

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF OCEAN ENERGY MANAGEMENT

Conditions of Construction and Operations Plan Approval
Lease Number OCS-A 0561
July 1, 2024

Subject to the conditions set forth in this document, the Bureau of Ocean Energy Management (BOEM) approves Commonwealth Wind, LLC (Lessee) to conduct activities under the Construction and Operations Plan (COP)¹ for the New England Wind 2 Project and the New England Wind 2 Export Cable (Project).² 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.

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¹ Commonwealth Wind, LLC. August 2023. Construction and Operations Plan, New England Wind. Volumes I-III.

² After BOEM deemed the final COP sufficient and issued the Record of Decision, BOEM approved the segregation of Lease OCS-A 0534 and so segregated the Lease, which became Lease OCS-A 0561. Prior to segregation, however, the Project was known as “Phase 2” in corresponding project documents, agreements and environmental consultations. As a result, the Project may be referred to as Phase 2 in certain places in this document to align with these pre-segregation documents. Prior to segregation, the area now established as Lease OCS-A 0534 was known as “Phase 1.”

1 GENERAL PROVISIONS

- 1.1 Adherence to the Approved Construction and Operations Plan, Statutes, Regulations, Permits, and Authorizations. The Lessee must conduct all activities as proposed in its approved COP for the Project as stated in these terms and conditions, and as described in any final plans with which BOEM and/or the Bureau of Safety and Environmental Enforcement (BSEE) have concurred. Additionally, the Lessee must comply with all applicable requirements in commercial lease OCS-A 0561 (Lease), statutes, regulations, consultations, and permits and authorizations issued by federal, state, and local agencies for the Project. BOEM and/or BSEE, as applicable, may issue a notice of noncompliance, pursuant to 30 Code of Federal Regulations (CFR) § 585.106(b) and 30 CFR § 285.400(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 CFR § 585.106 and 30 CFR § 285.400, where appropriate.
- 1.1.1 As indicated in the COP and modified by the selected Alternative in the Record of Decision (ROD), the Lessee may construct and install on the Outer Continental Shelf (OCS) in the area described in Lease OCS-A 0561 (Lease Area) a combination of up to 87 wind turbine generators (WTGs) and up to 3 Electronic Service Platforms (ESPs) in a total of 88 positions. The Lessee may construct and install inter-array cables linking the individual WTGs to the ESP(s) and up to 3 offshore export cables within an export cable corridor on the OCS. The total number of permanent structures constructed between the New England Wind 1 Project (Lease OCS-A 0534) and New England Wind 2 Project must not exceed 130.
- 1.2 Record of Decision. All mitigation measures selected in the ROD for this Project are incorporated herein by reference and are considered terms and conditions of this COP. To the extent there is any inconsistency between the language used in the ROD and that found in these terms and conditions, the language in the latter will prevail.
- 1.3 Effectiveness. This COP approval and these associated terms and conditions become effective on the date BOEM notifies the Lessee that its COP has been approved and remain effective until the termination of the Lease, which, unless renewed, has an operations term of 33 years from the date of COP approval.
- 1.4 Consistency with Other Agreements and Authorizations. 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 by the National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS) on February 16, 2024;³ the BiOp issued by the U.S. Fish and Wildlife Service (USFWS) on August 31,

³ See Biological Opinion Letter from Michael Pentony, Regional Administrator, Greater Atlantic Regional Fisheries Office, U.S. Dept of Commerce, National Oceanic and Atmospheric Administration, NMFS, to Karen Baker, Chief Office of Renewable Energy Programs, BOEM. National Marine Fisheries Service, Endangered Species Act, Section 7, Biological Opinion (February 16, 2024), [hereinafter NMFS BiOp]. This is inclusive of

2023;⁴ the Letters of Authorization (LOAs) issued for the Project under the Marine Mammal Protection Act (MMPA); the Section 106 Memorandum of Agreement (MOA) executed on March 1, 2024, or amendments to any of these documents; the language in the NMFS BiOp, USFWS BiOp, LOAs, Section 106 MOA or amendments to any of these documents, will prevail. To the extent the Lessee identifies inconsistencies within or between the language in the NMFS BiOp, USFWS BiOp, LOAs, Section 106 MOA or amendments to any of these documents, it must direct questions regarding potential inconsistencies to BSEE and BOEM. BSEE, in consultation with BOEM, will determine how the Lessee must proceed. Activities authorized by COP approval will be subject to any Terms and Conditions and reasonable and prudent measures (RPM) resulting from any BOEM-reinitiated consultation for the Project's NMFS BiOp or USFWS BiOp, and any stipulations resulting from amendments to the Section 106 MOA.

- 1.5 Variance Requests. The Lessee may submit a written request via email to the BOEM Office of Renewable Energy Programs Deputy Chief for Atlantic Operations or to BSEE through TIMSWeb (<https://timsweb.bsee.gov/>), requesting a variance from the requirements of these terms and conditions. The request must explain why compliance with a particular requirement is not technically and/or economically practicable or feasible and any alternative actions the Lessee proposes to take. BSEE may require a Certified Verification Agent (CVA) to review and make a recommendation to BSEE and/or BOEM on the technical acceptability and compliance with the COP of the Lessee's variance request and any alternative actions the Lessee proposes to take. To the extent not otherwise prohibited by law and after consideration of all relevant facts and applicable legal requirements, including consideration of project consultations and authorizations, BOEM or BSEE, in consultation with the other Bureau, and any relevant consulting, permitting, or authorizing agency, may grant the request for a variance if the appropriate Bureau(s) determine that the variance: (1) would not result in a change in the Project impact levels described in the Final Environmental Impact Statement (Final EIS) and ROD for the Project, (2) would not alter obligations or commitments resulting from consultations performed by BOEM and BSEE under federal law in connection with this COP approval in a manner that would require BOEM to re-initiate or perform additional consultations (e.g., under the Endangered Species Act (ESA), Coastal Zone Management Act (CZMA), National Historic Preservation Act (NHPA), Magnuson-Stevens Fishery Conservation and Management Act (MSA)); and (3) would not alter BOEM's determination that the activities associated with the Project would be conducted in accordance with Section 8(p)(4) of OCSLA. After making a determination regarding a request for a variance, BOEM or BSEE will notify the Lessee in writing whether the appropriate Bureau(s) will allow the proposed variance from the identified requirements set forth in this COP approval. Approvals of variance requests will be made publicly available. This provision applies to the extent it is not inconsistent with more specific provisions in these terms and conditions for variances or departures.

the avoidance, minimization, and mitigation measures described in the proposed action and those included in the BiOp's Incidental Take Statement (ITS).

⁴ See Biological Opinion Letter from Audrey Mayer, Supervisor, New England Field Office, Fish and Wildlife Serv., to Karen Baker, BOEM, (September 28, 2023), [hereinafter USFWS BiOp]. This is inclusive of the avoidance, minimization, and mitigation measures described in the proposed action and included in the BiOp's ITS.

- 1.6 48-Hour Notification Prior to Construction Activities. The Lessee must submit a 48-hour notification to BSEE through TIMSWeb prior to the start of each of the following construction activities occurring on the OCS: seabed preparation activities such as boulder relocation and pre-lay grapnel runs, export cable installation, inter-array cable installation, WTG and ESP foundation installation, WTG tower and nacelle installation, ESP topside installation, and cable and scour protection installation.
- 1.7 Inspections. As provided for in Term and Condition Item 10 of the NMFS BiOp, the Lessee must consent to on-site observations and inspections by federal agency personnel, including NOAA personnel, during activities described in the NMFS BiOp, for the purpose of evaluating the effectiveness and implementation of measures designed to minimize or monitor incidental take.
- 1.8 Project Website. The Lessee must develop and maintain a Project website to provide a means for the public to communicate with the Lessee about the Project, including fisheries communication and outreach. The website must provide a method for the public to register comments or ask questions through either a direct link to a comment form or email, or by providing the contact information (phone and/or email address) of a representative of the Lessee who will, as practicable, respond to these communications.
 - 1.8.1 The Lessee must post construction notices and other publicly relevant information to the Project website on a monthly basis. The Project website must allow users to subscribe (or unsubscribe) to an electronic mailing list for Project update notifications.
 - 1.8.2 The Lessee must post the following information to the Project website within 5 business days of availability.
 - 1.8.2.1 The locations where cable target burial depths were not achieved, the locations of cable protection measures, and the locations where cable burial conditions have deteriorated or changed significantly as identified in Section 2.12.
 - 1.8.2.2 Project-specific information found in the most current Local Notices to Mariners (LNM).
 - 1.8.2.3 The Fisheries Communications Plan.
 - 1.8.3 Geographic information system (GIS) location data must be downloadable from the Project website and packaged in an ESRI-compatible format, preferably an ESRI shapefile. Files must utilize a NAD83 UTM Zone 19 or a geographic coordinate system in NAD83. A text file with table field descriptions that contain measurement units, where applicable, must be included.
- 1.9 Lease Segregation and Assignment – Effectiveness of Section 106 MOA. The Lessee, and any assignees of the Lessee, are bound by the NHPA Section 106 MOA titled Memorandum of Agreement Among the Bureau of Ocean Energy Management, Mashpee Wampanoag Tribe, Mashantucket (Western) Pequot Tribal Nation, the Massachusetts

State Historic Preservation Officer (SHPO) and the Advisory Council on Historic Preservation (ACHP) Regarding the New England Wind Offshore Wind Energy Project (Lease Number OCS-A 0534), and dated March 1, 2024, regardless of whether the Lessee or its assignee was an original signatory to the MOA.

1.10 Submissions. Unless otherwise stated, the Lessee must provide any submissions required under these conditions to stated agencies through the following:

1.10.1 BOEM⁵ and/or BSEE:

1.10.1.1 For Sections 1 through 4 of this appendix, via email to the Office of Renewable Energy Programs Project Coordinator for submissions to BOEM,

1.10.1.2 For Sections 5 through 8 of this appendix, via email to renewable_reporting@boem.gov for submissions to BOEM, and

1.10.1.3 TIMSWeb for all submissions to BSEE. In addition, unless otherwise stated, for Section 5: a notification email to protectedspecies@bsee.gov, for Section 7: a notification email to env-compliance-arc@bsee.gov, and for Section 9: a notification email to renewableenergyoperations@bsee.gov.

1.10.2 NMFS:

1.10.2.1 NMFS Greater Atlantic Regional Fisheries Office Protected Resources Division (GARFO-PRD) at nmfs.gar.incidental-take@noaa.gov,

1.10.2.2 NMFS Office of Protected Resources (NMFS-OPR) at PR.ITP.MonitoringReports@noaa.gov,

1.10.2.3 NMFS GARFO Habitat and Ecosystem Services Division (GARFO-HESD) at NMFS.GAR.HESDoffshorewind@noaa.gov, and

1.10.2.4 NMFS Northeast Fisheries Science Center (NEFSC) at nefsc.survey.mitig@noaa.gov.

1.10.3 U.S. Army Corps of Engineers (USACE) New England District Offshore Wind team at cenae-r-offshorewind@usace.army.mil and Christine.M.Jacek@usace.army.mil.

1.10.4 USFWS New England Field Office at newengland@fws.gov.

⁵ BOEM will notify the Lessee in writing if BOEM designates a different process for BOEM submissions.

- 1.10.5 United States Environmental Protection Agency (EPA) at Bird.Patrick@epa.gov. The Lessee must confirm the correct point of contact with the EPA prior to submitting.
- 1.10.6 United States Coast Guard (USCG) First District. The Lessee must confirm the correct point of contact with the USCG prior to submitting.
- 1.11 Calendar Days. Unless otherwise specified in the terms and conditions, the term “days” means “calendar days.”
- 1.12 Temporary Placement of Equipment on the OCS Outside of the Lease Area. To the maximum extent possible, the Lessee must place all equipment, including jack-up legs, within the Lease Area (including the project easements). Subject to BSEE's concurrence and the following conditions, the Lessee may temporarily place equipment outside of the Lease Area, but in no case may the Lessee conduct activity on the OCS that is not described in the COP or place equipment on the OCS in an area for which the Lessee has not provided all required information in the COP under 30 CFR § 585.626.
- 1.12.1 Notification of Activities Outside of the Lease Area. If the Lessee anticipates temporarily, (*i.e.*, a few days or hours) placing any equipment on the OCS outside the Lease Area, the Lessee must submit a notification to BSEE via TIMSWeb 30 days prior to such activities. The Lessee must also clearly identify and include said activities in its Construction Status submissions under Section 2.23 or its Maintenance Schedule submissions under Section 2.24. The activities necessitating such placement of equipment will be reviewed by BSEE in coordination with BOEM to confirm that the equipment does not unreasonably interfere with other uses of the OCS. All such activities must be conducted in accordance with these terms and conditions of COP approval and all applicable requirements in the Lease, statutes, regulations, consultations, and permits and authorizations issued by federal, state, and local agencies for the Project. This requirement does not apply to anchors that have already been disclosed in an anchoring plan submitted, reviewed, and made final under Section 5.3.2.
- 1.12.2 Installation, Repair and Maintenance on the OCS Outside of the Lease Area on an Adjoining Lease. To the extent that equipment, including anchors, cannot be located within the Lease Area, and full enjoyment of the Lease requires the temporary placement of equipment in an adjoining lease, the Lessee must execute a long-term agreement with the adjoining leaseholder that describes the scope and timing of, and the manner in which the Lessee will perform, activities in the adjoining lease (“Installation, Repair and Maintenance Agreement”). If the Lessee and the adjoining leaseholder do not execute the Installation, Repair and Maintenance Agreement, then BOEM, in coordination with BSEE, may evaluate the scenario to determine if the proposed activities would result in unreasonable interference with the rights granted to the adjoining leaseholder and/or to ensure compliance with any other requirement in applicable law, and may impose any conditions deemed necessary.

- 1.13 Reporting Adjustments. If a term and condition requires periodic reporting of certain activities and no such activities transpire within a reporting period, the Lessee may submit a brief statement to the recipient specified in that term and condition in lieu of the submission of a full report.

2 TECHNICAL CONDITIONS

- 2.1 Munitions and Explosives of Concern/Unexploded Ordnance Investigation. The Lessee must investigate the areas of potential disturbance for the presence of Munitions and Explosives of Concern (MEC)/Unexploded Ordnance (UXO) and evaluate the risk consistent with the As Low as Reasonably Practical (ALARP) risk mitigation principle. The ALARP risk mitigation principle requires (1) a desktop study (DTS); (2) an investigation survey to determine the presence of objects and report of findings; (3) an identification survey to determine the nature of the identified objects and report of findings; (4) MEC/UXO mitigation (avoidance, disposition, or relocation); and (5) a certification that MEC/UXO risks from installation and operation of the facility have been reduced to ALARP levels. The Lessee must implement the mitigation methods identified in the approved COP, the DTS, and the subsequent survey report(s) following the resolution of all comments provided by BOEM and BSEE. In the event archaeological discoveries are made during the MEC/UXO Investigation, the Lessee must notify BOEM within 24 hours of discovery (pursuant to 30 CFR § 585.702 and Lease Stipulation 4.2.7). As part of the Fabrication and Installation Report (FIR) and prior to commencing installation activities, the Lessee must make available for review to the approved CVA, BOEM, and BSEE the complete and final versions of information on implementation and installation activities associated with the ALARP mitigation process, including the: (1) DTS; (2) investigation surveys to determine the presence of objects; (3) identification surveys to determine the nature of the identified objects; and (4) MEC/UXO relocation and/or construction re-routing.
- 2.2 MEC/UXO Identification Survey Plan. The Lessee must submit a MEC/UXO Identification Survey Plan to BOEM and BSEE for review and concurrence prior to seabed preparation activities and the installation of facilities in the Identification Survey area. The MEC/UXO Identification Survey Plan must describe the surveys that will be performed to determine the nature of objects identified as potential MEC/UXO to reduce risks to ALARP levels. The plan must include information on the proposed survey vessel, equipment, methodologies, and planned survey schedule. 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.
- 2.3 MEC/UXO Identification Survey Report. The Lessee must submit an Identification Survey Report to BOEM and BSEE for each Bureau's review and concurrence prior to seabed disturbing activities and the installation of facilities in the areas of potential disturbance. The report must include the following:
- 2.3.1 A detailed discussion of methodologies.

- 2.3.2 A summary and detailed description of the findings and information on all planned mitigations necessary for MEC/UXO risks to attain ALARP levels, such as: detailed information on MEC/UXO relocation activities, micrositing of facilities, changes to installation or operational activities, and cable re-routings.
 - 2.3.3 A separate list of findings that identify conditions different from those anticipated and discussed in the DTS.
 - 2.3.4 A statement attesting that the installation methods and MEC/UXO mitigation strategies discussed in the FIR, DTS, and/or Investigation Survey Report are consistent with the results of the Identification Survey Report, accepted engineering practices, and applicable best management practices. Alternatively, the Lessee may submit a detailed discussion of alternative installation methods and/or MEC/UXO 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.
- 2.4 MEC/UXO ALARP Certification. The Lessee must provide to BOEM, BSEE, and the approved CVA, a certification confirming that MEC/UXO risks related to the installation and operation of the facility have been reduced to ALARP levels. The certification must be made by a qualified third party. ALARP Certification must be made available prior to seabed preparation activities discussed in such plans as the Pre-Lay Grapple Run Plan (Section 2.25), and the Boulder Identification and Relocation Plan (Section 5.4), and prior to commencing installation activities with the submission of the relevant FIR.
- 2.5 MEC/UXO Discovery Notification. In the event of a confirmed MEC/UXO, the Lessee must coordinate with the USCG to ensure the MEC/UXO discovery is published in the next version of the LNM for the specified area and provide BOEM and BSEE a copy of the LNM once it is available. The Lessee must also provide the following information to BOEM (BOEM_MEC_Reporting@boem.gov), BSEE (via TIMSWeb, renops@bsee.gov, and env-compliance-arc@bsee.gov), and relevant agency representatives within 24 hours of any such discovery made during activities, such as seabed clearance, construction, and operations:
- 2.5.1 A narrative describing activities that resulted in the identification of confirmed MEC/UXO;
 - 2.5.2 A description of the activity taking place at the time of discovery (survey, seabed clearance, cable installation, etc.);
 - 2.5.3 A description of the location (latitude (DDD°MM.MMM'), longitude (DDD°MM.MMM)), Lease Area, and block) of the discovery;
 - 2.5.4 The water depth (meters (m)) of the confirmed MEC/UXO;
 - 2.5.5 A description of the MEC/UXO type, dimensions, and weight; and

- 2.5.6 The MEC/UXO vertical position (description of exposure or estimated depth of burial).
- 2.6 Munitions Response Plan for Confirmed MEC/UXO. In the event the Project plans to mitigate confirmed MEC/UXO, the Lessee must implement methods identified in the approved COP and as described in the MEC/UXO Investigation (as referenced in Section 2.1) for MEC/UXO mitigation activities. The Lessee must avoid confirmed MEC/UXO through micrositing of planned infrastructure (e.g., WTGs, ESPs, inter-array cables, or export cables) or must demonstrate to BSEE and BOEM's satisfaction that such avoidance is not feasible. For confirmed MEC/UXO on the OCS where avoidance through micrositing is not feasible, the Lessee must provide a Munitions Response Plan. The Munitions Response Plan must include the following:
- 2.6.1 A description of the method of munitions response and an analysis describing the identification and determination of the method chosen for each confirmed MEC/UXO;
 - 2.6.2 A hazard analysis of the response activities;
 - 2.6.3 A description of the type and designation of work vessels, remotely operated vehicles, unmanned surface vehicles, or craft planned to be used in proximity to the MEC/UXO;
 - 2.6.4 The contact information of the identified munitions response contractor;
 - 2.6.5 The contractor qualifications and competencies to safely carry out the response work;
 - 2.6.6 A proposed timeline of activities;
 - 2.6.7 The position of confirmed MEC/UXO and, if applicable, planned relocation position;
 - 2.6.8 A description of the potential impact of weather and sea state on munitions response operations;
 - 2.6.9 A description of the potential for human exposure;
 - 2.6.10 A medical emergency procedures plan;
 - 2.6.11 A description of the protective measures to be implemented to reduce risk and/or monitor effects to protected species and habitats or other ocean users; and
 - 2.6.12 A plan for accidental detonation.
- 2.7 Munitions Response After Action Report. The Lessee must submit a Munitions Response After Action Report detailing the activity and outcome to BOEM and BSEE. The report must include the following information:

- 2.7.1 A narrative describing the activities the Lessee undertook, including the following:
 - 2.7.1.1 The As Found Location and, if applicable, As Left Location (latitude [DDD°MM.MMM'], longitude [DDD°MM.MMM]), lease area, and block);
 - 2.7.1.2 The water depth (in meters) of munitions response activities;
 - 2.7.1.3 The weather and sea state at the time of munitions response;
 - 2.7.1.4 The number and detailed characteristics (e.g., type, size, classification) of MEC items subject to response efforts; and
 - 2.7.1.5 The duration of the munitions response activities, including start and stop times.
- 2.7.2 A summary describing how the Lessee followed its Munitions Response Plan and any deviations from the Plan;
- 2.7.3 A description of safety measures used, including but not limited to the presence of a USCG safety-zone, notices to mariners, other USCG safety actions in place prior to taking any munitions response actions, and how security call protocols were followed;
- 2.7.4 The results of the munitions response;
- 2.7.5 A description of any threats and effects to health, safety, or the marine environment;
- 2.7.6 A description of any effects on protected species and marine mammals and measures implemented to reduce risk and monitor effects;
- 2.7.7 The details and results of any geophysical surveys conducted after the completion of the munitions response activities; and
- 2.7.8 If applicable, a description of anticipated future munitions response activities.
- 2.8 Safety Management System. Pursuant to 30 CFR § 285.810, the Lessee, designated operator, contractor, or subcontractor constructing, operating, or decommissioning renewable energy facilities on the OCS must have a Safety Management System (SMS) that will guide all activities described in the approved COP (hereinafter the "Lease Area's Primary SMS").
 - 2.8.1 The Lessee will submit all SMS related documents to BSEE via TIMSWeb.
 - 2.8.2 The Lessee will submit its Lease Area's Primary SMS to BSEE within 30 days of COP approval. BSEE will review the Lease Area's Primary SMS and compare

it to the regulations and requirements in Section 2.8.4 and verify that the submissions are acceptable.

- 2.8.3 The Lease Area's Primary SMS must identify and assess risks to health, safety, and the environment associated with the offshore wind facilities and operations and must include an overview of the methods that will be used and maintained to control the identified risks.
 - 2.8.4 Pursuant to 30 CFR § 285.811, the Lease Area's Primary SMS must be functional when the Lessee begins activities described in the approved COP. The Lessee must provide to BSEE a description of any changes to the Lease Area's Primary SMS to address new or increased risk before each phase of the Project commences (i.e., construction, operation, maintenance, decommissioning). In addition, the Lessee must demonstrate to BSEE's satisfaction, the functionality of the Lease Area's Primary SMS by providing evidence of such functionality no later than 30 days prior to the scheduled beginning of the relevant activities described in the COP.
 - 2.8.5 The Lessee must conduct periodic Lease Area Primary SMS audits and provide BSEE with a report summarizing the results of the most recent audit at least once every 3 years, and upon BSEE's request. The report must include any corrective actions implemented or being implemented as a result of that audit and an updated description of the Lease Area's Primary SMS highlighting changes that were made since the last such submission to BSEE. Following BSEE's review of the report, the Lessee must engage with and respond to BSEE until any questions or concerns that BSEE has are resolved and BSEE is satisfied that the Lease Area Primary SMS is effective and functional.
 - 2.8.6 In addition to maintaining an acceptable Lease Area's Primary SMS, the Lessee, designated operator, contractor, and subcontractor(s) constructing, operating, or decommissioning renewable energy facilities on the OCS must follow the policies and procedures of any other SMS(s) applicable to their contracted activities and must take corrective action whenever there is a failure to follow the relevant SMS(s) or where relevant SMS(s) failed to ensure safety.
- 2.9 Emergency Response Procedure. Prior to construction of the Project, the Lessee must submit an Emergency Response Procedure to address non-routine events for review and concurrence by BSEE. The Lessee must submit any revisions of the procedure once every 3 years and upon BSEE's request, consistent with Section 2.8.5. The Emergency Response Procedure must address the following:
- 2.9.1 Standard Operating Procedures. The Lessee must describe the procedures and systems that will be used at Project facilities in the case of emergencies, accidents, or non-routine conditions, regardless of whether man-made or natural. The Lessee must include, as a part of the standard operating procedures for non-routine conditions, descriptions of high-consequence and low probability events and methods to address those events, including methods for (1) establishing and

testing WTG rotor shutdown, braking and locking; (2) lighting control; (3) notifying the USCG of mariners in distress or potential/actual search and rescue incidents; (4) notifying BSEE and the USCG of any events or incidents that may impact maritime safety or security; and (5) providing the USCG with environmental data, imagery, communications, and other information pertinent to search and rescue or marine pollution response.

