	40.92179968	AZ	44
OCS-A 0520	Equinor	-70.30517736	40.9220507	AZ	45
OCS-A 0520	Equinor	-70.45909609	40.92020557	AZ	38
OCS-A 0520	Equinor	-70.48108329	40.91992522	AZ	37
OCS-A 0520	Equinor	-70.50307017	40.91964067	AZ	36
OCS-A 0520	Equinor	-70.43674742	40.90380348	BA	39
OCS-A 0520	Equinor	-70.41476514	40.90407529	BA	40
OCS-A 0520	Equinor	-70.39278256	40.90434291	BA	41
OCS-A 0520	Equinor	-70.37079968	40.90460635	BA	42
OCS-A 0520	Equinor	-70.34881651	40.9048656	BA	43
OCS-A 0520	Equinor	-70.32683306	40.90512065	BA	44
OCS-A 0520	Equinor	-70.45872941	40.90352748	BA	38
OCS-A 0520	Equinor	-70.48071108	40.90324729	BA	37
OCS-A 0520	Equinor	-70.50269245	40.90296291	BA	36
OCS-A 0520	Equinor	-70.43638656	40.88712517	BB	39
OCS-A 0520	Equinor	-70.41440979	40.88739682	BB	40
OCS-A 0520	Equinor	-70.39243273	40.88766429	BB	41
OCS-A 0520	Equinor	-70.37045537	40.88792757	BB	42
OCS-A 0520	Equinor	-70.34847772	40.88818667	BB	43
OCS-A 0520	Equinor	-70.45836303	40.88684933	BB	38

Lease Number	Owner	Longitude	Latitude	Row	Column
OCS-A 0520	Equinor	-70.48033919	40.8865693	BB	37
OCS-A 0520	Equinor	-70.50231504	40.88628509	BB	36
OCS-A 0520	Equinor	-70.52429057	40.8859967	BB	35
OCS-A 0520	Equinor	-70.54626578	40.88570411	BB	34
OCS-A 0520	Equinor	-70.43602601	40.87044681	BC	39
OCS-A 0520	Equinor	-70.41405475	40.87071831	BC	40
OCS-A 0520	Equinor	-70.39208319	40.87098562	BC	41
OCS-A 0520	Equinor	-70.37011135	40.87124875	BC	42
OCS-A 0520	Equinor	-70.45799696	40.87017113	BC	38
OCS-A 0520	Equinor	-70.47996761	40.86989127	BC	37
OCS-A 0520	Equinor	-70.50193795	40.86960723	BC	36
OCS-A 0520	Equinor	-70.52390797	40.869319	BC	35
OCS-A 0520	Equinor	-70.54587767	40.86902659	BC	34
OCS-A 0520	Equinor	-70.43566575	40.8537684	BD	39
OCS-A 0520	Equinor	-70.4137	40.85403974	BD	40
OCS-A 0520	Equinor	-70.39173395	40.8543069	BD	41
OCS-A 0520	Equinor	-70.4576312	40.85349288	BD	38
OCS-A 0520	Equinor	-70.47959634	40.85321319	BD	37
OCS-A 0520	Equinor	-70.50156117	40.85292931	BD	36
OCS-A 0520	Equinor	-70.52352568	40.85264125	BD	35
OCS-A 0520	Equinor	-70.54548988	40.85234901	BD	34
OCS-A 0520	Equinor	-70.56745375	40.85205259	BD	33
OCS-A 0520	Equinor	-70.58941729	40.85175198	BD	32
OCS-A 0520	Equinor	-70.43530579	40.83708994	BE	39
OCS-A 0520	Equinor	-70.41334555	40.83736112	BE	40
OCS-A 0520	Equinor	-70.45726574	40.83681459	BE	38
OCS-A 0520	Equinor	-70.47922538	40.83653505	BE	37
OCS-A 0520	Equinor	-70.50118471	40.83625134	BE	36
OCS-A 0520	Equinor	-70.52314372	40.83596344	BE	35
OCS-A 0520	Equinor	-70.54510241	40.83567138	BE	34
OCS-A 0520	Equinor	-70.56706078	40.83537513	BE	33
OCS-A 0520	Equinor	-70.58901882	40.8350747	BE	32
OCS-A 0520	Equinor	-70.43494614	40.82041143	BF	39
OCS-A 0520	Equinor	-70.45690059	40.82013624	BF	38
OCS-A 0520	Equinor	-70.47885473	40.81985686	BF	37
OCS-A 0520	Equinor	-70.50080856	40.81957332	BF	36
OCS-A 0520	Equinor	-70.52276208	40.81928559	BF	35
OCS-A 0520	Equinor	-70.54471527	40.81899369	BF	34
OCS-A 0520	Equinor	-70.56666814	40.81869762	BF	33
OCS-A 0520	Equinor	-70.58862069	40.81839737	BF	32
OCS-A 0520	Equinor	-70.6105729	40.81809294	BF	31
OCS-A 0520	Equinor	-70.63252477	40.81778435	BF	30
OCS-A 0520	Equinor	-70.45653574	40.80345783	BG	38
OCS-A 0520	Equinor	-70.47848439	40.80317863	BG	37
OCS-A 0520	Equinor	-70.50043273	40.80289524	BG	36
OCS-A 0520	Equinor	-70.52238075	40.80260769	BG	35
OCS-A 0520	Equinor	-70.54432846	40.80231596	BG	34

Lease Number	Owner	Longitude	Latitude	Row	Column
OCS-A 0520	Equinor	-70.56627584	40.80202006	BG	33
OCS-A 0520	Equinor	-70.58822289	40.80171998	BG	32
OCS-A 0520	Equinor	-70.61016961	40.80141574	BG	31
OCS-A 0520	Equinor	-70.63211599	40.80110732	BG	30
OCS-A 0520	Equinor	-70.65406203	40.80079473	BG	29
OCS-A 0520	Equinor	-70.47811436	40.78650034	BH	37
OCS-A 0520	Equinor	-70.50005721	40.78621712	BH	36
OCS-A 0520	Equinor	-70.52199975	40.78592973	BH	35
OCS-A 0520	Equinor	-70.54394197	40.78563817	BH	34
OCS-A 0520	Equinor	-70.56588386	40.78534245	BH	33
OCS-A 0520	Equinor	-70.58782542	40.78504255	BH	32
OCS-A 0520	Equinor	-70.60976666	40.78473848	BH	31
OCS-A 0520	Equinor	-70.63170755	40.78443024	BH	30
OCS-A 0520	Equinor	-70.6536481	40.78411783	BH	29
OCS-A 0520	Equinor	-70.67558831	40.78380125	BH	28
OCS-A 0520	Equinor	-70.49968201	40.76953895	BJ	36
OCS-A 0520	Equinor	-70.52161906	40.76925173	BJ	35
OCS-A 0520	Equinor	-70.54355558	40.76896034	BJ	34
OCS-A 0520	Equinor	-70.56549221	40.76866478	BJ	33
OCS-A 0520	Equinor	-70.58742829	40.76836506	BJ	32
OCS-A 0520	Equinor	-70.60936404	40.76806117	BJ	31
OCS-A 0520	Equinor	-70.63129945	40.76775311	BJ	30
OCS-A 0520	Equinor	-70.65323452	40.76744088	BJ	29
OCS-A 0520	Equinor	-70.67516925	40.76712449	BJ	28
OCS-A 0520	Equinor	-70.69710362	40.76680393	BJ	27
OCS-A 0520	Equinor	-70.5212387	40.75257367	BK	35
OCS-A 0520	Equinor	-70.54316995	40.75228245	BK	34
OCS-A 0520	Equinor	-70.56510089	40.75198707	BK	33
OCS-A 0520	Equinor	-70.58703149	40.75168752	BK	32
OCS-A 0520	Equinor	-70.60896176	40.75138381	BK	31
OCS-A 0520	Equinor	-70.6308917	40.75107593	BK	30
OCS-A 0520	Equinor	-70.65282129	40.75076389	BK	29
OCS-A 0520	Equinor	-70.67475054	40.75044768	BK	28
OCS-A 0520	Equinor	-70.69667944	40.7501273	BK	27
OCS-A 0520	Equinor	-70.71860798	40.74980277	BK	26
OCS-A 0520	Equinor	-70.54278443	40.73560451	BL	34
OCS-A 0520	Equinor	-70.56470989	40.7353093	BL	33
OCS-A 0520	Equinor	-70.58663502	40.73500993	BL	32
OCS-A 0520	Equinor	-70.60855982	40.73470639	BL	31
OCS-A 0520	Equinor	-70.63048428	40.73439869	BL	30
OCS-A 0520	Equinor	-70.65240841	40.73408683	BL	29
OCS-A 0520	Equinor	-70.67433218	40.73377081	BL	28
OCS-A 0520	Equinor	-70.69625561	40.73345063	BL	27
OCS-A 0520	Equinor	-70.56431922	40.71863148	BM	33
OCS-A 0520	Equinor	-70.58623889	40.71833229	BM	32
OCS-A 0520	Equinor	-70.60815822	40.71802893	BM	31
OCS-A 0520	Equinor	-70.63007721	40.71772141	BM	30

Lease Number	Owner	Longitude	Latitude	Row	Column
OCS-A 0520	Equinor	-70.65199587	40.71740973	BM	29
OCS-A 0520	Equinor	-70.67391418	40.71709389	BM	28
OCS-A 0520	Equinor	-70.69583213	40.71677389	BM	27
OCS-A 0520	Equinor	-70.58584308	40.70165459	BN	32
OCS-A 0520	Equinor	-70.60775695	40.70135141	BN	31
OCS-A 0520	Equinor	-70.62967048	40.70104407	BN	30
OCS-A 0520	Equinor	-70.65158367	40.70073258	BN	29
OCS-A 0520	Equinor	-70.67349652	40.70041692	BN	28
OCS-A 0520	Equinor	-70.69540901	40.70009711	BN	27
OCS-A 0520	Equinor	-70.60735602	40.68467384	BP	31
OCS-A 0520	Equinor	-70.62926409	40.68436668	BP	30
OCS-A 0520	Equinor	-70.65117182	40.68405537	BP	29
OCS-A 0520	Equinor	-70.67307921	40.6837399	BP	28
OCS-A 0520	Equinor	-70.69498625	40.68342028	BP	27
OCS-A 0520	Equinor	-70.62885804	40.66768924	BQ	30
OCS-A 0520	Equinor	-70.65076032	40.66737811	BQ	29
OCS-A 0520	Equinor	-70.67266225	40.66706283	BQ	28
OCS-A 0520	Equinor	-70.69456384	40.66674339	BQ	27
OCS-A 0521	Mayflower Wind Energy	-70.28318784	40.92229752	AZ	46
OCS-A 0521	Mayflower Wind Energy	-70.26119804	40.92254015	AZ	47
OCS-A 0521	Mayflower Wind Energy	-70.30484933	40.90537152	BA	45
OCS-A 0521	Mayflower Wind Energy	-70.28286533	40.9056182	BA	46
OCS-A 0521	Mayflower Wind Energy	-70.26088105	40.90586069	BA	47
OCS-A 0521	Mayflower Wind Energy	-70.32649979	40.88844158	BB	44
OCS-A 0521	Mayflower Wind Energy	-70.30452158	40.8886923	BB	45
OCS-A 0521	Mayflower Wind Energy	-70.28254309	40.88893884	BB	46
OCS-A 0521	Mayflower Wind Energy	-70.26056433	40.88918118	BB	47
OCS-A 0521	Mayflower Wind Energy	-70.34813921	40.87150769	BC	43
OCS-A 0521	Mayflower Wind Energy	-70.32616679	40.87176245	BC	44
OCS-A 0521	Mayflower Wind Energy	-70.30419409	40.87201303	BC	45
OCS-A 0521	Mayflower Wind Energy	-70.28222112	40.87225942	BC	46
OCS-A 0521	Mayflower Wind Energy	-70.26024788	40.87250162	BC	47
OCS-A 0521	Mayflower Wind Energy	-70.36976761	40.85456987	BD	42
OCS-A 0521	Mayflower Wind Energy	-70.34780099	40.85482866	BD	43
OCS-A 0521	Mayflower Wind Energy	-70.32583408	40.85508327	BD	44
OCS-A 0521	Mayflower Wind Energy	-70.30386689	40.8553337	BD	45
OCS-A 0521	Mayflower Wind Energy	-70.28189942	40.85557995	BD	46
OCS-A 0521	Mayflower Wind Energy	-70.25993169	40.85582201	BD	47
OCS-A 0521	Mayflower Wind Energy	-70.391385	40.83762812	BE	41
OCS-A 0521	Mayflower Wind Energy	-70.36942417	40.83789094	BE	42
OCS-A 0521	Mayflower Wind Energy	-70.34746304	40.83814958	BE	43
OCS-A 0521	Mayflower Wind Energy	-70.32550164	40.83840404	BE	44
OCS-A 0521	Mayflower Wind Energy	-70.30353995	40.83865433	BE	45
OCS-A 0521	Mayflower Wind Energy	-70.28157799	40.83890043	BE	46
OCS-A 0521	Mayflower Wind Energy	-70.25961576	40.83914235	BE	47
OCS-A 0521	Mayflower Wind Energy	-70.41299139	40.82068245	BF	40
OCS-A 0521	Mayflower Wind Energy	-70.39103635	40.82094929	BF	41

Lease Number	Owner	Longitude	Latitude	Row	Column
OCS-A 0521	Mayflower Wind Energy	-70.36908101	40.82121196	BF	42
OCS-A 0521	Mayflower Wind Energy	-70.34712539	40.82147045	BF	43
OCS-A 0521	Mayflower Wind Energy	-70.32516948	40.82172477	BF	44
OCS-A 0521	Mayflower Wind Energy	-70.30321329	40.8219749	BF	45
OCS-A 0521	Mayflower Wind Energy	-70.28125683	40.82222086	BF	46
OCS-A 0521	Mayflower Wind Energy	-70.2593001	40.82246264	BF	47
OCS-A 0521	Mayflower Wind Energy	-70.23734311	40.82270025	BF	48
OCS-A 0521	Mayflower Wind Energy	-70.21538586	40.82293368	BF	49
OCS-A 0521	Mayflower Wind Energy	-70.43458679	40.80373287	BG	39
OCS-A 0521	Mayflower Wind Energy	-70.41263753	40.80400373	BG	40
OCS-A 0521	Mayflower Wind Energy	-70.39068798	40.80427042	BG	41
OCS-A 0521	Mayflower Wind Energy	-70.36873814	40.80453293	BG	42
OCS-A 0521	Mayflower Wind Energy	-70.34678801	40.80479127	BG	43
OCS-A 0521	Mayflower Wind Energy	-70.3248376	40.80504544	BG	44
OCS-A 0521	Mayflower Wind Energy	-70.30288691	40.80529543	BG	45
OCS-A 0521	Mayflower Wind Energy	-70.28093594	40.80554124	BG	46
OCS-A 0521	Mayflower Wind Energy	-70.25898471	40.80578288	BG	47
OCS-A 0521	Mayflower Wind Energy	-70.43422774	40.78705426	BH	39
OCS-A 0521	Mayflower Wind Energy	-70.41228397	40.78732496	BH	40
OCS-A 0521	Mayflower Wind Energy	-70.39033991	40.78759149	BH	41
OCS-A 0521	Mayflower Wind Energy	-70.36839556	40.78785385	BH	42
OCS-A 0521	Mayflower Wind Energy	-70.34645092	40.78811204	BH	43
OCS-A 0521	Mayflower Wind Energy	-70.32450599	40.78836606	BH	44
OCS-A 0521	Mayflower Wind Energy	-70.30256079	40.7886159	BH	45
OCS-A 0521	Mayflower Wind Energy	-70.28061532	40.78886157	BH	46
OCS-A 0521	Mayflower Wind Energy	-70.25866958	40.78910307	BH	47
OCS-A 0521	Mayflower Wind Energy	-70.4561712	40.78677938	BH	38
OCS-A 0521	Mayflower Wind Energy	-70.43386899	40.77037559	BJ	39
OCS-A 0521	Mayflower Wind Energy	-70.41193071	40.77064614	BJ	40
OCS-A 0521	Mayflower Wind Energy	-70.38999213	40.77091251	BJ	41
OCS-A 0521	Mayflower Wind Energy	-70.36805326	40.77117472	BJ	42
OCS-A 0521	Mayflower Wind Energy	-70.34611411	40.77143276	BJ	43
OCS-A 0521	Mayflower Wind Energy	-70.32417467	40.77168662	BJ	44
OCS-A 0521	Mayflower Wind Energy	-70.30223495	40.77193632	BJ	45
OCS-A 0521	Mayflower Wind Energy	-70.28029497	40.77218185	BJ	46
OCS-A 0521	Mayflower Wind Energy	-70.45580697	40.77010088	BJ	38
OCS-A 0521	Mayflower Wind Energy	-70.47774465	40.769822	BJ	37
OCS-A 0521	Mayflower Wind Energy	-70.43351054	40.75369688	BK	39
OCS-A 0521	Mayflower Wind Energy	-70.41157774	40.75396726	BK	40
OCS-A 0521	Mayflower Wind Energy	-70.38964464	40.75423348	BK	41
OCS-A 0521	Mayflower Wind Energy	-70.36771125	40.75449554	BK	42
OCS-A 0521	Mayflower Wind Energy	-70.34577758	40.75475342	BK	43
OCS-A 0521	Mayflower Wind Energy	-70.32384362	40.75500714	BK	44
OCS-A 0521	Mayflower Wind Energy	-70.30190939	40.7552567	BK	45
OCS-A 0521	Mayflower Wind Energy	-70.45544304	40.75342232	BK	38
OCS-A 0521	Mayflower Wind Energy	-70.47737524	40.7531436	BK	37
OCS-A 0521	Mayflower Wind Energy	-70.49930712	40.75286072	BK	36

Lease Number	Owner	Longitude	Latitude	Row	Column
OCS-A 0521	Mayflower Wind Energy	-70.43315239	40.73701811	BL	39
OCS-A 0521	Mayflower Wind Energy	-70.41122506	40.73728834	BL	40
OCS-A 0521	Mayflower Wind Energy	-70.38929744	40.7375544	BL	41
OCS-A 0521	Mayflower Wind Energy	-70.36736953	40.7378163	BL	42
OCS-A 0521	Mayflower Wind Energy	-70.34544133	40.73807404	BL	43
OCS-A 0521	Mayflower Wind Energy	-70.32351285	40.73832761	BL	44
OCS-A 0521	Mayflower Wind Energy	-70.45507941	40.73674372	BL	38
OCS-A 0521	Mayflower Wind Energy	-70.47700614	40.73646516	BL	37
OCS-A 0521	Mayflower Wind Energy	-70.49893255	40.73618244	BL	36
OCS-A 0521	Mayflower Wind Energy	-70.52085865	40.73589556	BL	35
OCS-A 0521	Mayflower Wind Energy	-70.43279454	40.72033929	BM	39
OCS-A 0521	Mayflower Wind Energy	-70.41087268	40.72060937	BM	40
OCS-A 0521	Mayflower Wind Energy	-70.38895053	40.72087527	BM	41
OCS-A 0521	Mayflower Wind Energy	-70.36702809	40.72113702	BM	42
OCS-A 0521	Mayflower Wind Energy	-70.34510536	40.72139461	BM	43
OCS-A 0521	Mayflower Wind Energy	-70.45471609	40.72006506	BM	38
OCS-A 0521	Mayflower Wind Energy	-70.47663735	40.71978667	BM	37
OCS-A 0521	Mayflower Wind Energy	-70.49855829	40.71950411	BM	36
OCS-A 0521	Mayflower Wind Energy	-70.52047892	40.7192174	BM	35
OCS-A 0521	Mayflower Wind Energy	-70.54239923	40.71892652	BM	34
OCS-A 0521	Mayflower Wind Energy	-70.43243699	40.70366043	BN	39
OCS-A 0521	Mayflower Wind Energy	-70.4105206	40.70393034	BN	40
OCS-A 0521	Mayflower Wind Energy	-70.38860391	40.70419609	BN	41
OCS-A 0521	Mayflower Wind Energy	-70.36668694	40.70445769	BN	42
OCS-A 0521	Mayflower Wind Energy	-70.45435308	40.70338635	BN	38
OCS-A 0521	Mayflower Wind Energy	-70.47626886	40.70310812	BN	37
OCS-A 0521	Mayflower Wind Energy	-70.49818434	40.70282573	BN	36
OCS-A 0521	Mayflower Wind Energy	-70.52009951	40.70253919	BN	35
OCS-A 0521	Mayflower Wind Energy	-70.54201436	40.70224848	BN	34
OCS-A 0521	Mayflower Wind Energy	-70.56392888	40.70195361	BN	33
OCS-A 0521	Mayflower Wind Energy	-70.43207974	40.68698151	BP	39
OCS-A 0521	Mayflower Wind Energy	-70.41016881	40.68725126	BP	40
OCS-A 0521	Mayflower Wind Energy	-70.38825759	40.68751686	BP	41
OCS-A 0521	Mayflower Wind Energy	-70.45399037	40.6867076	BP	38
OCS-A 0521	Mayflower Wind Energy	-70.47590069	40.68642953	BP	37
OCS-A 0521	Mayflower Wind Energy	-70.49781071	40.6861473	BP	36
OCS-A 0521	Mayflower Wind Energy	-70.51972041	40.68586092	BP	35
OCS-A 0521	Mayflower Wind Energy	-70.5416298	40.68557039	BP	34
OCS-A 0521	Mayflower Wind Energy	-70.56353887	40.68527569	BP	33
OCS-A 0521	Mayflower Wind Energy	-70.58544761	40.68497685	BP	32
OCS-A 0521	Mayflower Wind Energy	-70.43172278	40.67030254	BQ	39
OCS-A 0521	Mayflower Wind Energy	-70.40981731	40.67057214	BQ	40
OCS-A 0521	Mayflower Wind Energy	-70.45362796	40.67002879	BQ	38
OCS-A 0521	Mayflower Wind Energy	-70.47553283	40.66975088	BQ	37
OCS-A 0521	Mayflower Wind Energy	-70.49743739	40.66946882	BQ	36
OCS-A 0521	Mayflower Wind Energy	-70.51934164	40.66918261	BQ	35
OCS-A 0521	Mayflower Wind Energy	-70.54124557	40.66889224	BQ	34

Lease Number	Owner	Longitude	Latitude	Row	Column
OCS-A 0521	Mayflower Wind Energy	-70.56314918	40.66859772	BQ	33
OCS-A 0521	Mayflower Wind Energy	-70.58505246	40.66829905	BQ	32
OCS-A 0521	Mayflower Wind Energy	-70.60695542	40.66799622	BQ	31
OCS-A 0521	Mayflower Wind Energy	-70.43136613	40.65362352	BR	39
OCS-A 0521	Mayflower Wind Energy	-70.45326585	40.65334993	BR	38
OCS-A 0521	Mayflower Wind Energy	-70.47516527	40.65307218	BR	37
OCS-A 0521	Mayflower Wind Energy	-70.49706438	40.65279029	BR	36
OCS-A 0521	Mayflower Wind Energy	-70.51896318	40.65250424	BR	35
OCS-A 0521	Mayflower Wind Energy	-70.54086166	40.65221405	BR	34
OCS-A 0521	Mayflower Wind Energy	-70.56275982	40.6519197	BR	33
OCS-A 0521	Mayflower Wind Energy	-70.58465765	40.6516212	BR	32
OCS-A 0521	Mayflower Wind Energy	-70.60655516	40.65131855	BR	31
OCS-A 0521	Mayflower Wind Energy	-70.62845233	40.65101175	BR	30
OCS-A 0521	Mayflower Wind Energy	-70.45290405	40.63667101	BS	38
OCS-A 0521	Mayflower Wind Energy	-70.47479802	40.63639343	BS	37
OCS-A 0521	Mayflower Wind Energy	-70.49669168	40.6361117	BS	36
OCS-A 0521	Mayflower Wind Energy	-70.51858503	40.63582583	BS	35
OCS-A 0521	Mayflower Wind Energy	-70.54047807	40.6355358	BS	34
OCS-A 0521	Mayflower Wind Energy	-70.56237078	40.63524162	BS	33
OCS-A 0521	Mayflower Wind Energy	-70.58426317	40.6349433	BS	32
OCS-A 0521	Mayflower Wind Energy	-70.60615523	40.63464083	BS	31
OCS-A 0521	Mayflower Wind Energy	-70.62804695	40.63433421	BS	30
OCS-A 0521	Mayflower Wind Energy	-70.4963193	40.61943307	BT	36
OCS-A 0521	Mayflower Wind Energy	-70.51820721	40.61914736	BT	35
OCS-A 0521	Mayflower Wind Energy	-70.49594722	40.60275438	BU	36
OCS-A 0521	Mayflower Wind Energy	-70.51782969	40.60246884	BU	35
OCS-A 0522	Vineyard Wind	-70.23703321	40.80602035	BG	48
OCS-A 0522	Vineyard Wind	-70.21508146	40.80625364	BG	49
OCS-A 0522	Vineyard Wind	-70.23672357	40.7893404	BH	48
OCS-A 0522	Vineyard Wind	-70.21477731	40.78957355	BH	49
OCS-A 0522	Vineyard Wind	-70.25835471	40.77242321	BJ	47
OCS-A 0522	Vineyard Wind	-70.23641419	40.7726604	BJ	48
OCS-A 0522	Vineyard Wind	-70.21447341	40.77289342	BJ	49
OCS-A 0522	Vineyard Wind	-70.27997488	40.75550208	BK	46
OCS-A 0522	Vineyard Wind	-70.25804011	40.7557433	BK	47
OCS-A 0522	Vineyard Wind	-70.23610507	40.75598035	BK	48
OCS-A 0522	Vineyard Wind	-70.21416977	40.75621323	BK	49
OCS-A 0522	Vineyard Wind	-70.30158409	40.73857702	BL	45
OCS-A 0522	Vineyard Wind	-70.27965506	40.73882226	BL	46
OCS-A 0522	Vineyard Wind	-70.25772577	40.73906334	BL	47
OCS-A 0522	Vineyard Wind	-70.23579621	40.73930025	BL	48
OCS-A 0522	Vineyard Wind	-70.21386639	40.73953299	BL	49
OCS-A 0522	Vineyard Wind	-70.19193632	40.73976157	BL	50
OCS-A 0522	Vineyard Wind	-70.17000599	40.73998599	BL	51
OCS-A 0522	Vineyard Wind	-70.14807543	40.74020624	BL	52
OCS-A 0522	Vineyard Wind	-70.12614462	40.74042232	BL	53
OCS-A 0522	Vineyard Wind	-70.10421358	40.74063423	BL	54

Lease Number	Owner	Longitude	Latitude	Row	Column
OCS-A 0522	Vineyard Wind	-70.0822823	40.74084199	BL	55
OCS-A 0522	Vineyard Wind	-70.0603508	40.74104557	BL	56
OCS-A 0522	Vineyard Wind	-70.03841908	40.74124499	BL	57
OCS-A 0522	Vineyard Wind	-70.32318236	40.72164803	BM	44
OCS-A 0522	Vineyard Wind	-70.30125907	40.72189729	BM	45
OCS-A 0522	Vineyard Wind	-70.27933551	40.72214239	BM	46
OCS-A 0522	Vineyard Wind	-70.25741169	40.72238332	BM	47
OCS-A 0522	Vineyard Wind	-70.2354876	40.7226201	BM	48
OCS-A 0522	Vineyard Wind	-70.21356326	40.7228527	BM	49
OCS-A 0522	Vineyard Wind	-70.19163866	40.72308115	BM	50
OCS-A 0522	Vineyard Wind	-70.16971381	40.72330543	BM	51
OCS-A 0522	Vineyard Wind	-70.14778872	40.72352555	BM	52
OCS-A 0522	Vineyard Wind	-70.12586338	40.72374151	BM	53
OCS-A 0522	Vineyard Wind	-70.10393781	40.7239533	BM	54
OCS-A 0522	Vineyard Wind	-70.08201201	40.72416093	BM	55
OCS-A 0522	Vineyard Wind	-70.06008599	40.7243644	BM	56
OCS-A 0522	Vineyard Wind	-70.03815974	40.7245637	BM	57
OCS-A 0522	Vineyard Wind	-70.34476968	40.70471512	BN	43
OCS-A 0522	Vineyard Wind	-70.32285214	40.7049684	BN	44
OCS-A 0522	Vineyard Wind	-70.30093432	40.70521751	BN	45
OCS-A 0522	Vineyard Wind	-70.27901623	40.70546246	BN	46
OCS-A 0522	Vineyard Wind	-70.25709788	40.70570326	BN	47
OCS-A 0522	Vineyard Wind	-70.23517926	40.70593989	BN	48
OCS-A 0522	Vineyard Wind	-70.21326038	40.70617237	BN	49
OCS-A 0522	Vineyard Wind	-70.19134125	40.70640068	BN	50
OCS-A 0522	Vineyard Wind	-70.16942187	40.70662483	BN	51
OCS-A 0522	Vineyard Wind	-70.14750225	40.70684482	BN	52
OCS-A 0522	Vineyard Wind	-70.12558238	40.70706065	BN	53
OCS-A 0522	Vineyard Wind	-70.10366228	40.70727232	BN	54
OCS-A 0522	Vineyard Wind	-70.08174195	40.70747983	BN	55
OCS-A 0522	Vineyard Wind	-70.0598214	40.70768318	BN	56
OCS-A 0522	Vineyard Wind	-70.03790062	40.70788236	BN	57
OCS-A 0522	Vineyard Wind	-70.36634607	40.6877783	BP	42
OCS-A 0522	Vineyard Wind	-70.34443428	40.68803559	BP	43
OCS-A 0522	Vineyard Wind	-70.3225222	40.68828871	BP	44
OCS-A 0522	Vineyard Wind	-70.30060984	40.68853768	BP	45
OCS-A 0522	Vineyard Wind	-70.27869722	40.68878249	BP	46
OCS-A 0522	Vineyard Wind	-70.25678432	40.68902315	BP	47
OCS-A 0522	Vineyard Wind	-70.23487117	40.68925964	BP	48
OCS-A 0522	Vineyard Wind	-70.21295776	40.68949198	BP	49
OCS-A 0522	Vineyard Wind	-70.19104409	40.68972016	BP	50
OCS-A 0522	Vineyard Wind	-70.16913017	40.68994418	BP	51
OCS-A 0522	Vineyard Wind	-70.14721601	40.69016404	BP	52
OCS-A 0522	Vineyard Wind	-70.12530162	40.69037975	BP	53
OCS-A 0522	Vineyard Wind	-70.10338698	40.69059129	BP	54
OCS-A 0522	Vineyard Wind	-70.08147212	40.69079868	BP	55
OCS-A 0522	Vineyard Wind	-70.05955703	40.6910019	BP	56

Lease Number	Owner	Longitude	Latitude	Row	Column
OCS-A 0522	Vineyard Wind	-70.03764172	40.69120097	BP	57
OCS-A 0522	Vineyard Wind	-70.38791155	40.67083758	BQ	41
OCS-A 0522	Vineyard Wind	-70.36600549	40.67109887	BQ	42
OCS-A 0522	Vineyard Wind	-70.34409915	40.671356	BQ	43
OCS-A 0522	Vineyard Wind	-70.32219253	40.67160898	BQ	44
OCS-A 0522	Vineyard Wind	-70.30028564	40.6718578	BQ	45
OCS-A 0522	Vineyard Wind	-70.27837847	40.67210247	BQ	46
OCS-A 0522	Vineyard Wind	-70.25647104	40.67234298	BQ	47
OCS-A 0522	Vineyard Wind	-70.23456334	40.67257934	BQ	48
OCS-A 0522	Vineyard Wind	-70.21265538	40.67281154	BQ	49
OCS-A 0522	Vineyard Wind	-70.19074718	40.67303959	BQ	50
OCS-A 0522	Vineyard Wind	-70.16883872	40.67326348	BQ	51
OCS-A 0522	Vineyard Wind	-70.14693002	40.67348321	BQ	52
OCS-A 0522	Vineyard Wind	-70.12502108	40.67369879	BQ	53
OCS-A 0522	Vineyard Wind	-70.10311191	40.67391021	BQ	54
OCS-A 0522	Vineyard Wind	-70.08120251	40.67411748	BQ	55
OCS-A 0522	Vineyard Wind	-70.05929288	40.67432058	BQ	56
OCS-A 0522	Vineyard Wind	-70.03738303	40.67451954	BQ	57
OCS-A 0522	Vineyard Wind	-70.40946611	40.65389296	BR	40
OCS-A 0522	Vineyard Wind	-70.3875658	40.65415824	BR	41
OCS-A 0522	Vineyard Wind	-70.3656652	40.65441938	BR	42
OCS-A 0522	Vineyard Wind	-70.34376431	40.65467636	BR	43
OCS-A 0522	Vineyard Wind	-70.32186314	40.65492919	BR	44
OCS-A 0522	Vineyard Wind	-70.2999617	40.65517787	BR	45
OCS-A 0522	Vineyard Wind	-70.27805999	40.6554224	BR	46
OCS-A 0522	Vineyard Wind	-70.25615801	40.65566277	BR	47
OCS-A 0522	Vineyard Wind	-70.23425577	40.65589899	BR	48
OCS-A 0522	Vineyard Wind	-70.21235327	40.65613105	BR	49
OCS-A 0522	Vineyard Wind	-70.19045052	40.65635897	BR	50
OCS-A 0522	Vineyard Wind	-70.16854752	40.65658272	BR	51
OCS-A 0522	Vineyard Wind	-70.14664427	40.65680233	BR	52
OCS-A 0522	Vineyard Wind	-70.12474079	40.65701778	BR	53
OCS-A 0522	Vineyard Wind	-70.10283707	40.65722908	BR	54
OCS-A 0522	Vineyard Wind	-70.08093312	40.65743622	BR	55
OCS-A 0522	Vineyard Wind	-70.05902895	40.65763921	BR	56
OCS-A 0522	Vineyard Wind	-70.03712456	40.65783805	BR	57
OCS-A 0522	Vineyard Wind	-70.43100978	40.63694445	BS	39
OCS-A 0522	Vineyard Wind	-70.4091152	40.63721373	BS	40
OCS-A 0522	Vineyard Wind	-70.38722034	40.63747886	BS	41
OCS-A 0522	Vineyard Wind	-70.36532519	40.63773984	BS	42
OCS-A 0522	Vineyard Wind	-70.34342975	40.63799667	BS	43
OCS-A 0522	Vineyard Wind	-70.32153403	40.63824936	BS	44
OCS-A 0522	Vineyard Wind	-70.29963804	40.63849789	BS	45
OCS-A 0522	Vineyard Wind	-70.27774177	40.63874227	BS	46
OCS-A 0522	Vineyard Wind	-70.25584524	40.6389825	BS	47
OCS-A 0522	Vineyard Wind	-70.23394845	40.63921858	BS	48
OCS-A 0522	Vineyard Wind	-70.2120514	40.63945051	BS	49