2.9.2 Communications. The Lessee must describe the capabilities the control center will maintain in order to communicate with the USCG.

2.9.3 Monitoring. The Lessee must ensure that the control center maintains the capability to monitor (e.g., utilizing cameras already installed to support Lessee's operations) the Lessee's installation and operations in real time, including at night and in periods of poor visibility.

2.10 Oil Spill Response Plan. Pursuant to 30 CFR § 585.627(c), the Lessee must submit an Oil Spill Response Plan (OSRP) to the BSEE Oil Spill Preparedness Division (OSPD) at BSEEOSPD_ATL_OSRLPs@bsee.gov for review and approval prior to the installation of any component that may handle or store oil on the OCS. The Lessee should not include any confidential or proprietary information in the OSRP. The OSRP may be lease-specific, or it may be a regional OSRP covering multiple leases. Facilities and leases covered in a regional OSRP must have the same owner or operator (including affiliates) and must be located in the Atlantic OCS region. For a regional OSRP, subject to BSEE OSPD approval, the Lessee may group leases into sub-regions for the purposes of determining worst-case discharge (WCD) scenarios, conducting stochastic trajectory analyses, and identifying response resources. The Lessee's OSRP must be consistent with the National Contingency Plan, Regional Contingency Plan, and the appropriate Area Contingency Plan(s), as defined in 30 CFR § 254.6. To continue operating, the Lessee must operate consistent with the OSRP approved by BSEE. The Lessee's OSRP, including any regional OSRP, must contain the following information:

2.10.1 Bookmarks. Appropriately labeled bookmarks that are linked to their corresponding sections of the OSRP.

2.10.2 Table of Contents.

2.10.3 Record of Change. A table identifying the changes made to the current version of the OSRP and, as applicable, a record of changes made to previously submitted versions of the OSRP.

2.10.4 Facility and Oil Information. "Facility," as defined in 30 CFR § 585.113, means an installation that is permanently or temporarily attached to the seabed of the OCS. An ESP and WTG, as examples, each meet this definition of facility. "Oil," as defined in 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. Dielectric fluid, as an example, meets this definition of oil. The OSRP must:

- 2.10.4.1 List the latitude and longitude, water depth, and distance to the nearest shoreline for each facility that may handle and/or store oil;
 - 2.10.4.2 List the oil(s) by product/brand name and corresponding volume(s) on each type of facility covered under the Lessee's OSRP; and
 - 2.10.4.3 Include a map depicting the location of each facility that may handle and/or store oil within the boundaries of the covered lease area(s) and their proximity to the nearest shoreline. The map must also feature a compass rose, scale, and legend.
- 2.10.5 Safety Data Sheets. The OSRP must include a safety data sheet for every type of oil present on any OCS facility in quantities equal to or greater than 100 gallons.
- 2.10.6 Response Organization. The OSRP must identify a trained Qualified Individual (QI), and at least one alternate, with full authority to implement removal actions and ensure immediate notification of appropriate federal officials and response personnel. The Lessee must designate personnel to serve as trained members of an Incident Management Team (IMT) and identify them by name and Incident Command System (ICS) position in the OSRP.
- 2.10.6.1 "Qualified Individual" means an English-speaking representative of the Lessee who is located in the United States, available on a 24-hour basis, and given 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.
 - 2.10.6.2 "Incident Management Team" (IMT) means the group of personnel identified within the Lessee's organizational structure who manage the overall response to an incident in accordance with the Lessee's OSRP. The IMT consists of the Incident Commander (IC), Command and General Staff, and other personnel assigned to key ICS positions designated in the Lessee's OSRP. With respect to the IMT, the Lessee must identify at least one alternate in the OSRP as the IC, Planning Section Chief, Operations Section Chief, Logistics Section Chief, and Finance Section Chief. If a contract has been established with a third-party IMT, the Lessee must provide evidence of such a contract in the OSRP.
- 2.10.7 Notification Procedures. The OSRP must describe the procedures for spill notification. Notification procedures must include the 24-hour contact information for:
- 2.10.7.1 The QI and an alternate, including phone numbers and email addresses;
 - 2.10.7.2 IMT members, including phone numbers and email addresses;

- 2.10.7.3 Federal, state, and local regulatory agencies that must be notified when a spill occurs, including, but not limited to, the National Response Center;
 - 2.10.7.4 The Oil Spill Removal Organizations (OSRO) and Spill Response Operating Teams (SROT) that are available to respond; and
 - 2.10.7.5 Other response organizations and subject matter experts that the Lessee will rely on for the Lessee's response.
- 2.10.8 Spill Mitigation Procedures. The OSRP must describe the different discharge scenarios that could occur from the Lessee's facilities and the mitigation procedures which the offshore facility operator and any listed/contracted OSROs would follow when responding 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 scenario covered under the Lessee's OSRP. To achieve compliance with this section, the OSRP must include the following:
- 2.10.8.1 Procedures for the early detection of a spill (i.e., monitoring procedures for detecting dielectric fluid and other oil-based substances handled or stored on the facility when spilled to the ocean).
 - 2.10.8.2 General procedures for ensuring that the source of a discharge is controlled as soon as possible after a spill occurs.
 - 2.10.8.3 Procedures to remove oil and oiled debris from shallow waters and along shorelines.
 - 2.10.8.4 Procedures to store, transfer, and dispose of recovered oil and oil-contaminated materials and to ensure that all disposal is consistent with federal, state, and local requirements.
- 2.10.9 Resources at Risk. The OSRP must include a concise list of the sensitive resources that could be impacted by a spill. In lieu of listing sensitive resources, the Lessee may identify the areas that could be impacted by a spill from the Lessee's facility and provide hyperlinks to corresponding Environmentally Sensitive Index Maps and Geographic Response Strategies/Plans for those areas from the appropriate Area Contingency Plan(s).
- 2.10.10 OSRO(s) and SROT(s). The OSRO is an entity contracted by the Lessee to provide spill response equipment and/or manpower in the event of an oil spill. The SROT are the trained persons who deploy and operate oil spill response equipment in the event of a spill, threat of a spill, or an exercise. The OSRP must include a list (with contact information) of the OSRO(s) and SROT(s) who are under contract and/or membership agreement to respond to the WCD of oil from

the Lessee's offshore facilities. Evidence of such contracts and/or membership agreements must be provided in the OSRP.

2.10.11 Oil Spill Response Equipment. The OSRP must include a list, or a hyperlink to a list, of the oil spill response equipment that is available to the Lessee through a contract and/or membership agreement with the OSRO(s). The OSRP must include a map that shows the oil spill response equipment storage depot(s) and planned/potential staging area(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.

2.10.11.1 The Lessee must ensure that the oil spill response equipment is maintained in proper operating condition.

2.10.11.2 The Lessee must ensure that all oil spill response equipment maintenance, modification, and repair records are kept for a minimum of 3 years.

2.10.11.3 The Lessee must provide oil spill response equipment maintenance, modification, and repair records to BSEE OSPD upon request.

2.10.11.4 The Lessee or the OSRO must provide BSEE OSPD with physical access to the oil spill equipment storage depots and perform functional testing of the equipment upon request.

2.10.11.5 BSEE OSPD may require maintenance, modifications, or repairs to oil spill response equipment or require the Lessee to remove equipment from being listed in the OSRP if it does not operate as intended.

2.10.12 Training. The OSRP must include a description of the training necessary to ensure that the QI, IMT, OSRO(s) and SROT(s) are sufficiently trained to perform their respective duties. The Lessee must ensure that the IMT, OSRO(s), and SROT(s) receive annual training. The Lessee's OSRP must provide the most recent dates of applicable training(s) completed by the QI, IMT, OSRO(s) and SROT(s). The Lessee must maintain and retain training records for three years and must provide the training records to BSEE upon request.

2.10.13 Worst-Case Discharge (WCD) Scenario. The OSRP must describe the WCD scenario for the facility containing the highest cumulative volume of oil(s). For a regional OSRP covering multiple sub-regions, a WCD scenario must be described for each sub-region.

2.10.13.1 If multiple candidate WCD facilities contain the same cumulative volume of oil(s), the WCD facility is the one closest to shore.

2.10.13.2 The WCD facility must be identified on the facility map consistent with the "Facility and Oil Information" Section 2.10.4.

- 2.10.13.3 The OSRP must identify the subset of oil spill response equipment from the inventory listed in the OSRP that will be used to contain and recover the WCD volume. The OSRP must include timeframes for response resources to deploy to the WCD facility. Timeframes must include times for equipment procurement, loadout, travel, and deployment.
- 2.10.14 Stochastic Trajectory Analysis. The OSRP must include a stochastic spill trajectory analysis for the WCD facility. For a regional OSRP containing multiple WCD scenarios, a stochastic trajectory analysis must be included for each WCD scenario. The stochastic trajectory analysis must:
- 2.10.14.1 Be based on the WCD volume;
 - 2.10.14.2 Be conducted for the longest period that the discharged oil would reasonably be expected to persist on the water's surface, or 14 days, whichever is shorter; and
 - 2.10.14.3 Identify the probabilities for oiling on the water's surface and on shorelines, and the 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 m². The stochastic analysis must incorporate a minimum of 100 different trajectory simulations using random start dates selected over a multi-year period.
- 2.10.15 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. Compliance with the National Preparedness for Response Exercise Program guidelines will satisfy the exercise requirements of this section. If the Lessee chooses to follow an alternative exercise program, the OSRP must provide a description of that program. For a regional OSRP covering multiple sub-regions, the IMT exercise scenarios must be rotated between each sub-region within the triennial exercise period.
- 2.10.15.1 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 IMT exercise.
 - 2.10.15.2 The Lessee must conduct an annual oil spill response equipment deployment exercise.
 - 2.10.15.3 The Lessee must notify BSEE OSPD at least 30 days in advance of any exercise it intends to conduct for compliance with this condition.
 - 2.10.15.4 BSEE will advise the Lessee about the options it 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.

2.10.15.5 BSEE may evaluate the results of the exercises and advise the Lessee of any needed changes in response equipment, procedures, tactics, or strategies.

2.10.15.6 BSEE may periodically initiate unannounced exercises to test the Lessee's spill preparedness and response capabilities.

2.10.15.7 The Lessee must maintain and retain exercise records for at least three years and must provide the exercise records to BSEE upon request.

2.10.16 OSRP Review and Update. The Lessee must review and update the entire OSRP at least once every three years and more frequently as needed, starting from the date the OSRP was initially approved. The Lessee must send a written notification to BSEE OSPD upon completion of this review and submit any updates for concurrence. BSEE OSPD may require the Lessee to make changes to the OSRP at any time if it is determined to be outdated or to contain significant inadequacies as discovered through a review of the Lessee's OSRP, information obtained during exercises or actual spill responses, or other relevant information obtained by BSEE OSPD.

2.10.17 OSRP Maintenance. The Lessee must submit a revised OSRP to BSEE OSPD within 15 days if any of the following conditions occur:

2.10.17.1 The Lessee experiences a change that would significantly reduce their oil spill response capabilities.

2.10.17.2 The calculated WCD volume has significantly increased.

2.10.17.3 The Lessee removes a contracted IMT, OSRO, or SROT from the Lessee's plan.

2.10.17.4 There has been a significant change to the applicable area contingency plan(s).

2.11 Cable Routings. The Lessee must submit the final Cable Burial Risk Assessment (CBRA) package and engineered cable routings for all cable routes on the OCS to BSEE for review and concurrence with the relevant Facility Design Report (FDR). The final CBRA package must include a summary of final information on (1) natural and man-made hazards; (2) sediment mobility, including high and low seabed levels, from both mobile and stable seabed, expected over the Project lifetime; (3) feasibility and effort level information required to meet burial targets; (4) profile drawings of the cable routings illustrating cable burial target depths, and (5) minimum burial depths from stable seabed to address threats to the cable including, but not limited to, anchoring risk, military activity, third party cable crossings, and fishing gear interaction. Detailed supporting data

and analysis may be incorporated by reference or attachments, including relevant geospatial data.

- 2.11.1 The Lessee must consolidate all cables within the Eastern Muskeget Channel corridor. The Lessee must avoid cable installation within the Western Muskeget Variant unless installation of all cables within the Eastern Muskeget Channel corridor is technically or economically infeasible. In the event that the Lessee believes there is technical or economic infeasibility preventing consolidation of cables within the Eastern Muskeget Channel corridor, the Lessee must submit a technical or economic feasibility analysis, as appropriate, for distribution to NMFS and for review and concurrence by BOEM and BSEE. The Lessee must wait for BOEM/BSEE concurrence before installation of a cable in the Western Muskeget OECC.
- 2.12 Cable Burial. The Lessee must install the export, interconnector and inter-array cables using jetting, control flow excavation, trenching, or plowing as described in Volume I, Section 4.3.1.3.6 of the approved COP. For the approved COP, BOEM has determined the proper burial depth to be a minimum of 4.9 feet (ft) (1.5 m) below stable seabed for federal sections of the export and inter-array cables. This depth is consistent with the approved COP. The Lessee must comply with cable burial conditions described in the COP by demonstrating proper burial depth of the installed submarine cables along at least 94 percent of the total export cable length on the OCS and at least 98 percent of the inter-array and interconnector cable routings, excluding cable crossings and approaches to foundations. The Lessee must demonstrate proper burial depth by providing cable monitoring reports (Section 2.15) and final, as-built information (Section 2.22).
- 2.13 Cable Protection Measures. In areas where the final cable burial depth is less than 1.5 m below stable seabed, excluding within the vicinity of WTG/ESP foundations where cables are enclosed within a Cable Entry Protection System, the Lessee must install secondary protection such as concrete mattresses, half-shell pipes, rock bags or rock placement and must adhere to the scour and cable protection measures in Section 5.8.
 - 2.13.1 The use of cable protection measures must not exceed 6 percent of the total export cable length on the OCS or 2 percent along the interconnector and inter-array cable routing, excluding cable crossings and approaches to foundations. The Lessee must employ cable protection measures when proper burial depth, as defined in Section 2.12, is not achieved. The Lessee must include design information and drawings as part of the relevant FDR and must include installation information as a part of the relevant FIR prior to installing cable protection. The Lessee must also provide BSEE with detailed drawings/information of the actual burial depths and locations where protective measures were used, no later than when the final, as-built cable drawings are submitted within 6 months following installation of the export and inter-array cables. The Lessee must ensure notice of locations where target burial depths were not achieved and where cable protection measures were used, including an accessible graphic/geo-referenced repository for this information, is made available on the project website (Section 1.8 Project Website).

- 2.13.2 If the Lessee requests a variance under Section 1.5, the Lessee must include with the request CVA verification of the proposed alternative.
- 2.14 Crossing Agreements. The Lessee must provide final cable crossing agreements for each active, in-service submarine cable or other types of in-use infrastructure, such as pipelines, to BOEM at least 60 business days before any seabed preparation activities occur within 500 m of such infrastructure, including boulder clearance. The Lessee must also provide information on cable crossing agreements that have not been finalized, including draft agreements and communication logs between owners or operators. The Lessee must make the agreements and crossing designs available to the CVA for review unless otherwise determined by BOEM.
- 2.14.1 If the Lessee concludes that it will be unable to reach a cable crossing agreement, the Lessee must inform BOEM as soon as possible, and no later than 60 business days before seabed preparation activities may occur within 500 m of the in-use infrastructure, including boulder clearance. BOEM will not require a cable crossing agreement if it determines—at its sole discretion and based on its review of the record of relevant communications from the Lessee to owners or operators of active, in-service submarine cables or other types of in-use infrastructure—that the Lessee made reasonable efforts to enter an agreement and was unable to do so. Information to support a claim of reasonable efforts may include call logs, emails, letters, or other methods of communication.
- 2.15 Post-Installation Cable Monitoring. The Lessee must conduct an inspection of each inter-array, interconnector and export cable to determine cable location, burial depths, and site conditions, and to assess the state of the cable. Inspections must occur within 6 months following installation of the export interconnector or inter-array cables, and additional inspections within 1 year following completion of the post-construction inspection and every 3 years thereafter. These inspections must also be conducted within 180 days of a storm event (as defined in the Post-Storm Event Monitoring Plan, described in Section 2.19). The Lessee must provide BSEE and BOEM with a cable monitoring report within 90 days following each inspection. The cable monitoring report must include descriptions of, and results from, inspections of the cable location and burial, that must include high resolution geophysical (HRG) methods, involving, for example, multibeam bathymetric survey equipment; and must identify seabed features, natural and man-made hazards, and site conditions along federal sections of the cable routing. The cable monitoring report must also include summary records from monitoring systems used to assess the state of the cables, such as distributed temperature sensing or other condition assessment techniques. Additionally, the Lessee must notify BSEE within 30 days if monitoring systems detect changes that exceed thresholds of the cable design associated with the chosen monitoring technique.
- 2.15.1 If BSEE determines that the condition of the cable or conditions along the cable corridor warrant adjusting the frequency of inspections (e.g., due to changes in cable burial or seabed conditions that may impact cable stability or other users of the seabed), then BSEE may require the Lessee to submit a revised inspection schedule for review and concurrence.

- 2.15.2 If BSEE determines that conditions along the cable corridor or the state of the cable have deteriorated or changed significantly and remedial actions are warranted, BSEE will notify the Lessee that the Lessee must submit to BSEE the following within 90 days of being notified: a seabed stability analysis and/or cable integrity analysis, a remedial action plan, and a schedule for completing remedial actions. All remedial actions must be consistent with the approved COP. BSEE will review the plan and schedule and provide any comments within 60 days of receiving the plan. The Lessee must resolve all comments to BSEE's satisfaction.
- 2.15.3 If the Lessee determines that conditions along the cable corridor or the state of the cable have deteriorated or changed significantly and remedial actions are warranted, the Lessee must submit the following to BSEE within 90 days of making the determination: the data used to make the determination, a seabed stability analysis and/or cable integrity analysis, a plan for remedial actions, and a schedule for the proposed work. All remedial actions must be consistent with those described in the approved COP. BSEE will review the plan and schedule and provide comments within 60 days, if applicable. The Lessee must resolve all comments to BSEE's satisfaction.
- 2.16 WTG and ESP Foundation Depths. The FDR must include geotechnical investigations at all approved foundation locations along with associated geotechnical design parameters and recommendations consistent with 30 CFR § 585.626(a)(4)(ii) and pursuant to BOEM's April 22, 2021, departure approval.⁶ The geotechnical investigations at each ESP must include, at a minimum, one deep boring located within the footprint of each ESP.
- 2.17 Structural Integrity Monitoring. In accordance with 30 CFR § 285.824 (Annual Self-Inspection Plan), the Lessee must submit, with the FDR, the inspection plan covering the design life of the facility to BSEE for concurrence.
- 2.17.1 Underwater Inspection. The Lessee must conduct a baseline underwater inspection to establish the as-installed platform condition. The baseline underwater inspection must be conducted prior to implementation of a risk-based inspection plan for the platform. The minimum scope of work must include the following, unless the information is available from the installation records: a) a visual survey of the platform for structural damage, from the mudline to waterline, including coating integrity through the splash zone; b) a visual survey to verify the presence and condition of the anodes; c) a visual survey to confirm the presence and condition of installed appurtenances; d) measurement of the as-installed mean water surface elevation, with appropriate correction for tide and sea state conditions; e) record of the as-installed platform orientation; and f) measurement of the as-installed platform elevation from the mean lower low water datum.

⁶ BOEM April 22, 2021, Departure Approval from 30 CFR § 585.626(a)(4)(ii); <https://www.boem.gov/departure-request#tabs-2018>.

- 2.17.2 Above-water Inspection. The Lessee must conduct annual above-water inspections to ensure structural integrity is maintained. The Lessee must inspect the condition of the cathodic protection system(s) and inspect for indications of obvious overloading; deteriorating coating systems; excessive corrosion; and bent, missing, and/or damaged members of the structure in the splash zone and above the water line. The Lessee must provide a summary of the findings in the Annual Self-Inspection Report pursuant to 30 C.F.R. § 285.824(b). See Section 2.19 for post-storm structural integrity monitoring requirements.
- 2.18 Foundation Scour Protection Monitoring. The Lessee must inspect scour protection performance. The Lessee must submit an Inspection Plan to BSEE with the relevant FDR submittal. BSEE will review the Inspection Plan and provide comments, if any, on the plan within 60 business days of its submittal. The Lessee must resolve all comments on the Inspection Plan to BSEE's satisfaction and receive concurrence prior to initiating the inspection program. If BSEE does not send comments within 60 business days, the Lessee may presume concurrence.
- 2.18.1 The Lessee must carry out an initial foundation scour inspection within 6 months of completing the installation of each foundation location; thereafter at intervals not greater than 5 years; and within 180 days after a storm event (as defined in the Post-Storm Event Monitoring Plan, described in Section 2.19).
- 2.18.2 The Lessee must provide BOEM and BSEE with a foundation scour monitoring report within 90 days of completing each foundation scour inspection. If multiple foundation locations are inspected within a single survey effort, the foundation scour monitoring reports for those locations may be combined into a single foundation scour monitoring report provided within 90 days of completing the last foundation scour inspection. The schedule of reporting must be included in the Inspection Plan for BSEE review and concurrence.
- 2.18.3 The Lessee must submit a plan for additional monitoring and/or mitigation to BSEE for review and concurrence if scour protection losses develop within 10 percent of the maximum loss allowance, edge scour develops within 10 percent of the maximum allowance, or spud depressions from installation affect scour protection stability.
- 2.19 Post-Storm Event Monitoring Plan. The Lessee must provide a plan for post-storm event monitoring of the facility infrastructure, foundation scour protection, and cables to BSEE with the relevant FDR. The Lessee may submit separate plans for the cables (including cable protection), the WTGs, and the ESPs. The plan must describe how the Lessee will measure and monitor environmental conditions and duration of storm events; specify the environmental condition thresholds (and their associated technical justification) above which post-storm event monitoring or mitigation is necessary; describe potential monitoring, mitigation, and damage identification methods; and state when the Lessee must notify BSEE of post-storm event related activities. At a minimum, post-storm event inspections must be conducted for each ESP and 10 percent of the WTGs including associated scour protection, following each storm where any condition(s) exceeds one-

half the design return period. For example, a WTG platform designed for 50-year environmental conditions must be inspected following a storm event that exceeds 25-year environmental conditions. The Lessee must inspect cables in accordance with Section 2.15. Post-storm event environmental condition thresholds are subject to change based on lessons learned during operations. To change the post-storm event inspection triggering environmental condition thresholds, the Lessee must submit a revised plan for BSEE review and concurrence. BSEE reserves the right to require post-storm mitigations and additional inspections to address conditions that could result in safety risks and/or impacts to the environment.

2.20 High Frequency Radar Interference Analysis and Mitigation. The Project has the potential to interfere with oceanographic high frequency (HF) radar systems in the U.S. Integrated Ocean Observing System (IOOS®), which is managed by the IOOS Office within the NOAA pursuant to the Integrated Coastal and Ocean Observation System Act of 2009 (Pub. L. No. 111-11), as amended by the Coordinated Ocean Observation and Research Act of 2020 (Pub. L. No. 116-271, Title I), codified at 33 U.S.C. §§ 3601–3610 (referred to herein as “IOOS HF-radar”). IOOS HF-radar measures the sea state, including ocean surface current velocity and waves in near real time. These data have many vital uses, including tracking and predicting the movement of spills of hazardous materials or other pollutants, monitoring water quality, and predicting sea state for safe marine navigation. The USCG also integrates IOOS HF-radar data into its Search and Rescue systems. The Project is within the measurement range of the 10 IOOS HF radar systems listed in the table below:

Table 2.18.3-1: Identified IOOS HF-radar Systems

Radar Name	Radar Operator
Amagansett, NY SeaSonde	Rutgers University
Block Island Long Range, RI SeaSonde	Rutgers University
Camp Varnum, RI LERA	Woods Hole Oceanographic Institution (WHOI)
Horseneck Beach State Reservation, MA LERA	WHOI
Long Point Wildlife Refuge, MA LERA	WHOI
Martha’s Vineyard, MA SeaSonde	Rutgers University
Moriches, NY SeaSonde	Rutgers University
Nantucket, MA LERA	Woods Hole Oceanographic Institution (WHOI)
Nantucket Island, MA SeaSonde	Rutgers University
Nauset, MA SeaSonde	University of Massachusetts Dartmouth

Notes: LERA = Least Expensive Radar MA = Commonwealth of Massachusetts NY = State of New York
 RI = State of Rhode Island

2.20.1 Mitigation Requirement. Due to the potential interference with IOOS HF-radar and the risk to public health, safety, and the environment, the Lessee must mitigate unacceptable interference with IOOS HF-radar from the Project. Interference must be mitigated before commissioning the first WTG or before blades start spinning, whichever is earlier, and interference mitigation must continue throughout operations and decommissioning until the point of decommissioning when all rotor blades are removed. Interference is considered unacceptable if, as determined by BOEM in consultation with NOAA’s IOOS Office, IOOS HF-radar performance falls or may fall outside any of the specific

radar systems' operational parameters or fails or may fail to meet IOOS's mission objectives.