Lease Number	Owner	Longitude	Latitude	Row	Column
OCS-A 0522	Vineyard Wind	-70.1901541	40.63967829	BS	50
OCS-A 0522	Vineyard Wind	-70.16825655	40.63990192	BS	51
OCS-A 0522	Vineyard Wind	-70.14635876	40.6401214	BS	52
OCS-A 0522	Vineyard Wind	-70.12446073	40.64033672	BS	53
OCS-A 0522	Vineyard Wind	-70.10256246	40.6405479	BS	54
OCS-A 0522	Vineyard Wind	-70.08066396	40.64075492	BS	55
OCS-A 0522	Vineyard Wind	-70.05876524	40.64095779	BS	56
OCS-A 0522	Vineyard Wind	-70.0368663	40.64115651	BS	57
OCS-A 0522	Vineyard Wind	-70.43065372	40.62026532	BT	39
OCS-A 0522	Vineyard Wind	-70.40876459	40.62053445	BT	40
OCS-A 0522	Vineyard Wind	-70.38687517	40.62079942	BT	41
OCS-A 0522	Vineyard Wind	-70.36498546	40.62106025	BT	42
OCS-A 0522	Vineyard Wind	-70.34309547	40.62131694	BT	43
OCS-A 0522	Vineyard Wind	-70.32120519	40.62156947	BT	44
OCS-A 0522	Vineyard Wind	-70.45254255	40.61999205	BT	38
OCS-A 0522	Vineyard Wind	-70.47443108	40.61971463	BT	37
OCS-A 0522	Vineyard Wind	-70.43029796	40.60358615	BU	39
OCS-A 0522	Vineyard Wind	-70.40841427	40.60385512	BU	40
OCS-A 0522	Vineyard Wind	-70.38653029	40.60411994	BU	41
OCS-A 0522	Vineyard Wind	-70.36464602	40.60438062	BU	42
OCS-A 0522	Vineyard Wind	-70.34276146	40.60463715	BU	43
OCS-A 0522	Vineyard Wind	-70.32087663	40.60488954	BU	44
OCS-A 0522	Vineyard Wind	-70.45218135	40.60331304	BU	38
OCS-A 0522	Vineyard Wind	-70.47406444	40.60303578	BU	37
OCS-A 0501		-70.44183139	41.13729442	AL	39
OCS-A 0501		-70.46389109	41.13701615	AL	38
OCS-A 0501		-70.48595048	41.13673366	AL	37
OCS-A 0501		-70.44146627	41.12061682	AM	39
OCS-A 0501		-70.46352039	41.12033872	AM	38
OCS-A 0501		-70.48557419	41.12005639	AM	37
OCS-A 0501		-70.44110145	41.10393918	AN	39
OCS-A 0501		-70.46314999	41.10366124	AN	38
OCS-A 0501		-70.48519822	41.10337908	AN	37
OCS-A 0501		-70.50724614	41.1030927	AN	36
OCS-A 0501		-70.44073694	41.08726149	AP	39
OCS-A 0501		-70.41869366	41.08753505	AP	40
OCS-A 0501		-70.39665009	41.0878044	AP	41
OCS-A 0501		-70.37460621	41.08806953	AP	42
OCS-A 0501		-70.46277991	41.08698371	AP	38
OCS-A 0501		-70.48482256	41.08670171	AP	37
OCS-A 0501		-70.50686491	41.0864155	AP	36
OCS-A 0501		-70.52890693	41.08612507	AP	35
OCS-A 0501		-70.44037273	41.07058374	AQ	39
OCS-A 0501		-70.41833502	41.07085715	AQ	40
OCS-A 0501		-70.39629701	41.07112634	AQ	41
OCS-A 0501		-70.37425871	41.07139132	AQ	42
OCS-A 0501		-70.46241013	41.07030612	AQ	38

Lease Number	Owner	Longitude	Latitude	Row	Column
OCS-A 0501		-70.48444722	41.07002429	AQ	37
OCS-A 0501		-70.506484	41.06973825	AQ	36
OCS-A 0501		-70.52852046	41.06944799	AQ	35
OCS-A 0501		-70.55055659	41.06915352	AQ	34
OCS-A 0501		-70.44000883	41.05390594	AR	39
OCS-A 0501		-70.41797669	41.05417919	AR	40
OCS-A 0501		-70.39594424	41.05444822	AR	41
OCS-A 0501		-70.3739115	41.05471305	AR	42
OCS-A 0501		-70.46204067	41.05362849	AR	38
OCS-A 0501		-70.4840722	41.05334682	AR	37
OCS-A 0501		-70.50610341	41.05306095	AR	36
OCS-A 0501		-70.52813431	41.05277086	AR	35
OCS-A 0501		-70.55016488	41.05247656	AR	34
OCS-A 0501		-70.57219512	41.05217806	AR	33
OCS-A 0501		-70.43964523	41.0372281	AS	39
OCS-A 0501		-70.41761865	41.03750118	AS	40
OCS-A 0501		-70.39559176	41.03777006	AS	41
OCS-A 0501		-70.37356458	41.03803473	AS	42
OCS-A 0501		-70.46167151	41.0369508	AS	38
OCS-A 0501		-70.48369749	41.0366693	AS	37
OCS-A 0501		-70.50572314	41.03638359	AS	36
OCS-A 0501		-70.52774848	41.03609367	AS	35
OCS-A 0501		-70.54977349	41.03579955	AS	34
OCS-A 0501		-70.57179818	41.03550122	AS	33
OCS-A 0501		-70.59382253	41.03519868	AS	32
OCS-A 0501		-70.43928194	41.0205502	AT	39
OCS-A 0501		-70.41726091	41.02082312	AT	40
OCS-A 0501		-70.39523958	41.02109185	AT	41
OCS-A 0501		-70.37321795	41.02135636	AT	42
OCS-A 0501		-70.46130267	41.02027307	AT	38
OCS-A 0501		-70.48332309	41.01999173	AT	37
OCS-A 0501		-70.50534319	41.01970618	AT	36
OCS-A 0501		-70.52736298	41.01941644	AT	35
OCS-A 0501		-70.54938244	41.01912248	AT	34
OCS-A 0501		-70.57140157	41.01882433	AT	33
OCS-A 0501		-70.59342038	41.01852197	AT	32
OCS-A 0501		-70.61543884	41.0182154	AT	31
OCS-A 0501		-70.43891896	41.00387225	AU	39
OCS-A 0501		-70.41690347	41.00414502	AU	40
OCS-A 0501		-70.46093414	41.00359528	AU	38
OCS-A 0501		-70.48294901	41.0033141	AU	37
OCS-A 0501		-70.50496356	41.00302873	AU	36
OCS-A 0501		-70.5269778	41.00273915	AU	35
OCS-A 0501		-70.54899171	41.00244537	AU	34
OCS-A 0501		-70.5710053	41.00214738	AU	33
OCS-A 0501		-70.59301855	41.0018452	AU	32
OCS-A 0501		-70.61503147	41.00153881	AU	31

Lease Number	Owner	Longitude	Latitude	Row	Column
OCS-A 0501		-70.63704405	41.00122822	AU	30
OCS-A 0501		-70.43855628	40.98719425	AV	39
OCS-A 0501		-70.46056591	40.98691744	AV	38
OCS-A 0501		-70.48257524	40.98663643	AV	37
OCS-A 0501		-70.50458425	40.98635122	AV	36
OCS-A 0501		-70.52659294	40.98606181	AV	35
OCS-A 0501		-70.54860131	40.9857682	AV	34
OCS-A 0501		-70.57060936	40.98547039	AV	33
OCS-A 0501		-70.59261707	40.98516838	AV	32
OCS-A 0501		-70.61462444	40.98486217	AV	31
OCS-A 0501		-70.63663148	40.98455177	AV	30
OCS-A 0501		-70.65863817	40.98423716	AV	29
OCS-A 0501		-70.6806445	40.98391835	AV	28
OCS-A 0501		-70.46019799	40.97023955	AW	38
OCS-A 0501		-70.48220178	40.9699587	AW	37
OCS-A 0501		-70.50420525	40.96967366	AW	36
OCS-A 0501		-70.52620841	40.96938442	AW	35
OCS-A 0501		-70.54821124	40.96909098	AW	34
OCS-A 0501		-70.57021375	40.96879335	AW	33
OCS-A 0501		-70.59221592	40.96849151	AW	32
OCS-A 0501		-70.61421776	40.96818548	AW	31
OCS-A 0501		-70.63621926	40.96787526	AW	30
OCS-A 0501		-70.65822041	40.96756083	AW	29
OCS-A 0501		-70.68022121	40.96724222	AW	28
OCS-A 0501		-70.48182864	40.95328093	AX	37
OCS-A 0501		-70.50382658	40.95299605	AX	36
OCS-A 0501		-70.5258242	40.95270698	AX	35
OCS-A 0501		-70.5478215	40.95241371	AX	34
OCS-A 0501		-70.56981847	40.95211625	AX	33
OCS-A 0501		-70.59181511	40.95181459	AX	32
OCS-A 0501		-70.61381142	40.95150874	AX	31
OCS-A 0501		-70.63580738	40.9511987	AX	30
OCS-A 0501		-70.657803	40.95088446	AX	29
OCS-A 0501		-70.67979827	40.95056602	AX	28
OCS-A 0501		-70.70179318	40.9502434	AX	27
OCS-A 0501		-70.72378774	40.94991658	AX	26
OCS-A 0501		-70.50344822	40.93631839	AY	36
OCS-A 0501		-70.52544031	40.93602948	AY	35
OCS-A 0501		-70.54743208	40.93573639	AY	34
OCS-A 0501		-70.56942352	40.9354391	AY	33
OCS-A 0501		-70.59141463	40.93513762	AY	32
OCS-A 0501		-70.61340541	40.93483195	AY	31
OCS-A 0501		-70.63539585	40.93452208	AY	30
OCS-A 0501		-70.65738594	40.93420803	AY	29
OCS-A 0501		-70.67937568	40.93388978	AY	28
OCS-A 0501		-70.70136507	40.93356734	AY	27
OCS-A 0501		-70.7233541	40.93324071	AY	26

Lease Number	Owner	Longitude	Latitude	Row	Column
OCS-A 0501		-70.52505674	40.91935194	AZ	35
OCS-A 0501		-70.54704299	40.91905901	AZ	34
OCS-A 0501		-70.56902891	40.9187619	AZ	33
OCS-A 0501		-70.59101449	40.9184606	AZ	32
OCS-A 0501		-70.61299975	40.9181551	AZ	31
OCS-A 0501		-70.63498466	40.91784542	AZ	30
OCS-A 0501		-70.65696923	40.91753155	AZ	29
OCS-A 0501		-70.67895345	40.91721349	AZ	28
OCS-A 0501		-70.70093732	40.91689124	AZ	27
OCS-A 0501		-70.72292082	40.9165648	AZ	26
OCS-A 0501		-70.74490397	40.91623417	AZ	25
OCS-A 0501		-70.76688675	40.91589935	AZ	24
OCS-A 0501		-70.52467349	40.90267434	BA	35
OCS-A 0501		-70.54665422	40.90238159	BA	34
OCS-A 0501		-70.56863462	40.90208465	BA	33
OCS-A 0501		-70.59061469	40.90178352	BA	32
OCS-A 0501		-70.61259443	40.90147821	BA	31
OCS-A 0501		-70.63457382	40.9011687	BA	30
OCS-A 0501		-70.65655287	40.90085501	BA	29
OCS-A 0501		-70.67853157	40.90053714	BA	28
OCS-A 0501		-70.70050992	40.90021508	BA	27
OCS-A 0501		-70.72248791	40.89988883	BA	26
OCS-A 0501		-70.74446554	40.89955839	BA	25
OCS-A 0501		-70.7664428	40.89922377	BA	24
OCS-A 0501		-70.56824067	40.88540735	BB	33
OCS-A 0501		-70.59021522	40.88510639	BB	32
OCS-A 0501		-70.61218944	40.88480126	BB	31
OCS-A 0501		-70.63416332	40.88449194	BB	30
OCS-A 0501		-70.65613686	40.88417843	BB	29
OCS-A 0501		-70.67811005	40.88386074	BB	28
OCS-A 0501		-70.70008288	40.88353887	BB	27
OCS-A 0501		-70.72205536	40.88321281	BB	26
OCS-A 0501		-70.74402748	40.88288257	BB	25
OCS-A 0501		-70.76599923	40.88254814	BB	24
OCS-A 0501		-70.7879706	40.88220953	BB	23
OCS-A 0501		-70.56784704	40.86872999	BC	33
OCS-A 0501		-70.58981609	40.86842922	BC	32
OCS-A 0501		-70.6117848	40.86812426	BC	31
OCS-A 0501		-70.63375317	40.86781512	BC	30
OCS-A 0501		-70.6557212	40.86750179	BC	29
OCS-A 0501		-70.67768888	40.86718429	BC	28
OCS-A 0501		-70.6996562	40.8668626	BC	27
OCS-A 0501		-70.72162317	40.86653674	BC	26
OCS-A 0501		-70.74358978	40.86620669	BC	25
OCS-A 0501		-70.76555602	40.86587246	BC	24
OCS-A 0501		-70.78752189	40.86553405	BC	23
OCS-A 0501		-70.80948739	40.86519146	BC	22

Lease Number	Owner	Longitude	Latitude	Row	Column
OCS-A 0501		-70.61138049	40.8514472	BD	31
OCS-A 0501		-70.63334336	40.85113824	BD	30
OCS-A 0501		-70.65530588	40.8508251	BD	29
OCS-A 0501		-70.67726806	40.85050779	BD	28
OCS-A 0501		-70.69922988	40.85018629	BD	27
OCS-A 0501		-70.72119135	40.84986061	BD	26
OCS-A 0501		-70.74315245	40.84953076	BD	25
OCS-A 0501		-70.76511319	40.84919672	BD	24
OCS-A 0501		-70.78707356	40.84885851	BD	23
OCS-A 0501		-70.80903355	40.84851612	BD	22
OCS-A 0501		-70.83099316	40.84816955	BD	21
OCS-A 0501		-70.61097653	40.8347701	BE	31
OCS-A 0501		-70.63293389	40.83446132	BE	30
OCS-A 0501		-70.65489092	40.83414836	BE	29
OCS-A 0501		-70.67684759	40.83383123	BE	28
OCS-A 0501		-70.69880392	40.83350992	BE	27
OCS-A 0501		-70.72075989	40.83318443	BE	26
OCS-A 0501		-70.74271549	40.83285477	BE	25
OCS-A 0501		-70.6544763	40.81747157	BF	29
OCS-A 0501		-70.67642748	40.81715462	BF	28
OCS-A 0501		-70.69837831	40.8168335	BF	27
OCS-A 0501		-70.72032878	40.81650821	BF	26
OCS-A 0501		-70.7422789	40.81617874	BF	25
OCS-A 0501		-70.67600772	40.80047797	BG	28
OCS-A 0501		-70.69795306	40.80015703	BG	27
OCS-A 0501		-70.71989804	40.79983192	BG	26
OCS-A 0501		-70.74184267	40.79950265	BG	25
OCS-A 0501		-70.69752816	40.78348051	BH	27
OCS-A 0501		-70.71946766	40.78315559	BH	26
OCS-A 0501		-70.7414068	40.78282651	BH	25
OCS-A 0501		-70.71903764	40.76647921	BJ	26
OCS-A 0501		-70.7409713	40.76615031	BJ	25
OCS-A 0501		-70.74053616	40.74947407	BK	25
OCS-A 0500	Orsted US	-70.50800955	41.13644695	AL	36
OCS-A 0500	Orsted US	-70.5300683	41.13615601	AL	35
OCS-A 0500	Orsted US	-70.55212673	41.13586086	AL	34
OCS-A 0500	Orsted US	-70.57418483	41.13556148	AL	33
OCS-A 0500	Orsted US	-70.59624259	41.13525788	AL	32
OCS-A 0500	Orsted US	-70.50762768	41.11976985	AM	36
OCS-A 0500	Orsted US	-70.52968086	41.11947908	AM	35
OCS-A 0500	Orsted US	-70.5517337	41.1191841	AM	34
OCS-A 0500	Orsted US	-70.57378622	41.1188849	AM	33
OCS-A 0500	Orsted US	-70.5958384	41.11858147	AM	32
OCS-A 0500	Orsted US	-70.61789024	41.11827383	AM	31
OCS-A 0500	Orsted US	-70.63994174	41.11796197	AM	30
OCS-A 0500	Orsted US	-70.52929373	41.10280211	AN	35
OCS-A 0500	Orsted US	-70.551341	41.10250729	AN	34

Lease Number	Owner	Longitude	Latitude	Row	Column
OCS-A 0500	Orsted US	-70.57338794	41.10220826	AN	33
OCS-A 0500	Orsted US	-70.59543455	41.10190502	AN	32
OCS-A 0500	Orsted US	-70.61748081	41.10159756	AN	31
OCS-A 0500	Orsted US	-70.63952674	41.10128588	AN	30
OCS-A 0500	Orsted US	-70.66157231	41.10096998	AN	29
OCS-A 0500	Orsted US	-70.68361754	41.10064987	AN	28
OCS-A 0500	Orsted US	-70.7056624	41.10032555	AN	27
OCS-A 0500	Orsted US	-70.7277069	41.099997	AN	26
OCS-A 0500	Orsted US	-70.74975104	41.09966424	AN	25
OCS-A 0500	Orsted US	-70.7717948	41.09932727	AN	24
OCS-A 0500	Orsted US	-70.79383819	41.09898608	AN	23
OCS-A 0500	Orsted US	-70.55094863	41.08583043	AP	34
OCS-A 0500	Orsted US	-70.57299	41.08553158	AP	33
OCS-A 0500	Orsted US	-70.59503104	41.08522851	AP	32
OCS-A 0500	Orsted US	-70.61707173	41.08492123	AP	31
OCS-A 0500	Orsted US	-70.63911209	41.08460973	AP	30
OCS-A 0500	Orsted US	-70.66115209	41.08429402	AP	29
OCS-A 0500	Orsted US	-70.68319175	41.0839741	AP	28
OCS-A 0500	Orsted US	-70.70523104	41.08364996	AP	27
OCS-A 0500	Orsted US	-70.72726998	41.08332161	AP	26
OCS-A 0500	Orsted US	-70.74930855	41.08298905	AP	25
OCS-A 0500	Orsted US	-70.77134674	41.08265227	AP	24
OCS-A 0500	Orsted US	-70.815422	41.08196608	AP	22
OCS-A 0500	Orsted US	-70.57259239	41.06885484	AQ	33
OCS-A 0500	Orsted US	-70.59462786	41.06855195	AQ	32
OCS-A 0500	Orsted US	-70.616663	41.06824485	AQ	31
OCS-A 0500	Orsted US	-70.63869779	41.06793353	AQ	30
OCS-A 0500	Orsted US	-70.66073223	41.06761801	AQ	29
OCS-A 0500	Orsted US	-70.68276632	41.06729827	AQ	28
OCS-A 0500	Orsted US	-70.70480005	41.06697432	AQ	27
OCS-A 0500	Orsted US	-70.72683342	41.06664616	AQ	26
OCS-A 0500	Orsted US	-70.74886642	41.06631379	AQ	25
OCS-A 0500	Orsted US	-70.77089906	41.06597721	AQ	24
OCS-A 0500	Orsted US	-70.79293131	41.06563642	AQ	23
OCS-A 0500	Orsted US	-70.59422503	41.05187534	AR	32
OCS-A 0500	Orsted US	-70.6162546	41.05156842	AR	31
OCS-A 0500	Orsted US	-70.63828383	41.05125728	AR	30
OCS-A 0500	Orsted US	-70.66031271	41.05094194	AR	29
OCS-A 0500	Orsted US	-70.68234124	41.05062239	AR	28
OCS-A 0500	Orsted US	-70.70436941	41.05029863	AR	27
OCS-A 0500	Orsted US	-70.72639723	41.04997066	AR	26
OCS-A 0500	Orsted US	-70.74842467	41.04963849	AR	25
OCS-A 0500	Orsted US	-70.77045175	41.0493021	AR	24
OCS-A 0500	Orsted US	-70.79247845	41.04896151	AR	23
OCS-A 0500	Orsted US	-70.61584655	41.03489193	AS	31
OCS-A 0500	Orsted US	-70.63787022	41.03458098	AS	30
OCS-A 0500	Orsted US	-70.65989355	41.03426582	AS	29

Lease Number	Owner	Longitude	Latitude	Row	Column
OCS-A 0500	Orsted US	-70.68191652	41.03394646	AS	28
OCS-A 0500	Orsted US	-70.70393914	41.03362289	AS	27
OCS-A 0500	Orsted US	-70.7259614	41.03329511	AS	26
OCS-A 0500	Orsted US	-70.74798329	41.03296313	AS	25
OCS-A 0500	Orsted US	-70.77000481	41.03262694	AS	24
OCS-A 0500	Orsted US	-70.79202596	41.03228655	AS	23
OCS-A 0500	Orsted US	-70.81404673	41.03194195	AS	22
OCS-A 0500	Orsted US	-70.63745696	41.01790463	AT	30
OCS-A 0500	Orsted US	-70.65947474	41.01758965	AT	29
OCS-A 0500	Orsted US	-70.68149216	41.01727048	AT	28
OCS-A 0500	Orsted US	-70.70350923	41.0169471	AT	27
OCS-A 0500	Orsted US	-70.72552594	41.01661951	AT	26
OCS-A 0500	Orsted US	-70.74754228	41.01628772	AT	25
OCS-A 0500	Orsted US	-70.76955825	41.01595173	AT	24
OCS-A 0500	Orsted US	-70.79157385	41.01561154	AT	23
OCS-A 0500	Orsted US	-70.81358907	41.01526714	AT	22
OCS-A 0500	Orsted US	-70.65905628	41.00091343	AU	29
OCS-A 0500	Orsted US	-70.68106815	41.00059444	AU	28
OCS-A 0500	Orsted US	-70.70307968	41.00027125	AU	27
OCS-A 0500	Orsted US	-70.72509084	40.99994386	AU	26
OCS-A 0500	Orsted US	-70.74710164	40.99961226	AU	25
OCS-A 0500	Orsted US	-70.76911207	40.99927647	AU	24
OCS-A 0500	Orsted US	-70.79112212	40.99893647	AU	23
OCS-A 0500	Orsted US	-70.8131318	40.99859228	AU	22
OCS-A 0487	Orsted US	-70.83514109	40.99824388	AU	21
OCS-A 0487	Orsted US	-70.85714999	40.99789129	AU	20
OCS-A 0487	Orsted US	-70.8791585	40.99753449	AU	19
OCS-A 0487	Orsted US	-70.90116662	40.9971735	AU	18
OCS-A 0487	Orsted US	-70.92317433	40.99680831	AU	17
OCS-A 0487	Orsted US	-70.94518164	40.99643892	AU	16
OCS-A 0487	Orsted US	-70.96718853	40.99606533	AU	15
OCS-A 0487	Orsted US	-70.98919501	40.99568754	AU	14
OCS-A 0487	Orsted US	-71.01120107	40.99530555	AU	13
OCS-A 0487	Orsted US	-71.0332067	40.99491937	AU	12
OCS-A 0500	Orsted US	-70.70265049	40.98359535	AV	27
OCS-A 0500	Orsted US	-70.72465611	40.98326815	AV	26
OCS-A 0500	Orsted US	-70.74666137	40.98293675	AV	25
OCS-A 0500	Orsted US	-70.76866626	40.98260115	AV	24
OCS-A 0500	Orsted US	-70.79067077	40.98226135	AV	23
OCS-A 0500	Orsted US	-70.81267491	40.98191736	AV	22
OCS-A 0500	Orsted US	-70.83467866	40.98156917	AV	21
OCS-A 0500	Orsted US	-70.85668203	40.98121678	AV	20
OCS-A 0487	Orsted US	-70.878685	40.98086019	AV	19
OCS-A 0487	Orsted US	-70.90068758	40.98049941	AV	18
OCS-A 0487	Orsted US	-70.92268975	40.98013443	AV	17
OCS-A 0487	Orsted US	-70.94469152	40.97976525	AV	16
OCS-A 0487	Orsted US	-70.96669288	40.97939188	AV	15

Lease Number	Owner	Longitude	Latitude	Row	Column
OCS-A 0487	Orsted US	-70.98869382	40.97901431	AV	14
OCS-A 0487	Orsted US	-71.01069434	40.97863255	AV	13
OCS-A 0487	Orsted US	-71.03269444	40.97824659	AV	12
OCS-A 0500	Orsted US	-70.70222166	40.9669194	AW	27
OCS-A 0500	Orsted US	-70.72422174	40.96659239	AW	26
OCS-A 0500	Orsted US	-70.74622146	40.96626118	AW	25
OCS-A 0500	Orsted US	-70.76822082	40.96592578	AW	24
OCS-A 0500	Orsted US	-70.7902198	40.96558618	AW	23
OCS-A 0500	Orsted US	-70.8122184	40.96524239	AW	22
OCS-A 0500	Orsted US	-70.83421662	40.9648944	AW	21
OCS-A 0500	Orsted US	-70.85621445	40.96454222	AW	20
OCS-A 0500	Orsted US	-70.87821189	40.96418584	AW	19
OCS-A 0487	Orsted US	-70.90020894	40.96382527	AW	18
OCS-A 0487	Orsted US	-70.92220558	40.9634605	AW	17
OCS-A 0487	Orsted US	-70.94420182	40.96309154	AW	16
OCS-A 0487	Orsted US	-70.96619764	40.96271839	AW	15
OCS-A 0487	Orsted US	-70.98819305	40.96234104	AW	14
OCS-A 0487	Orsted US	-71.01018805	40.9619595	AW	13
OCS-A 0487	Orsted US	-71.03218261	40.96157377	AW	12
OCS-A 0500	Orsted US	-70.74578193	40.94958556	AX	25
OCS-A 0500	Orsted US	-70.76777575	40.94925036	AX	24
OCS-A 0500	Orsted US	-70.78976921	40.94891096	AX	23
OCS-A 0500	Orsted US	-70.81176228	40.94856736	AX	22
OCS-A 0500	Orsted US	-70.83375497	40.94821958	AX	21
OCS-A 0500	Orsted US	-70.85574727	40.9478676	AX	20
OCS-A 0500	Orsted US	-70.87773918	40.94751143	AX	19
OCS-A 0500	Orsted US	-70.8997307	40.94715107	AX	18
OCS-A 0487	Orsted US	-70.92172181	40.94678652	AX	17
OCS-A 0487	Orsted US	-70.94371252	40.94641777	AX	16
OCS-A 0487	Orsted US	-70.96570282	40.94604484	AX	15
OCS-A 0487	Orsted US	-70.98769271	40.94566771	AX	14
OCS-A 0487	Orsted US	-71.00968217	40.94528639	AX	13
OCS-A 0487	Orsted US	-71.03167121	40.94490088	AX	12
OCS-A 0500	Orsted US	-70.74534277	40.93290989	AY	25
OCS-A 0500	Orsted US	-70.76733106	40.93257488	AY	24
OCS-A 0500	Orsted US	-70.78931899	40.93223568	AY	23
OCS-A 0500	Orsted US	-70.81130654	40.93189229	AY	22
OCS-A 0500	Orsted US	-70.8332937	40.93154471	AY	21
OCS-A 0500	Orsted US	-70.85528048	40.93119293	AY	20
OCS-A 0500	Orsted US	-70.87726687	40.93083697	AY	19
OCS-A 0500	Orsted US	-70.89925286	40.93047682	AY	18
OCS-A 0487	Orsted US	-70.92123845	40.93011248	AY	17
OCS-A 0487	Orsted US	-70.94322364	40.92974395	AY	16
OCS-A 0487	Orsted US	-70.96520842	40.92937123	AY	15
OCS-A 0487	Orsted US	-70.98719278	40.92899433	AY	14
OCS-A 0487	Orsted US	-71.00917672	40.92861323	AY	13
OCS-A 0487	Orsted US	-71.03116024	40.92822795	AY	12

Lease Number	Owner	Longitude	Latitude	Row	Column
OCS-A 0500	Orsted US	-70.78886915	40.91556035	AZ	23
OCS-A 0500	Orsted US	-70.81085118	40.91521716	AZ	22
OCS-A 0500	Orsted US	-70.83283282	40.91486978	AZ	21
OCS-A 0500	Orsted US	-70.85481408	40.91451821	AZ	20
OCS-A 0500	Orsted US	-70.87679495	40.91416246	AZ	19
OCS-A 0500	Orsted US	-70.89877542	40.91380252	AZ	18
OCS-A 0500	Orsted US	-70.9207555	40.91343839	AZ	17
OCS-A 0487	Orsted US	-70.94273517	40.91307008	AZ	16
OCS-A 0487	Orsted US	-70.96471443	40.91269758	AZ	15
OCS-A 0487	Orsted US	-70.98669327	40.91232089	AZ	14
OCS-A 0487	Orsted US	-71.0086717	40.91194002	AZ	13
OCS-A 0487	Orsted US	-71.0306497	40.91155496	AZ	12
OCS-A 0500	Orsted US	-70.78841969	40.89888497	BA	23
OCS-A 0500	Orsted US	-70.8103962	40.89854198	BA	22
OCS-A 0500	Orsted US	-70.83237233	40.8981948	BA	21
OCS-A 0500	Orsted US	-70.85434807	40.89784344	BA	20
OCS-A 0500	Orsted US	-70.87632343	40.89748789	BA	19
OCS-A 0500	Orsted US	-70.89829839	40.89712816	BA	18
OCS-A 0500	Orsted US	-70.92027295	40.89676425	BA	17
OCS-A 0500	Orsted US	-70.9422471	40.89639615	BA	16
OCS-A 0487	Orsted US	-70.96422085	40.89602387	BA	15
OCS-A 0487	Orsted US	-70.98619418	40.8956474	BA	14
OCS-A 0487	Orsted US	-71.00816709	40.89526675	BA	13
OCS-A 0487	Orsted US	-71.03013959	40.89488192	BA	12
OCS-A 0500	Orsted US	-70.8099416	40.88186674	BB	22
OCS-A 0500	Orsted US	-70.83191222	40.88151977	BB	21
OCS-A 0500	Orsted US	-70.85388246	40.88116861	BB	20
OCS-A 0500	Orsted US	-70.8758523	40.88081328	BB	19
OCS-A 0500	Orsted US	-70.89782175	40.88045376	BB	18
OCS-A 0500	Orsted US	-70.9197908	40.88009005	BB	17
OCS-A 0500	Orsted US	-70.94175945	40.87972217	BB	16
OCS-A 0500	Orsted US	-70.96372768	40.8793501	BB	15
OCS-A 0500	Orsted US	-70.98569551	40.87897386	BB	14
OCS-A 0487	Orsted US	-71.00766291	40.87859343	BB	13
OCS-A 0487	Orsted US	-71.0296299	40.87820882	BB	12
OCS-A 0500	Orsted US	-70.8314525	40.86484469	BC	21
OCS-A 0500	Orsted US	-70.85341723	40.86449374	BC	20
OCS-A 0500	Orsted US	-70.87538157	40.86413861	BC	19
OCS-A 0500	Orsted US	-70.89734551	40.86377929	BC	18
OCS-A 0500	Orsted US	-70.91930906	40.8634158	BC	17
OCS-A 0500	Orsted US	-70.9412722	40.86304814	BC	16
OCS-A 0500	Orsted US	-70.96323493	40.86267629	BC	15
OCS-A 0500	Orsted US	-70.98519725	40.86230026	BC	14
OCS-A 0500	Orsted US	-71.00715916	40.86192006	BC	13
OCS-A 0500	Orsted US	-71.02912064	40.86153567	BC	12
OCS-A 0500	Orsted US	-70.85295239	40.8478188	BD	20
OCS-A 0500	Orsted US	-70.87491123	40.84746388	BD	19

Lease Number	Owner	Longitude	Latitude	Row	Column
OCS-A 0500	Orsted US	-70.89686967	40.84710478	BD	18
OCS-A 0500	Orsted US	-70.91882772	40.8467415	BD	17
OCS-A 0500	Orsted US	-70.94078536	40.84637405	BD	16
OCS-A 0500	Orsted US	-70.96274259	40.84600242	BD	15
OCS-A 0500	Orsted US	-70.98469942	40.84562661	BD	14
OCS-A 0500	Orsted US	-71.00665582	40.84524663	BD	13
OCS-A 0500	Orsted US	-71.0286118	40.84486247	BD	12
OCS-A 0500	Orsted US	-71.0281034	40.82818921	BE	12
OCS-A 0500	Orsted US	-71.02759541	40.8115159	BF	12
OCS-A 0500	Orsted US	-71.02708786	40.79484254	BG	12
OCS-A 0500	Orsted US	-71.02658072	40.77816912	BH	12
OCS-A 0500	Orsted US	-71.02607402	40.76149565	BJ	12
OCS-A 0500	Orsted US	-71.02556773	40.74482212	BK	12
OCS-A 0500	Orsted US	-71.02506187	40.72814855	BL	12
OCS-A 0500	Orsted US	-71.02455644	40.71147491	BM	12
OCS-A 0486	Orsted US	-70.83885451	41.1316397	AL	21
OCS-A 0486	Orsted US	-70.86090789	41.13128546	AL	20
OCS-A 0486	Orsted US	-70.88296087	41.13092699	AL	19
OCS-A 0486	Orsted US	-70.90501345	41.13056431	AL	18
OCS-A 0486	Orsted US	-70.92706563	41.13019741	AL	17
OCS-A 0486	Orsted US	-70.9491174	41.12982629	AL	16
OCS-A 0486	Orsted US	-70.97116875	41.12945095	AL	15
OCS-A 0486	Orsted US	-70.99321968	41.12907139	AL	14
OCS-A 0486	Orsted US	-71.01527019	41.12868762	AL	13
OCS-A 0486	Orsted US	-71.03732027	41.12829963	AL	12
OCS-A 0486	Orsted US	-71.05936992	41.12790742	AL	11
OCS-A 0486	Orsted US	-71.08141913	41.12751099	AL	10
OCS-A 0486	Orsted US	-71.10346789	41.12711035	AL	09
OCS-A 0486	Orsted US	-71.12551621	41.12670549	AL	08
OCS-A 0486	Orsted US	-71.19165844	41.12546562	AL	05
OCS-A 0486	Orsted US	-71.21370493	41.1250439	AL	04
OCS-A 0486	Orsted US	-71.23575094	41.12461796	AL	03
OCS-A 0486	Orsted US	-71.25779648	41.12418781	AL	02
OCS-A 0486	Orsted US	-70.94961123	41.14649947	AK	16
OCS-A 0486	Orsted US	-70.97166816	41.14612391	AK	15
OCS-A 0486	Orsted US	-70.99372467	41.14574414	AK	14
OCS-A 0486	Orsted US	-71.01578075	41.14536014	AK	13
OCS-A 0486	Orsted US	-71.03783641	41.14497192	AK	12
OCS-A 0486	Orsted US	-71.05989163	41.14457948	AK	11
OCS-A 0486	Orsted US	-71.08194642	41.14418283	AK	10
OCS-A 0486	Orsted US	-71.10400076	41.14378195	AK	09
OCS-A 0486	Orsted US	-71.12605466	41.14337685	AK	08
OCS-A 0486	Orsted US	-70.95010547	41.1631726	AJ	16
OCS-A 0486	Orsted US	-70.97216799	41.16279682	AJ	15
OCS-A 0486	Orsted US	-70.99423008	41.16241682	AJ	14
OCS-A 0486	Orsted US	-71.01629175	41.1620326	AJ	13
OCS-A 0486	Orsted US	-71.03835299	41.16164416	AJ	12