- 2.20.2 Mitigation Review. The Lessee must submit to BOEM documentation demonstrating how it will mitigate unacceptable interference with IOOS HF-radar systems in accordance with Section 2.20.1. The Lessee must submit this documentation to BOEM at least 120 days prior to commissioning the first WTG or the start of blades spinning, whichever is earlier. After the Lessee submits the documentation and after consultation with the NOAA IOOS Office, if BOEM deems the mitigation acceptable, the Lessee must conduct activities in accordance with the proposed mitigation. If, after consultation with the NOAA IOOS Office, BOEM deems the mitigation unacceptable, the Lessee must resolve all comments on the documentation to BOEM's satisfaction.
- 2.20.3 Mitigation Agreement. The Lessee is encouraged to enter into an agreement with the NOAA IOOS Office to implement mitigation measures, and any such Mitigation Agreement may satisfy the requirement to mitigate unacceptable interference with IOOS HF-radar. The point of contact for the development of a Mitigation Agreement with the NOAA IOOS Office is the Surface Currents Program Manager, whose contact information is available at <https://ioos.noaa.gov/about/meet-the-ioos-program-office/> and upon request from BOEM. If the parties reach a mitigation agreement, the Lessee must submit the agreement to BOEM. The Lessee may satisfy its obligations under Section 2.20.2 by providing BOEM with an executed Mitigation Agreement between the Lessee and NOAA IOOS. If there is any discrepancy between Section 2.20.2 and the terms of a Mitigation Agreement, the terms of the Mitigation Agreement will prevail.
- 2.20.4 Mitigation Data Requirements. Mitigation required under Section 2.20.2 must address the following:
- 2.20.4.1 Before commissioning the first WTG or before blades start spinning, whichever is earlier, and continuing throughout the life of the Project until the point of decommissioning when all rotor blades are removed, the Lessee must make publicly available via NOAA IOOS near real-time, accurate numerical telemetry of surface current velocity, wave height, wave period, wave direction, and other oceanographic data measured at Project locations selected by the Lessee in coordination with the NOAA IOOS Office.
- 2.20.4.2 If requested by the NOAA IOOS Office, the Lessee must share with IOOS accurate numerical time-series data of blade rotation rates, nacelle bearing angles, and other information about the operational state of each WTG in the Lease Area to aid interference mitigation.
- 2.20.5 Additional Notification and Mitigation.

- 2.20.5.1 If at any time the NOAA IOOS Office or an HF-radar operator informs the Lessee that the Project will cause unacceptable interference to an HF-radar system, the Lessee must notify BOEM of the determination and propose new or modified mitigation pursuant to Section 2.20.5.2 as soon as possible and no later than 30 days from the date on which the determination was communicated.
- 2.20.5.2 If a mitigation measure other than that identified in the Mitigation Approval (Section 2.20.2) is proposed, then the Lessee must submit information on the proposed mitigation measure to BOEM for its review and concurrence. If, after consultation with the NOAA IOOS Office, BOEM deems the mitigation acceptable, the Lessee must conduct activities in accordance with the proposed mitigations. The Lessee must resolve all comments on the documentation to BOEM's satisfaction prior to implementation of the mitigation.
- 2.21 Critical Safety Systems and Equipment. The Lessee must provide to BSEE a qualified third-party verification of (1) the identification, (2) proper installation, and (3) commissioning of all critical safety systems and equipment designed to prevent or ameliorate fires, spillages, or major accidents that could result in harm to health, safety, or the environment (hereinafter "critical safety systems"). The documentation provided to BSEE must demonstrate that the qualified third party verified that the critical safety systems were identified using appropriate methodologies as defined by the operator's risk management standards, were installed and commissioned in conformity with the Original Equipment Manufacturer's (OEM's) standards and the Project's functional requirements and are functioning properly as required by the surveillance reporting requirements in Section 2.21.5.
- 2.21.1 Qualified Third Party. A qualified third party must be either 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.
- 2.21.2 Critical Safety Systems. Critical safety systems include but are not limited to equipment, devices, engineering controls, or system components that are designed to prevent, detect, or mitigate impacts from fires, spillages, or other major accidents that could result in harm to health, safety or the environment including systems that facilitate the escape and survival of personnel.
- 2.21.3 Identification of Critical Safety Systems Risk Assessment(s). The Lessee must conduct a risk assessment to identify hazards and the critical safety systems used within its facilities, including WTG(s), tower(s), and each ESP, to prevent or mitigate identified risks. The Lessee must submit each risk for which a Critical Safety System acts as a control to BSEE and the qualified third party for review in a single document no later than submission of the FDR. The submission must include a description of the specific hazard along with the determined likelihood

and consequence. The Lessee must arrange with the qualified third party - and provide the necessary information - for a qualified third party to make a recommendation to BSEE on the acceptability of the identified risks, and any associated conclusions regarding identified hazards and implemented or changed critical safety systems and equipment. The Lessee must resolve BSEE's comments to BSEE's satisfaction before BSEE completes its review of the associated FDR under 30 CFR § 285.700.

- 2.21.4 Installation and Commissioning Surveillance Requirements. The Lessee must ensure the proper installation and commissioning of the critical safety systems. The Lessee must arrange for a qualified third party to evaluate whether the installation and commissioning of the critical safety systems are in conformance with the OEM's requirements and the Project's functional requirements. BSEE and the Lessee may agree to perform additional tests during commissioning surveillance activities. The third-party evaluation must include (1) an examination of the commissioning records of the critical safety systems and equipment for every WTG and ESP and (2) witnessing the commissioning of the critical safety systems and equipment of 5 percent of the WTGs, including at least one WTG in the first array string, and each ESP. The Lessee must arrange for a qualified third party, at a minimum, to verify the following:
- 2.21.4.1 The installation procedures and/or commissioning instructions supplied by the manufacturer and identified in the Project's functional requirements are adequate.
 - 2.21.4.2 During commissioning, the Lessee is following the instructions supplied by the manufacturer and identified in the Project's functional requirements.
 - 2.21.4.3 The systems and equipment function as designed.
 - 2.21.4.4 The final commissioning records are complete.
- 2.21.5 Surveillance Reporting. The Lessee must submit to BSEE surveillance records, including for the examination of commissioning records and witnessing, (for example, the final results and acceptance of the commissioning test by the qualified third party) or a Conformity Statement and supporting documentation (prepared consistent with International Electrotechnical Commission System for Certification to Standards Relating to Equipment for Use in Renewable Energy Applications [IECRE OD-502, 2018]) for the critical safety systems identified in Section 2.21.2. Surveillance records for each ESP must be submitted within one month of verification by the qualified third party. After the commissioning of the critical safety systems has been completed for the first WTG, the Lessee must, on a monthly basis, submit the surveillance records or Conformity Statement and supporting summary documentation for all WTGs which have been verified by a qualified third party within the previous month. If BSEE has not responded to the surveillance records or Conformity Statement and supporting documentation

submitted by the qualified third party within 5 business days, then the Lessee may presume concurrence and continue operating. If the surveillance records or Conformity Statement and supporting documentation are not submitted within one month of qualified third-party verification of the commissioning of the safety systems, or if BSEE objects to the submission, BSEE may require the facility to which the surveillance records or Conformity Statement pertains to cease operations.

2.22 Engineering Drawings. The Lessee must compile, retain, and make available to BSEE the drawings and documents specified in Table 2.22-1.

Table 2.21.5-1: Engineering Drawings and Documents

Drawing Type	Time Frame to Submit “Issued for Construction” (IFC) Drawings	Deadline to Submit Final As-Built Drawings
Complete set of structural drawing(s), including major structural components and evacuation routes ⁷	With FDR submittal. Drawings must be reviewed and stamped by a registered professional engineer.	Submit no later than March 31st of each calendar year, for all structures installed the prior year and submitted annually until completion of installation.
Front, side, and plan view drawings ⁸	With FDR submittal. Drawings must be reviewed and stamped by a registered professional engineer. Include a table with: (1) vertical datum planes including Highest Astronomical Tide, Mean Lower Low Water, Mean Sea Level, and others as applicable, (2) 1000-year crest elevation, and (3) elevation to the underside of the deck.	N/A
Location plat for all Project facilities ⁹	With FDR submittal. Drawings must be reviewed and stamped by a registered professional land surveyor.	Submit no later than March 31st of each calendar year, for all facilities installed the prior year and updated annually until completion of installation. Drawings must be reviewed and stamped by a registered professional land surveyor.
Complete set of cable drawing(s)	With FDR submittal. Drawings must be reviewed and stamped by a registered professional engineer.	Submit preliminary as-built reports quarterly for all facilities installed in the previous quarter. Submit final as-built reports within 6 months following installation of the export and inter-array cables.
Proposed Anchoring Plat as required by Section 5.3.2 and 7.1.3	120 days before anchoring activities. If there are fewer than 120 days between anchoring activities and this COP approval, no later than 60 days prior to commencing anchoring activities.	N/A

7 As required by 30 CFR § 285.701(a)(4). This is applicable to the WTGs and ESPs.

8 As required by 30 CFR § 285.701(a)(3). This is applicable to the WTGs and ESPs.

9 As required by 30 CFR § 285(a)(2). This is applicable for all installed assets on the OCS including scour protection, cables, WTGs, and ESPs.

Drawing Type	Time Frame to Submit “Issued for Construction” (IFC) Drawings	Deadline to Submit Final As-Built Drawings
As-placed Anchor Plats for all anchoring	N/A	Submit 90 days after completion of an activity or construction of a major facility component(s).
Piping and instrumentation diagram(s)	With FDR submittal. Drawings must be reviewed and stamped by a registered professional engineer.	Submit quarterly for all facilities installed in the previous quarter.
Safety diagram(s) ¹⁰	With FDR submittal. Drawings must be reviewed and stamped by a registered professional engineer.	Submit quarterly for all facilities installed in the previous quarter.
Electrical drawings, i.e., Electrical one-line drawing(s) and Protective Relay Coordination Study/Diagram	With FDR submittal. Drawings must be reviewed and stamped by a registered professional engineer.	Submit quarterly for all facilities installed in the previous quarter.
Cause and Effect Chart	With FDR submittal.	N/A
Schematics of fire and gas-detection system(s)	With FDR submittal. Drawings must be reviewed and stamped by a registered professional engineer.	Submit quarterly for all facilities installed in the previous quarter.
Area classification diagrams	With FDR submittal.	Submit quarterly for all facilities installed in the previous quarter.

2.22.1 Engineering drawings, as outlined in Table 2.22-1, and the associated engineering report(s) must include the lease number “OCS-A 0561” on all drawings and reports and, where applicable, the Area Name, Block Number and Structure Designation. Also, a licensed professional engineer or a professional land surveyor must review and stamp these drawings and reports. Pursuant to 30 CFR § 285.705(2), any changes to the approved design must be evaluated by BSEE to determine if the Lessee is required to use a CVA for any project modifications under 30 CFR § 285.703(c). This applies from the submission date of FDR and FIR through construction, commissioning, and operations and includes structural, mechanical, electrical, and safety systems. For modified systems, only the modifications are required to be stamped by a licensed professional engineer(s) or a professional land surveyor. The professional engineer or land surveyor must be licensed in a State or Territory of the United States and have sufficient expertise and experience to perform the duties. The Lessee must ensure that the engineer of record submits a stamped report showing that the as-built design documents have been reviewed, do not make material changes from the IFC drawings, and accurately represent the as-installed facility. The Lessee must also ensure that the engineer of record documents any differences between the IFC drawings and the as-built drawings in the stamped report and submits the report with the as-built drawings.

10 Safety 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. This should include, but not be limited to, escape routes, station bill, fire/gas detectors, firefighting equipment, etc.

- 2.22.2 As-Placed Anchor Plats. The Lessee must provide as-placed anchor plats to BOEM and BSEE within 90 days of activity completion associated with seabed preparation, operations and maintenance, or construction of a major facility component (e.g., buoys, export and inter array cables, WTGs, ESPs, etc.), or decommissioning, demonstrating that seafloor-disturbing activities complied with avoidance requirements for seafloor features and hazards, archaeological resources, and/or anomalies. As-placed anchor plats must show the “as-placed” location of all anchors and any associated anchor chains and/or wire ropes and relevant locations of interest or avoidance on the seafloor for all seabed disturbing activities. The plats must be at a scale of 1 inch = 1,000 ft (300 m) with Differential Global Positioning System accuracy.
- 2.23 Construction Status. On a monthly basis, the Lessee must provide BSEE, BOEM, and the USCG with a construction status update and any changes to the construction schedule or process described in the plan required by Section 3.2.1 (Installation Schedule).
- 2.24 Maintenance Schedule. On a quarterly basis, the Lessee must provide BSEE with its maintenance schedule for any planned WTG or ESP maintenance.
- 2.25 Pre-lay Grapnel Run Plan. The Lessee must submit a Pre-lay Grapnel Run Plan for BSEE review and concurrence. The plan must be submitted at least 120 days prior to pre-lay grapnel run activities for a 60-day review. BSEE will review the plan and provide comments, if applicable, within 60 business days of submittal. The Lessee must resolve BSEE’s comments to BSEE’s satisfaction prior to starting activities described in the plan. If BSEE does not provide comments on the plan within 60 business days of its submittal, then the Lessee may presume BSEE’s concurrence with the plan. The plan must be consistent and meet the conditions of the SMS in Section 2.8.
- 2.25.1 The plan must include the following:
- 2.25.1.1 Figures of the location of pre-lay grapnel run activities.
 - 2.25.1.2 A description of pre-lay grapnel run methods, including expected grapnel penetration depth, vessel specifications, metocean limits on operation, etc.
 - 2.25.1.3 A description of removal and disposal methods of debris collected by grapnel run and applicable environmental regulations for disposal.
 - 2.25.1.4 A description of safety distances or zones to limit pre-lay grapnel activities near third party assets. Descriptions should be consistent with Cable Crossing Agreements (Section 2.14).
 - 2.25.1.5 The environmental footprint of disturbance activities and measures taken to avoid further adverse impacts to archaeological resources, seafloor hazards, complex habitat, and fishing operations.

- 2.25.1.6 A description of MEC/UXO ALARP certified areas, which must be consistent with MEC/UXO ALARP Certification (Section 2.4).
 - 2.25.1.7 A summary of any consultation and outreach with resource agencies and the fishing industry in the development of the plan (e.g., notifications to mariners).
- 2.25.2 The Lessee must submit a letter to BSEE outlining any deviations from the Pre-lay Grapnel Run Plan within 90 days following the completion of pre-lay grapnel run activities.

3 NAVIGATIONAL AND AVIATION SAFETY CONDITIONS

3.1 Design Conditions.

- 3.1.1 Marking. The Lessee must mark each WTG and ESP with “OCS-A 0561” in addition to the USCG private aids to navigation (PATON). No sooner than 60 and no fewer than 30 days before foundation installation, the Lessee must file an application (form CG-2554 or CG-4143, as appropriate), with the Commander of the First Coast Guard District to establish PATON, as provided in 33 CFR Part 66. The Lessee must obtain USCG acceptance of the application before the Lessee begins installation of the facilities. The lighting, marking, and signaling plan and the design specifications for maritime navigation lighting must be included in the PATON application. The Lessee must:
- 3.1.1.1 Provide a lighting, marking, and signaling plan, at least 120 days before foundation installation, for a 60 business day review by BOEM, BSEE, and USCG. The Lessee must obtain concurrence from BOEM and BSEE prior to foundation installation. The plan must conform to applicable federal laws and regulations, and guidelines, e.g., International Association of Marine Aids to Navigation and Lighthouse Authorities Recommendation G1162, The Marking of Man-Made Offshore Structures (Ed. 1.1, Dec. 2021), and BOEM’s Guidelines for Lighting and Marking of Structures Supporting Renewable Energy Development (April 28, 2021).
 - 3.1.1.2 Clearly and visibly mark each individual WTG and ESP with “OCS-A 0561” and the unique, alpha-numeric identification characters consistent with the attached Rhode Island and Massachusetts Structure Labeling Plot, as identified in the lighting, marking, and signaling plan. The Lessee must additionally display “OCS-A 0561” and the alpha-numeric identification character consistent with the attached Rhode Island and Massachusetts Structure Labeling Plot, as identified in the lighting, marking, and signaling plan on each WTG nacelle and on the ESP’s heli-hoist and/or heli-pad area, visible from above.

- 3.1.1.3 For each WTG, install red obstruction lighting that is consistent with the Federal Aviation Administration (FAA) (Advisory Circular 70/7460-1M (Nov. 2020)).
 - 3.1.1.4 Provide signage that is visible to mariners in a 360-degree arc around the structures to inform vessels of the vertical blade-tip clearance (also referred to as Air Gap) as determined at Highest Astronomical Tide.
 - 3.1.1.5 Submit documentation to BSEE, no later than January 31 of each calendar year for all facilities installed within the preceding calendar year, of the Lessee's compliance with Sections 3.1.1.1 through 3.1.1.4.
 - 3.1.1.6 Immediately report discrepancies in the status of all PATONs to the local USCG Sector Command Center (a timeline of when discrepancies can be resolved must be sent to USCG within 14 days of identifying the discrepancy).
- 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 WTG upon emergency order from the Department of Defense (DoD) or USCG. The Lessee must initiate braking and shutdown of each requested WTG immediately after the shutdown order. The Lessee may resume operations only upon notification from the entity (DoD or USCG) that initiated the shutdown.
 - 3.1.2.2 The Lessee must include a shutdown procedure in its Emergency Response Procedure and test the shutdown capability (functioning) of at least one WTG within the lease area at least annually. The Lessee must submit the results of testing to BSEE with the Project's annual inspection results.
 - 3.1.2.3 The Lessee must work with the USCG to establish the proper blade configuration during WTG shutdown for USCG air assets conducting search and rescue operations.
 - 3.1.2.4 The Lessee must notify USCG and BSEE in advance of trainings and exercises to test and refine notification and shutdown procedures, allow USCG and BSEE to participate in these trainings and exercises, and provide search and rescue and training opportunities for USCG Command Centers, vessels, and aircraft.

3.1.3 Structure Micrositing. The Lessee must not adjust approved structure locations in a way that narrows any linear rows and columns oriented both northwest-southeast or northeast-southwest to less than 0.6 nautical miles (nmi), nor to a layout that eliminates two distinct lines of orientation in a grid pattern. The Lessee must submit the final as-built structure locations as part of the as-built documentation outlined in Section 2.22.

3.2 Installation Conditions.

3.2.1 Installation Schedule. Not less than 60 days prior to commencing offshore construction activities, the Lessee must provide USCG with a plan that describes the schedule and process for seabed preparation, export, substation interconnector and inter-array cable installation, and the WTGs and ESPs installation, including all planned mitigations to be implemented to minimize any adverse impacts to navigation while installation is ongoing. Appropriate LNM submissions must accompany the plan and its revisions.

3.2.2 Design Modifications. Any changes or modifications in the design of the Lease Area that may impact navigation safety (including, but not limited to a change in the number, size, or location of WTGs, or a change in construction materials or construction method), requires written approval by BSEE.

3.2.3 Cable Burial. A detailed cable burial plan, containing the proposed locations and burial depths must be submitted to the USCG no later than the relevant FIR submittal. In accordance with Section 2.22, the Lessee must submit to BOEM and the USCG a copy of the final as-built cable burial report containing a route positioning list that depicts the precise location and burial depths of the entire cable system (export, interconnector, and array routes).

3.2.4 Nautical Charts/Navigation Aids. The Lessee must submit the as-built cable burial reports (containing precise locations and burial depths), ESP locations, and WTG locations to USCG and NOAA, consistent with Section 2.22, to facilitate government-produced and commercially available nautical charts; and to aid USCG cross-reference of structures and navigation aids.

3.3 Reporting Conditions.

3.3.1 Complaints. On a monthly basis, the Lessee must provide BSEE with (1) 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) a description of remedial action(s) taken in response to complaints received, if any. BSEE reserves the right to require additional remedial action consistent with 30 CFR Part 285.

3.3.2 Correspondence. On a monthly basis, the Lessee must provide BSEE, BOEM, and USCG with copies of any correspondence received from other federal, state, or local agencies regarding navigation safety issues.

- 3.4 Meeting Attendance. As requested by BSEE, BOEM, and the USCG, the Lessee must attend meetings (i.e., Harbor Safety Committee, Area Committee) to provide briefings on the status of construction and operations, and on any problems or issues encountered with respect to navigation safety.

4 NATIONAL SECURITY CONDITIONS

- 4.1 Hold and Save Harmless – United States Government. Whether compensation for such damage or injury might otherwise be due under a theory of strict or absolute liability or any other theory, the Lessee assumes all risks of damage or injury to any person or property that occurs in, on, or above the OCS in connection with any activities being performed by the Lessee in, on, or above the OCS. If an 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”), contact the United States Fleet Forces at the information listed below:

United States Fleet Forces (USFF) N46
1562 Mitscher Ave, Suite 250
Norfolk, VA 23551
(757) 836-6206

The Lessee assumes this risk, whether or not 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 appropriate command headquarters, whether the same is 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.

- 4.2 Mitigation Agreement. The Lessee must enter into a mitigation agreement with the DoD for purposes of implementing Section 4.3. If there is any discrepancy between Section 4.3 and the terms of the mitigation agreement, the terms of the mitigation agreement will prevail. Within 15 days of entering into the mitigation agreement, the Lessee must provide BOEM and BSEE with a copy of the executed mitigation agreement. The DoD point-of-contact for the development of the agreement is osd.dod-siting-clearinghouse@mail.mil.
- 4.3 North American Aerospace Defense Command (NORAD) Operations. Within 45 days of completing the requirements in this section, the Lessee must provide BOEM with evidence of compliance with those requirements. The NORAD point-of-contact is John Rowe: John.Rowe.14@us.af.mil. If the NORAD point-of-contact is no longer active, the Lessee must identify a point-of-contact through the DoD Clearinghouse at osd.dod-siting-clearinghouse@mail.mil.

4.3.1 Radar Adverse Impact Management (RAM) Scheduling. To mitigate impacts on NORAD's operation of the Falmouth, MA, Air Surveillance Radar-8, the Lessee must complete the following:

4.3.1.1 NORAD Notification. At least 30, but no more than 60, days prior to the completion of commissioning of the last WTG (i.e., that date by which every WTG in the Project is installed with potential for blade rotation), the Lessee must notify NORAD for RAM scheduling.

4.3.1.2 Funding for RAM Execution. At least 30, but no more than 60, days prior to completion of commissioning of the last WTG (i.e., that date by which every WTG in the Project is installed with potential for blade rotation), the Lessee must contribute funds in the amount of \$80,000 to NORAD toward the execution of the RAM. For the New England Wind 2 Project, if the time gap between the commissioning of the first and last WTG is anticipated to be 3 years or greater, the Lessee must contribute funds in the amount of \$80,000 to NORAD toward the execution of the RAM when 50 percent of the WTGs are commissioned, and an additional \$80,000 to NORAD toward the execution of additional RAM when the last WTG is commissioned. This allows NORAD to manage radar adverse impacts over an extended period of construction.

4.4 Department of the Navy Operations. To mitigate potential impacts on the Department of the Navy's (DON) operations, the Lessee must coordinate with the DON for purposes of implementing this section. Within 45 days of completing the requirements in Section 4.4.1. and 4.4.3, the Lessee must provide BOEM with evidence of compliance with those requirements. The DON point-of-contact for coordination is Matthew Senska: matthew.senska@navy.mil 571-970-8400. If the DON point-of-contact is no longer active, the Lessee must identify a point-of-contact through the DoD Clearinghouse at osd.dod-siting-clearinghouse@mail.mil.