Lease Number	Owner	Longitude	Latitude	Row	Column
OCS-A 0486	Orsted US	-71.06041379	41.16125149	AJ	11
OCS-A 0486	Orsted US	-71.08247416	41.1608546	AJ	10
OCS-A 0486	Orsted US	-71.10453408	41.16045349	AJ	09
OCS-A 0486	Orsted US	-71.12659356	41.16004816	AJ	08
OCS-A 0486	Orsted US	-71.14865258	41.15963861	AJ	07
OCS-A 0486	Orsted US	-71.17071114	41.15922483	AJ	06
OCS-A 0486	Orsted US	-71.19276925	41.15880684	AJ	05
OCS-A 0486	Orsted US	-71.21482688	41.15838462	AJ	04
OCS-A 0486	Orsted US	-71.23688405	41.15795819	AJ	03
OCS-A 0486	Orsted US	-71.25894074	41.15752753	AJ	02
OCS-A 0486	Orsted US	-71.10506785	41.17712498	AH	09
OCS-A 0486	Orsted US	-71.12713291	41.17671941	AH	08
OCS-A 0486	Orsted US	-71.14919751	41.17630962	AH	07
OCS-A 0486	Orsted US	-71.17126166	41.17589561	AH	06
OCS-A 0486	Orsted US	-71.19332535	41.17547737	AH	05
OCS-A 0486	Orsted US	-71.21538857	41.17505491	AH	04
OCS-A 0486	Orsted US	-71.10560206	41.19379641	AG	09
OCS-A 0486	Orsted US	-71.12767271	41.19339061	xx	08
OCS-A 0486	Orsted US	-71.1497429	41.19298058	AG	07
OCS-A 0486	Orsted US	-71.17181264	41.19256632	AG	06
OCS-A 0486	Orsted US	-71.19388192	41.19214784	AG	05
OCS-A 0486	Orsted US	-71.21595072	41.19172513	AG	04
OCS-A 0486	Orsted US	-71.06198289	41.21126719	AF	11
OCS-A 0486	Orsted US	-71.08406003	41.21086961	AF	10
OCS-A 0486	Orsted US	-71.10613672	41.2104678	AF	09
OCS-A 0486	Orsted US	-71.12821296	41.21006175	AF	08
OCS-A 0486	Orsted US	-71.15028875	41.20965148	AF	07
OCS-A 0486	Orsted US	-71.17236408	41.20923699	AF	06
OCS-A 0486	Orsted US	-71.19443895	41.20881826	AF	05
OCS-A 0486	Orsted US	-71.0625068	41.22793898	AE	11
OCS-A 0486	Orsted US	-71.08458954	41.22754117	AE	10
OCS-A 0486	Orsted US	-71.10667183	41.22713912	AE	09
OCS-A 0486	Orsted US	-71.12875367	41.22673284	AE	08
OCS-A 0486	Orsted US	-71.15083506	41.22632233	AE	07
OCS-A 0486	Orsted US	-71.17291599	41.22590759	AE	06
OCS-A 0486	Orsted US	-71.06303116	41.24461072	AD	11
OCS-A 0486	Orsted US	-71.0851195	41.24421268	AD	10
OCS-A 0486	Orsted US	-71.10720739	41.24381039	AD	09
OCS-A 0486	Orsted US	-71.12929484	41.24340388	AD	08
OCS-A 0486	Orsted US	-71.15138183	41.24299313	AD	07
OCS-A 0486	Orsted US	-71.12983646	41.26007486	AC	08
OCS-A 0486	Orsted US	-71.13037853	41.27674579	AB	08
OCS-A 0486	Orsted US	-71.28563801	41.29044734	AA	01
OCS-A 0486	Orsted US	-70.83838897	41.11496541	AM	21
OCS-A 0486	Orsted US	-70.86043677	41.11461137	AM	20
OCS-A 0486	Orsted US	-70.88248418	41.11425312	AM	19
OCS-A 0486	Orsted US	-70.90453119	41.11389064	AM	18

Lease Number	Owner	Longitude	Latitude	Row	Column
OCS-A 0486	Orsted US	-70.92657779	41.11352396	AM	17
OCS-A 0486	Orsted US	-70.94862398	41.11315305	AM	16
OCS-A 0486	Orsted US	-70.97066976	41.11277793	AM	15
OCS-A 0486	Orsted US	-70.99271512	41.1123986	AM	14
OCS-A 0486	Orsted US	-71.01476005	41.11201505	AM	13
OCS-A 0486	Orsted US	-71.03680456	41.11162728	AM	12
OCS-A 0486	Orsted US	-71.05884864	41.1112353	AM	11
OCS-A 0517	Orsted US	-71.08089228	41.11083911	AM	10
OCS-A 0517	Orsted US	-71.10293547	41.1104387	AM	09
OCS-A 0517	Orsted US	-71.12497822	41.11003408	AM	08
OCS-A 0517	Orsted US	-71.14702052	41.10962524	AM	07
OCS-A 0517	Orsted US	-71.16906236	41.10921219	AM	06
OCS-A 0517	Orsted US	-71.19110374	41.10879493	AM	05
OCS-A 0486	Orsted US	-71.21314466	41.10837345	AM	04
OCS-A 0486	Orsted US	-71.2351851	41.10794776	AM	03
OCS-A 0486	Orsted US	-71.25722508	41.10751786	AM	02
OCS-A 0486	Orsted US	-70.94813098	41.09647976	AN	16
OCS-A 0486	Orsted US	-70.97017119	41.09610486	AN	15
OCS-A 0486	Orsted US	-70.99221098	41.09572575	AN	14
OCS-A 0486	Orsted US	-71.01425035	41.09534242	AN	13
OCS-A 0486	Orsted US	-71.03628929	41.09495489	AN	12
OCS-A 0486	Orsted US	-71.0583278	41.09456313	AN	11
OCS-A 0517	Orsted US	-71.08036587	41.09416717	AN	10
OCS-A 0517	Orsted US	-71.1024035	41.093767	AN	09
OCS-A 0517	Orsted US	-71.12444068	41.09336261	AN	08
OCS-A 0517	Orsted US	-71.14647741	41.09295401	AN	07
OCS-A 0517	Orsted US	-71.16851369	41.0925412	AN	06
OCS-A 0517	Orsted US	-71.19054951	41.09212418	AN	05
OCS-A 0486	Orsted US	-71.21258486	41.09170295	AN	04
OCS-A 0486	Orsted US	-70.94763839	41.07980642	AP	16
OCS-A 0486	Orsted US	-70.96967303	41.07943174	AP	15
OCS-A 0486	Orsted US	-70.99170726	41.07905285	AP	14
OCS-A 0486	Orsted US	-71.01374107	41.07866975	AP	13
OCS-A 0486	Orsted US	-71.03577444	41.07828243	AP	12
OCS-A 0486	Orsted US	-71.05780739	41.07789091	AP	11
OCS-A 0517	Orsted US	-71.0798399	41.07749518	AP	10
OCS-A 0517	Orsted US	-71.10187197	41.07709524	AP	09
OCS-A 0517	Orsted US	-71.12390359	41.07669109	AP	08
OCS-A 0517	Orsted US	-71.14593476	41.07628273	AP	07
OCS-A 0517	Orsted US	-71.16796548	41.07587016	AP	06
OCS-A 0517	Orsted US	-71.18999573	41.07545338	AP	05
OCS-A 0486	Orsted US	-71.21202553	41.0750324	AP	04
OCS-A 0487	Orsted US	-70.83745906	41.08161666	AP	21
OCS-A 0487	Orsted US	-70.83699469	41.06494221	AQ	21
OCS-A 0487	Orsted US	-70.85902579	41.06458879	AQ	20
OCS-A 0487	Orsted US	-70.8810565	41.06423117	AQ	19
OCS-A 0487	Orsted US	-70.94665445	41.04645958	AR	16

Lease Number	Owner	Longitude	Latitude	Row	Column
OCS-A 0487	Orsted US	-71.21090827	41.04169112	AR	04
OCS-A 0487	Orsted US	-71.23292649	41.04126642	AR	03
OCS-A 0487	Orsted US	-71.25494424	41.04083752	AR	02
OCS-A 0487	Orsted US	-70.83606711	41.03159315	AS	21
OCS-A 0487	Orsted US	-70.8580871	41.03124015	AS	20
OCS-A 0487	Orsted US	-70.88010671	41.03088294	AS	19
OCS-A 0487	Orsted US	-70.90212591	41.03052152	AS	18
OCS-A 0487	Orsted US	-70.92414471	41.0301559	AS	17
OCS-A 0487	Orsted US	-70.9461631	41.02978608	AS	16
OCS-A 0487	Orsted US	-70.96818108	41.02941205	AS	15
OCS-A 0487	Orsted US	-70.99019865	41.02903382	AS	14
OCS-A 0487	Orsted US	-71.01221579	41.02865139	AS	13
OCS-A 0487	Orsted US	-71.03423251	41.02826475	AS	12
OCS-A 0487	Orsted US	-71.05624879	41.02787392	AS	11
OCS-A 0487	Orsted US	-71.07826464	41.02747888	AS	10
OCS-A 0487	Orsted US	-71.10028005	41.02707964	AS	09
OCS-A 0487	Orsted US	-71.12229502	41.02667619	AS	08
OCS-A 0487	Orsted US	-71.14430954	41.02626855	AS	07
OCS-A 0487	Orsted US	-71.1663236	41.0258567	AS	06
OCS-A 0487	Orsted US	-71.1883372	41.02544065	AS	05
OCS-A 0487	Orsted US	-71.21035035	41.0250204	AS	04
OCS-A 0487	Orsted US	-71.23236302	41.02459595	AS	03
OCS-A 0487	Orsted US	-71.25437522	41.0241673	AS	02
OCS-A 0487	Orsted US	-71.27638695	41.02373445	AS	01
OCS-A 0487	Orsted US	-70.83560391	41.01491854	AT	21
OCS-A 0487	Orsted US	-70.85761835	41.01456574	AT	20
OCS-A 0487	Orsted US	-70.87963241	41.01420874	AT	19
OCS-A 0487	Orsted US	-70.90164606	41.01384754	AT	18
OCS-A 0487	Orsted US	-70.92365932	41.01348213	AT	17
OCS-A 0487	Orsted US	-70.94567216	41.01311252	AT	16
OCS-A 0487	Orsted US	-70.9676846	41.01273872	AT	15
OCS-A 0487	Orsted US	-70.98969662	41.01236071	AT	14
OCS-A 0487	Orsted US	-71.01170822	41.0119785	AT	13
OCS-A 0487	Orsted US	-71.03371939	41.01159209	AT	12
OCS-A 0487	Orsted US	-71.05573013	41.01120148	AT	11
OCS-A 0487	Orsted US	-71.07774044	41.01080667	AT	10
OCS-A 0487	Orsted US	-71.0997503	41.01040766	AT	09
OCS-A 0487	Orsted US	-71.12175973	41.01000445	AT	08
OCS-A 0487	Orsted US	-71.1437687	41.00959704	AT	07
OCS-A 0487	Orsted US	-71.16577722	41.00918544	AT	06
OCS-A 0487	Orsted US	-71.18778529	41.00876963	AT	05
OCS-A 0487	Orsted US	-71.20979289	41.00834963	AT	04
OCS-A 0487	Orsted US	-71.23180002	41.00792543	AT	03
OCS-A 0487	Orsted US	-71.25380668	41.00749703	AT	02
OCS-A 0487	Orsted US	-71.27581287	41.00706443	AT	01
OCS-A 0487	Orsted US	-71.0552119	40.99452899	AU	11
OCS-A 0487	Orsted US	-71.07721667	40.99413441	AU	10

Lease Number	Owner	Longitude	Latitude	Row	Column
OCS-A 0487	Orsted US	-71.099221	40.99373563	AU	09
OCS-A 0487	Orsted US	-71.12122489	40.99333266	AU	08
OCS-A 0487	Orsted US	-71.14322832	40.99292549	AU	07
OCS-A 0487	Orsted US	-71.16523131	40.99251412	AU	06
OCS-A 0487	Orsted US	-71.18723383	40.99209856	AU	05
OCS-A 0487	Orsted US	-71.2092359	40.9916788	AU	04
OCS-A 0487	Orsted US	-71.2312375	40.99125485	AU	03
OCS-A 0487	Orsted US	-71.25323862	40.9908267	AU	02
OCS-A 0487	Orsted US	-71.27523927	40.99039435	AU	01
OCS-A 0487	Orsted US	-71.05469411	40.97785644	AV	11
OCS-A 0487	Orsted US	-71.07669334	40.97746209	AV	10
OCS-A 0487	Orsted US	-71.09869214	40.97706355	AV	09
OCS-A 0487	Orsted US	-71.12069049	40.97666081	AV	08
OCS-A 0487	Orsted US	-71.1426884	40.97625388	AV	07
OCS-A 0487	Orsted US	-71.16468585	40.97584275	AV	06
OCS-A 0487	Orsted US	-71.18668284	40.97542743	AV	05
OCS-A 0487	Orsted US	-71.20867938	40.97500792	AV	04
OCS-A 0487	Orsted US	-71.23067544	40.97458421	AV	03
OCS-A 0487	Orsted US	-71.25267104	40.97415631	AV	02
OCS-A 0487	Orsted US	-71.27466616	40.97372422	AV	01
OCS-A 0487	Orsted US	-71.05417675	40.96118384	AW	11
OCS-A 0487	Orsted US	-71.07617046	40.96078972	AW	10
OCS-A 0487	Orsted US	-71.09816372	40.96039141	AW	09
OCS-A 0487	Orsted US	-71.12015655	40.95998891	AW	08
OCS-A 0487	Orsted US	-71.14214892	40.95958221	AW	07
OCS-A 0487	Orsted US	-71.16414085	40.95917133	AW	06
OCS-A 0487	Orsted US	-71.18613231	40.95875625	AW	05
OCS-A 0487	Orsted US	-71.20812332	40.95833698	AW	04
OCS-A 0487	Orsted US	-71.23011386	40.95791352	AW	03
OCS-A 0487	Orsted US	-71.25210393	40.95748587	AW	02
OCS-A 0487	Orsted US	-71.27409352	40.95705403	AW	01

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF OCEAN ENERGY MANAGEMENT

ADDENDUM "A"
Revised July 15, 2021

DESCRIPTION OF LEASED AREA AND LEASE ACTIVITIES

Lease Number OCS-A 0501

I. Lessor and Lessee Contact Information

Lessee Company Number: 15097

(a) Lessor's Contact Information

	Lease Representative	Operations Representative
Title	Program Manager, Office of Renewable Energy Programs	Same as Lease Representative
Address	U.S. Department of the Interior Bureau of Ocean Energy Management 45600 Woodland Road, Mail Stop VAM-OREP	
Phone	(703) 787-1300	
Fax	(703) 787-1708	
Email	renewableenergy@boem.gov	

(b) Lessee's Contact Information

	Lease Representative	Operations Representative
Name	Rachel Pachter	Same as Lease Representative
Title	Chief Development Officer	
Address	700 Pleasant Street Suite 510 New Bedford, MA 02740	
Phone	508-608-6455	
Fax		
Email	rpachter@vineyardwind.com	

II. Description of Leased Area

The leased area is defined as the Blocks described below and the project easement described in Addendum "D." Except for the purpose of rent calculation, any reference to "leased area" in Lease Number OCS-A 0501 should be interpreted to also include the project easement.

The Blocks described below contains 65,296 acres, more or less. The leased area is subject to later adjustment, in accordance with applicable regulations (e.g., contraction, relinquishment, etc.).

Lease OCS-A 0501

The following Blocks or portions of Blocks lying within Official Protraction Diagram Providence NK19-07, are depicted on the map below and comprise 63,516 acres, more or less.

- 1) Block 6977, SE1/4 of NE1/4, SE1/4 of SW1/4, SE1/4
- 2) Block 6978, S1/2, NE1/4, S1/2 of NW1/4, NE1/4 of NW1/4, S1/2 of NW1/4 of NW1/4, NE1/4 of NW1/4 of NW1/4
- 3) Block 7026, SE1/4 of NE1/4, SE1/4 of SW1/4, SE1/4
- 4) Block 7027, All of Block
- 5) Block 7028, All of Block
- 6) Block 7029, All of Block
- 7) Block 7075, SE1/4 of NE1/4, SE1/4
- 8) Block 7076, All of Block
- 9) Block 7077, All of Block
- 10) Block 7078, All of Block
- 11) Block 7079, N1/2, SW1/4, W1/2 of SE1/4, N1/2 of NE1/4 of SE1/4, SW1/4 of NE1/4 of SE1/4
- 12) Block 7126, NE1/4 of NW1/4, N1/2 of NE1/4
- 13) Block 7127, N1/2, SE1/4, N1/2 of SW1/4
- 14) Block 7128, N1/2, SW1/4, N1/2 of SE1/4, SW1/4 of SE1/4
- 15) Block 7129, N1/2 of NW1/4, SW1/4 of NW1/4

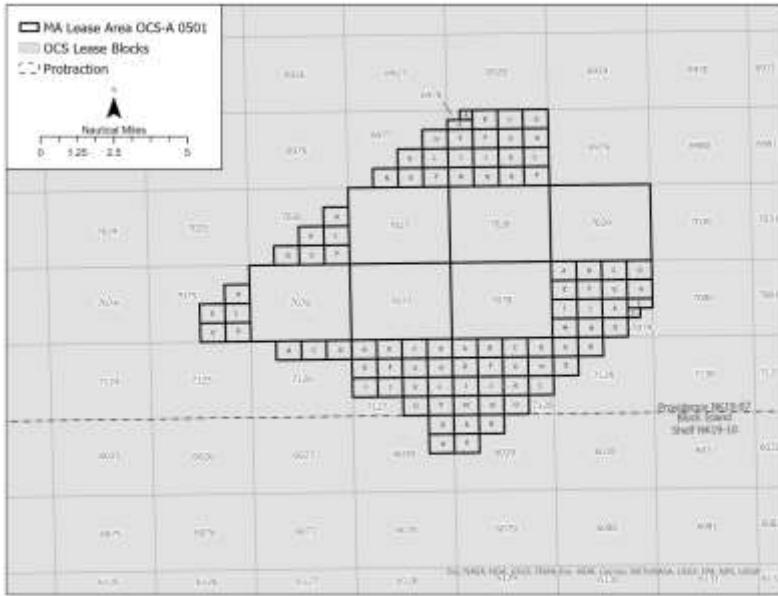
The following Blocks or portions of Blocks lying within Official Protraction Diagram Block Island Shelf NK19-10, are depicted on the map below and comprise 1,780 acres, more or less.

- 1) Block 6028, E1/2 of NE1/4
- 2) Block 6029, N1/2 of NW1/4, SW1/4 of NW1/4

Containing 65,296.00 Acres

Annual Rental: \$195,888.00

For the purposes of these calculations, a full Block is 2,304 hectares. The acreage of a hectare is 2.471043930.



III. Renewable Energy Resource

Wind

IV. Description of the Project

A project to generate energy using wind turbine generators and any associated resource assessment activities, as well as associated offshore substation platforms, inter-array cables, and subsea export cables, located on the OCS in the leased area.

V. Description of Project Easement(s)

The project easement associated with this lease is described in Addendum "D."

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF OCEAN ENERGY MANAGEMENT

ADDENDUM "D"

PROJECT EASEMENT

LEASE NUMBER OCS-A 0501

Granted: July 15, 2021

This section includes a description of the Project Easement associated with this lease, and the associated financial terms.

I. Project Easement Description

This project easement is subject to: all Terms and Conditions of Lease OCS-A 0501, executed April 1, 2015; the Construction and Operations Plan (COP); the Terms and Conditions of COP Approval issued on July 15, 2021; and any subsequent revision, amendments, or supplements to the same.

The map in Figure 1 below depicts the entire export cable corridor for the project described in the COP. Two transmission export cables, separated by 164 feet, will be located within this 1,804-foot wide corridor, which will extend approximately 40 statute miles, from the OCS-A 0501 Wind Development Area, through both federal and state waters, to the landfall location in West Hyannisport.

The project easement consists of the two portions of this corridor that fall within federal waters. In the map, these two portions are bounded by solid lines (as opposed to the dotted lines that bound the corridor portions in state waters) and by BOEM aliquots (OCS sub-blocks). Combined, these project easement portions extend approximately 17 statute miles and include approximately 3,592 acres.¹

The project easement's centerline, with 902 feet on either side, can be determined by interconnecting the points indicated by the centerline coordinates in Tables 1 and 2 below. In each portion of the federal easement, the centerline coordinates follow an order from north to south and are provided in both geographic NAD(83) (longitude, latitude) and UTM Zone 19N, NAD(83) (eastings, northings).

¹ The northern portion of the easement extends approximately 7 statute miles and includes approximately 1,429 acres, whereas the southern portion of the easement extends approximately 10 statute miles and includes approximately 2,163 acres. Thus, the project easement extends approximately 17 (7 + 10) statute miles and covers approximately 3,592 (1,429 + 2,163) acres.

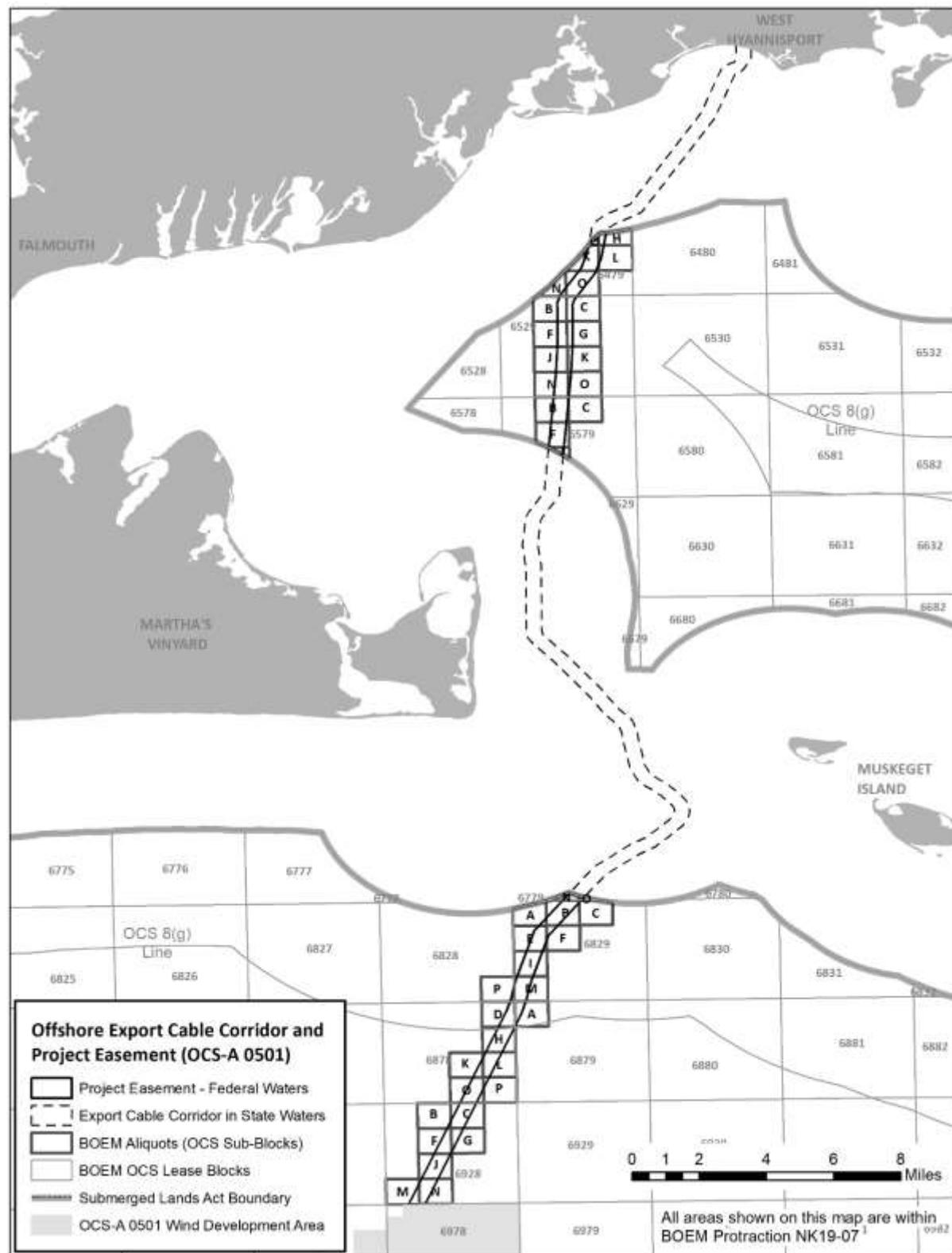
Figure 1: Offshore Export Cable Corridor and Project Easement (OCS-A 0501)

Table 1: Project Easement Centerline Coordinates – Northern Portion

Point Number	Longitude	Latitude	Easting	Northing
1	-70.395794	41.555037	383600.43	4601315.024
2	-70.397575	41.54612	383435.889	4600327.374
3	-70.400278	41.539461	383198.434	4599591.709
4	-70.40914	41.528218	382438.903	4598355.57
5	-70.410181	41.525179	382346.488	4598019.534
6	-70.409972	41.509376	382335.378	4596264.771
7	-70.410838	41.494353	382235.881	4594598.053
8	-70.411901	41.483455	382127.332	4593389.557
9	-70.412778	41.474473	382037.87	4592393.567
10	-70.413984	41.462105	381914.677	4591022.045

Table 2: Project Easement Centerline Coordinates – Southern Portion

Point Number	Longitude	Latitude	Easting	Northing
11	-70.405051	41.271351	382317.439	4569832.185
12	-70.41085	41.265186	381820.652	4569155.606
13	-70.420306	41.255111	381010.199	4568050.077
14	-70.428045	41.234347	380323.972	4565755.494
15	-70.429973	41.226709	380148.467	4564910.15
16	-70.432324	41.220557	379940.102	4564230.46
17	-70.439408	41.206599	379320.695	4562690.655
18	-70.447939	41.189778	378574.296	4560835.153
19	-70.456467	41.172957	377827.896	4558979.651
20	-70.46499	41.156136	377081.496	4557124.149
21	-70.473824	41.138691	376307.482	4555200

II. Rent

The Lessee must begin submitting rent payments for any project easement associated with this lease commencing on the date when BOEM approves the COP. Annual rent for a project easement 200 feet wide, centered on the transmission cable, is \$70.00 per statute mile. For any additional acreage required, the Lessee must also pay the greater of \$5.00 per acre per year or \$450.00 per year. The first annual rent payment for the project easement in the amount of \$17,155 is due within 45 days of COP approval. The rent for the next year and for each subsequent year is due on or before each Lease Anniversary.

To calculate the required rent payment for the project easement, BOEM first multiplied \$70 per statute mile by 17 statute miles (the approximate length of the project easement), obtaining \$1,190 for a project easement 200 feet wide. Then, BOEM determined the

additional acreage within the 1,804-foot wide project easement beyond the 200-foot area at the center of the easement. Next, BOEM multiplied that additional area – 3,193 acres – by \$5, obtaining \$15,965. The total project easement rent payment due is therefore \$17,155 (\$1,190 + \$15,965).

CIVIL COVER SHEET

JS-44 (Rev. 11/2020 DC)

I. (a) PLAINTIFFS Seafreeze Shoreside, Inc.; Long Island Commercial Fishing Association, Inc.; XIII Northeast Fishery Sector, Inc.; Heritage Fisheries, Inc.; Nat. W. Inc.; and Old Squaw Fisheries, Inc. +		DEFENDANTS The United States Department of the Interior; The Honorable Deb Haaland, in her official capacity as the Secretary of the Department of the Interior; et al	
(b) COUNTY OF RESIDENCE OF FIRST LISTED PLAINTIFF (EXCEPT IN U.S. PLAINTIFF CASES)		COUNTY OF RESIDENCE OF FIRST LISTED DEFENDANT (IN U.S. PLAINTIFF CASES ONLY) NOTE: IN LAND CONDEMNATION CASES, USE THE LOCATION OF THE TRACT OF LAND INVOLVED	
(c) ATTORNEYS (FIRM NAME, ADDRESS, AND TELEPHONE NUMBER) Theodore Hadzi-Antich Texas Public Policy Foundation 901 Congress Avenue Austin, Texas 78701 <i>15101 170 2700</i> +		ATTORNEYS (IF KNOWN)	
II. BASIS OF JURISDICTION (PLACE AN X IN ONE BOX ONLY)		III. CITIZENSHIP OF PRINCIPAL PARTIES (PLACE AN X IN ONE BOX FOR PLAINTIFF AND ONE BOX FOR DEFENDANT) FOR DIVERSITY CASES ONLY!	
<input type="radio"/> 1 U.S. Government Plaintiff	<input type="radio"/> 3 Federal Question (U.S. Government Not a Party)	Citizen of this State <input type="radio"/> 1 <input type="radio"/> 1	Incorporated or Principal Place of Business in This State <input type="radio"/> 4 <input type="radio"/> 4
<input checked="" type="radio"/> 2 U.S. Government Defendant	<input type="radio"/> 4 Diversity (Indicate Citizenship of Parties in item III)	Citizen of Another State <input type="radio"/> 2 <input type="radio"/> 2	Incorporated and Principal Place of Business in Another State <input type="radio"/> 5 <input type="radio"/> 5
		Citizen or Subject of a Foreign Country <input type="radio"/> 3 <input type="radio"/> 3	Foreign Nation <input type="radio"/> 6 <input type="radio"/> 6
IV. CASE ASSIGNMENT AND NATURE OF SUIT (Place an X in one category, A-N, that best represents your Cause of Action and one in a corresponding Nature of Suit)			
<input type="radio"/> A. Antitrust <input type="checkbox"/> 410 Antitrust	<input type="radio"/> B. Personal Injury/ Malpractice <input type="checkbox"/> 310 Airplane <input type="checkbox"/> 315 Airplane Product Liability <input type="checkbox"/> 320 Assault, Libel & Slander <input type="checkbox"/> 330 Federal Employers Liability <input type="checkbox"/> 340 Marine <input type="checkbox"/> 345 Marine Product Liability <input type="checkbox"/> 350 Motor Vehicle <input type="checkbox"/> 355 Motor Vehicle Product Liability <input type="checkbox"/> 360 Other Personal Injury <input type="checkbox"/> 362 Medical Malpractice <input type="checkbox"/> 365 Product Liability <input type="checkbox"/> 367 Health Care/Pharmaceutical Personal Injury Product Liability <input type="checkbox"/> 368 Asbestos Product Liability	<input type="radio"/> C. Administrative Agency Review <input type="checkbox"/> 151 Medicare Act Social Security <input type="checkbox"/> 861 HIA (1395ff) <input type="checkbox"/> 862 Black Lung (923) <input type="checkbox"/> 863 DIWC/DIWW (405(g)) <input type="checkbox"/> 864 SSID Title XVI <input type="checkbox"/> 865 RSI (405(g)) Other Statutes <input type="checkbox"/> 891 Agricultural Acts <input checked="" type="checkbox"/> 893 Environmental Matters <input type="checkbox"/> 890 Other Statutory Actions (If Administrative Agency is Involved)	<input type="radio"/> D. Temporary Restraining Order/Preliminary Injunction Any nature of suit from any category may be selected for this category of case assignment. *(If Antitrust, then A governs)*
<input type="radio"/> E. General Civil (Other)		<input type="radio"/> F. Pro Se General Civil	
Real Property <input type="checkbox"/> 210 Land Condemnation <input type="checkbox"/> 220 Foreclosure <input type="checkbox"/> 230 Rent, Lease & Ejectment <input type="checkbox"/> 240 Torts to Land <input type="checkbox"/> 245 Tort Product Liability <input type="checkbox"/> 290 All Other Real Property	Bankruptcy <input type="checkbox"/> 422 Appeal 27 USC 158 <input type="checkbox"/> 423 Withdrawal 28 USC 157	Federal Tax Suits <input type="checkbox"/> 870 Taxes (US plaintiff or defendant) <input type="checkbox"/> 871 IRS-Third Party 26 USC 7609	<input type="checkbox"/> 465 Other Immigration Actions <input type="checkbox"/> 470 Racketeer Influenced & Corrupt Organization <input type="checkbox"/> 480 Consumer Credit <input type="checkbox"/> 485 Telephone Consumer Protection Act (TCPA) <input type="checkbox"/> 490 Cable/Satellite TV <input type="checkbox"/> 850 Securities/Commodities/ Exchange <input type="checkbox"/> 896 Arbitration <input type="checkbox"/> 899 Administrative Procedure Act/Review or Appeal of Agency Decision <input type="checkbox"/> 950 Constitutionality of State Statutes <input type="checkbox"/> 890 Other Statutory Actions (if not administrative agency review or Privacy Act)
Personal Property <input type="checkbox"/> 370 Other Fraud <input type="checkbox"/> 371 Truth in Lending <input type="checkbox"/> 380 Other Personal Property Damage <input type="checkbox"/> 385 Property Damage Product Liability	Prisoner Petitions <input type="checkbox"/> 535 Death Penalty <input type="checkbox"/> 540 Mandamus & Other <input type="checkbox"/> 550 Civil Rights <input type="checkbox"/> 555 Prison Conditions <input type="checkbox"/> 560 Civil Detainee – Conditions of Confinement	Forfeiture/Penalty <input type="checkbox"/> 625 Drug Related Seizure of Property 21 USC 881 <input type="checkbox"/> 690 Other	
	Property Rights <input type="checkbox"/> 820 Copyrights <input type="checkbox"/> 830 Patent <input type="checkbox"/> 835 Patent – Abbreviated New Drug Application <input type="checkbox"/> 840 Trademark <input type="checkbox"/> 880 Defend Trade Secrets Act of 2016 (DTSA)	Other Statutes <input type="checkbox"/> 375 False Claims Act <input type="checkbox"/> 376 Qui Tam (31 USC 3729(a)) <input type="checkbox"/> 400 State Reapportionment <input type="checkbox"/> 430 Banks & Banking <input type="checkbox"/> 450 Commerce/ICC Rates/etc <input type="checkbox"/> 460 Deportation <input type="checkbox"/> 462 Naturalization Application	

<input type="radio"/> G. Habeas Corpus/2255 <input type="checkbox"/> 530 Habeas Corpus – General <input type="checkbox"/> 510 Motion/Vacate Sentence <input type="checkbox"/> 463 Habeas Corpus – Alien Detainee	<input type="radio"/> H. Employment Discrimination <input type="checkbox"/> 442 Civil Rights – Employment (criteria: race, gender/sex, national origin, discrimination, disability, age, religion, retaliation)	<input type="radio"/> I. FOIA/Privacy Act <input type="checkbox"/> 895 Freedom of Information Act <input type="checkbox"/> 890 Other Statutory Actions (if Privacy Act)	<input type="radio"/> J. Student Loan <input type="checkbox"/> 152 Recovery of Defaulted Student Loan (excluding veterans)
(If pro se, select this deck)			
<input type="radio"/> K. Labor/ERISA (non-employment) <input type="checkbox"/> 710 Fair Labor Standards Act <input type="checkbox"/> 720 Labor/Mgmt. Relations <input type="checkbox"/> 740 Labor Railway Act <input type="checkbox"/> 751 Family and Medical Leave Act <input type="checkbox"/> 790 Other Labor Litigation <input type="checkbox"/> 791 Empl. Ret. Inc. Security Act	<input type="radio"/> L. Other Civil Rights (non-employment) <input type="checkbox"/> 441 Voting (if not Voting Rights Act) <input type="checkbox"/> 443 Housing/Accommodations <input type="checkbox"/> 440 Other Civil Rights <input type="checkbox"/> 445 Americans w/Disabilities – Employment <input type="checkbox"/> 446 Americans w/Disabilities – Other <input type="checkbox"/> 448 Education	<input type="radio"/> M. Contract <input type="checkbox"/> 110 Insurance <input type="checkbox"/> 120 Marine <input type="checkbox"/> 130 Miller Act <input type="checkbox"/> 140 Negotiable Instrument <input type="checkbox"/> 150 Recovery of Overpayment & Enforcement of Judgment <input type="checkbox"/> 153 Recovery of Overpayment of Veteran's Benefits <input type="checkbox"/> 160 Stockholder's Suits <input type="checkbox"/> 190 Other Contracts <input type="checkbox"/> 195 Contract Product Liability <input type="checkbox"/> 196 Franchise	<input type="radio"/> N. Three-Judge Court <input type="checkbox"/> 441 Civil Rights – Voting (if Voting Rights Act)
(If pro se, select this deck)			
V. ORIGIN <input checked="" type="radio"/> 1 Original Proceeding <input type="radio"/> 2 Removed from State Court <input type="radio"/> 3 Remanded from Appellate Court <input type="radio"/> 4 Reinstated or Reopened <input type="radio"/> 5 Transferred from another district (specify) <input type="radio"/> 6 Multi-district Litigation <input type="radio"/> 7 Appeal to District Judge from Mag. Judge <input type="radio"/> 8 Multi-district Litigation – Direct File			
VI. CAUSE OF ACTION (CITE THE U.S. CIVIL STATUTE UNDER WHICH YOU ARE FILING AND WRITE A BRIEF STATEMENT OF CAUSE.) 43 U.S.C 1331 et seq., 16 U.S.C. 1531 et seq., 33 U.S.C. 1251 et seq., 16 U.S.C. 1361 et seq., 42 U.S.C. 4321 et. seq. <input type="checkbox"/> <i>Verbal statement of cause</i>			
VII. REQUESTED IN COMPLAINT <input type="checkbox"/> CHECK IF THIS IS A CLASS ACTION UNDER F.R.C.P. 23		DEMAND \$ JURY DEMAND:	Check YES only if demanded in complaint YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
VIII. RELATED CASE(S) IF ANY (See instruction)		YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	If yes, please complete related case form
DATE: 12/15/2021		SIGNATURE OF ATTORNEY OF RECORD /s/Theodore Hadzi-Antich	

INSTRUCTIONS FOR COMPLETING CIVIL COVER SHEET JS-44
Authority for Civil Cover Sheet

The JS-44 civil cover sheet and the information contained herein neither replaces nor supplements the filings and services of pleadings or other papers as required by law, except as provided by local rules of court. This form, approved by the Judicial Conference of the United States in September 1974, is required for the use of the Clerk of Court for the purpose of initiating the civil docket sheet. Consequently, a civil cover sheet is submitted to the Clerk of Court for each civil complaint filed. Listed below are tips for completing the civil coversheet. These tips coincide with the Roman Numerals on the cover sheet.