4.4.1 Distributed Optical Fiber Sensing (DOFS) Technology and Acoustic Monitoring Devices. The Lessee must provide all information necessary for the DON's evaluation of the potential submarine power cables, data cables, and acoustic monitoring devices to be used in the Project to osd.dod-siting-clearinghouse@mail.mil and opnavn4imissioncompatibility@us.navy.mil for review. The Lessee must coordinate with the DON to determine the timing for the Lessee to provide all information to DON for review. If the DON requests additional information, the Lessee must provide it within 15 days of the request. The following information must be provided:

- Sensor deployment dates and duration;
- Siting routes and locations of acoustic monitoring devices;
- Shore station location;
- DOFS and acoustic monitoring capabilities;

- Make and model of integrated (or planned integration/deployment of) and standalone scientific sensors;
- Manufacturers and vendors;
- Plans for data storage;
- Transmission and usage; and
- Associated physical and cybersecurity protocols.

4.4.1.1 The Lessee must provide DON with notice of the intent to change this information at least 30 days prior to any change.

4.4.1.2 Should the DON determine through the evaluation in Section 4.4.1 that the use of DOFS or other acoustic monitoring devices presents risk to national security or military operations, the Lessee must work with DON to implement mitigation measures to address the risk (Section 4.4.3). The Lessee must implement DON mitigation measures within 30 days of notification from the DON, or on a schedule agreed to by the Lessee and DON.

4.4.1.3 As-Builts. The Lessee must provide DON with as-built schematics and diagrams showing the exact makes and models of all DOFS equipment and acoustic monitoring devices used at commissioning. The Lessee must provide notification of any changes to the as-built schematics and diagrams to DON within 10 business days of any change. The Lessee must provide the updated as-built schematics and diagrams thereafter based on a schedule agreeable to DoD.

4.4.2 National Security Review.

4.4.2.1 Initial Screening. Within 45 days following COP approval, the Lessee must provide DON with the names of each entity and person having beneficial ownership or control of 5 percent or more of the Lessee and the project operator, and, as available, all material vendors and manufacturers who will regularly visit the Project on the OCS, who supply or manufacture equipment used on the OCS, control equipment used on the OCS, or have access to associated data systems. In addition, the Lessee must provide the following information for each director and the top five executives of the Lessee and the project operator: full legal name, date of birth, country of citizenship, and permanent address.

4.4.2.2 Supplementary Screenings. The Lessee and DON must establish a process to review additional entities not previously reviewed during the initial screening based on when the information will be available during the project planning process. This process will include Lessee's provision to DON of information regarding any foreign entities and persons, as defined by the DON, allowed to access the WTG structures and associated data systems.

- 4.4.2.3 The Lessee must provide written notice to the DON at least 45 days in advance of the intended use of any material vendor not previously screened pursuant to this section. The Lessee must allow the DON 45 days following such notice to conduct a security review and assess any security concern. Notwithstanding the foregoing, the Lessee need not wait 45 days if an unexpected situation arises for which employing services or vendors immediately is prudent for the safe operation of the Project.
- 4.4.2.4 DON will screen the names of the entities and persons identified. Once submitted for screening, DON will identify to the Lessee, no later than 60 days after the receipt, the name of any entity and person posing a national security concern. In any case in which the DON identifies any entity and any person screened in accordance with this section as posing a national security risk, the Lessee agrees to enter into negotiations with DON to mitigate the risk to national security that arises as a result of the proximity of any entity and person posing a national security concern. Except in unexpected situations, as previously described, the Lessee must resolve the threat to national security to the satisfaction of the DON prior to allowing access to the site or its associated data systems by representatives of any entity and person posing a national security concern or the use of WTG or other permanent on-site equipment or associated data systems manufactured by any entity and person posing a national security concern. In any case in which an entity and person is identified as posing a national security concern following an unexpected situation, the Lessee must resolve the threat to national security to the satisfaction of DON at the earliest opportunity.
- 4.4.3 Mitigation Measures. Following the analyses conducted pursuant to Sections 4.4.1 and 4.4.2, the DON and Lessee will coordinate to implement mitigation necessary to address national security risk. If DON so determines, Lessee must enter into an additional mitigation agreement to document the measures resulting from this coordination. Mitigation measures may include, but are not limited to, the following:
 - 4.4.3.1 Lessee appointment of a DON-approved Security Officer, subject to citizenry and other requirements, to monitor compliance with mitigation measures.
 - 4.4.3.2 Restrictions on DOFS, multi-phenomenological sensing, or acoustic monitoring equipment operating modes, parameters, locations, and/or capabilities; these may include programmed modes to avoid distributed sensing on specified portions of a cable when required by DoD.

- 4.4.3.3 Equipment and component restrictions and requirements that include prohibitions on the usage, installation, or connection of equipment or components manufactured in specified foreign countries or if banned by any agency of the United States.
- 4.4.3.4 Physical and cybersecurity protections at, and Government inspections of, locations where the Lessee's DOFS and/or acoustic monitoring equipment and components are installed and monitored.
- 4.4.3.5 Temporary or permanent shutdown or data diversion of cable distributed sensing, multi-phenomenological sensing, or acoustic monitoring devices in sensitive locations, as determined and required by DON.
- 4.4.3.6 Reporting requirements for the Lessee and any subcontractors concerning business and ownership relationships with foreign entities and use of non-citizens for installation and maintenance work.

4.5 Communication Protocol for Construction and Operations. The Lessee must establish a point-of-contact through the DoD Clearinghouse (osd.dod-siting-clearinghouse@mail.mil) to coordinate with the Eastern Air Defense Sector and the Fleet Area Control and Surveillance Facilities for the following conditions:

- 4.5.1 The Lessee must communicate and coordinate the planned construction and operations schedule with appropriate military department commands to deconflict planned construction and operations activities to the extent practicable.
- 4.5.2 The Lessee and military department commands must mutually determine an appropriate meeting frequency to facilitate communication.
- 4.5.3 This protocol will serve as a forum to communicate the project schedule and identify potential military mission compatibility concerns or conflicts experienced due to construction activities. The Lessee must resolve conflicts to the maximum extent practicable or provide justification to the DoD stating why resolution is infeasible.

5 PROTECTED SPECIES¹¹ AND HABITAT CONDITIONS

5.1 General Environmental Conditions.

- 5.1.1 Aircraft Detection Lighting System. The Lessee must use an FAA-approved vendor for the Aircraft Detection Lighting System (ADLS), which will activate the FAA hazard lighting only when an aircraft is in the vicinity of the wind

¹¹ 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 ESA. ESA-listed species are provided in 50 CFR § 17.11-12. The term also includes marine mammals protected under the MMPA.

facility, to reduce visual impacts at night once the system is commissioned. The Lessee must confirm the use of, and submit to BOEM and BSEE information about, the FAA-approved vendor for ADLSs on WTGs and the ESPs at the time the relevant FIR is submitted.

5.1.2 Marine Debris¹² Awareness and Elimination. The Lessee must submit required documents related to marine debris awareness training, reporting, and recovery (e.g., annual training compliance, incident reporting, 24-hour notices, recovery plans, recovery notifications, monthly reporting, annual survey and reporting, and decommissioning and site clearance) described in Sections 5.1.2.2 through 5.1.2.9 to BSEE via TIMSWeb.

5.1.2.1 Marine Debris Awareness Training and Certification. The Lessee must ensure that all vessel operators, employees, and contractors engaged in offshore activities pursuant to the approved COP complete marine debris awareness training and are certified prior to engaging in offshore activities, and annually thereafter. The training and certification process must include the following elements:

5.1.2.1.1 Viewing a marine debris training video or training slide pack posted on the BSEE website (<https://www.bsee.gov/debris>) or by contacting BSEE;

5.1.2.1.2 Receiving an explanation from management personnel that emphasizes their commitment to the requirements; and

5.1.2.1.3 Attendance measures (initial and annual).

5.1.2.2 Training Compliance Report. Before engaging in offshore activities pursuant to the approved COP and by January 31 of each year thereafter, the Lessee must submit to BSEE a report that describes its marine debris awareness training process and certifies that all personnel have completed the required training for the previous year. The Lessee must make this certification available for inspection by BSEE upon request.

5.1.2.3 Marking. Any materials, equipment, tools, containers, and other items used in OCS activities, which are of such shape or configuration that make them likely to snag or damage fishing devices or be lost or discarded overboard, must be clearly marked with the vessel or facility identification number, and must be 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.

¹² 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.

- 5.1.2.4 Recovery. If the marine debris was lost within the boundaries of an archaeological resource/avoidance area, or a sensitive ecological/benthic resource area, the Lessee must contact BSEE for concurrence before conducting any recovery efforts. The Lessee must take steps to prevent similar releases of marine debris and must submit a description of these preventative actions to BSEE within 30 days from the date on which the release of marine debris occurred.
- 5.1.2.5 Notification and Recovery. The Lessee must notify BSEE within 24 hours of any releases of marine debris and indicate whether the released marine debris was immediately recovered. If the marine debris was not recovered, the Lessee must provide its rationale for not recovering the marine debris (e.g., marine debris is located within the boundaries of a sensitive area, recovery was not possible because conditions were unsafe, or recovery was not practicable and warranted because the released marine debris is not likely to cause undue harm or damage to natural resources or interfere with OCS uses). After reviewing the notification and rationale, if the debris was not immediately recovered, BSEE may order the Lessee to recover the marine debris within a specified timeframe, or at the time of decommissioning.
- 5.1.2.5.1 Recovery Plan. If BSEE orders the Lessee to recover the marine debris, the Lessee must submit a Recovery Plan to BSEE within 10 days. Unless BSEE objects within 2 business days after initiating review, the Lessee may proceed with the activities described in the Recovery Plan. BSEE must be notified that recovery activities are completed within 30 days from the marine debris notification, unless BSEE grants the Lessee an extension.
- 5.1.2.5.2 Annual Reporting. The Lessee must include, for each release, the following in an annual report submitted to BSEE via TIMSWeb by January 31st of each year:
- 5.1.2.5.3 Project identification and contact information for the Lessee and for any operators or contractors involved;
- 5.1.2.5.4 The date and time of the release of Marine Debris;
- 5.1.2.5.5 The lease number, OCS area and block, and coordinates of the object's location (latitude and longitude in decimal degrees);
- 5.1.2.5.6 A detailed description of the released object(s), including dimensions (approximate length, width, height, and weight), composition (e.g., plastic, aluminum, steel,

wood, paper, hazardous substances, or defined pollutants), and buoyancy (floats or sinks);

- 5.1.2.5.7 Pictures, data imagery, data streams, and/or a schematic/illustration of the object, if available;
- 5.1.2.5.8 An indication of whether the released Marine Debris could be detected as a magnetic anomaly of greater than 50 nanotesla, a seafloor target of greater than 1.6 feet (0.5 m), or a sub-bottom anomaly of greater than 1.6 feet (0.5 m) when operating a magnetometer or gradiometer, side scan sonar, or sub-bottom profiler;
- 5.1.2.5.9 An explanation of the how the object was lost; and
- 5.1.2.5.10 A description of immediate recovery efforts and results, including photos.

5.1.2.6 Annual Surveying and Reporting, Periodic Underwater Surveys, Reporting of Monofilament and Other Fishing Gear Around WTG Foundations. The Lessee must monitor indirect impacts associated with charter and recreational fishing gear lost from expected increases in fishing around WTG foundations by annually surveying at least 10 of the WTGs in the Lease Area for the first 3 years following COP approval and every 5 years thereafter. The Lessee may conduct surveys by remotely operated vehicles, divers, or other means to determine the amount and locations of marine debris. The Lessee must report the results of the surveys to BOEM and BSEE in an annual report, submitted by January 31, for the preceding calendar year. The Lessee must submit annual reports in both Microsoft Word and Adobe PDF format. The Lessee must provide photographic and videographic materials (TIFF or Motion JPEG 2000) in TIMSWeb with the submittal of the annual report. The Lessee may submit photographic and videographic files to marinedebris@bsee.gov if the files cannot be uploaded in TIMSWeb. The Lessee may only modify survey design and effort (i.e., the number of WTGs and frequency of reporting) upon review and concurrence by BOEM and BSEE.

- 5.1.2.6.1 Annual reports must include a summary of the survey reports that includes survey date(s); contact information of the operator; 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). Annual reports must also include claim data attributable to the Project from the Lessee's corporate gear loss compensation policy and procedures. Required

data and reports may be archived, analyzed, published, and disseminated by BOEM and BSEE.

5.1.2.6.2 Site Clearance and Decommissioning. The Lessee must include and address information on unrecovered marine debris in the description of the site clearance activities provided in the decommissioning application required under 30 CFR § 285.906.

5.2 Avian and Bat Protection Conditions.

- 5.2.1 The Lessee must submit all required documents related to avian and bat protection conditions in Sections 5.2.2 through Section 5.2.13 to BOEM, to BSEE via TIMSWeb and notification email at protectedspecies@bsee.gov, and to USFWS. The Lessee must confirm the relevant point of contact before submitting the required documents and must also confirm that the agencies have received the documents.
- 5.2.2 Bird-Deterrent Devices and Plan. To minimize the attraction of birds that are prone to perching, the Lessee must, where safety permits, install bird perching deterrent device(s) on each WTG and ESP. The Lessee must submit for BOEM and BSEE approval a plan to deter perching on offshore infrastructure by roseate terns and other marine birds. The Lessee must resolve all comments on the Bird Perching Deterrent Plan to BOEM's and BSEE's satisfaction before the Lessee may begin installation of WTGs or ESPs. The Bird Perching Deterrent Plan must include the type(s) and locations of bird perching deterrent devices, include a maintenance plan for the life of the Project, allow for modifications and updates as new information and technology become available, track the efficacy of the deterrents, and include a timeline for installation. The plan will be based on best available science regarding the efficacy of perching deterrent devices on avoiding and minimizing collision risk. The Lessee must propose the location of bird deterrent devices based on Best Management Practices applicable to the appropriate operation and safe installation of the devices. The Lessee must submit the Bird Perching Deterrent Plan with the FIR. The Bird Perching Deterrent Plan must be approved before the Lessee may commence with installation of any WTGs or ESPs. The Lessee must also provide the location and type of bird-deterrent devices as part of the as-built submittals to BSEE.
- 5.2.3 Navigation Lighting Upward Illumination Minimization. Nothing in this condition supersedes or is intended to conflict with lighting, marking, and signaling requirements of FAA, USCG, or BOEM. The Lessee must use lighting technology that minimizes impacts on avian species to the extent practicable including lighting designed to minimize upward illumination. The Lessee must provide USFWS with a courtesy copy of the final Lighting, Marking, and Signaling plan, and the Lessee's approved application to USCG to establish PATON.

- 5.2.4 Avian and Bat Post-Construction Monitoring Program. The Lessee must develop and implement an Avian and Bat Post-Construction Monitoring Plan (ABPCMP) based on the New England Wind Avian and Bat Post-Construction Monitoring Framework (June 2023), in coordination with USFWS, and other relevant regulatory agencies. BOEM and BSEE will use annual monitoring reports to determine the need for adjustments to monitoring approaches and to consider new monitoring technologies, and/or additional periods of monitoring. Prior to or concurrent with offshore construction activities, including seabed preparation activities, the Lessee must submit an ABPCMP for BOEM, BSEE, and USFWS review. BOEM, BSEE, and USFWS will review the ABPCMP and provide any comments on the Plan to the Lessee within 60 days of its submittal. The Lessee must resolve all comments on the ABPCMP to BOEM's and BSEE's satisfaction before implementing the Plan and before commissioning the first WTG.
- 5.2.5 Monitoring. The Lessee must conduct monitoring as outlined in the New England Wind Avian and Bat Post-Construction Monitoring Framework (June 2023). In addition, the Lessee must monitor the action area for piping plovers and rufa red knots. The monitoring method(s) must be informed by the best available information and technology and could include boat-based monitoring, Motus stations, remote sensing, cameras, microphones, Doppler and Next Generation Weather Radar, environmental DNA, etc. The monitoring must occur during the time(s) of year when collisions are most likely. Initially, monitoring will proceed according to the Lessee's Avian and Bat Post-Construction Monitoring Framework and be operational for the first piping plover and rufa red knot migratory seasons after the WTGs are operational (see Monitoring and Reporting Requirements in USFWS BiOp). Subsequently, consideration of new methods and timing by BOEM and USFWS will occur on the same timeline as the Collision Minimization Report described in the Terms and Conditions of the August 30, 2023 USFWS BiOp unless BOEM and USFWS agree to a different schedule.
- 5.2.6 Annual Monitoring Reports. The Lessee must submit a comprehensive report after each full year of post-construction monitoring within 12 months of completion of the survey season (see addresses in Section 5.2.1). The report must include all data, analyses, and summaries regarding ESA-listed and non-ESA-listed birds and bats. In addition, the Lessee must report observations of injured or dead piping plovers and rufa red knots; any listed species perching on Project infrastructure (including offshore substations); implementation and effectiveness of avoidance and minimization measures; and any other relevant activity and information related to the proposed action and potential impacts to listed species (see Monitoring and Reporting Requirements in USFWS BiOp).
- 5.2.7 Post-Construction Quarterly Progress Reports. During the first 12 months that the Project is fully operational and commissioned (all installed WTGs producing power), the Lessee must submit quarterly progress reports concerning the implementation of the ABPCMP to BOEM, BSEE, and USFWS by the 15th day of the first month following the end of each quarter. The Lessee must include a

summary of all work performed, an explanation of overall progress, and any technical problems encountered.

- 5.2.8 Monitoring Plan Revisions. Within 30 days of submitting the annual monitoring report, the Lessee must meet with BOEM, BSEE, USFWS, and appropriate state wildlife agencies to discuss the monitoring results, the potential need for revisions to the ABPCMP, including technical refinements or additional monitoring, and the potential need for any additional efforts to reduce impacts. If, following that meeting, BOEM and BSEE, in consultation with USFWS, determine that revisions to the ABPCMP are necessary, the Lessee must modify the ABPCMP. If the reported monitoring results deviate substantially from the impact analysis included in the Final EIS,¹³ the Lessee must transmit to BOEM, BSEE, and USFWS recommendations for new mitigation measures and/or monitoring methods. In consultation with USFWS, BOEM and BSEE may adjust the frequency, duration, and methods for various monitoring efforts in future revisions of the ABPCMP based on current technology (including its cost), and the evolving weight of evidence regarding the likely levels of collision mortality for each listed bird species.
- 5.2.9 Operational Reporting. Upon commissioning of the first WTG, the Lessee must submit to BOEM and BSEE an annual report, due by January 31, summarizing monthly operational data from the preceding year, calculated from 10-minute supervisory control and data acquisition data, for all WTGs together in tabular format, including the proportion of time the WTGs were spinning each month, the average rotor speed (monthly revolutions per minute) of spinning WTGs plus 1 standard deviation, and the average pitch angle of blades (degrees relative to rotor plane) plus 1 standard deviation. Any data considered by the Lessee to be privileged or confidential must be clearly marked as confidential business information and will be handled by BOEM and BSEE in a manner consistent with 30 CFR § 585.114.
- 5.2.10 Raw Data. The Lessee must store the raw data from all avian and bat surveys and monitoring activities using accepted archiving practices. Such data must be accessible to BOEM, BSEE, and USFWS upon request for the duration of the Lease. The Lessee must work with BOEM to ensure the data are publicly available. The Lessee must store, manage, and make available all avian tracking data (i.e., from radio and satellite transmitters) to BOEM and USFWS following the protocols and procedures outlined in the USFWS document entitled, *Guidance for Coordination of Data from Avian Tracking Studies*, that is effective at time of COP approval.
- 5.2.11 Incidental Mortality Reporting. The Lessee must provide an annual report to BOEM, BSEE, and the 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

¹³ <https://www.boem.gov/renewable-energy/state-activities/new-england-wind-final-eis>

of the 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, available at <https://www.pwrc.usgs.gov/BBL/bblretrv/>. The Lessee must also submit to BOEM, BSEE, and USFWS an annual report covering each calendar year, due by January 31, documenting the implementation of any collision-prevention measures during the preceding year.

- 5.2.11.1 Immediate Reporting. Any occurrence of a dead or injured ESA-listed bird or bat in or within 1 mile of the New England Wind lease area must be reported to BOEM, BSEE, and USFWS (New England Field Office at newengland@fws.gov and 603-223-2541) as soon as practicable (taking into account crew and vessel safety), no later than 72 hours after the sighting and, if practicable, the dead specimen will be carefully collected and preserved in the best possible state. BOEM will coordinate with USFWS on procedures and required permits for processing and handling specimens.
- 5.2.12 Collision Minimization. Within 5 years of the commissioning of the first WTG and every 5 years thereafter for the operational life of the Project, the Lessee must provide BOEM with a review of best available scientific and commercial data on technologies and methods that have been implemented or are being studied to reduce or minimize bird collisions at WTGs. The review must be worldwide and include both offshore and onshore WTGs. This review will inform BOEM's Collision Minimization Report, consistent with Term and Condition 1b of the August 30, 2023 USFWS BiOp. Within 60 days of BOEM's issuance of the final Collision Minimization Report, the Lessee must participate in a meeting to discuss the report with BOEM, BSEE, USFWS, and appropriate state agencies.
- 5.2.13 Compensatory Mitigation for Piping Plover and Rufa Red Knot. At least 180 days prior to the start of commissioning of the first WTG, the Lessee must distribute a Compensatory Mitigation Plan to BOEM, BSEE, and the USFWS for review and comment. BOEM, BSEE, and USFWS will review the Compensatory Mitigation Plan and provide any comments on the Plan to the Lessee within 60 days of its submittal. The Lessee must resolve all comments on the Compensatory Mitigation Plan to BOEM's and BSEE's satisfaction before implementing the plan and before commissioning of the first WTG. The Compensatory Mitigation Plan must provide compensatory mitigation actions to offset take of Piping Plover and rufa Red Knot by the fifth year of WTG operation. The Compensatory Mitigation Plan must include a) a detailed description of the mitigation measures; b) the specific location for each mitigation action; c) a timeline for completion of the mitigation actions; d) itemized costs for implementing the mitigation actions; e) details of the mitigation mechanisms (e.g., mitigation agreement, applicant-proposed mitigation); and f) monitoring to ensure the effectiveness of the mitigation actions in offsetting take.

5.2.14 Piping Plover Protection Plan. The Lessee must develop and implement a Piping Plover Protection (PPP) Plan, consistent with Conservation Measure 7 in the August 30, 2023 USFWS BiOp. Following demobilization of construction equipment, and by January 31, the Lessee must provide a copy of the summary of field reports from nest monitoring activities to BOEM, BSEE, and USFWS.

5.3 Pre-Seabed Disturbance Conditions.

5.3.1 The Lessee must submit all required documents related to pre-seabed disturbance and specified in Section 5.3.2 to BOEM and BSEE.

5.3.2 Anchoring Plan. The Lessee must prepare and implement an Anchoring Plan(s) for all areas where anchoring or buoy placement occurs and jack-up barges are used during construction and operations/maintenance within 1,640 ft (500 m) of habitats, resources, and submerged infrastructure that are sensitive, including sensitive benthic habitats; boulders greater than or equal to 0.5 m; ancient submerged landform features (ASLFs); known and potential shipwrecks; potentially significant debris fields; potential hazards; third-party infrastructure, and any related facility installation activities (such as cable, WTG, and ESP installation). Avoidance buffers must be consistent with the following: exclusion zones for potential and confirmed UXOs consistent with risks identified in the MEC/UXO Desktop Study (Section 2.1) and relative to risks of planned activities; avoidance of cultural resources and shipwrecks and ASLFs will be consistent with Section 7.1.6.

The Lessee must provide to all construction and support vessels the locations where anchoring or buoy placement must be avoided to the extent technically and/or economically practicable or feasible, including sensitive benthic habitats, boulders greater than or equal to 0.5 m, ASLFs, known and potential shipwrecks, potentially significant debris fields, potential hazards, and any related facility installation activities (such as cable, WTG, and ESP installation). If avoidance and minimization is determined to be infeasible, the plans must describe in detail the rationale for such infeasibility. Dynamic positioning systems should be used in these areas instead of anchoring, as practicable. If anchoring is necessary at these locations, then all vessels deploying anchors must extend the anchor lines to the extent practicable to minimize the number of times the anchors must be raised and lowered to reduce the amount of habitat disturbance, unless the anchor chain sweep area includes sensitive benthic habitat that may be impacted by the chain sweep. On all vessels deploying anchors, the Lessee must use mid-line anchor buoys to reduce the amount of anchor chain or line that touches the seabed, unless the Lessee demonstrates, and BOEM and BSEE accept, that (1) the use of mid-line anchor buoys to reduce the amount of anchor chain or line that touches the seabed is not technically practical or feasible; or (2) a different alternative is as safe and provides the same or greater environmental protection.

If placement of jack-up barge spud cans is necessary in sensitive benthic habitats, locations for the spud cans must be selected to avoid or minimize

impacts according to the following list, including complex habitat sub-types (using NMFS complexity categories), prioritized from highest to lowest priority: complex habitats with high density large boulders, complex habitats with medium density large boulders, complex habitats with low density large boulders, complex habitats with scattered large boulders, complex habitats with no large boulders, as technically feasible and practicable. Benthic habitat (NOAA complexity categories) and benthic feature/habitat type maps in conjunction with backscatter, bathymetry, and boulder layers should be used to inform the anchoring plan. In the event of any misalignment in avoidance buffers described above with any other permits or authorizations, please refer to Section 1.4.

5.3.2.1 The Lessee must provide the proposed Anchoring Plan to BOEM and BSEE for the agencies' 60-day review (in coordination with NMFS GARFO-HESD) at least 120 days before anchoring activities or construction begins for export and inter-array cables. The Lessee must resolve all comments on the Anchoring Plan to BOEM's and BSEE's satisfaction before conducting any OCS seabed-disturbing activities that require anchoring. If there are fewer than 120 days between anchoring activities and this COP approval, the Lessee must submit the Plan as soon as practicable and no later than 60 days prior to commencing activities. The Lessee must provide the final version of each Anchoring Plan to BOEM, BSEE, NMFS GARFO-HESD, and USACE.

5.4 Boulder Identification and Relocation Plan. The Lessee must submit a Boulder Identification and Relocation Plan(s) to BOEM and BSEE for the agencies' 60-day review (in coordination with NMFS GARFO-HESD), 120 days prior to boulder relocation activities within the scope of the Plan. The Lessee must resolve all comments on the Boulder Identification and Relocation Plan to BOEM's and BSEE's satisfaction prior to implementation of the plan. If BOEM or BSEE do not provide comments on the Plan within 60 days of its submittal, then the Lessee may presume concurrence with the Plan. Concurrence with the Plan will be determined by BSEE. The Plan(s) must detail how the Lessee will avoid or minimize impacts to sensitive benthic habitats¹⁴ and fishing operations. The Plan(s) must provide for relocation of boulders as closely as practicable to the original location, in areas of soft bottom that are immediately adjacent to existing similar habitat from which the boulder originated. The Plan(s) must include multibeam backscatter data and boulder (greater than or equal to 0.5 m in diameter) data layers to inform the siting of boulders and areas for relocation. The Plan must include sufficient scope to mitigate boulders for facility installation and operational risks. The plan must be

¹⁴ Sensitive benthic habitats include complex habitat, benthic features, and bathymetric features, Complex habitat is defined as coarse unconsolidated mineral substrates (i.e., substrates containing 5 percent or greater gravels), rock substrates (e.g., bedrock), and shell substrates (e.g., mussel reef) consistent with Coastal and Marine Ecological Classification Standards definitions, as well as vegetated habitats (e.g., SAV). Benthic features are defined as sand waves, megaripples, and ripples. Bathymetric features are defined as topographic features of the seafloor such as lumps, scarps, ledges, and banks.

consistent with and meet the conditions of the SMS in Section 2.8. The Plan must include the following for boulders that are proposed to be relocated:

- 5.4.1 A summary and detailed description of locations along the cable routes and WTG areas where surface and subsurface boulders greater than 0.5 m in diameter have been found.
- 5.4.2 A detailed summary of methodologies used in boulder identification, including geological and geophysical survey results;
- 5.4.3 Figures of the location of boulder relocation activities specified by activity type (e.g., pick or plow, removal, or placement). Separate submissions of these depictions overlaid on multibeam bathymetry and backscatter data and fishing activity data must also be submitted;
- 5.4.4 A description of boulder removal and/or relocation methods for each type of boulder relocation activity and technical feasibility constraints, including, but not limited to, the capacity of the crane used in grab systems, vessel specifications and metocean limits on operations;
- 5.4.5 The areal extent of the environmental footprint of disturbance activities by habitat type and specific measures taken to avoid further adverse impacts to archaeological resources, complex habitat and fishing activity, and a description of how information regarding these resources is shared with vessel operators;
- 5.4.6 A comprehensive list and shapefile of locations of boulders that would be relocated (latitude, longitude), boulder dimensions (m), buffer radius (m), areas of active (within last 5 years) fishing (latitude, longitude), areas where boulders greater than 2 m in diameter are anticipated to occur (latitude, longitude), and identification of approximate areas to which boulders would be relocated (latitude, longitude);
- 5.4.7 The specific strategies and measures taken to minimize the impacts to complex habitats and quantity of seafloor obstructions from relocated boulders in areas of active fishing, as technically and/or economically feasible;
- 5.4.8 A description of safety distances or zones to limit boulder relocation activities near third party assets;
- 5.4.9 A description of MEC/UXO ALARP Certified areas, which should be consistent with MEC/UXO ALARP Certification (Section 2.4);
- 5.4.10 A summary of any consultation and outreach with resource agencies and the fishing industry in the development of the plan (e.g., notifications to mariners); and
- 5.4.11 A statement of consistency with the Micrositing Plan (Section 5.7).

- 5.4.12 The Lessee must provide USCG, NOAA, and the local harbormaster with a comprehensive list and shapefile of positions and areas to which boulders greater than 2 m would be relocated (latitude, longitude) at least 60 days prior to boulder relocation activities.
- 5.5 Boulder Relocation. The Lessee must implement methods identified in the approved COP and described in the Boulder Identification and Relocation Plan (Section 5.4) for boulder relocation activities. The Lessee must consider the spatial extent of boulder relocation in the micrositing of WTGs and ESP foundations and inter-array and export cables for this Project and must relocate boulders as closely as practicable to the original location, in areas of soft bottom (i.e., low backscatter areas) immediately adjacent to existing similar habitat. The relocation of boulders must be consistent with the Project easement.
- 5.6 Boulder Relocation Report. The Lessee must provide a Boulder Relocation Report to BSEE, BOEM, NMFS GARFO-HESD, and the approved CVA. The report must include a post-relocation summary of the boulder relocation activities and information to certify boulder risks related to the installation and operation of the facility have been properly mitigated. The report must also identify boulders that could not be relocated with documentation of technical feasibility concerns, including information on how, if at all, the final boulder placement differs from the Boulder Relocation Plan and why such changes were necessary. The report must be submitted within 60 days of completion of the boulder relocation activities and prior to or with the relevant FIR. The Lessee must also provide BOEM and BSEE a comprehensive list and shapefile of boulder locations to which boulders were relocated (latitude, longitude), boulder dimensions (m), any safety distances or zones to limit boulder relocation near third-party assets (m), and areas of active (within last 5 years) fishing (i.e., as a raster file for use in ArcGIS).
- 5.7 Micrositing Plan(s). The Lessee must prepare and implement a Micrositing Plan(s) that describes how inter-array cables, export cable routes, WTGs, and ESPs will be microsited to avoid or minimize impacts (as technically and/or economically practicable or feasible) to archaeological resources (Sections 7.1.4 and 7.1.5), sensitive benthic habitats, boulders greater than or equal to 0.5 m in diameter, and potential and confirmed MEC/UXO. The plan(s) must describe MEC/UXO ALARP Certified areas, which should be consistent with MEC/UXO ALARP Certification (Section 2.4). To the extent practicable, cables should cross sensitive benthic habitat areas perpendicularly at the narrowest points; cables unable to avoid benthic features such as sand waves should be sited along natural benthic contours within troughs/lows, to maximize cable burial while minimizing disturbance to local submarine topography. The Lessee must submit detailed supporting data and analysis as part of the FDR or FIR, including relevant geophysical and geospatial data. The submission of the data may be incorporated by reference or submitted as an attachment to the FDR or FIR. The Micrositing Plan(s) must be consistent with, Cable Routings (Section 2.11) and the Boulder Identification and Relocation Plan(s) (Section 5.4).
- 5.7.1 The Micrositing Plan(s) must include a figure for each microsited cable segment, including benthic habitat delineations showing sensitive benthic habitat and locations of boulders greater than or equal to 0.5 m in diameter. The Plans must

include a figure encompassing the lease area, depicting large boulder locations, benthic habitat delineations, and the proposed microsited locations for cables, WTGs, and ESPs. Benthic habitat and benthic feature/habitat type (defined in 5.7.1.1) maps in conjunction with backscatter, bathymetry, and boulder layers should be used to inform the Micrositing Plan.

5.7.1.1 For cables, ESPs, and/or WTGs that cannot be microsited to avoid impacts to sensitive benthic habitat or boulders greater than or equal to 0.5 m in diameter, the Micrositing Plan must identify technically and/or economically practicable or feasible impact minimization measures and use the following prioritized list, including complex habitat sub-types using the following NMFS complexity categories: (i) complex habitats; (ii) heterogeneous complex habitats; (iii) biogenic habitat (i.e., clam beds); and (iv) areas with benthic features (e.g., sand waves) or bathymetric features (e.g., ridge crest, ridge flank, swale/trough/depression).

5.7.2 The Lessee must submit the Micrositing Plan(s) to BOEM and BSEE for a 60-day review (in coordination with NMFS GARFO-HESD), 120 days prior to site preparation activities for cables, WTGs, and ESP(s) within the scope of the Plan. The Lessee must resolve all comments on the Micrositing Plan(s) to BOEM's and BSEE's satisfaction prior to implementation of each plan(s). If there are fewer than 120 days between site preparation activities and this COP approval, the Lessee must submit the Plan as soon as practicable and no later than 60 days prior to commencing activities. The Lessee must provide the final version of each Micrositing Plan to BOEM, BSEE, NMFS, and USACE. Additionally, the Plan must describe how information regarding sensitive benthic habitats is shared with vessel operators.

5.8 Scour and Cable Protection Plan. The Lessee must prepare and implement a Scour and Cable Protection Plan(s) that includes descriptions and specifications for all scour and cable protection materials. The Plan(s) must include a depiction of the location and extent of cable protection, the habitat delineations for the areas of cable protection measures, and detailed information on the proposed scour or cable protection materials for each area and habitat type. The Scour and Cable Protection Plan(s) must demonstrate consistency with the Micrositing Plan(s), as appropriate.

5.8.1 The Lessee must avoid the use of engineered stone or concrete mattresses in complex habitat, as practicable and feasible. The Lessee must ensure that all materials used for scour and cable protection measures consist of natural or engineered stone that does not inhibit epibenthic growth and provides three-dimensional complexity in height and in interstitial spaces, and mimics natural seafloor substrates as practicable and feasible. If concrete mattresses are necessary, bioactive concrete (i.e., with bio-enhancing admixtures) must be used as practicable as the primary scour protection (e.g., concrete mattresses) or the concrete mattresses could be covered with a veneer to support biotic growth.

- 5.8.2 Cable protection measures must have tapered or sloped edges to reduce hangs for mobile fishing gear. The Lessee must avoid the use of plastics/recycled polyesters/net material (i.e., rock-filled mesh bags, fronded mattresses) for scour protection.
- 5.8.3 The Lessee must submit the Scour and Cable Protection Plan(s) to BOEM and BSEE for a 60-day review (in coordination with NMFS GARFO-HESD), at least 120 days prior to placement of scour and cable protection within the area covered by the scope of the Plan(s). BOEM and BSEE must concur with the Scour and Cable Protection Plan(s) prior to BSEE issuing a no-objection to an FDR covering the scour and/or cable protection materials.
- 5.8.4 The Lessee must resolve all comments on each Plan to BOEM's and BSEE's satisfaction before placement of the scour and cable protection materials. The Lessee must provide the final version of the Scour and Cable Protection Plan(s) to BSEE, NMFS, and USACE.

5.9 Benthic Habitat and Fisheries Monitoring Conditions.

- 5.9.1 Post Installation Micrositing Report. The Lessee must provide a post-installation Micrositing Report to BOEM and BSEE for coordination with NMFS GARFO-HESD. The report must include a summary of the micrositing activities for WTGs, ESPs, inter-array cables, and the export cable and demonstrate (i.e., figures of as-built locations overlaid on multibeam echosounder backscatter survey data) how impacts to complex habitats and benthic features were avoided and/or minimized within the lease area and export cable corridors. The report must also identify and depict (i.e., figures) areas in which WTGs, ESPs, or cables could not be microsited to avoid complex habitats with a description of the complex habitat sub-types impacted (see prioritized list of complex habitat sub-types listed under the Micrositing Plan (Section 5.7) and include documentation of technical feasibility issues encountered. The report must be submitted within 60 days of completion of all WTG, ESPs, and cable installations. The Lessee must also provide BOEM, BSEE, and NMFS GARFO-HESD a shapefile of as-built WTGs, ESPs, inter-array cables, and the export cables, as well as best-available multibeam echosounder backscatter survey data (i.e., as a raster file for use in ArcGIS).
- 5.9.2 Berm Survey and Remediation Plan. Where plows, jets, grapnel runs, or other similar methods are used, post-construction geophysical surveys required as part of the Post-Installation Cable Monitoring must be capable of detecting bathymetry changes of 0.5 m or less and must be completed to determine the height and width of any created berms. The Lessee must capture bathymetry changes greater than 3 ft during the first and second post-installation surveys along the cable routes (as described in Section 2.11). If there are bathymetric changes in berm height greater than 1 m above grade after the second survey, the Lessee must develop and implement a Berm Remediation Plan to restore created berms to match adjacent natural bathymetric contours (isobaths), as technically

and/or economically practical or feasible. The Lessee must submit the Berm Remediation Plan to BOEM and BSEE for a 60-day review (in coordination with NMFS GARFO-HESD) within 90 days of completion of the post-construction survey where the change was detected. The Lessee must resolve all comments on the Berm Remediation Plan to BOEM's and BSEE's satisfaction prior to initiating restoration activities. The Lessee must provide the final version of the Berm Remediation Plan to BOEM, BSEE, NMFS GARFO-HESD, and USACE.

- 5.9.3 Benthic Habitat Monitoring Plan (BHMP). The Lessee must conduct benthic habitat monitoring consistent with the Lessee's BHMP (Appendix III-U of the COP) dated February 2024 as applicable to Phase 2 and as identified in the BHMP to assess benthic habitat in the Project area pre-, during, and post-construction. The Lessee must submit any revisions to the BHMP to BOEM, to BSEE with status updates of submittals in the Annual Certification, and to NMFS GARFO-HESD. The Lessee must also submit benthic monitoring plan reports and resulting data to NMFS GARFO-HESD.
- 5.9.4 Conditions for Trawl Surveys. The Lessee must ensure that deployment and submission requirements for observers on trawl surveys are followed according to Term and Condition 12 of the February 16, 2024, NMFS BiOp.
- 5.9.5 Sacrificial Anodes. To the extent it is technically and economically feasible, the Lessee must avoid using Zinc sacrificial anodes on external components of WTG and ESP foundations to reduce the release of metal contaminants in the water column.
- 5.9.6 UXO Detonation Prohibition. The Lessee must not commence UXO detonation until BOEM has notified the Lessee that all necessary MSA Essential Fish Habitat consultations addressing this action have concluded. The Lessee must also implement any conservation recommendations adopted by BOEM as part of the reinitiated consultation.
- 5.10 Non-Avian Protected Species Monitoring Plan Conditions.¹⁵
 - 5.10.1 The Lessee must submit all required documents related to protected species in accordance with all the Terms and Conditions of the February 16, 2024, NMFS BiOp (e.g., marine mammal and sea turtle monitoring plan, nighttime monitoring plan, passive acoustic monitoring (PAM), sound field verification (SFV), UXO detonation plan, and vessel strike avoidance plan). All documents must be submitted to BOEM, BSEE, NMFS GARFO-PRD, NMFS-OPR, and USACE. The Lessee must follow final plans.

¹⁵ The requirements in this section set forth BOEM's conditions pursuant the reasonable and prudent measures and the implementing terms and conditions of the NMFS Biological Opinion. *See* Reasonable and Prudent Measure 5 and Term and Condition 13, in the Incidental Take Statement. BOEM intends to implement its conditions of approval, including those in this section, consistently with the Terms and Conditions in the Biological Opinion. *See*, Section 1.4, above.

- 5.10.2 If BOEM and BSEE inform the Lessee the plan is inconsistent with the ITS and NMFS BiOp, the Lessee must submit a modified plan that addresses the identified issues within 30 days of the receipt of the comments but at least 15 days before the start of the associated activities for which a plan is required. BOEM, BSEE, and NMFS will review the modified plan within the Lessee's proposed schedule to the maximum extent practicable. The Lessee must obtain BOEM's and BSEE's concurrence with the Plan(s) prior to the start of any specified activity.
- 5.11 Vessel Strike Avoidance Conditions and Plan Conditions. The Lessee must comply with the following vessel strike avoidance conditions for any construction, operations, or decommissioning vessel transits associated with the Project, unless the safety of the vessel or crew necessitates deviation from these requirements. The Lessee must report any such deviations as set forth in Section 5.11.16 (Vessel Strike Avoidance Plan).
- 5.11.1 Regardless of vessel size, vessel operators must reduce vessel speed to 10 knots (kts) (18.5 mph) or less while operating in any Seasonal Management Area (SMA) and Dynamic Management Area (DMA) or Slow Zone for North Atlantic right whales (NARWs), unless the vessel is operating in a designated DMA or Slow Zone where right whales have not been detected and it is not reasonable to expect the presence of NARWs (e.g., Long Island Sound, shallow harbors).
- 5.11.2 Vessel captain and crew must maintain a vigilant watch for all protected species and reduce speed, stop their vessel, or alter course, as appropriate and regardless of vessel size, to avoid striking any protected species. The presence of a single individual at the surface may indicate the presence of submerged animals in the vicinity; therefore, precautionary measures should always be exercised. If pinnipeds or small delphinids of *Delphinus*, *Lagenorhynchus*, *Stenella*, or *Tursiops* are visually detected approaching the vessel (i.e., to bow ride) or towed equipment, vessel speed reduction, course alteration, and shutdown are not required.
- 5.11.3 If a vessel is underway, a Protected Species Observer (PSO) must monitor a protected species separation distance of 100 m for sea turtles and 500 m or greater for marine mammals visible at the surface, to ensure detection of that animal in time to take necessary measures to avoid striking the animal. If the vessel does not require a PSO for the type of activity being conducted, crew may be used as a Trained Lookout to meet this requirement.
- 5.11.4 All vessel crew members must be briefed in the identification of protected species that may occur in the survey area and in regulations and best practices for avoiding vessel collisions. Reference materials must be available aboard all project vessels for identification of listed species. The expectation and process for reporting of protected species sighted during surveys must be clearly communicated and posted in highly visible locations aboard all project vessels, so that there is an expectation for reporting to the designated vessel contact (such

as the lookout or the vessel captain), as well as a communication channel and process for crew members to do so.

- 5.11.5 A minimum separation distance of 500 m from all ESA-listed whales (including unidentified large whales) must be maintained around all surface vessels at all times.
- 5.11.6 If a large whale is identified within 500 m of the forward path of any vessel, the vessel operator must steer a course away from the whale at 10 kts (18.5 kilometers (km) per hour (km/hr)) or less until the 500 m minimum separation distance has been established. Vessels may also shift to idle if feasible.
- 5.11.7 If a large whale is sighted within 200 m of the forward path of a vessel, the vessel operator must reduce speed and shift the engine to neutral. Engines must not be engaged until the whale has moved outside of the vessel's path and beyond 500 m. If stationary, the vessel must not engage engines until the large whale has moved beyond 500 m.
- 5.11.8 If a sea turtle or manta ray is sighted at any distance within the operating vessel's forward path, the vessel operator must slow down to 4 kts and steer away (unless unsafe to do so). The vessel may resume normal vessel operations once the vessel has passed the turtle or ray.
- 5.11.9 For all vessels operating north of the Virginia/North Carolina border, between June 1 and November 30, the Lessee must have a trained lookout posted on all vessel transits during all phases of the Project to observe for sea turtles. For all vessels operating south of the Virginia/North Carolina border, year-round, the Lessee must have a trained lookout posted on all vessel transits during all phases of the Project to observe for sea turtles. The trained lookout must communicate any sightings, in real time, to the captain so that the requirements in Sections 5.11.10 through 5.11.16 below can be implemented. The trained lookout must communicate any sightings, in real time, to the captain.
- 5.11.10 The trained lookout must monitor <https://seaturtlesightings.org/> prior to each trip and report any observations of sea turtles in the vicinity of the planned transit to all vessel operators/captains and lookouts on duty that day.
- 5.11.11 The trained lookout must maintain a vigilant watch and monitor a 500 m Vessel Strike Avoidance Zone at all times to avoid potential vessel strikes of ESA-listed sea turtle species. Alternative monitoring technology (e.g., night vision, thermal cameras, etc.) must be available and utilized by the lookout to ensure effective watch at night and in any other low visibility conditions. If the trained lookout is a vessel crew member, this must be their designated role and primary responsibility while the vessel is transiting. Any designated crew lookouts must receive training on protected species identification, vessel strike minimization procedures, how and when to communicate with the vessel captain, and reporting requirements.

- 5.11.12 If a sea turtle is sighted within 100 m or less of the operating vessel's forward path, the vessel operator must slow down to 4 kts (unless unsafe to do so) and then proceed away from the turtle at a speed of 4 kts or less until there is a separation distance of at least 100 m at which time the vessel may resume normal operations. Vessel transits to and from the Project Area that require PSOs must maintain a speed that will allow, taking into account weather conditions, effective detection of sea turtles prior to reaching the 100 m avoidance measure. If a sea turtle is sighted within 50 m 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 kts. The vessel may resume normal operations once it has passed the turtle.
- 5.11.13 Vessel captains/operators must avoid transiting through areas of visible jellyfish aggregations or floating sargassum lines or mats. In the event that operational safety prevents avoidance of such areas, vessels must slow to 4 kts while transiting through such areas.
- 5.11.14 All vessel crew members must be briefed in the identification of sea turtles and in regulations and best practices for avoiding vessel collisions. Reference materials must be available aboard all Project vessels for identification of sea turtles. The expectation and process for reporting of sea turtles (including live, entangled, and dead individuals) must be clearly communicated and posted in highly visible locations aboard all Project vessels, so that there is an expectation for reporting to the designated vessel contact (such as the lookout or the vessel captain), as well as a communication channel and process for crew members to do so.
- 5.11.15 If a vessel is carrying a PSO or trained lookout for the purposes of maintaining watch for NARWs, an additional lookout is not required and this PSO or trained lookout must maintain watch for whales and sea turtles.
- 5.11.16 The Lessee must submit a Vessel Strike Avoidance Plan no later than 180 days prior to the planned mobilization of any vessels operated by or under contract by the Lessee (NMFS BiOp Term and Condition 13e). An additional plan for the transit corridor is required to describe any visual or PAM measures that will be implemented for any vessel that proposes to travel above 10 kts within the transit corridor. Consistent with the requirements of the MMPA Final Rule/LOA and the February 16, 2024 NMFS BiOp, unless and until this section of the Vessel Strike Avoidance Plan is reviewed by NMFS-OPR and NMFS GARFO-PRD, all vessels transiting between the operations and maintenance facility and the Lease Area, year-round, must comply with the 10-knot speed restriction. The Lessee must prepare a plan (a standalone plan or supplement to a Vessel Strike Avoidance Plan) that describes: the location of each transit corridor (with a map); how PAM, in combination with visual observations, will be conducted to ensure highly effective monitoring for the presence of right whales in the transit corridor; and the protocols that will be in place for vessel speed restrictions following detection of a right whale via PAM or visual observation. The Lessee

must provide this plan at least 180 days in advance of planned deployment of the PAM system (see NMFS BiOp Term and Condition 13). Plans must be submitted to BOEM, BSEE, and NMFS GARFO-PRD. The Lessee must receive approval from BOEM and BSEE before implementation.

5.11.17 Protected Species Observer Requirements. 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, consistent with identified requirements.

5.11.17.1 All vessels must have a visual observer on board who is responsible for monitoring the vessel strike avoidance zone for marine mammals and sea turtles. Visual observers may be PSO or crew members, but the Lessee must provide crew members responsible for these duties with sufficient training to distinguish marine mammals and sea turtles from other phenomena and must be able to identify a marine mammal as a NARW, other whale (defined in this context as sperm whales or baleen whales other than NARW), or other marine mammal, as well as identify sea turtles. Crew members serving as visual observers must not have other duties while observing for marine mammals when the vessel is operating over 10 kts.

5.11.18 Vessel Communication of Marine Protected Species Sightings. The Lessee must ensure that whenever multiple Project vessels are operating, any detections of marine protected species (endangered and threatened species and marine mammals) are communicated in near real time to these personnel on the other Project vessels: PSOs, vessel operators, or both.

5.11.18.1 Year-round, all vessel operators must monitor the Project's Situational Awareness System, WhaleAlert, USCG Very High Frequency Channel 16, and the Right Whale Sighting Advisory System for the presence of NARWs once every 4-hour shift during Project-related activities. The PSO and PAM operator monitoring teams for all activities must also monitor these systems no less frequently than every 12 hours. If a vessel operator is alerted to a NARW detection within the Project area, the operator must immediately convey this information to the PSO and PAM teams. For any UXO/MEC detonation, vessel operators must monitor these systems for 24 hours prior to detonating any UXO/MEC.

5.11.18.2 The Lessee's staff or contractor, including vessel crew, must communicate immediately observations of any large whale to PSOs and all vessel operators to increase situational awareness.

- 5.12 Passive Acoustic Monitoring During Construction. The Lessee must conduct PAM to supplement visual monitoring of marine mammals before, during, and after all WTG foundation and ESP installations and UXO/MEC detonations.
- 5.13 Clearance and Shutdown Zones. Pile driving will not proceed unless the visual PSOs can effectively monitor the full extent of the minimum visibility zones and identified clearance zones for marine mammals and sea turtles. The Lessee will not proceed with pile driving unless the visual PSOs can effectively monitor the full extent of the minimum visibility zones. The Lessee must not proceed with UXO/MEC detonation unless the entirety of the clearance zone is visible to the PSOs. Detection of an animal within the clearance zone triggers a delay of initiation of pile driving or UXO/MEC detonation and detection of an animal in the shutdown zone triggers the identified shutdown requirements. The Lessee must establish and monitor the following clearance and shutdown zones for the specified activity unless otherwise approved by BOEM and BSEE (in consultation with NMFS).

Table 5.11.18-1: Clearance and Shutdown Zones for Pile Driving and UXO Detonation

Species ¹	Clearance Zone (m)	Shutdown Zone (m)
Monopile Foundation Installation – visual PSOs and PAM		
Minimum visibility zone from each PSO platform (pile driving vessel and at least one PSO vessel): 2,100 m monopile; PAM monitoring out to 12,000 m		
North Atlantic right whale (visual and PAM monitoring)	At any distance (Minimum visibility zone (2.1 km for monopiles) plus any additional distance observable by the visual PSOs on all PSO platforms); At any distance within the 12 km zone monitored by PAM	At any distance (Minimum visibility zone (2.1 km for monopiles) plus any additional distance observable by the visual PSOs on all PSO platforms); At any distance within the 12 km zone monitored by PAM
Blue, Fin, sei, and sperm whale (visual and PAM monitoring/detection)	3,300	2,700
Sea Turtles (visual detection)	250	250
Jacket Foundation Installation – visual PSOs and PAM		
Minimum visibility zone from each PSO platform (pile driving vessel and at least one PSO vessel): 3,400 m jacket foundations; PAM monitoring out to 12,000 m		
North Atlantic right whale (visual and PAM monitoring)	At any distance (Minimum visibility zone (3.4 km) plus any additional distance observable by the visual PSOs on all PSO platforms); At any distance within the 12 km zone monitored by PAM	At any distance (Minimum visibility zone (3.4 km) plus any additional distance observable by the visual PSOs on all PSO platforms); At any distance within the 12 km zone monitored by PAM
Blue, Fin, sei, and sperm whale (visual and PAM monitoring/detection)	4,900	4,100
Sea Turtles (visual detection)	250	250
UXO Detonations – Entirety of clearance zone must be visible; PAM monitoring out to 12,000 m		
North Atlantic right whale (visual and PAM monitoring)	At any distance observable by the visual PSOs on all PSO platforms; At any distance within the 12 km zone monitored by PAM	N/A

Species ¹	Clearance Zone (m)	Shutdown Zone (m)
Blue, Fin, sei whale (visual and PAM monitoring)	2,500-10,000 m ²	N/A
Sperm whale	500-2,000 m ²	N/A
Sea Turtles	500 m	N/A

Notes:

- ¹ The clearance and shutdown zones for non-ESA-listed marine mammals will be identified in the LOA issued by NMFS under the MMPA.
- ² The clearance zones, which are visually and acoustically monitored, for UXO/MEC detonations were derived based on an approximate proportion of the size of the Level B harassment temporary threshold shift (TTS) isopleth. The clearance zone sizes are contingent on the Lessee being able to demonstrate that it can identify charge weights in the field; if they cannot identify the charge weight sizes in the field then the Lessee would need to assume the E12 charge weight size for all detonations and must implement the E12 clearance zone.

- 5.13.1 Noise Abatement Systems. The Lessee must employ noise abatement systems during all foundation installation (pile driving and drilling activities) and UXO/MEC detonation events and operate such systems in a manner that achieves maximum noise attenuation levels practicable, but, at minimum, results in noise levels equal to or less than those modeled assuming 10 decibels (dB) attenuation. The Lessee must inspect and carry out appropriate maintenance on the noise attenuation systems (NAS) prior to every foundation installation event (i.e., for each pile driven foundation) and UXO detonation and submit performance reports in accordance with Term and Condition 5 of the February 16, 2024, NMFS BiOp.
- 5.13.2 The Lessee must follow pre-clearance, soft start, shutdown, and restart procedures according to the Terms and Conditions and Appendix A of the February 16, 2024, NMFS BiOp and the final MMPA Incidental Take Authorization.
- 5.13.3 Adaptive Monitoring Conditions. The purpose of the SFV plan is to ensure that the Lessee does not exceed the distances to the auditory injury (i.e., harm) or behavioral harassment threshold (Level A and Level B harassment respectively) for marine mammals, the harm or behavioral harassment thresholds for sea turtles, or the harm or behavioral disturbance thresholds for Atlantic sturgeon that are identified in the February 16, 2024 NMFS BiOp. The Lessee must monitor through SFV and the required reporting, adaptive attenuation measures, and monitoring measures consistent with Terms and Conditions 2, 4, 7, and 13 of the NMFS BiOp issued under the ESA and requirements of the LOA issued under the MMPA. The Lessee must send all raw SFV PAM data to the National Centers for Environmental Information (NCEI) Passive Acoustic Data archive within 12 months following the completion of WTG/ESP foundation installation and the Lessee must follow NCEI guidance for packaging the data and metadata unless such submission conflicts with conditions in Section 4, in which case the language in Section 4 will govern the submission of PAM data.

5.13.4 Long-term PAM. The Lessee must conduct long-term monitoring of ambient noise and baleen whales, and commercially important fish vocalizations in the Lease Area before, during, and following construction. The Lessee must conduct continuous¹⁶ recording at least one year before the start of pile installation, through pile installation, initial operation, and for at least 3 but no more than 10 full calendar years of operations¹⁷ to monitor for potential impacts. The Lessee must meet with BOEM and BSEE at least 60 days prior to conclusion of the third full calendar year of operation monitoring (and at least 60 days prior to the conclusion of each subsequent year until monitoring is concluded) to discuss: 1) monitoring conducted to-date, 2) the need for continued monitoring, which need will be determined by BOEM, and 3) if monitoring is continued, whether adjustments to the monitoring are warranted. The monitoring instrument(s) must be configured to ensure that the specific locations (with confidence intervals) of vocalizing NARW anywhere within the lease area can be identified, assuming a 10 km detection range for their calls. The Lessee may satisfy this condition through either of the options set forth more fully below but must notify BOEM of its choice at least 120 days before pile driving is scheduled to begin. PAM deployment and data submission requirements of this Section must be consistent with Section 4. In the case where there is a conflict, the Lessee must follow the language in Section 4.

5.13.4.1 Option 1 - Lessee Conducts Long-term Passive Acoustic Monitoring. If the Lessee chooses to comply with Section 5.5.6 using this option, the Lessee must conduct PAM, including data processing and archiving following the Regional Wildlife Science Collaborative (RWSC) best practices¹⁸ to ensure data comparability and transparency. PAM instrumentation must be deployed to allow for identification of any NARW that vocalize anywhere within the lease area, as well as Atlantic cod.

The sampling rate (minimum 10 kHz) of the recorders must prioritize baleen whale detections but must also have a minimum capability to record noise from vessels, pile-driving, and WTG operation in the lease area. The system must be configured for continuous recording over the entire year. If temporal gaps in recording are expected, the Lessee must ensure that additional recorders can be deployed to fill gaps. The Lessee must use trawl-resistant moorings to ensure that instruments are not lost and must replace any lost instruments as soon as possible. The Lessee must also notify BOEM if this occurs.

The Lessee must follow the best practices outlined in the RWSC best

¹⁶ Continuous recording in this measure recognizes that PAM devices can be damaged or lost from weather and other ocean uses, mechanical failures, and general maintenance. The Lessee must make every effort to maintain the PAM system as near continuous as possible. If temporal gaps in recording are expected, the lessee must ensure that additional recorders can be deployed to fill gaps.

¹⁷ For the purposes of this condition, operation initiates with the commissioning of the first WTG.

¹⁸ <https://rWSC.org/wp-content/uploads/2022/12/RWSC-PAM-Data-Management-Storage-Best-Practices.pdf>.

practices document,¹⁹ unless otherwise required through conditions of COP approval. The best practices include engaging with the RWSC, calibrating the instruments, running QA/QC on the raw data, following the templates for reporting species vocalizations, and preparing the data for archiving at National Centers for Ecological Information (NCEI). Although section III of the RWSC best practices document specifies steps for Section 106 compliance, the Lessee must instead follow the conditions outlined in Section 7.13 and the Section 106 Memorandum of Agreement.

The Lessee must document the occurrence of mysticete vocalizations (as well as odontocete clicks, as available based on sample rate) using automatic or manual detection methods. In addition, data must be processed with either manual or automatic detection software to detect vocalizations of spawning cod. The Lessee must submit a log of these detections as well as the detection methodology to BOEM, BSEE (at protectedspecies@bsee.gov and [TIMSWeb](https://timsweb.org)) and NMFS (at nmfs.pacmdata@noaa.gov) within 120 days following each recorder retrieval. All raw data must be sent to the NCEI Passive Acoustic Data archive on an annual basis and the Lessee must follow NCEI guidance for packaging the data.

5.13.4.1.1 Long-term Passive Acoustic Monitoring Plan. The Lessee must prepare and implement a Long-term PAM Plan under this option. No later than 120 days prior to instrument deployment and before any construction begins, the Lessee must submit to BOEM and BSEE (renewable_reporting@boem.gov and renewableenergyoperations@bsee.gov and [TIMSWeb](https://timsweb.org)) the Long-term PAM Plan that describes all proposed equipment (including number and configuration of instruments), deployment locations, mooring design, detection review methodology, and other procedures and protocols related to the required use of PAM. If there are fewer than 120 days between the commencement of any construction activity and this COP approval, the Lessee must submit the plan as soon as practicable and no later than 60 days prior to commencing activities. As the Lessee prepares the Long-term PAM Plan, it must coordinate with the RWSC.

BOEM and BSEE will review the Long-term PAM Plan and provide comments, if any, on the plan within 45 days of its submittal. The Lessee may be required to submit a modified Long-term PAM Plan based on feedback from

¹⁹ <https://rWSC.org/wp-content/uploads/2022/12/RWSC-PAM-Data-Management-Storage-Best-Practices.pdf>.

BOEM and BSEE. The Lessee must address all outstanding comments to BOEM's and BSEE's satisfaction and will need to receive written concurrence from BOEM and BSEE. If BOEM or BSEE do not provide comments on the Long-term PAM Plan within 45 days of its submittal, the Lessee may conclusively presume BOEM's and BSEE's concurrence with the Long-term PAM Plan.

5.13.4.2 Option 2 –Financial and Other Contributions to BOEM's Environmental Studies Program.²⁰ As an alternative to conducting long-term PAM in the Lease Area, the Lessee may make a financial contribution to BOEM's Environmental Studies Partnership for an Offshore Wind Energy Regional Observation Network (POWERON) initiative on an annual basis and cooperate with the POWERON team to allow the team's access to the Lease Area for deployment, regular servicing, and retrieval of instruments. In the event the Lessee selects this Option, BOEM and the Lessee will enter into a separate agreement. The Lessee's financial contribution must provide for all activities necessary to conduct PAM within and adjacent to the Lease Area, such as vessel and staff time for regular servicing of instruments, QA/QC on data, data processing to obtain vocalizations of sound-producing species and ambient noise metrics, as well as long-term archiving of data at NCEI. At the Lessee's request, BOEM will provide an estimate of the necessary amount of the financial contribution. BOEM will also invite the Lessee to contribute to discussions about the scientific approach of the POWERON initiative via the RWSC. The Lessee may request temporary withholding of the public release (i.e., the placement into the NCEI public data archive) of raw acoustic data collected within the Lease Area for up to 180 days after collection of that data. During this temporary hold, BOEM may elect to provide the Lessee with a copy of the raw PAM data collected under this option after the DON has cleared the data for national security concerns.

5.14 Project Design Criteria and Best Management Practices for Protected Species. The Lessee must comply with all the [Project Design Criteria and Best Management Practices for Protected Species](#)²¹ that implement the integrated requirements for threatened and endangered species in the June 29, 2021, programmatic consultation under the ESA, revised November 22, 2021. Survey Plans must be submitted to BOEM and BSEE (via TIMSWeb with a notification email at protectedspecies@bsee.gov) for review and concurrence at least 90 days prior to the planned start of geophysical and geotechnical

²⁰ The Lessee may elect Option 2 initially or during any subsequent calendar year of monitoring, subject to agreement with BOEM and BSEE.

²¹ Project Design Criteria and Best Management Practices for Protected Species. <https://www.boem.gov/sites/default/files/documents/PDCs%20and%20BMPs%20for%20Atlantic%20Data%20Collection%2011222021.pdf>

surveys. If HRG surveys are necessary during periods of low visibility (e.g., darkness, rain, fog, etc.), an Alternative Monitoring Plan must be submitted to BOEM and BSEE detailing the monitoring methodology that will be used during nighttime and low-visibility conditions and an explanation of how it will be effective at ensuring that the shutdown zone(s) can be maintained during nighttime and low-visibility survey operations. The Lessee must submit the Plan must be submitted 60 days before low visibility survey operations are set to begin.

5.15 Reporting for Protected Species. The Lessee must implement the reporting requirements necessary to document the amount of and extent of authorized incidental take exempted through the February 16, 2024 NMFS BiOp consistent with RPM 4 and according to Terms and Conditions 8 and 9 of the February 16, 2024 NMFS BiOp, and any reporting requirements included as specified in the final ITA under the MMPA that is applicable to Phase 2 of the Project, and as specified in the following conditions. Unless otherwise specified, the Lessee must submit all reports to NMFS GARFO-PRD and BSEE (see Section 5.9.1 above).

5.15.1 Reporting of ESA-Listed Species within Shutdown Zone During Active Pile Driving. The Lessee must report any threatened or endangered species that is observed within the identified shutdown zone during active pile driving (vibratory or impact) or drilling. The Lessee must file a report within 48 hours of the incident and include the following: description of the activity (i.e., drilling, vibratory or impact pile driving) and duration of pile driving or drilling prior to the detection of the animal(s), location of PSOs and any factors that impaired visibility or detection ability, time of first and last detection of the animal(s), distance of animal at first detection, closest point of approach of animal to pile, behavioral observations of the animal(s), time the PSO called for shutdown, hammer log (number of strikes, hammer energy), time the pile driving began and stopped, and any measures implemented (e.g., reduced hammer energy) prior to shutdown. If shutdown was determined not to be feasible, the report must include an explanation for that determination and the measures that were implemented (e.g., reduced hammer energy).

5.15.2 Provide BOEM, BSEE, and NMFS GARFO with notification of planned UXO/MEC detonation as soon as possible but at least 48 hours prior to the planned detonation, unless this 48-hour notification would create delays to the detonation that would result in imminent risk of human life or safety. This notification must include the coordinates of the planned detonation, the estimated charge size, and any other information available on the characteristics of the UXO/MEC. NMFS GARFO will provide alerts to NMFS sea turtle and marine mammal stranding network partners consistent with best practices. The Lessee must provide notification via email to <mailto:nmfs.gar.incidental-take@noaa.gov> and by phone to the NMFS GARFO Protected Resources Division (978-281-9328) and BSEE via TIMSWeb.

5.15.3 Detected or Impacted Dead Non-ESA-Listed Fish. The Lessee must report any occurrence of at least 10 dead non-ESA-listed fish within established shutdown

or monitoring zones to BOEM and to BSEE (via email to protectedspecies@bsee.gov) as soon as practicable (taking into account crew and vessel safety), but no later than 24 hours after the sighting. BOEM or BSEE will notify NMFS GARFO-HESD. In the email, the Lessee must confirm the relevant point of contact for questions regarding the report and confirm with BOEM and BSEE that the report was received.

5.15.4 Weekly Reports. The Lessee must compile and submit weekly reports during construction that document foundation installation, HRG survey, and detonation activities, including associated PSO, SFV, and noise abatement activities. These weekly reports must include the information required by the February 16, 2024 NMFS BiOp Term and Condition 9e and the Lessee must submit the reports to NMFS GARFO-PRD, BOEM, and BSEE (protectedspecies@bsee.gov); the Lessee may submit the reports directly from the PSO providers and may consist of raw data. Weekly reports must be submitted no later than Wednesday for the previous week (Sunday – Saturday). Weekly reports must include:

5.15.4.1 Summaries of pile driving activities and piles installed, including pile ID, type of pile, pile diameter, start and finish time of each drilling and pile driving event, hammer log (number of strikes, max hammer energy, duration of piling) per pile, any changes to noise attenuation systems and/or hammer schedule, details on the deployment of PSOs and PAM operators, including the start and stop time of associated observation periods by the PSOs and PAM Operators, and a record of all observations/detections of marine mammals and sea turtles as detailed in Section 5.15.4.7 below;

5.15.4.1.1 A summary of SFV and NAS implemented during pile driving;

5.15.4.1.2 Any UXO/MEC detonation activities, including a summary of SFV and NAS implemented during UXO/MEC detonation;

5.15.4.1.3 Which WTGs become operational and when (the Lessee must provide a map);

5.15.4.1.4 Summaries of HRG survey activities;

5.15.4.1.5 Vessel operations (including port departures and destinations, number of vessels, type of vessel(s), and route);

5.15.4.1.6 All protected species detections. This includes: species identification, number of animals, time at initial detection, time at final detection, distance to pile/vessel at initial detection, closest point of approach to pile/vessel, animal direction of travel relative to pile/vessel;

description of animal behavior, features used to identify species, and for moving vessels: speed (kts), distance and bearing to animal at initial detection, closest point of approach and bearing to animal, distance and bearing to animal at final detection, and animal direction of travel relative to vessel. Sightings/detections during pile driving activities (clearance, active pile driving, post-pile driving) and all other (transit, opportunistic, etc.) sightings/detection must be reported and identified as such; and

5.15.4.2 Vessel strike avoidance measures taken.

5.15.5 Monthly Reports. Starting the first month that in-water activities occur on the OCS, the Lessee must compile and submit monthly reports that include a summary of all Project activities carried out in the previous month, including dates and locations of any fisheries surveys, vessel transits (number of transits, name and type of vessel, ports used, and route inclusive of foreign and domestic ports), piles installed (number and ID), HRG surveys conducted, and UXO/MEC detonations, and all observations of ESA-listed whales, sea turtles, and sturgeon inclusive of any mitigation measures taken as a result of those observations. Sightings/detections must include species ID, time, date, initial detection distance, vessel/platform name, vessel activity, vessel speed, bearing to animal, Project activity, and mitigation measures taken, if any. These reports must include the information identified in the February 16, 2024 NMFS BiOp Term and Condition 9f, and the Lessee must submit the reports to BOEM, BSEE, and NMFS GARFO-PRD no later than the 15th of the month for the previous month.

5.15.5.1 Reporting Instructions for Monthly PSO Pile Driving Monitoring Reports. PSOs must collect data consistent with standard reporting forms, software tools, or electronic data forms authorized by BOEM for the particular activity. PSOs must fill out report forms for each vessel with PSOs aboard. Unfilled cells must be left empty and must not contain "NA." The Lessee must submit the reports in Microsoft Word and Excel formats (not as a PDF). Enter all dates as YYYY-MM-DD. Enter all times in 24 Hour Coordinated Universal Time (UTC) as HH:MM.

5.15.5.2 The PSO must create a new entry on the Effort form each time a pile segment changes, or weather conditions change, and at least once an hour as a minimum. The PSO must review and revise all forms for completeness and resolve incomplete data fields before submittal. The file name must follow this format: Lease#_ProjectName_PSOData_YearMonthDay toYearMonthDay.xls. Data fields must be reported in Excel format. Data categories must include Project, Operations, Monitoring Effort, and Detection, as further specified below. The Lessee must generate all PSO data through

software applications or otherwise recorded electronically by PSOs and the Lessee must provide the data to BOEM and BSEE in electronic format (CSV files or similar format) and check for QA/QC. Applications developed to record PSO data are encouraged if the data fields listed below can be recorded and exported into Excel. Alternatively, BOEM has developed an Excel spreadsheet, with all the necessary data fields, which is available upon request.

Required data fields include:

Project Information:

- Project name
- Lease number
- State coastal zones
- PSO contractors
- Vessel names
- Reporting dates (YYYY-MM-DD)
- Visual monitoring equipment used (e.g., bionics, magnification, infrared cameras)
- 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
- Total number of strikes used to install each pile
- Total hammer energy used to install each pile
- Pile locations (latitude and longitude)
- Number of vessel transits
- Types of vessels used
- Vessel routes used

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 or ramp-up began
- Time equipment full power was reached
- Duration of power-up or ramp-up
- Time pile driving began (hammer on)
- Time pile driving activity ended (hammer off)
- Duration of activity
- Duration of visual detection
- Wind speed (kts), from direction
- Swell height (m)
- Water depth (m)
- Visibility (kilometers)
- 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 must 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 (kts), from direction
- Swell height (m)

- Water depth (m)
- Visibility (kilometers)
- 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
- Percent certainty of identification
- Number of adults
- Number of juveniles
- Total number of animals
- Bearing to animals when first detected (ship heading + clock face)
- Bearing to animals at closest approach (ship heading+ clock face)
- Bearing to animal at final detection (ship heading+ clock face)
- Range from vessel and pile (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 activity and distance from service vessel)
- Direction of animal travel in first approach relative to vessel and pile
- 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 (UTC HH:MM)
- Initial heading of animals (degrees)
- Final heading of animals (degrees)
- Shutdown zone size during detection (m)
- Was the animal inside the shutdown zone?
- Closest distance to vessel and pile (reticle distance in m)
- Time at closest approach to vessel and pile (UTC HH:MM)
- Time animal entered shutdown zone (UTC HH:MM)
- Time animal left shutdown zone (UTC HH:MM)
- If observed or detected during ramp-up or power-up: first distance (reticle distance in m), closest distance (reticle distance in m), last distance (reticle distance in m), behavior at final detection
- Did a shutdown/power-down occur?
- Time shutdown was called for (UTC HH:MM)
- Time equipment was shut down (UTC HH:MM)
- Detections with PAM

- 5.15.6 Annual Reports. Beginning one calendar year after the commissioning of the first WTG, the Lessee must compile and submit annual reports that include a summary of all Project activities carried out in the previous year, including vessel transits (number, type of vessel, ports used, and route), repair and maintenance activities, survey activity, and all observations of ESA-listed species. The annual reports must be submitted to BOEM, BSEE, and NMFS GARFO-PRD. The Lessee must submit these reports by April 1 of each year for the previous calendar year (i.e., the 2026 report is due by April 1, 2027). BOEM and BSEE (in consultation with NMFS) may approve changes to the frequency and timing of reports.
- 5.16 Protected Species Training and Coordination. Before beginning any in-water activities involving vessel use (transit), cable installation, foundation installation, UXO/MEC detonation, and HRG surveys, and when new personnel join the work, the Lessee must conduct briefings for construction supervisors and crews, PSO and PAM teams, vessel operators, and all staff in order to explain responsibilities, communication procedures, and protected species mitigation, monitoring, and reporting requirements.
- 5.16.1 The Lessee must submit all required documents and reports related to protected species training and coordination to BOEM, BSEE, NMFS-OPR, and NMFS GARFO-PRD (see Section 5.9.1 above).
- 5.16.2 Vessel Crew and Protected Species Observer Training Requirements. The Lessee must provide Project-specific training to all vessel crew members, PSOs, and Trained Lookouts on the identification of sea turtles and marine mammals, vessel strike avoidance and reporting protocols, how and when to communicate with the vessel operator, the authority of the PSOs, and the associated regulations for avoiding vessel collisions with protected species prior to the start of in-water construction or detonation activities. The Lessee must make available aboard all Project vessels reference materials for identifying sea turtles and marine mammals, copies of the Marine Mammal and Sea Turtle Monitoring Plan (Section 5.5) and Vessel Strike Avoidance Plan (Section 5.11). Confirmation of the training and understanding of the requirements must be documented on a training course log sheet, and the Lessee must provide the log sheets to BOEM and BSEE upon request. The Lessee must communicate to all crew members its expectation for them to report sightings of sea turtles and marine mammals to the designated vessel contacts. The Lessee must communicate to all crew members its expectation that the crew report sightings of sea turtles and marine mammals (including live, entangled, and dead individuals) to the designated vessel contact. The Lessee must post the reporting instructions, including communication channels, in highly visible locations aboard all Project vessels.
- 5.16.3 PSO Requirements. The Lessee must use independent, dedicated, qualified PSOs provided by a third party. The PSOs' sole Project-related duty must be 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 or any

PAM operators serving as PSOs must have completed a commercial PSO training program for the Atlantic with an overall examination score of 80 percent or greater.²² The Lessee must use NMFS-approved PSOs and PAM operators. The Lessee must provide training certificates for individual PSOs to BOEM or BSEE upon request. PSOs and PAM operators must be approved by NMFS before the start of construction activities. Application requirements to become a NMFS-approved PSO for construction activities can be found on the NOAA website²³ or for geological and geophysical surveys by sending an inquiry to nmfs.psoreview@noaa.gov. PSOs and PAM operators must be on watch for no more than a maximum of 4 consecutive hours, followed by a break of at least 2 hours between watches.

- 5.17 Other Protected Species Conditions. On February 16, 2024, NMFS issued a BiOp, including an ITS for both Phases of New England Wind. The ITS includes RPMs and Terms and Conditions that NMFS determined were necessary and appropriate to minimize and monitor the amount or extent of incidental take of species listed as endangered or threatened under the ESA and under NMFS jurisdiction. The NMFS BiOp's coverage for incidental take from the Project requires the Lessee to execute the proposed action in compliance with all avoidance and minimization measures described in the NMFS BiOp, to comply with all conditions in Appendix A, and to comply with RPMs and implementing Terms and Conditions included in the NMFS BiOp's ITS. Those RPMs and Terms and Conditions are incorporated by reference in this document. This includes all measures specified in the NMFS BiOp including measures from the final MMPA ITA to minimize effects of foundation installation, UXO detonations, and other activities on marine mammals.

6 CONDITIONS RELATED TO COMMERCIAL FISHERIES, FOR-HIRE AND RECREATIONAL FISHING

- 6.1 Fisheries Compensation and Mitigation Funds. No later than 120 days prior to offshore construction activities, unless a different schedule is agreed to as a component of a separate agreement between the Lessee and the State of Rhode Island or the Commonwealth of Massachusetts, or with BOEM and BSEE for funds not subject to a state agreement, the Lessee must establish and implement a direct compensation program to provide monetary compensation to commercial and for-hire fishermen and shoreside support services impacted by the Project and funded in accordance with Sections 6.1.1 and Section 6.1.2 below. Calculation steps are shown in Section 6.1.3 below.

- 6.1.1 Direct Compensation Program. The Lessee must ensure that the Direct Compensation Fund (hereinafter sometimes referred to as "Fund") includes an amount sufficient to be used to pay claims brought by eligible claimants and must be based, at a minimum, on 60 percent of the annual average commercial fisheries landings values as derived from Table B-24 (Appendix B, page B-46) of the New England Wind Project FEIS. The Lessee must determine the Fund

²² <https://repository.library.noaa.gov/view/noaa/15851>

²³ www.fisheries.noaa.gov/new-england-mid-atlantic/careers-and-opportunities/protected-species-observers

and for-hire charter fishermen and an additional \$300,000 (paid to the Trust) to support Rhode Island commercial and charter/for-hire for operations. In accordance with the agreement between Lessee and Rhode Island, the Trust will administer the direct financial mitigation program.

6.1.1.3.2 Massachusetts – The Lessee must establish a \$3,515,683 Compensatory Mitigation Fund and contribute \$900,000 to the Massachusetts Fisheries Innovation Fund.

6.1.1.3.3 Other States – The Lessee must establish a Fund and allocate compensation/mitigation funds to the Project (60 percent of the annual average commercial fisheries landings values) in accordance with the Section 6.1.3 below as identified in Table B-24 (Appendix B, page B-46).

6.1.2 Shoreside Support Services. At least 90 days prior to establishment of the Direct Compensation Program described in Section 6.1.1, the Lessee must submit to BOEM a Shoreside Support Services report for a 60-day review and approval. If a state agreement for compensatory mitigation includes support for shoreside services, such as through a community fund, the amount allocated to shoreside services in the state agreement(s) may be removed from the calculation in Section 6.1.3 if such amount is greater than BOEM’s required amounts, as stated in Section 6.1.3. The report must include a description of the structure of the Direct Compensation Fund and an analysis of the impacts of the Project to shoreside support services within communities near the ports listed below:

- Point Judith, RI
- New Bedford, MA
- Montauk, NY
- Fairhaven, MA
- Chatham, MA
- Little Compton, RI
- Westport, MA
- Beaufort, NC
- New London, CT
- Newport, RI

6.1.3 Compensation Calculations. The Lessee may omit the states for which there is a state agreement that includes a funding requirement, as described in Section 6.1.1.3. The Lessee must use Table 6.1.3-1 and Table 6.1.3-2 to calculate the total Fund amount required by Section 6.1.1.3.3. The Lessee must normalize the required Fund amount to current real prices from a base year as described in Section 6.1.1.2. The Lessee may use the most recent complete year’s GDP Implicit Price Deflator to estimate Direct Compensation Fund requirements after COP approval if the current year is unavailable (n_i).

As described in 6.1.1.1, the Lessee must ensure the reserve amount allows for, at a minimum, 100 percent of annual revenue exposure allocated to the Project during the projected post-COP approval pre-construction and construction years and, pending BSEE approval of a decommissioning plan, decommissioning years.

The Lessee must use the GDP Implicit Price Deflator to adjust the annual average commercial fisheries revenue as derived from Table B-24 (Appendix B, page B-46) of the New England Wind Project Final EIS, less the exposed revenue from existing state agreements as described in Section 6.1.1.3.

The total Fund reserve requirements for Construction, Decommissioning, and Operating Years 1–5²⁵ (as shown in Table 6.1.3-2) are calculated using the formula below. After two years, unclaimed funds may be rolled forward.

$$k \left(\$72,714 \times \frac{n_i}{110.213} \right) (1 + M) + j \left(\$72,714 \times \frac{n_i}{110.213} \right) (1 + M) + \left(\$261,771 \times \frac{n_i}{110.213} \right) (1 + M)$$

²⁵ Rolling forward unclaimed funds from prior years may lower this total value.

Table 6.1.3-1: Calculation Subcomponents for Construction and Decommissioning

Project Status	Base Annual Average Fishing Revenue Exposed to the Wind Farm Area ¹	Shoreside Support Services Multiplier ²	Exposure Ratio	Adjusted Base Annual Average Fishing Revenue Exposed to the Wind Farm Area	Reserve Requirements
Construction	$\left(\$72,714 \times \frac{n_i}{110.213}\right)$	M	1	$\left(\$72,714 \times \frac{n_i}{110.213}\right)$	$\left(\$72,714 \times \frac{n_i}{110.213}\right) (1 + M)$
Decommissioning ³	$\left(\$72,714 \times \frac{n_i}{110.213}\right)$	M	1	$\left(\$72,714 \times \frac{n_i}{110.213}\right)$	$\left(\$72,714 \times \frac{n_i}{110.213}\right) (1 + M)$

Notes: ¹ Inflation-adjusted revenues are derived from Table B-24 (Appendix B, page B-46) of the New England Wind Project Final EIS. The inflation-adjusted base equation is:

$$\frac{\text{Total 14 – year Revenue excluding MA and RI}}{14} \times \frac{n_i}{110.213}$$

² The Lessee’s calculations of the Impacts to Shoreside Businesses Multiplier may use BOEM’s draft *Guidelines for Mitigating Impacts to Commercial and Recreational Fisheries on the Outer Continental Shelf Pursuant to 30 CFR Part 585* or future versions, but BOEM must, in all events, review the calculations.

³ Decommissioning funds may be required pending BSEE’s approval of Lessee’s decommissioning application. If Construction is expected to last *k* years and Decommissioning *j* years, the Lessee must calculate the reserve requirements as follows:

$$k \left(\$72,714 \times \frac{n_i}{110.213}\right) (1 + M) + j \left(\$72,714 \times \frac{n_i}{110.213}\right) (1 + M)$$

Table 6.1.3-2: Calculation Subcomponents by Operating Year

Project Status	Base Annual Average Fishing Revenue Exposed to the Wind Farm Area ¹	Exposure Ratio	Adjusted Base Annual Average Fishing Revenue Exposed to the Wind Farm Area	Shoreside Support Services Multiplier ²	Reserve Requirements
Operating Year 1	$\left(\$72,714 \times \frac{n_i}{110.213}\right)$	1	$\left(\$72,714 \times \frac{n_i}{110.213}\right)$	M	$\left(\$72,714 \times \frac{n_i}{110.213}\right) (1 + M)$
Operating Year 2	$\left(\$72,714 \times \frac{n_i}{110.213}\right)$	0.8	$\left(\$58,171 \times \frac{n_i}{110.213}\right)$	M	$\left(\$58,171 \times \frac{n_i}{110.213}\right) (1 + M)$
Operating Year 3	$\left(\$72,714 \times \frac{n_i}{110.213}\right)$	0.7	$\left(\$50,900 \times \frac{n_i}{110.213}\right)$	M	$\left(\$50,900 \times \frac{n_i}{110.213}\right) (1 + M)$
Operating Year 4	$\left(\$72,714 \times \frac{n_i}{110.213}\right)$	0.6	$\left(\$43,629 \times \frac{n_i}{110.213}\right)$	M	$\left(\$43,629 \times \frac{n_i}{110.213}\right) (1 + M)$
Operating Year 5	$\left(\$72,714 \times \frac{n_i}{110.213}\right)$	0.5	$\left(\$36,357 \times \frac{n_i}{110.213}\right)$	M	$\left(\$36,357 \times \frac{n_i}{110.213}\right) (1 + M)$
<i>Operating Total</i> ³	-	-	$\left(\$261,771 \times \frac{n_i}{110.213}\right)$	-	$\left(\$261,771 \times \frac{n_i}{110.213}\right) (1 + M)$

Notes: ¹ Inflation-adjusted revenues are derived from Table B-24 (Appendix B, page B-46) of the New England Wind Project Final EIS. The inflation-adjusted base equation is:

$$\frac{\text{Total 14 - year Revenue excluding MA and RI}}{14} \times \frac{n_i}{110.213}$$

² The Lessee's calculations of the Impacts to Shoreside Businesses Multiplier may use BOEM's draft *Guidelines for Mitigating Impacts to Commercial and Recreational Fisheries on the Outer Continental Shelf Pursuant to 30 CFR Part 585* or future versions, but BOEM must, in all events, review the calculations.

³ Rolling forward unclaimed funds from prior years may lower this total value.

- 6.1.4 Reporting. By January 31 of each year, the Lessee must submit to BOEM and BSEE an annual report demonstrating implementation of the Direct Compensation Program. The report must include, as applicable, the following: the Fund charter, including the governance structure, audit and public reporting procedures; documentation regarding the funding account, including the dollar amount, establishment date, financial institution, and owner of the account; the standards used for paying compensatory mitigation for impacts to commercial and for-hire fishers and related shoreside businesses resulting from all phases of the Project development on the Lease Area (post-COP approval pre-construction, construction, operation, and decommissioning); and the number of claims processed, approved and denied. The Lessee must publicly report an annual audit. Where there is a compensation agreement between a state and the Lessee, the Lessee must submit to BOEM and BSEE verification that any agreed-upon compensatory fisheries mitigation fund is established and funded.
- 6.1.5 Notification. The Lessee must notify BOEM and BSEE of any compensation and mitigation fund agreements into which the state and the Lessee have entered. Specifically, the Lessee has entered into establishment and funding of the Compensatory Mitigation Fund and Massachusetts Innovation Fund with the Commonwealth of Massachusetts, and the Rhode Island Future Viability Trust with the State of Rhode Island to provide appropriate compensation measures for fisheries resources and fishing industry uses impacted by the authorized Project. The Lessee must request that the Administrator(s) of the direct compensation program(s) listed above, and any others established for other states, notify BOEM when the direct compensation program(s) has been established and is processing claims. Notification can be accomplished by the Administrator(s) transmitting to BOEM an annual financial statement of the direct compensation program(s). The Lessee must request that the Administrator(s) submit the required notification by January 31 of each year, beginning on the second anniversary of the Project's Commercial Operations Date as defined by Addendum "B" of the Lease. The Lessee must request that the notification be signed by the Administrator(s).
- 6.2 Fisheries Gear Loss Compensation. The Lessee must maintain throughout the life of the Project, a fisheries gear loss claims procedure to implement the financial compensation policy proposed by the Lessee in Appendix III-E of the COP, Fisheries Communication Plan. The fisheries gear loss claims procedure must be available to all fishermen impacted by Project activities or infrastructure, regardless of homeport.
- 6.3 Federal Survey Mitigation Program. There are 14 NMFS scientific surveys that are impacted by overlap with wind energy development in the northeast region. Ten of these surveys overlap with the Project. Consistent with NMFS and BOEM survey mitigation strategy actions 1.3.1, 1.3.2, 2.1.1, and 2.1.2 in the NOAA Fisheries and BOEM Federal

Survey Mitigation Implementation Strategy - Northeast US Region,²⁶ within one year plus 120 days of COP approval, the Lessee must submit to BOEM a survey mitigation agreement between NMFS and the Lessee. The survey mitigation agreement must describe how the Lessee will mitigate the Project impacts on the 10 NMFS surveys. The Lessee must conduct activities in accordance with such agreement. If the Lessee and NMFS fail to reach a survey mitigation agreement, then the Lessee must submit a Survey Mitigation Plan to BOEM and NMFS that is consistent with the mitigation activities, actions, and procedures described in the content for the survey mitigation agreement (see Sections 6.3.1 and 6.3.2 below), within one year plus 180 days of COP approval. BOEM will review the Survey Mitigation Plan in consultation with NMFS NEFSC. The Lessee must resolve comments to BOEM's satisfaction and must conduct activities in accordance with the Plan.

- 6.3.1 As soon as reasonably practicable, but no later than 30 days after the issuance of the Project's COP approval, the Lessee must initiate coordination with NMFS NEFSC at nefsc.survey.mitig@noaa.gov to develop the survey mitigation agreement described above. Mitigation activities specified under the agreement must be designed to mitigate the Project impacts on the following NMFS NEFSC surveys: (a) Spring Multi-species Bottom Trawl survey; (b) Autumn Multi-species Bottom Trawl survey; (c) Ecosystem Monitoring survey; (d) Aerial marine mammal and sea turtle survey; (e) Shipboard marine mammal and sea turtle survey; (f) ocean quahog survey; (g) Atlantic sea scallop survey; (h) seal survey; (i) NARW survey; and (j) Sea Turtle Ecology survey. At a minimum, the survey mitigation agreement must describe actions and the means to address impacts on the affected surveys due to the preclusion of sampling platforms and impacts on statistical designs. NMFS has determined that the project area is a discrete stratum for surveys that use a random stratified design. This agreement may also consider other anticipated Project impacts on NMFS surveys, such as changes in habitat and increased operational costs due to loss of sampling efficiencies.
- 6.3.2 The survey mitigation agreement must identify activities that will result in the generation of data equivalent to data generated by NMFS's affected surveys for the duration of the Project. The survey mitigation agreement must describe the implementation procedures by which the Lessee will work with NEFSC to generate, share, and manage the data required by NEFSC for each of the surveys impacted by the Project, as mutually agreed upon between the Lessee and NMFS NEFSC. The survey mitigation agreement must also describe the Lessee's participation in the NMFS NEFSC Northeast Survey Mitigation Program to support activities that address regional-level impacts for the surveys listed above. The agreement must include provisions that provide criteria for changing

²⁶ Hare, J.A., Blythe, B.J., Ford, K.H., Godfrey-McKee, S., Hooker, B.R., Jensen, B.M., Lipsky, A., Nachman, C., Pfeiffer, L., Rasser, M. and Renshaw, K., 2022. NOAA Fisheries and BOEM Federal Survey Mitigation Implementation Strategy - Northeast US Region. NOAA Technical Memorandum 292. Woods Hole, MA. 33 pp.

mitigation activities over time, or timeframes for review and reconsideration of the agreement, based on updated information, or both.

7 CULTURAL AND VISUAL RESOURCE CONDITIONS

7.1 Section 106 MOA Conditions.

- 7.1.1 No Impact Without Approval. The Lessee may not knowingly impact a potential archaeological resource without BOEM's and BSEE's prior concurrence. If a possible impact to a potential archaeological resource occurs, the Lessee must immediately halt operations; report the incident within 24 hours to BOEM and BSEE; and provide a written report within 72 hours to BOEM and BSEE.
- 7.1.2 Reporting. The Lessee must submit all monitoring, reporting (annual, immediate, or post-discovery), and survey requirements related to cultural resources to BOEM and BSEE (env-compliance-arc@bsee.gov).
- 7.1.3 Avoidance of Known and Potential Shipwrecks, Debris Fields, and Ancient Submerged Landform Features. The Lessee must avoid known and potential shipwrecks, potentially significant debris fields, and ASLFs as described below. The Lessee must identify avoidance requirements on proposed anchoring plats, as-placed plats, and drawings associated with seabed disturbances (e.g., relevant FDR/FIR documents for export cables, inter-array cables, WTGs, etc.). If the Lessee determines that avoidance is not possible, the Lessee must notify BOEM and BSEE prior to disturbing the seabed in the excluded area. In such instances, BOEM will notify the Lessee of any additional requirements, which may include additional measures to resolve adverse effects. If any vessel conducting work on behalf of the Lessee or any other activity associated with the planning, construction, operation, or decommissioning disturbs the seabed within the avoidance areas noted below, the Lessee must submit an incident report to BOEM and BSEE within 24 hours.
- 7.1.4 Avoidance of Known Shipwrecks or Sunken Craft Sites and Potentially Significant Debris Fields. The Lessee must avoid 8 potential submerged cultural resources and potentially significant debris fields identified during marine archaeological surveys as applicable to Lease OCS-A 0561. The Lessee must avoid Targets PSW-01, PSW-02, and PSW-03 in the Southern Wind Development Area (SWDA) by a 50-m radius buffer from the extent of the site or magnetic field. The Lessee must avoid Targets PSW-04 and PSW-05 by a 50-m radius buffer from the sonar target boundary. The Lessee must avoid Target PSW-06 in the offshore export cable corridor (OECC) by a 100-m radius buffer from the sonar target boundary. The Lessee must avoid Targets PSW-07 and PSW-08 in the South Coast Variant (SCV), if used, by a 60-m radius buffer from the sonar target boundary. The Lessee must identify avoidance stipulations and requirements on proposed anchoring plats, as-placed plats, and drawings associated with seafloor disturbances (e.g., relevant FDR/FIR documents for export cables, inter-array cables, WTGs, etc.).

- 7.1.5 Avoidance of Ancient Submerged Landform Features. The Lessee identified 51 ASLFs in the project Area of Potential Effects (APE) (COP Volume II-D), 49 of which (Targets SAL-06 through SAL-19 in the SWDA; Channel Groups 8-30 [non-sequential] in the OECC; Channel Groups 18, 19, and 20 in the Western Muskeget Variant; and SCV-OECC-SAL1 through SCV-OECC-SAL17 in the SCV) cannot be avoided and will be affected by the Project, as located within either Phase 1 or Phase 2 of the lease areas. The Lessee must identify avoidance stipulations and requirements on proposed anchoring plats, as-placed plats, and drawings associated with seafloor disturbances (e.g., relevant FDR and FIR documents for export cables, inter-array cables, WTG, etc.) Two of the ASLFs (i.e., SAL-04 and SAL-05) that are located within the Phase 2 lease area will be avoided. No additional avoidance buffer is required for these ASLFs because they are located below the proposed vertical APE and outside the horizontal extents of the WTG work zones.
- 7.1.6 Implementation of Mitigation Measures to Resolve Adverse Effects to ASLFs. The Lessee must mitigate adverse effects to those of the 49 ASLFs in its lease area (Targets SAL-06 through SAL-19 in the SWDA; Channel Groups 8-30 [non-sequential] in the OECC; Channel Groups 18, 19, and 20 in the Western Muskeget Variant; and SCV-OECC-SAL1 through SCV-OECC-SAL17 in the SCV) as identified in the Marine Archaeological Resource Assessment (COP, Volume II-D) that remain in the APE and that the Lessee cannot avoid. These mitigation measures include the Post-construction Geoarchaeological Assessment, ASLF Post-construction Seafloor Assessment, and Tribal Focused Mitigation comprised of detailed presentations, digital database and mapping, and training in GIS. The Lessee must work with Tribal Nations to provide them an opportunity to participate as monitors during the investigation and provide reasonable compensation for participation in the implementation of the measures. The Lessee must execute all aspects of this condition, consistent with the Section 106 MOA (Stipulation IV.A; Attachment 14, New England Wind Mitigation Funding Options; Attachment 4, Historic Property Treatment Plan for Ancient Submerged Landforms and Features), as applicable to Lease OCS-A 0561.
- 7.1.7 Minimization Measures within the Terrestrial Area of Potential Effects. The Lessee must minimize adverse effects by primarily siting the Onshore Export Cable Route (OECR) and grid interconnection cable routes within existing roadway and/or public utility rights-of-way unless infeasible or impracticable to do so. In coordination with Tribal Nations, the Lessee must conduct archaeological monitoring of construction activities within the staging areas required for the horizontal directional drilling in the landfall area and during installation of OECR and other components (i.e., duct banks, splice vaults) within the identified zone of moderate and high archaeological sensitivity where intensive archaeological testing has not occurred in the Phase 2 terrestrial APE. The Lessee must execute all aspects of this condition of COP approval consistent with the Section 106 MOA (Stipulation III.B).

- 7.1.8 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 WTGs. The Lessee must color the WTGs an off white/grey color (no lighter than RAL 9010 Pure White and no darker than RAL 7035 Light Grey) prior to installation. The Lessee must confirm the planned paint color as part of the FDR and confirm the WTG was painted consistent with this condition as part of the final FIR.
- 7.1.9 Additional Offshore Minimization Measures. The Lessee must use uniform WTG design, speed, height, and rotor diameter to reduce visual contrast and decrease visual clutter. Uniform WTG spacing of 1 nmi by 1 nmi in the north-to-south and east-to-west direction will be used to decrease visual clutter. The Lessee must equip all WTGs and ESPs with ADLS to reduce the duration of nighttime lighting. The WTGs and ESPs will be lit and marked in accordance with FAA and USCG lighting standards to reduce light intrusion.
- 7.1.10 Implementation of Mitigation Measures to Resolve Visual Adverse Effects to Historic Properties. Consistent with the Section 106 MOA, the Lessee must fund 60 percent of the mitigation measures as set forth in Attachment 14, New England Wind Mitigation Funding Options, to resolve the adverse effects to the following 6 historic properties: Gay Head Lighthouse, Edwin Vanderhoop Homestead (Aquinnah Cultural Center), Gay Head-Aquinnah Shops Area, Chappaquiddick Island Traditional Cultural Property (TCP), Moshup's Bridge and Vineyard Sound TCP, and Nantucket Sound TCP.
- 7.1.11 The Lessee must execute all aspects of the resolution of visual adverse effects to historic properties consistent with the Section 106 MOA (Stipulation IV.B; Attachment 14, New England Wind Mitigation Funding Options; Attachment 5, Historic Property Treatment Plan for the Edwin Vanderhoop Homestead and Gay Head – Aquinnah Shops Area; Attachment 6, Historic Property Treatment Plan for Chappaquiddick Island TCP; Attachment 7, Historic Property Treatment Plan for Gay Head Lighthouse; Attachment 8, Historic Property Treatment Plan for Vineyard Sound and Moshup's Bridge TCP; Attachment 9, Historic Property Treatment Plan for Nantucket Sound TCP).
- 7.1.12 The Lessee must conduct phased identification to identify historic properties, assess effects, and resolve adverse effects within selected areas of the terrestrial APE in Massachusetts, the SCV (if selected), and the Phase 2 Old Falmouth Road onshore substation (if selected). The phased identification and evaluation of historic properties will occur after publication of the Final EIS and ROD consistent with Stipulation V and Attachment 10 of the Section 106 MOA. BOEM will use the MOA to ensure potential historic properties are identified, effects assessed, and adverse effects are resolved prior to construction on the OCS lease; review the sufficiency of the technical reports that address the identification of historic properties and sites of religious and cultural significance and include an evaluation of effects applying the criteria of adverse effect; and consult on the post-ROD finding of effects.

- 7.1.13 Annual Monitoring and Reporting on the Section 106 MOA. By July 31 of each calendar year, the Lessee must submit for BOEM’s review a summary report detailing work undertaken pursuant to the Section 106 MOA during the preceding year. The Lessee must address any BOEM comments, and, after BOEM’s review and agreement, the Lessee must share the summary report with all participating consulting parties identified in Attachment 2 of the Section 106 MOA. The report must include a description of how the stipulations relating to avoidance and minimization measures (Section 106 MOA Stipulations II and III) were implemented; any scheduling changes proposed; any problems encountered; and any disputes and objections received in BOEM’s efforts to carry out the terms of the Section 106 MOA. The Lessee may satisfy this reporting requirement by providing the relevant portions of the Annual Certification required under 30 CFR § 285.633.
- 7.1.14 Implementation of Post-Review Discovery Plans. If properties are discovered that may be historically significant or unanticipated effects on historic properties are found, the Lessee must implement the Post-Review Discovery Plans found in Section 106 MOA Attachment 11, New England Wind Terrestrial Unanticipated Discovery Plan, and Attachment 12, New England Wind Unanticipated Discoveries Plan for Submerged Archaeological Resources.
- 7.1.15 All Post-Review Discoveries. In the event of a post-review discovery of a historic property or unanticipated effects to a historic property prior to or during construction, operation, maintenance, or decommissioning of the Project, the Lessee must implement the following actions:
- 7.1.15.1 Immediately halt all ground- or seabed-disturbing activities within the area of discovery while considering whether stabilization and further protections are warranted to keep the discovered resource from further degradation and impact.
 - 7.1.15.2 As soon as practicable and no later than 72 hours after the discovery, the Lessee must notify BOEM and BSEE env-compliance-arch@bsee.gov with a 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 that may have been captured of the potential resource; 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. BOEM and BSEE may request additional information and/or request revisions to the report.
 - 7.1.15.3 Keep the location of the discovery confidential and take no action that may adversely affect the potential resource until BOEM has made an evaluation and instructs the Lessee on how to proceed.

7.1.15.4 Conduct any additional investigations and submit documentation as directed by BOEM to determine if the resource is eligible for listing in the National Register of Historic Places (NRHP) (30 CFR § 585.702(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 from the Project activities cannot be avoided. If investigations indicate that the resource is potentially eligible for listing in the NRHP, BOEM, and BSEE with the assistance of the Lessee, will work with the other relevant signatories and consulting parties to this MOA who have a demonstrated interest in the affected historic property on the further avoidance, minimization, or mitigation of adverse effects. If there is any evidence that the discovery is from an indigenous society or appears to be a burial site, the Lessee must contact the Tribal Nations as identified in the notification lists included in the post-review discovery plans within 72 hours of the discovery with details of what is known about the discovery and consult with the Tribal Nations pursuant to the post-review discovery plan.

7.1.15.5 If BOEM or BSEE incurs costs in addressing the discovery, under Section 110(g) of the NHPA, BOEM, and BSEE may charge the Lessee reasonable costs for carrying out preservation responsibilities under OCSLA (30 CFR § 585.702(c)-(d)).

7.1.16 Emergency Situations and Section 106 Consultation. In the event of an emergency or disaster that is declared by the President or the Governor of Massachusetts, which represents an imminent threat to public health or safety or creates a hazardous condition due to impacts from the Project's infrastructure damaged during the emergency and affecting historic properties in the APEs, the Lessee must immediately notify BOEM. BOEM, with the assistance of the Lessee, will notify the consulting federally recognized Tribal Nations, the MA SHPO, and the ACHP, of the condition that has initiated the situation and the measures taken to respond to the emergency or hazardous condition in accordance with the Section 106 MOA. BOEM will make this notification as soon as reasonably possible, but no later than 48 hours from when BOEM becomes aware of the emergency or disaster. If the consulting federally recognized Tribal Nations, MA SHPO, or the ACHP desire to provide technical assistance to BOEM, they will submit comments within 7 days from notification if the nature of the emergency or hazardous condition allows for such coordination.

7.2 Other Visual and Cultural Conditions.

7.2.1 PAM Placement Review. The Lessee may only place PAM systems 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 (QMA) as to whether any potential archaeological resources are present in the

area. Except as allowed by BOEM under Stipulation 4.2.6 of Addendum C of the Lease and Section 7.1.1 above, the PAM placement activities must avoid potential archaeological resources by a minimum of 100 m (328 ft), and the avoidance distance must be calculated from the maximum discernible extent of the archaeological resource. The Lessee must submit as-placed PAM system plats to BSEE within 90 days of placement.

7.2.1.1 If PAM placement activities impact potential historic properties, the Lessee must take the actions described in Section 7.1.15.

7.2.1.2 If PAM placement activities impact potential historic properties identified in the archaeological surveys without BOEM's prior authorization, the Lessee and the QMA who prepared the archaeological resources report must provide a statement documenting the extent of these impacts. This statement must be made to BOEM and BSEE consistent with Stipulation 4.2.7 of Addendum C of the Lease and Section 7.1.15, above. BOEM may require the Lessee to implement additional mitigation measures as appropriate based on a review of the results and supporting information.

7.2.2 Scenic and Visual Impact Monitoring Plan. In coordination with BOEM, the Lessee must prepare and implement a scenic and visual resource monitoring plan that monitors and compares the visual effects of the Project during construction and operations and maintenance (daytime and nighttime) to the findings in the COP Visual Impact Assessment and verifies the accuracy of the visual simulations (photo and video). The monitoring plan must include monitoring and documenting the meteorological influences on actual WTG visibility over a consecutive 3-year period, starting when the Project's final WTG is commissioned, from selected onshore key observation points, as determined by BOEM and the Lessee. In addition, the Lessee must include monitoring the operation of the ADLS in the monitoring plan. The Lessee must monitor the frequency that the ADLS is operative, documenting when (dates and time) the aviation warning lights are in the on position and the duration of each event. The Lessee must include details for monitoring and reporting procedures in the Plan.

7.2.3 Supplemental Scenic and Visual Impact Analysis. The Lessee must complete and submit a Seascape, Landscape, and Visual Impact Analysis (SLVIA) as a supplement to the approved COP in the event additional onshore substations are needed for the Project. The Lessee must prepare the supplement in accordance with BOEM 2021-032 "Assessment of Seascape, Landscape, and Visual Impacts of Offshore Wind Energy Developments on the Outer Continental Shelf of the United States" guidance in order for BOEM to conduct environmental and technical review, NEPA analysis, and consultations, as necessary.

8 FEDERALLY RECOGNIZED TRIBAL NATIONS CONDITIONS

- 8.1 Environmental Data Sharing with Federally Recognized Tribal Nations. No later than 90 days after COP approval, the Lessee must make a request to both the BSEE Tribal Liaison Officer and the Eastern Seaboard Tribal Liaison at the same email address, tribalengagement@bsee.gov, to coordinate with federally recognized Tribal Nations with geographic, cultural, or ancestral ties to the project area (hereinafter “interested Tribal Nation”), including, but not limited to the: Delaware Nation, Delaware Tribe of Indians, Mashantucket (Western) Pequot Tribal Nation, Mashpee Wampanoag Tribe of Massachusetts, Mohegan Tribe of Indians of Connecticut, Narragansett Indian Tribe, Shinnecock Indian Nation, and Wampanoag Tribe of Gay Head (Aquinnah). The purpose of this coordination is to (1) solicit Tribal Nation interest in participating as an environmental liaison during construction and/or maintenance activities, so the environmental liaison can safely monitor and participate in postmortem examinations of mortality events as a result of these activities; and (2) provide open access to the following: reports of NARW sightings; injured or dead protected species reporting (sea turtles, NARW, sturgeon); NARW PAM monitoring; PSO reports (e.g., pile-driving reports); pile-driving schedules and schedule changes; and any interim and final SFV reports, and their associated data. If an interested Tribal Nation expresses interest in participating as an environmental liaison, the Lessee must provide the interested Tribal Nation information regarding training(s), certification(s), and safety measures, required for participation. Environmental liaisons must be invited to monitor/participate from a safe platform, such as a vessel. The Lessee must provide to the interested Tribal Nation, in a manner suitable to the Tribal Nation, access to all ESA reports (e.g., the NMFS BiOp reports), Post Review Discovery Plans, and other documents listed in this paragraph no later than 30 days after the information becomes available. The Lessee may redact or withhold a document(s) listed in this paragraph when it includes information that the Lessee would not generally make publicly available and the disclosure of which the Lessee considers to be contrary to the Lessee's commercial interests. The Lessee must submit a justification for the request to redact/withhold in writing to the BSEE Tribal Liaison Officer and the Eastern Seaboard Tribal Liaison at tribalengagement@bsee.gov. Only upon approval of such request may the document be redacted/withheld.

9 AIR QUALITY CONDITIONS

- 9.1 Reporting. The Lessee must submit all monitoring, reporting, and survey requirements related to air quality to BOEM, BSEE, and EPA. The Lessee must confirm the relevant point of contact prior to reporting and confirmation of reporting receipt.
- 9.2 Sulfur Hexafluoride (SF₆) Leak Rate Monitoring and Detection. The Lessee must follow International Electrotechnical Commission and requirements in EPA’s OCS air permits for SF₆ leak detection and monitoring requirements. The Lessee must also follow manufacturer recommendations for service and repair of the affected breakers and switches and conduct visual inspections of the switchgear and monitoring equipment according to manufacturer recommendations.

- 9.2.1 The Lessee must use enclosed-pressure SF₆ circuit breakers (or switches) and create alarms based on the pressure readings in the breakers and switches, so leaks can be detected when substantial sulfur hexafluoride leakage occurs. Upon a detectable pressure drop that is greater than 10 percent of the original pressure (accounting for ambient air conditions), the Lessee must execute a plan of action within 30 days or within EPA permit requirements (whichever is earlier) of the leakage event to correct the situation. The Lessee must, within 14 days of such correction, provide to BOEM and BSEE details concerning the corrective measures that were required to fix the compliance deficiency. If an event requires the removal of SF₆, the Lessee must replace the affected major component(s) with new component(s).
- 9.2.2 The Lessee must report to BOEM and BSEE any detectable pressure drop that is greater than 10 percent as soon as practicable and no later than 72 hours after the discovery and provide an estimated timeframe for corrective maintenance or replacement.
- 9.2.3 The Lessee must provide a summary in the Lessee's Annual Certification under 30 CFR § 285.633 of observed SF₆ leak rates in the past year and a summary of any leaks greater than 0.1 percent by weight (for the 13.8 kilovolt switches) and 0.5 percent by weight (for all other switches) and the associated corrective maintenance or repair actions taken and their timeframe from detection to completion.
- 9.2.4 National Ambient Air Quality Standards and Prevention of Significant Deterioration (PSD) Class I and Class II Air Quality Increments. The Lessee is required under the Clean Air Act to obtain a permit for OCS sources and as a consequence must demonstrate that the air quality impacts from emissions of both the construction, and operation and maintenance phases, must be within the National Ambient Air Quality Standards and PSD of Air Quality Increments. The Lessee must submit this demonstration to the EPA and the EPA must approve it prior to the issuance of the draft OCS Air Quality Permit. If any requirement in Section 9 of these conditions is inconsistent with the terms of EPA's permit, the language in EPA's permit will prevail.

ATTACHMENT 1: LIST OF ACRONYMS

ABPCMP	Avian and Bat Post-Construction Monitoring Plan
ACHP	Advisory Council on Historic Preservation
ADLS	Aircraft Detection Lighting System
ALARP	As Low as Reasonably Practical
APE	Area of Potential Effects
ASLF	Ancient Submerged Landform Feature
BHMP	Benthic Habitat Monitoring Plan
BiOp	Biological Opinion
BOEM	Bureau of Ocean Energy Management
BSEE	Bureau of Safety and Environmental Enforcement
CBRA	Cable Burial Risk Assessment
CFR	Code of Federal Regulations
COP	Construction and Operations Plan
CVA	Certified Verification Agents
CZMA	Coastal Zone Management Act
dB	decibels
DMA	Dynamic Management Area
DoD	Department of Defense
DOFS	Distributed Optical Fiber Sensing
DOI	Department of the Interior
DON	Department of the Navy
DTS	Desktop Study
EIS	Environmental Impact Statement
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
ESP	electrical service platform
FAA	Federal Aviation Administration
FDR	Facility Design Report
FIR	Fabrication and Installation Report
ft	feet
GARFO	Greater Atlantic Regional Fisheries Office
GDP	Gross Domestic Product
GIS	Geographic Information System
HESD	Habitat and Ecosystem Services Division
HF	high frequency
HRG	high resolution geophysical
IC	Incident Commander
ICS	Incident Command System
IFC	issued for construction
IMT	Incident Management Team

IOOS®	U.S. Integrated Ocean Observing System
ITS	Incidental Take Statement
km	kilometer(s)
kts	knots
Lease	commercial lease OCS-A 0561
LERA	Least Expensive Radar
LNM	Local Notice(s) to Mariners
LOA	Letter of Agreement
m	meter(s)
MA	Commonwealth of Massachusetts
MEC	Munitions and Explosive of Concern
MMPA	Marine Mammal Protection Act
MOA	Memorandum of Agreement
Motus	Motus Wildlife Tracking System
MSA	Magnuson-Stevens Fishery Conservation and Management Act
NARW	North Atlantic right whale
NAS	Noise Attenuation System
NCEI	National Centers for Environmental Information
NEFSC	Northeast Fisheries Science Center
NHPA	National Historical Preservation Act
nmi	nautical miles
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NORAD	North American Aerospace Defense Command
NRHP	National Register of Historic Places
NY	State of New York
OCS	Outer Continental Shelf
OCSLA	Outer Continental Shelf Lands Act
OECC	offshore export cable corridor
OECR	Onshore Export Cable Route
OEM	Original Equipment Manufacturer
OPR	Office of Protected Resources
OSPD	Oil Spill Preparedness Division
OSRO	Oil Spill Removal Organization
OSRP	Oil Spill Response Plan
PAM	Passive Acoustic Monitoring or Passive Acoustic Monitor(s)
PATON	Private Aids to Navigation
POWERON	Partnership for an Offshore Wind Energy Regional Observation Network
PPP	Piping Plover Protection
Project	New England Wind Offshore Commercial Wind and Export Cable Project
PSD	Prevention of Significant Deterioration
PSO	Protected Species Observer
QA/QC	quality assurance/quality control

QI	Qualified Individual
QMA	Qualified Marine Archaeologist
RAL	Reichs-Ausschuß für Lieferbedingungen und Gütesicherung
RAM	Radar Adverse Impact Management
RI	State of Rhode Island
RPM	reasonable and prudent measure
ROD	Record of Decision
RWSC	Regional Wildlife Science Collaborative
SCV	South Coast Variant
SF ₆	Sulfur Hexafluoride
SFV	Sound Field Verification
SHPO	State Historic Preservation Officer
SMA	Seasonal Management Area
SMS	Safety Management System
SROT	Spill Response Operating Team
SWDA	Southern Wind Development Area
TCP	Traditional Cultural Property
TTS	temporary threshold shift
USACE	United States Army Corps of Engineers
USCG	United States Coast Guard
USFWS	United States Fish and Wildlife Service
UTC	Coordinated Universal Time
UXO	unexploded ordnance
WCD	worst-case discharge
WHOI	Woods Hole Oceanographic Institution
WTG	wind turbine generator

ATTACHMENT 2: RHODE ISLAND AND MASSACHUSETTS STRUCTURE LABELING PLOT

AK 20	AK 21	AK 22	AK 23	AK 24	AK 25	AK 26	AK 27	AK 28	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
AL 20	AL 21	AL 22	AL 23	AL 24	AL 25	AL 26	AL 27	AL 28	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
AM 20	AM 21	AM 22	AM 23	AM 24	AM 25	AM 26	AM 27	AM 28	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
AN 20	AN 21	AN 22	AN 23	AN 24	AN 25	AN 26	AN 27	AN 28	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
AP 20	AP 21	AP 22	AP 23	AP 24	AP 25	AP 26	AP 27	AP 28	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
AQ 20	AQ 21	AQ 22	AQ 23	AQ 24	AQ 25	AQ 26	AQ 27	AQ 28	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
AR 20	AR 21	AR 22	AR 23	AR 24	AR 25	AR 26	AR 27	AR 28	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
AS 20	AS 21	AS 22	AS 23	AS 24	AS 25	AS 26	AS 27	AS 28	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 30
AT 20	AT 21	AT 22	AT 23	AT 24	AT 25	AT 26	AT 27	AT 28	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
AU 20	AU 21	AU 22	AU 23	AU 24	AU 25	AU 26	AU 27	AU 28	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
AV 20	AV 21	AV 22	AV 23	AV 24	AV 25	AV 26	AV 27	AV 28	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
AW 20	AW 21	AW 22	AW 23	AW 24	AW 25	AW 26	AW 27	AW 28	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
AX 20	AX 21	AX 22	AX 23	AX 24	AX 25	AX 26	AX 27	AX 28	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
AY 20	AY 21	AY 22	AY 23	AY 24	AY 25	AY 26	AY 27	AY 28	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
AZ 20	AZ 21	AZ 22	AZ 23	AZ 24	AZ 25	AZ 26	AZ 27	AZ 28	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
BA 20	BA 21	BA 22	BA 23	BA 24	BA 25	BA 26	BA 27	BA 28	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
BB 20	BB 21	BB 22	BB 23	BB 24	BB 25	BB 26	BB 27	BB 28	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
BC 20	BC 21	BC 22	BC 23	BC 24	BC 25	BC 26	BC 27	BC 28	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
BD 20	BD 21	BD 22	BD 23	BD 24	BD 25	BD 26	BD 27	BD 28	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
BE 20	BE 21	BE 22	BE 23	BE 24	BE 25	BE 26	BE 27	BE 28	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
BF 20	BF 21	BF 22	BF 23	BF 24	BF 25	BF 26	BF 27	BF 28	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
BG 20	BG 21	BG 22	BG 23	BG 24	BG 25	BG 26	BG 27	BG 28	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
BH 20	BH 21	BH 22	BH 23	BH 24	BH 25	BH 26	BH 27	BH 28	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
BJ 20	BJ 21	BJ 22	BJ 23	BJ 24	BJ 25	BJ 26	BJ 27	BJ 28	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
BK 20	BK 21	BK 22	BK 23	BK 24	BK 25	BK 26	BK 27	BK 28	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
BL 20	BL 21	BL 22	BL 23	BL 24	BL 25	BL 26	BL 27	BL 28	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

ATTACHMENT 2: RHODE ISLAND AND MASSACHUSETTS STRUCTURE LABELING PLOT (COORDINATES)

Lease Number	Lessee	Longitude	Latitude	Row	Column
OCS-A 0561	Commonwealth Wind LLC	-70.70136507	40.93356734	AY	27
OCS-A 0561	Commonwealth Wind LLC	-70.7233541	40.93324071	AY	26
OCS-A 0561	Commonwealth Wind LLC	-70.67895345	40.91721349	AZ	28
OCS-A 0561	Commonwealth Wind LLC	-70.70093732	40.91689124	AZ	27
OCS-A 0561	Commonwealth Wind LLC	-70.72292082	40.9165648	AZ	26
OCS-A 0561	Commonwealth Wind LLC	-70.74490397	40.91623417	AZ	25
OCS-A 0561	Commonwealth Wind LLC	-70.76688675	40.91589935	AZ	24
OCS-A 0561	Commonwealth Wind LLC	-70.65655287	40.90085501	BA	29
OCS-A 0561	Commonwealth Wind LLC	-70.67853157	40.90053714	BA	28
OCS-A 0561	Commonwealth Wind LLC	-70.70050992	40.90021508	BA	27
OCS-A 0561	Commonwealth Wind LLC	-70.72248791	40.89988883	BA	26
OCS-A 0561	Commonwealth Wind LLC	-70.74446554	40.89955839	BA	25
OCS-A 0561	Commonwealth Wind LLC	-70.7664428	40.89922377	BA	24
OCS-A 0561	Commonwealth Wind LLC	-70.63416332	40.88449194	BB	30
OCS-A 0561	Commonwealth Wind LLC	-70.65613686	40.88417843	BB	29
OCS-A 0561	Commonwealth Wind LLC	-70.67811005	40.88386074	BB	28
OCS-A 0561	Commonwealth Wind LLC	-70.70008288	40.88353887	BB	27
OCS-A 0561	Commonwealth Wind LLC	-70.72205536	40.88321281	BB	26
OCS-A 0561	Commonwealth Wind LLC	-70.74402748	40.88288257	BB	25
OCS-A 0561	Commonwealth Wind LLC	-70.76599923	40.88254814	BB	24
OCS-A 0561	Commonwealth Wind LLC	-70.7879706	40.88220953	BB	23
OCS-A 0561	Commonwealth Wind LLC	-70.6117848	40.86812426	BC	31
OCS-A 0561	Commonwealth Wind LLC	-70.63375317	40.86781512	BC	30
OCS-A 0561	Commonwealth Wind LLC	-70.6557212	40.86750179	BC	29
OCS-A 0561	Commonwealth Wind LLC	-70.67768888	40.86718429	BC	28
OCS-A 0561	Commonwealth Wind LLC	-70.6996562	40.8668626	BC	27
OCS-A 0561	Commonwealth Wind LLC	-70.72162317	40.86653674	BC	26
OCS-A 0561	Commonwealth Wind LLC	-70.74358978	40.86620669	BC	25
OCS-A 0561	Commonwealth Wind LLC	-70.76555602	40.86587246	BC	24
OCS-A 0561	Commonwealth Wind LLC	-70.78752189	40.86553405	BC	23
OCS-A 0561	Commonwealth Wind LLC	-70.80948739	40.86519146	BC	22
OCS-A 0561	Commonwealth Wind LLC	-70.61138049	40.8514472	BD	31

Lease Number	Lessee	Longitude	Latitude	Row	Column
OCS-A 0561	Commonwealth Wind LLC	-70.63334336	40.85113824	BD	30
OCS-A 0561	Commonwealth Wind LLC	-70.65530588	40.8508251	BD	29
OCS-A 0561	Commonwealth Wind LLC	-70.67726806	40.85050779	BD	28
OCS-A 0561	Commonwealth Wind LLC	-70.69922988	40.85018629	BD	27
OCS-A 0561	Commonwealth Wind LLC	-70.72119135	40.84986061	BD	26
OCS-A 0561	Commonwealth Wind LLC	-70.74315245	40.84953076	BD	25
OCS-A 0561	Commonwealth Wind LLC	-70.76511319	40.84919672	BD	24
OCS-A 0561	Commonwealth Wind LLC	-70.78707356	40.84885851	BD	23
OCS-A 0561	Commonwealth Wind LLC	-70.80903355	40.84851612	BD	22
OCS-A 0561	Commonwealth Wind LLC	-70.83099316	40.84816955	BD	21
OCS-A 0561	Commonwealth Wind LLC	-70.61097653	40.8347701	BE	31
OCS-A 0561	Commonwealth Wind LLC	-70.63293389	40.83446132	BE	30
OCS-A 0561	Commonwealth Wind LLC	-70.65489092	40.83414836	BE	29