- I. COUNTY OF RESIDENCE OF FIRST LISTED PLAINTIFF/DEFENDANT (b) County of residence: Use 11001 to indicate plaintiff if resident of Washington, DC, 88888 if plaintiff is resident of United States but not Washington, DC, and 99999 if plaintiff is outside the United States.
- III. CITIZENSHIP OF PRINCIPAL PARTIES: This section is completed only if diversity of citizenship was selected as the Basis of Jurisdiction under Section II.
- IV. CASE ASSIGNMENT AND NATURE OF SUIT: The assignment of a judge to your case will depend on the category you select that best represents the primary cause of action found in your complaint. You may select only one category. You must also select one corresponding nature of suit found under the category of the case.
- VI. CAUSE OF ACTION: Cite the U.S. Civil Statute under which you are filing and write a brief statement of the primary cause.
- VIII. RELATED CASE(S), IF ANY: If you indicated that there is a related case, you must complete a related case form, which may be obtained from the Clerk's Office.

Because of the need for accurate and complete information, you should ensure the accuracy of the information provided prior to signing the form.

UNITED STATES DISTRICT COURT
for the
District of Columbia

Seafreeze Shoreside, Inc., et al.)
<i>Plaintiff(s)</i>)
v.) Civil Action No.
)
)
)
)
The United States Department of the Interior, et al)
<i>Defendant(s)</i>)

SUMMONS IN A CIVIL ACTION

To: *(Defendant's name and address)* Matthew M. Graves
U.S. Attorney for the District of Columbia
555 4th Street NW
Washington, DC 20530

A lawsuit has been filed against you.

Within 21 days after service of this summons on you (not counting the day you received it) — or 60 days if you are the United States or a United States agency, or an officer or employee of the United States described in Fed. R. Civ. P. 12 (a)(2) or (3) — you must serve on the plaintiff an answer to the attached complaint or a motion under Rule 12 of the Federal Rules of Civil Procedure. The answer or motion must be served on the plaintiff or plaintiff's attorney, whose name and address are: Theodore Hadzi-Antich

Texas Public Policy Foundation
901 Congress Avenue
Austin, Texas 78701

If you fail to respond, judgment by default will be entered against you for the relief demanded in the complaint. You also must file your answer or motion with the court.

ANGELA D. CAESAR, CLERK OF COURT

Date: _____

Signature of Clerk or Deputy Clerk

Civil Action No. _____

PROOF OF SERVICE

(This section should not be filed with the court unless required by Fed. R. Civ. P. 4 (l))

This summons for *(name of individual and title, if any)* _____
was received by me on *(date)* _____.

I personally served the summons on the individual at *(place)* _____
on *(date)* _____; or

I left the summons at the individual's residence or usual place of abode with *(name)* _____
, a person of suitable age and discretion who resides there,
on *(date)* _____, and mailed a copy to the individual's last known address; or

I served the summons on *(name of individual)* _____, who is
designated by law to accept service of process on behalf of *(name of organization)* _____
on *(date)* _____; or

I returned the summons unexecuted because _____; or

Other *(specify)*: _____

My fees are \$ _____ for travel and \$ _____ for services, for a total of \$ 0.00 _____.

I declare under penalty of perjury that this information is true.

Date: _____

Server's signature

_____ *Printed name and title*

_____ *Server's address*

Additional information regarding attempted service, etc:

UNITED STATES DISTRICT COURT
for the
District of Columbia

Seafreeze Shoreside, Inc., et al.)
<i>Plaintiff(s)</i>)
v.) Civil Action No.
)
)
)
)
The United States Department of the Interior, et al)
<i>Defendant(s)</i>)

SUMMONS IN A CIVIL ACTION

To: *(Defendant's name and address)* The United States Department of the Interior
1849 C Street NW
Washington, DC 20240

A lawsuit has been filed against you.

Within 21 days after service of this summons on you (not counting the day you received it) — or 60 days if you are the United States or a United States agency, or an officer or employee of the United States described in Fed. R. Civ. P. 12 (a)(2) or (3) — you must serve on the plaintiff an answer to the attached complaint or a motion under Rule 12 of the Federal Rules of Civil Procedure. The answer or motion must be served on the plaintiff or plaintiff's attorney, whose name and address are: Theodore Hadzi-Antich

Texas Public Policy Foundation
901 Congress Avenue
Austin, Texas 78701

If you fail to respond, judgment by default will be entered against you for the relief demanded in the complaint. You also must file your answer or motion with the court.

ANGELA D. CAESAR, CLERK OF COURT

Date: _____

Signature of Clerk or Deputy Clerk

Civil Action No. _____

PROOF OF SERVICE

(This section should not be filed with the court unless required by Fed. R. Civ. P. 4 (l))

This summons for *(name of individual and title, if any)* _____
was received by me on *(date)* _____.

I personally served the summons on the individual at *(place)* _____
on *(date)* _____; or

I left the summons at the individual's residence or usual place of abode with *(name)* _____
_____, a person of suitable age and discretion who resides there,
on *(date)* _____, and mailed a copy to the individual's last known address; or

I served the summons on *(name of individual)* _____, who is
designated by law to accept service of process on behalf of *(name of organization)* _____
on *(date)* _____; or

I returned the summons unexecuted because _____; or

Other *(specify)*: _____

My fees are \$ _____ for travel and \$ _____ for services, for a total of \$ 0.00 _____.

I declare under penalty of perjury that this information is true.

Date: _____

Server's signature

Printed name and title

Server's address

Additional information regarding attempted service, etc:

UNITED STATES DISTRICT COURT
for the
District of Columbia

Seafreeze Shoreside, Inc., et al)
<i>Plaintiff(s)</i>)
v.) Civil Action No.
)
)
)
The United States Department of the Interior, et al)
<i>Defendant(s)</i>)

SUMMONS IN A CIVIL ACTION

To: *(Defendant's name and address)* The Honorable Deb Haaland,
in her official capacity as the
Secretary of the Department of the Interior
1849 C Street NW
Washington, DC 20240

A lawsuit has been filed against you.

Within 21 days after service of this summons on you (not counting the day you received it) — or 60 days if you are the United States or a United States agency, or an officer or employee of the United States described in Fed. R. Civ. P. 12 (a)(2) or (3) — you must serve on the plaintiff an answer to the attached complaint or a motion under Rule 12 of the Federal Rules of Civil Procedure. The answer or motion must be served on the plaintiff or plaintiff's attorney, whose name and address are: Theodore Hadzi-Antich
Texas Public Policy Foundation
901 Congress Avenue
Austin, Texas 78701

If you fail to respond, judgment by default will be entered against you for the relief demanded in the complaint. You also must file your answer or motion with the court.

ANGELA D. CAESAR, CLERK OF COURT

Date: _____

Signature of Clerk or Deputy Clerk

Civil Action No. _____

PROOF OF SERVICE*(This section should not be filed with the court unless required by Fed. R. Civ. P. 4 (l))*

This summons for *(name of individual and title, if any)* _____
 was received by me on *(date)* _____.

I personally served the summons on the individual at *(place)* _____
 _____ on *(date)* _____; or

I left the summons at the individual's residence or usual place of abode with *(name)* _____
 _____, a person of suitable age and discretion who resides there,
 on *(date)* _____, and mailed a copy to the individual's last known address; or

I served the summons on *(name of individual)* _____, who is
 designated by law to accept service of process on behalf of *(name of organization)* _____
 _____ on *(date)* _____; or

I returned the summons unexecuted because _____; or

Other *(specify)*: _____

My fees are \$ _____ for travel and \$ _____ for services, for a total of \$ 0.00 _____.

I declare under penalty of perjury that this information is true.

Date: _____

*Server's signature**Printed name and title**Server's address*

Additional information regarding attempted service, etc:

UNITED STATES DISTRICT COURT
for the
District of Columbia

Seafreeze Shoreside, Inc., et al.)
<i>Plaintiff(s)</i>)
v.) Civil Action No.
)
)
)
)
The United States Department of the Interior, et al)
<i>Defendant(s)</i>)

SUMMONS IN A CIVIL ACTION

To: *(Defendant's name and address)* The Bureau of Ocean Energy Management
1849 C Street NW
Washington, DC 20240

A lawsuit has been filed against you.

Within 21 days after service of this summons on you (not counting the day you received it) — or 60 days if you are the United States or a United States agency, or an officer or employee of the United States described in Fed. R. Civ. P. 12 (a)(2) or (3) — you must serve on the plaintiff an answer to the attached complaint or a motion under Rule 12 of the Federal Rules of Civil Procedure. The answer or motion must be served on the plaintiff or plaintiff's attorney, whose name and address are: Theodore Hadzi-Antich
Texas Public Policy Foundation
901 Congress Avenue
Austin, Texas 78701

If you fail to respond, judgment by default will be entered against you for the relief demanded in the complaint. You also must file your answer or motion with the court.

ANGELA D. CAESAR, CLERK OF COURT

Date: _____

Signature of Clerk or Deputy Clerk

Civil Action No. _____

PROOF OF SERVICE*(This section should not be filed with the court unless required by Fed. R. Civ. P. 4 (l))*

This summons for *(name of individual and title, if any)* _____
 was received by me on *(date)* _____.

I personally served the summons on the individual at *(place)* _____
 _____ on *(date)* _____; or

I left the summons at the individual's residence or usual place of abode with *(name)* _____
 _____, a person of suitable age and discretion who resides there,
 on *(date)* _____, and mailed a copy to the individual's last known address; or

I served the summons on *(name of individual)* _____, who is
 designated by law to accept service of process on behalf of *(name of organization)* _____
 _____ on *(date)* _____; or

I returned the summons unexecuted because _____; or

Other *(specify)*: _____

My fees are \$ _____ for travel and \$ _____ for services, for a total of \$ 0.00 _____.

I declare under penalty of perjury that this information is true.

Date: _____

*Server's signature**Printed name and title**Server's address*

Additional information regarding attempted service, etc:

UNITED STATES DISTRICT COURT
for the
District of Columbia

Seafreeze Shoreside, Inc., et al.)
<i>Plaintiff(s)</i>)
v.) Civil Action No.
)
)
)
)
The United States Department of the Interior, et al)
<i>Defendant(s)</i>)

SUMMONS IN A CIVIL ACTION

To: *(Defendant's name and address)* Amanda Lefton,
in her official capacity as the Director of the
Bureau of Ocean Energy Management
Office of Public Affairs
1849 C Street NW
Washington, DC 20240

A lawsuit has been filed against you.

Within 21 days after service of this summons on you (not counting the day you received it) — or 60 days if you are the United States or a United States agency, or an officer or employee of the United States described in Fed. R. Civ. P. 12 (a)(2) or (3) — you must serve on the plaintiff an answer to the attached complaint or a motion under Rule 12 of the Federal Rules of Civil Procedure. The answer or motion must be served on the plaintiff or plaintiff's attorney, whose name and address are: Theodore Hadzi-Antich
Texas Public Policy Foundation
901 Congress Avenue
Austin, Texas 78701

If you fail to respond, judgment by default will be entered against you for the relief demanded in the complaint. You also must file your answer or motion with the court.

ANGELA D. CAESAR, CLERK OF COURT

Date: _____

Signature of Clerk or Deputy Clerk

Civil Action No. _____

PROOF OF SERVICE

(This section should not be filed with the court unless required by Fed. R. Civ. P. 4 (l))

This summons for *(name of individual and title, if any)* _____
was received by me on *(date)* _____.

I personally served the summons on the individual at *(place)* _____
on *(date)* _____; or

I left the summons at the individual's residence or usual place of abode with *(name)* _____
, a person of suitable age and discretion who resides there,
on *(date)* _____, and mailed a copy to the individual's last known address; or

I served the summons on *(name of individual)* _____, who is
designated by law to accept service of process on behalf of *(name of organization)* _____
on *(date)* _____; or

I returned the summons unexecuted because _____; or

Other *(specify)*: _____

My fees are \$ _____ for travel and \$ _____ for services, for a total of \$ 0.00 _____.

I declare under penalty of perjury that this information is true.

Date: _____

Server's signature

_____ *Printed name and title*

_____ *Server's address*

Additional information regarding attempted service, etc:

UNITED STATES DISTRICT COURT
for the
District of Columbia

Seafreeze Shoreside, Inc., et al.

Plaintiff(s)

V.

Civil Action No.

The United States Department of the Interior, et al

Defendant(s)

SUMMONS IN A CIVIL ACTION

To: *(Defendant's name and address)* Laura Daniel-Davis,
in her official capacity as
Principal Deputy Assistant Secretary
Land and Minerals Management
U.S. Department of the Interior
1849 C Street NW
Washington, DC 20240

A lawsuit has been filed against you.

Within 21 days after service of this summons on you (not counting the day you received it) — or 60 days if you are the United States or a United States agency, or an officer or employee of the United States described in Fed. R. Civ. P. 12 (a)(2) or (3) — you must serve on the plaintiff an answer to the attached complaint or a motion under Rule 12 of the Federal Rules of Civil Procedure. The answer or motion must be served on the plaintiff or plaintiff's attorney, whose name and address are: Theodore Hadzi-Antich
Texas Public Policy Foundation
101 Congress Street, Suite 1200
Austin, Texas 78701-3020

If you fail to respond, judgment by default will be entered against you for the relief demanded in the complaint. You also must file your answer or motion with the court.

ANGELA D. CAESAR, CLERK OF COURT

Date:

Signature of Clerk or Deputy Clerk

Civil Action No. _____

PROOF OF SERVICE

(This section should not be filed with the court unless required by Fed. R. Civ. P. 4 (l))

This summons for *(name of individual and title, if any)* _____
was received by me on *(date)* _____.

I personally served the summons on the individual at *(place)* _____
on *(date)* _____; or

I left the summons at the individual's residence or usual place of abode with *(name)* _____
, a person of suitable age and discretion who resides there,
on *(date)* _____, and mailed a copy to the individual's last known address; or

I served the summons on *(name of individual)* _____, who is
designated by law to accept service of process on behalf of *(name of organization)* _____
on *(date)* _____; or

I returned the summons unexecuted because _____; or

Other *(specify)*: _____

My fees are \$ _____ for travel and \$ _____ for services, for a total of \$ 0.00 _____.

I declare under penalty of perjury that this information is true.

Date: _____

Server's signature

Printed name and title

Server's address

Additional information regarding attempted service, etc:

UNITED STATES DISTRICT COURT
for the
District of Columbia

Seafreeze Shoreside, Inc., et al.)
<i>Plaintiff(s)</i>)
v.) Civil Action No.
)
)
)
)
The United States Department of the Interior, et al)
<i>Defendant(s)</i>)

SUMMONS IN A CIVIL ACTION

To: *(Defendant's name and address)* The United States Department of Commerce
1401 Constitution Avenue NW
Washington, DC 20230

A lawsuit has been filed against you.

Within 21 days after service of this summons on you (not counting the day you received it) — or 60 days if you are the United States or a United States agency, or an officer or employee of the United States described in Fed. R. Civ. P. 12 (a)(2) or (3) — you must serve on the plaintiff an answer to the attached complaint or a motion under Rule 12 of the Federal Rules of Civil Procedure. The answer or motion must be served on the plaintiff or plaintiff's attorney, whose name and address are: Theodore Hadzi-Antich
Texas Public Policy Foundation
901 Congress Avenue
Austin, Texas 78701

If you fail to respond, judgment by default will be entered against you for the relief demanded in the complaint. You also must file your answer or motion with the court.

ANGELA D. CAESAR, CLERK OF COURT

Date: _____

Signature of Clerk or Deputy Clerk

Civil Action No. _____

PROOF OF SERVICE

(This section should not be filed with the court unless required by Fed. R. Civ. P. 4 (l))

This summons for *(name of individual and title, if any)* _____
was received by me on *(date)* _____.

I personally served the summons on the individual at *(place)* _____
on *(date)* _____; or

I left the summons at the individual's residence or usual place of abode with *(name)* _____
, a person of suitable age and discretion who resides there,
on *(date)* _____, and mailed a copy to the individual's last known address; or

I served the summons on *(name of individual)* _____, who is
designated by law to accept service of process on behalf of *(name of organization)* _____
on *(date)* _____; or

I returned the summons unexecuted because _____; or

Other *(specify)*: _____

My fees are \$ _____ for travel and \$ _____ for services, for a total of \$ 0.00 _____.

I declare under penalty of perjury that this information is true.

Date: _____

Server's signature

_____ *Printed name and title*

_____ *Server's address*

Additional information regarding attempted service, etc:

UNITED STATES DISTRICT COURT
for the
District of Columbia

Seafreeze Shoreside, Inc., et al.

Plaintiff(s)

V.

Civil Action No.

The United States Department of the Interior, et al

Defendant(s)

SUMMONS IN A CIVIL ACTION

To: *(Defendant's name and address)* The Honorable Gina M. Raimondo,
in her official capacity as the Secretary of the
U.S. Department of Commerce
1401 Constitution Avenue NW
Washington, DC 20230

A lawsuit has been filed against you.

Within 21 days after service of this summons on you (not counting the day you received it) — or 60 days if you are the United States or a United States agency, or an officer or employee of the United States described in Fed. R. Civ. P. 12 (a)(2) or (3) — you must serve on the plaintiff an answer to the attached complaint or a motion under Rule 12 of the Federal Rules of Civil Procedure. The answer or motion must be served on the plaintiff or plaintiff's attorney, whose name and address are: Theodore Hadzi-Antich
Texas Public Policy Foundation
221 Congress Avenue
Austin, Texas 78701

If you fail to respond, judgment by default will be entered against you for the relief demanded in the complaint. You also must file your answer or motion with the court.

ANGELA D. CAESAR, CLERK OF COURT

Date:

Signature of Clerk or Deputy Clerk

Civil Action No. _____

PROOF OF SERVICE

(This section should not be filed with the court unless required by Fed. R. Civ. P. 4 (l))

This summons for *(name of individual and title, if any)* _____
was received by me on *(date)* _____.

I personally served the summons on the individual at *(place)* _____
on *(date)* _____; or

I left the summons at the individual's residence or usual place of abode with *(name)* _____
, a person of suitable age and discretion who resides there,
on *(date)* _____, and mailed a copy to the individual's last known address; or

I served the summons on *(name of individual)* _____, who is
designated by law to accept service of process on behalf of *(name of organization)* _____
on *(date)* _____; or

I returned the summons unexecuted because _____; or

Other *(specify)*: _____

My fees are \$ _____ for travel and \$ _____ for services, for a total of \$ 0.00 _____.

I declare under penalty of perjury that this information is true.

Date: _____

Server's signature

Printed name and title

Server's address

Additional information regarding attempted service, etc:

UNITED STATES DISTRICT COURT
for the
District of Columbia

Seafreeze Shoreside, Inc., et al.)
<i>Plaintiff(s)</i>)
v.) Civil Action No.
)
)
)
)
The United States Department of the Interior, et al)
<i>Defendant(s)</i>)

SUMMONS IN A CIVIL ACTION

To: *(Defendant's name and address)* The National Oceanic and Atmospheric Administration
National Marine Fisheries Service
U.S. Department of Commerce
1401 Constitution Avenue NW, Room 5128
Washington, DC 20230

A lawsuit has been filed against you.

Within 21 days after service of this summons on you (not counting the day you received it) — or 60 days if you are the United States or a United States agency, or an officer or employee of the United States described in Fed. R. Civ. P. 12 (a)(2) or (3) — you must serve on the plaintiff an answer to the attached complaint or a motion under Rule 12 of the Federal Rules of Civil Procedure. The answer or motion must be served on the plaintiff or plaintiff's attorney, whose name and address are: Theodore Hadzi-Antich
Texas Public Policy Foundation
901 Congress Avenue
Austin, Texas 78701

If you fail to respond, judgment by default will be entered against you for the relief demanded in the complaint. You also must file your answer or motion with the court.

ANGELA D. CAESAR, CLERK OF COURT

Date: _____

Signature of Clerk or Deputy Clerk

Civil Action No. _____

PROOF OF SERVICE

(This section should not be filed with the court unless required by Fed. R. Civ. P. 4 (l))

This summons for *(name of individual and title, if any)* _____
was received by me on *(date)* _____.

I personally served the summons on the individual at *(place)* _____
on *(date)* _____; or

I left the summons at the individual's residence or usual place of abode with *(name)* _____
, a person of suitable age and discretion who resides there,
on *(date)* _____, and mailed a copy to the individual's last known address; or

I served the summons on *(name of individual)* _____, who is
designated by law to accept service of process on behalf of *(name of organization)* _____
on *(date)* _____; or

I returned the summons unexecuted because _____; or

Other *(specify)*: _____

My fees are \$ _____ for travel and \$ _____ for services, for a total of \$ 0.00 _____.

I declare under penalty of perjury that this information is true.

Date: _____

Server's signature

_____ *Printed name and title*

_____ *Server's address*

Additional information regarding attempted service, etc:

UNITED STATES DISTRICT COURT
for the
District of Columbia

Seafreeze Shoreside, Inc., et al.)
<i>Plaintiff(s)</i>)
v.) Civil Action No.
)
)
)
The United States Department of the Interior, et al)
<i>Defendant(s)</i>)

SUMMONS IN A CIVIL ACTION

To: *(Defendant's name and address)* The United States Department of Defense
101 Army Pentagon
Washington, DC 20310-0101

A lawsuit has been filed against you.

Within 21 days after service of this summons on you (not counting the day you received it) — or 60 days if you are the United States or a United States agency, or an officer or employee of the United States described in Fed. R. Civ. P. 12 (a)(2) or (3) — you must serve on the plaintiff an answer to the attached complaint or a motion under Rule 12 of the Federal Rules of Civil Procedure. The answer or motion must be served on the plaintiff or plaintiff's attorney, whose name and address are: Theodore Hadzi-Antich
Texas Public Policy Foundation
901 Congress Avenue
Austin, Texas 78701

If you fail to respond, judgment by default will be entered against you for the relief demanded in the complaint. You also must file your answer or motion with the court.

ANGELA D. CAESAR, CLERK OF COURT

Date: _____

Signature of Clerk or Deputy Clerk

Civil Action No. _____

PROOF OF SERVICE

(This section should not be filed with the court unless required by Fed. R. Civ. P. 4 (l))

This summons for *(name of individual and title, if any)* _____
was received by me on *(date)* _____.

I personally served the summons on the individual at *(place)* _____
on *(date)* _____; or

I left the summons at the individual's residence or usual place of abode with *(name)* _____
, a person of suitable age and discretion who resides there,
on *(date)* _____, and mailed a copy to the individual's last known address; or

I served the summons on *(name of individual)* _____, who is
designated by law to accept service of process on behalf of *(name of organization)* _____
on *(date)* _____; or

I returned the summons unexecuted because _____; or

Other *(specify)*: _____

My fees are \$ _____ for travel and \$ _____ for services, for a total of \$ 0.00 _____.

I declare under penalty of perjury that this information is true.

Date: _____

Server's signature

Printed name and title

Server's address

Additional information regarding attempted service, etc:

UNITED STATES DISTRICT COURT
for the
District of Columbia

Seafreeze Shoreside, Inc., et al.

Plaintiff(s)

V.

Civil Action No.

The United States Department of the Interior, et al

Defendant(s)

SUMMONS IN A CIVIL ACTION

To: *(Defendant's name and address)* Catherin Marzin,
in her official capacity as the
Deputy Director of NOAA Fisheries
U.S. Department of Commerce
1315 East West Highway, 13th Floor
Silver Springs, MD 20910

A lawsuit has been filed against you.

Within 21 days after service of this summons on you (not counting the day you received it) — or 60 days if you are the United States or a United States agency, or an officer or employee of the United States described in Fed. R. Civ. P. 12 (a)(2) or (3) — you must serve on the plaintiff an answer to the attached complaint or a motion under Rule 12 of the Federal Rules of Civil Procedure. The answer or motion must be served on the plaintiff or plaintiff's attorney, whose name and address are: Theodore Hadzi-Antich

Texas Public Policy Foundation
901 Congress Avenue
Austin, Texas 78701

If you fail to respond, judgment by default will be entered against you for the relief demanded in the complaint. You also must file your answer or motion with the court.

ANGELA D. CAESAR, CLERK OF COURT

Date:

Signature of Clerk or Deputy Clerk

Civil Action No. _____

PROOF OF SERVICE

(This section should not be filed with the court unless required by Fed. R. Civ. P. 4 (l))

This summons for *(name of individual and title, if any)* _____
was received by me on *(date)* _____.

I personally served the summons on the individual at *(place)* _____
on *(date)* _____; or

I left the summons at the individual's residence or usual place of abode with *(name)* _____
, a person of suitable age and discretion who resides there,
on *(date)* _____, and mailed a copy to the individual's last known address; or

I served the summons on *(name of individual)* _____, who is
designated by law to accept service of process on behalf of *(name of organization)* _____
on *(date)* _____; or

I returned the summons unexecuted because _____; or

Other *(specify)*: _____

My fees are \$ _____ for travel and \$ _____ for services, for a total of \$ 0.00 _____.

I declare under penalty of perjury that this information is true.

Date: _____

Server's signature

_____ *Printed name and title*

_____ *Server's address*

Additional information regarding attempted service, etc:

UNITED STATES DISTRICT COURT
for the
District of Columbia

Seafreeze Shoreside, Inc., et al.

Plaintiff(s)

V.

Civil Action No.

The United States Department of the Interior, et al

Defendant(s)

SUMMONS IN A CIVIL ACTION

To: *(Defendant's name and address)* Colonel John A. Atilano II,
in his official capacity as the
District Engineer of the New England District
U.S. Army Corps of Engineers
U.S. Department of the Army
696 Virginia Road
Concord, MA 01742-2751

A lawsuit has been filed against you.

Within 21 days after service of this summons on you (not counting the day you received it) — or 60 days if you are the United States or a United States agency, or an officer or employee of the United States described in Fed. R. Civ. P. 12 (a)(2) or (3) — you must serve on the plaintiff an answer to the attached complaint or a motion under Rule 12 of the Federal Rules of Civil Procedure. The answer or motion must be served on the plaintiff or plaintiff's attorney, whose name and address are: Theodore Hadzi-Antich
Texas Public Policy Foundation
901 Congress Avenue

If you fail to respond, judgment by default will be entered against you for the relief demanded in the complaint. You also must file your answer or motion with the court.

ANGELA D. CAESAR, CLERK OF COURT

Date:

Signature of Clerk or Deputy Clerk

Civil Action No. _____

PROOF OF SERVICE*(This section should not be filed with the court unless required by Fed. R. Civ. P. 4 (l))*

This summons for *(name of individual and title, if any)* _____
 was received by me on *(date)* _____.

I personally served the summons on the individual at *(place)* _____
 _____ on *(date)* _____; or

I left the summons at the individual's residence or usual place of abode with *(name)* _____
 _____, a person of suitable age and discretion who resides there,
 on *(date)* _____, and mailed a copy to the individual's last known address; or

I served the summons on *(name of individual)* _____, who is
 designated by law to accept service of process on behalf of *(name of organization)* _____
 _____ on *(date)* _____; or

I returned the summons unexecuted because _____; or

Other *(specify)*: _____

My fees are \$ _____ for travel and \$ _____ for services, for a total of \$ 0.00 _____.

I declare under penalty of perjury that this information is true.

Date: _____

*Server's signature**Printed name and title**Server's address*

Additional information regarding attempted service, etc:

UNITED STATES DISTRICT COURT
for the
District of Columbia

Seafreeze Shoreside, Inc., et al.

Plaintiff(s)

V.

Civil Action No.

The United States Department of the Interior, et al

Defendant(s)

SUMMONS IN A CIVIL ACTION

To: *(Defendant's name and address)* The Honorable Lloyd J. Austin,
in his official capacity as the Secretary of the
U.S. Department of Defense
1000 Defense Pentagon
Washington, DC 20301-1000

A lawsuit has been filed against you.

Within 21 days after service of this summons on you (not counting the day you received it) — or 60 days if you are the United States or a United States agency, or an officer or employee of the United States described in Fed. R. Civ. P. 12 (a)(2) or (3) — you must serve on the plaintiff an answer to the attached complaint or a motion under Rule 12 of the Federal Rules of Civil Procedure. The answer or motion must be served on the plaintiff or plaintiff's attorney, whose name and address are: Theodore Hadzi-Antich
Texas Public Policy Foundation
901 Congress Avenue

If you fail to respond, judgment by default will be entered against you for the relief demanded in the complaint. You also must file your answer or motion with the court.

ANGELA D. CAESAR, CLERK OF COURT

Date:

Signature of Clerk or Deputy Clerk

Civil Action No. _____

PROOF OF SERVICE

(This section should not be filed with the court unless required by Fed. R. Civ. P. 4 (l))

This summons for *(name of individual and title, if any)* _____
was received by me on *(date)* _____.

I personally served the summons on the individual at *(place)* _____
on *(date)* _____; or

I left the summons at the individual's residence or usual place of abode with *(name)* _____
, a person of suitable age and discretion who resides there,
on *(date)* _____, and mailed a copy to the individual's last known address; or

I served the summons on *(name of individual)* _____, who is
designated by law to accept service of process on behalf of *(name of organization)* _____
on *(date)* _____; or

I returned the summons unexecuted because _____; or

Other *(specify)*: _____

My fees are \$ _____ for travel and \$ _____ for services, for a total of \$ 0.00 _____.

I declare under penalty of perjury that this information is true.

Date: _____

Server's signature

_____ *Printed name and title*

_____ *Server's address*

Additional information regarding attempted service, etc:

UNITED STATES DISTRICT COURT
for the
District of Columbia

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Seafreeze Shoreside, Inc., et al.)

Plaintiff(s))
v.) Civil Action No.

)
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)
)
)
The United States Department of the Interior, et al)

Defendant(s))

SUMMONS IN A CIVIL ACTION

To: *(Defendant's name and address)* Lt. Gen. Scott A. Spellmon,
in his official capacity as the
Commander and Chief of Engineers of the
U.S. Army Corps of Engineers
441 G Street NW
Washington, DC 20314-1000

A lawsuit has been filed against you.

Within 21 days after service of this summons on you (not counting the day you received it) — or 60 days if you are the United States or a United States agency, or an officer or employee of the United States described in Fed. R. Civ. P. 12 (a)(2) or (3) — you must serve on the plaintiff an answer to the attached complaint or a motion under Rule 12 of the Federal Rules of Civil Procedure. The answer or motion must be served on the plaintiff or plaintiff's attorney, whose name and address are: Theodore Hadzi-Antich
Texas Public Policy Foundation
901 Congress Avenue
Austin, Texas 78701

If you fail to respond, judgment by default will be entered against you for the relief demanded in the complaint. You also must file your answer or motion with the court.

ANGELA D. CAESAR, CLERK OF COURT

Date: _____

Signature of Clerk or Deputy Clerk

Civil Action No. _____

PROOF OF SERVICE

(This section should not be filed with the court unless required by Fed. R. Civ. P. 4 (l))

This summons for *(name of individual and title, if any)* _____
was received by me on *(date)* _____.

I personally served the summons on the individual at *(place)* _____
on *(date)* _____; or

I left the summons at the individual's residence or usual place of abode with *(name)* _____
, a person of suitable age and discretion who resides there,
on *(date)* _____, and mailed a copy to the individual's last known address; or

I served the summons on *(name of individual)* _____, who is
designated by law to accept service of process on behalf of *(name of organization)* _____
on *(date)* _____; or

I returned the summons unexecuted because _____; or

Other *(specify)*: _____

My fees are \$ _____ for travel and \$ _____ for services, for a total of \$ 0.00 _____.

I declare under penalty of perjury that this information is true.

Date: _____

Server's signature

_____ *Printed name and title*

_____ *Server's address*

Additional information regarding attempted service, etc:

UNITED STATES DISTRICT COURT
for the
District of Columbia

Seafreeze Shoreside, Inc., et al.

Plaintiff(s)

V.

Civil Action No.

The United States Department of the Interior, et al

Defendant(s)

SUMMONS IN A CIVIL ACTION

To: *(Defendant's name and address)* The U.S. Army Corps of Engineers
441 G Street NW
Washington, DC 20314-1000

A lawsuit has been filed against you.

Within 21 days after service of this summons on you (not counting the day you received it) — or 60 days if you are the United States or a United States agency, or an officer or employee of the United States described in Fed. R. Civ. P. 12 (a)(2) or (3) — you must serve on the plaintiff an answer to the attached complaint or a motion under Rule 12 of the Federal Rules of Civil Procedure. The answer or motion must be served on the plaintiff or plaintiff's attorney, whose name and address are: Theodore Hadzi-Antich

Texas Public Policy Foundation
901 Congress Avenue
Austin, Texas 78701

If you fail to respond, judgment by default will be entered against you for the relief demanded in the complaint. You also must file your answer or motion with the court.

ANGELA D. CAESAR, CLERK OF COURT

Date:

Signature of Clerk or Deputy Clerk

Civil Action No. _____

PROOF OF SERVICE

(This section should not be filed with the court unless required by Fed. R. Civ. P. 4 (l))

This summons for *(name of individual and title, if any)* _____
was received by me on *(date)* _____.

I personally served the summons on the individual at *(place)* _____
on *(date)* _____; or

I left the summons at the individual's residence or usual place of abode with *(name)* _____
, a person of suitable age and discretion who resides there,
on *(date)* _____, and mailed a copy to the individual's last known address; or

I served the summons on *(name of individual)* _____, who is
designated by law to accept service of process on behalf of *(name of organization)* _____
on *(date)* _____; or

I returned the summons unexecuted because _____; or

Other *(specify)*: _____

My fees are \$ _____ for travel and \$ _____ for services, for a total of \$ 0.00 _____.

I declare under penalty of perjury that this information is true.

Date: _____

Server's signature

_____ *Printed name and title*

_____ *Server's address*

Additional information regarding attempted service, etc: