UNITED STATES DEPARTMENT OF THE INTERIOR Bureau of Ocean Energy Management Office of Renewable Energy Programs

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FINAL Information Needed for Issuance of a Notice of Intent (NOI) Under the National Environmental Policy Act (NEPA) for a Construction and Operations Plan (COP)

Guidance Disclaimer

This guidance document is not a rule, regulation, or other legally binding instrument, and the recommendations it contains may not apply to a particular situation, depending on case-specific facts and circumstances. Nothing in this document is intended to modify or amend any Federal statutes, regulations, permits, or leases, nor create any rights or cause of action or trust obligation that any person or party may enforce through litigation or otherwise against the United States Government or any of its employees or officers. This document is not legally enforceable. To the extent that there is any inconsistency between the provisions of this document and any Federal statutes, regulations, leases, or permits, the statutes, regulations, leases, or permits will control.

Introduction

The Bureau of Ocean Energy Management's (BOEM's) regulations describe the requirements for a COP at Subpart F (30 C.F.R. §§ 585.620 – 585.628). BOEM's decision to approve, disapprove, or approve with modifications a COP requires environmental reviews and consultations under the National Environmental Policy Act, 42 U.S.C. 4321–4347 (NEPA) and other applicable federal statutes. BOEM typically analyzes a COP through an Environmental Impact Statement (EIS) in compliance with NEPA, and these guidelines are primarily tailored to that scenario. BOEM recognizes that it may not be possible or practicable for lessees to provide BOEM with a COP submission that meets all data and information requirements under Subpart F. Accordingly, BOEM may begin processing an incomplete COP submission, subject to a BOEM-reviewed "supplemental filing schedule" for submitting the remaining required information in time to inform the requisite environmental analysis and COP decision.

This guidance, known as the "NOI Checklist," revises the current recommended process for COP submissions to: 1) provide clarity to lessees; 2) establish a pre-application and pre-NOI process with lessees and cooperating agencies that will benefit all stakeholders; 3) improve the efficiency of proposed offshore wind project reviews by avoiding delays to the NEPA analysis after the NOI has been published. The revised process identifies the threshold requirements for information that should be included in a COP submission before BOEM will formally initiate the

¹ A COP that is subject to an Environmental Assessment (EA) would generally need to follow analogous steps with consideration given to any programmatic NEPA documents that support tiering and streamlining of the process for both EISs and EAs.

EIS through publication of an NOI. Moreover, BOEM will consider the extent to which an operator's COP submissions have conformed to the NOI Checklist when calculating the Permitting Timetables for projects added to the FAST-41 Permitting Dashboard, where applicable.²

Further, in response to comments received on the draft version of this guidance, BOEM led an interagency effort to develop the second attachment to this guidance, the *Recommendations for Pre-Notice of Intent (NOI) Federal Interagency Engagement on Construction and Operations Plans (COP) for Offshore Wind.* ("Attachment 2", included with this guidance, referred to as "*Recommendations for Engagement*" throughout this guidance.)

Going forward, BOEM will generally not publish an NOI until the lessee's COP submission includes the minimum content described in Attachment 1, subject to limited exceptions. Absent extenuating circumstances, BOEM expects to complete the EIS with a record of decision (ROD) within two years of an NOI publication and the EA with a finding of no significant impact (FONSI) or decision to prepare an EIS within one year of an NOI publication in accordance with the NEPA § 107(g)(1), as enacted by the Fiscal Responsibility Act of 2023 (FRA).³

Overall, BOEM intends to minimize exceptions to the NOI Checklist. However, BOEM retains the discretion to publish an NOI absent one or more items from the attached checklist. In such cases, BOEM will exercise its discretion to extend the statutory deadline set by section 107(g) of NEPA, based on a finding that the additional time "is necessary to complete such environmental impact statement or environmental assessment." Likewise, BOEM may publish NOIs for COPs that include provisions for case-by-case supplemental filings as detailed in Attachment 1. Failure to meet the schedule for supplemental filings will lead to delays in processing the COP, including delays to the schedule for environmental review.

<u>In the past</u>, BOEM advised lessees on the development of their COP before it was submitted and BOEM also provided courtesy reviews of incomplete COP submissions.

Going forward, BOEM invites Lessees to engage with the BOEM Project Team and Subject Matter Experts (SMEs) during the drafting of the COP and the Project Management Team should be available to facilitate discussions between Lessees, SMEs and other federal agencies. However, BOEM generally will not conduct formal technical and environmental reviews (including providing detailed comments on documents), or provide detailed comments on draft

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² FAST-41 is title 41 of the Fixing America's Surface Transportation Act. The proponent of a large or complex infrastructure project may seek to initiate the FAST-41 process to improve government-wide coordination, transparency, and accountability by submitting a FAST-41 initiation notice to the Permitting Council's executive director and the applicable facilitating Federal agency. For more information, see OMB and CEQ memo M-17-14 entitled *Guidance to Federal Agencies Regarding the Environmental Review and Authorization Process for Infrastructure Projects*, available at https://www.permits.performance.gov/sites/permits.dot.gov/files/2019-10/Official%20Signed%20FAST-41%20Guidance%20M-17-14%202017-01-13.pdf

³42 U.S.C. § 4336a(g)(1).

⁴ See § 4336a(g)(2). Section 107(g) requires BOEM to extend the deadline "in consultation with the applicant." See id. Generally speaking, BOEM will not agree to publish an NOI before the applicant has completed all the items from the attached checklist unless the applicant agrees to extend the statutory deadline to accommodate the applicant's delay in completing the items.

documents, until a complete COP is submitted with all the necessary data and information to evaluate the COP for readiness for issuance of an NOI. In Attachment 1, BOEM describes the minimum information needed to satisfy BOEM's regulations at 30 C.F.R. part 585, Subpart F, and the expected deadlines for submission. For example, Attachment 1 identifies the latest date by which revisions that substantially refine the project design envelope may be submitted without causing delays to the review schedule and allow BOEM to satisfy its timing obligations under the FRA (six months before the scheduled Notice of Availability for the draft EIS (DEIS)).

Typically, lessees provide significant additional information and background in the initial COP submitted to BOEM beyond what is required in the regulations. BOEM strongly encourages lessees to continue to do so, and the guidance included in Attachment 1 should not be interpreted as precluding a lessee from doing so. Moreover, this guidance clarifies but does not supersede BOEM's regulations governing COPs.

For Further Information Contact

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This and all other BOEM renewable energy guidance is posted at https://www.boem.gov/guidance under the "Renewable Energy Guidance" tab.

Paperwork Reduction Act Statement

These guidelines provide clarification, description, or interpretation of requirements contained in 30 C.F.R. part 585, Subpart F. An agency may not conduct or sponsor a collection of information unless it displays a currently valid information collection control number issued by the Office of Management and Budget (OMB). OMB has approved the information collection requirements in 30 C.F.R. part 585, Subpart F under OMB Control Number 1010-0176. These guidelines do not impose additional information collection requirements subject to the Paperwork Reduction Act of 1995.

Attachment 1

Checklist of Information Needed for Issuance of a Notice of Intent (NOI) Under the National Environmental Policy Act (NEPA) for a Construction and Operations Plan (COP) ("NOI Checklist")

This section describes the COP components that BOEM needs, pursuant to 30 CFR part 585, to receive from the lessee with adequate time to review before publishing an NOI.⁵ The specific guidance contained within this NOI Checklist, along with BOEM's other COP guidance documents, provide a description of what constitutes sufficient "information necessary to conduct our technical and environmental reviews" for each submission required by the 30 CFR part 585 regulations.⁶ For each of the submissions provided by the lessee and discussed in this document, BOEM will determine if it contains all the required information necessary to conduct our technical and environmental reviews prior to NOI publication.⁷ Moreover, BOEM intends to consider the status of the COP components listed in this document when reviewing Initiation Notices under Title 41 of the Fixing America's Surface Transportation Act (FAST-41) and setting timelines within coordinated project plans (CPP), where applicable.⁸ If phased development is proposed in the COP, this NOI Checklist would apply only to phase 1 because of the inherent anticipation of a future revised COP submission that would include the required information for latter phase(s).⁹

a. Cross-References to BOEM Guidance Documents

The NOI Checklist contains many cross-references to other existing BOEM guidance documents. BOEM endeavors to update its guidance documents regularly to reflect significant changes to agency regulations, practices, and procedures, and to incorporate lessons learned, where appropriate. If any guidance document referenced in the NOI Checklist is updated or superseded, then the most current version of the guidance document on BOEM's website should be assumed to apply to the relevant component of the NOI Checklist. BOEM's renewable energy guidance documents are available under the "Renewable Energy" tab here:

https://www.boem.gov/guidance

b. COP Update Procedures

Lessees typically update the COP and its associated appendices several times between the initial submission, the NOI, and the completion of all environmental and technical reviews and

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⁵ BOEM acknowledges that section 107(f) of NEPA, enacted by the Fiscal Responsibility Act of 2023, directs agencies to "prescribe procedures to allow a project sponsor to prepare an [EA] or an [EIS] under the supervision of the agency," while providing that "[t]he lead agency shall independently evaluate the environmental document and shall take responsibility for the contents." 42 USC § 4336a(f). BOEM does not anticipate changes to the NOI checklist will result from this amendment to NEPA and notes that the COP requirements under 30 CFR Part 585 remain independently from ongoing changes to the NEPA statute and regulations (a COP application should include the submissions listed in the checklist regardless of whether the NEPA is applicant-prepared or agency-prepared before an NOI would be issued).

⁶ BOEM's Guidance Portal containing all current and archived guidance documents is available by selecting the Renewable Energy tab at https://www.boem.gov/about-boem/regulations-guidance/guidance-portal.

⁷ 30 CFR § 585.628(a) and (e). For more discussion of the term "sufficient" *see e.g.*, page 7 of BOEM's COP guidelines *available at* https://www.boem.gov/sites/default/files/renewable-energy-program/COP-Guidelines.pdf. ⁸ *Id.*

⁹ See 30 CFR § 585.238 regarding phased development.

authorizations. These updates may be initiated by the lessee, or in response to comments from BOEM and other cooperating agencies. To ensure efficient and effective reviews of each COP and appendix version, the lessee should provide an updated "revision log" as a cover sheet for the updated COP and appendix. The "revision log" should identify which documents were updated, the date (month/year) of the updates and a brief description of the changes made.

c. Description and Confirmation of Meaningful Coordination with Federal Agencies and Federally Recognized Tribes¹⁰

The lessee should follow the guidance in Attachment 2, *Recommendations for Engagement*, when planning coordination with federal agencies and federally recognized Tribes. Lessees with Engagement and Communications Plan lease stipulations must comply with those stipulations during the implementation of this guidance. For engagement with potentially affected federally recognized Tribes, the lessee should work with the Tribe directly to establish the level of engagement the Tribe considers appropriate. Lessees with Native American Tribal Communication Plan (NATCP) lease stipulations must follow the instructions in the stipulation and should follow the NATCP associated guidance.¹¹

The lessee should provide a list of federal, Tribal, state, and local government entities and representatives it has engaged with prior to submission of the COP. This includes a listing of all federal, state, and local authorizations, approvals, permits, consultations (including National Historic Preservation Act (NHPA) section 106 consulting parties, if applicable) that are required to conduct the proposed activities. The lessee should meet with all federal, Tribal, state, and local government entities that must either permit or be consulted regarding the proposed action at least once prior to the submittal of the COP, or in accordance with the relevant Engagement and Communications Plans. Information about the meeting date, time, and participants should be documented directly in the COP along with the list of agencies, or in accordance with the relevant Engagement and Communications Plans and associated guidance. The communication of the communications Plans and associated guidance.

d. Identification of Federal Authorizations and Consultations

Lessees should be aware that the following authorizations *from federal agencies other than BOEM may be needed* for aspects of their project and they should coordinate with the respective authorizing agency early in the development of their project proposal, and before the issuance of the NOI, to determine whether the permit will be necessary. In addition, BOEM is required to conduct several consultations described below during the COP review.

¹¹ Draft Guidelines and Instructions for Native American Tribes Communications Plan Development https://www.boem.gov/sites/default/files/documents/renewable-

¹⁰ 30 C.F.R. § 585.626(b)(17).

energy/DRAFT%20NATCP%20Guidance%20for%20NYB%20and%20CLB%20Lessees_Feb2023_0.pdf; For latest guidance *see* BOEM's Guidance Portal containing all current and archived guidance documents is available by selecting the Renewable Energy tab at https://www.boem.gov/about-boem/regulations-guidance/guidance-portal ¹² 30 C.F.R. § 585.626(b)(14).

¹³ Draft Guidelines and Instructions for Native American Tribes Communications Plan Development https://www.boem.gov/sites/default/files/documents/renewable-

energy/DRAFT%20NATCP%20Guidance%20for%20NYB%20and%20CLB%20Lessees_Feb2023_0.pdf; For latest guidance *see* BOEM's Guidance Portal containing all current and archived guidance documents is available by selecting the Renewable Energy tab at https://www.boem.gov/about-boem/regulations-guidance/guidance-portal

Authorizations:

- NOAA NMFS: Incidental Take Authorization (Incidental Harassment Authorization (IHA) or Letter of Authorization (LOA)) under Marine Mammal Protection Act (MMPA), 16 U.S.C. §§ 1361 et seq.
- U.S. Army Corps of Engineers (USACE): Section 10 of Rivers and Harbors Act, 33 U.S.C. § 403.
- USACE: Section 404 of Clean Water Act, 33 U.S.C. § 1344.
- USACE: Section 408 for occupation or alteration of Civil Works projects 33 U.S.C. § 408.¹⁴
- EPA: Clean Water Act Section 402 NPDES discharge permit (typically for an open-loop cooling system within an HVDC offshore converter station); Clean Water Act Section 401 certification.¹⁵
- National Park Service: Special Use Permit; Right-of-Way within parklands. Assessment for potential conversion of Land and Water Conservation Fund Act lands. 16
- FWS: Special Use Permit; Right-of-Way within National Wildlife Refuges. 17
- EPA: OCS Air Permit under Clean Air Act Section 328. 18
- Clean Air Act compliance for "Class I" areas, if applicable. 19

Consultations:

- NOAA NMFS:
 - o Endangered Species Act consultation, 16 USC §§ 1531 et seq.
 - o Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat (EFH) consultation, 16 USC §§ 1801 *et seq*.
 - National Marine Sanctuaries Act²⁰
- Fish and Wildlife Service: Endangered Species Act consultation, 16 USC §§ 1531 et seq.

401#:~:text=Section%20401%20Certification,Learn%20more%20about%20401%20certification

¹⁴ For more information see e.g., https://www.usace.army.mil/Missions/Civil-Works/Section408/

¹⁵ For more information see e.g., https://www.epa.gov/cwa-

¹⁶ For more information on right-of-way permits *see* https://www.nps.gov/aboutus/right-of-way-permit.htm . *See* the Land and Water Conservation Fund State Assistance Program Manual for more information on when a conversion occurs and what steps need to be taken as a result at https://www.nps.gov/subjects/lwcf/upload/LWCF-FA-Manual-Vol-71-3-11-2021-final.pdf. Contact the specific park unit overseeing the parklands for more information.

¹⁷ For more information on Special Use permits *see* https://fws.gov/service/special-use-permits-national-wildlife-refuges. At the time of publication, right-of-way permits are subject to an ongoing rulemaking, *see e.g.*, https://www.federalregister.gov/documents/2021/01/19/2021-00704/streamlining-us-fish-and-wildlife-service-permitting-of-rights-of-way

¹⁸ See 40 C.F.R. part 55 for OCS Air Permit regulations.

¹⁹ The Clean Air Act gives special air quality and visibility protection to national parks larger than 6,000 acres and national wilderness areas larger than 5,000 acres that were in existence when it was amended in 1977. These are "Class I" areas, which are managed by the National Park Service, U.S. Fish and Wildlife Service, U.S. Forest Service ("Federal Land Manager" under the Clean Air Act), and several Native American Tribes. A list of Class I areas is *available at* https://www.epa.gov/visibility/list-areas-protected-regional-haze-program . *See* 40 C.F.R. Part 51, Subpart P for relevant regulations and contact the relevant Federal Land Manager for additional guidance.

²⁰ "Federal agency actions internal or external to a national marine sanctuary, including private activities authorized by licenses, leases, or permits, that are likely to destroy, cause the loss of, or injure any sanctuary resource are subject to consultation with the Secretary." 16 U.S.C. § 1434(d)(1)(A).

• Section 106 of the Historic Preservation Act, typically under the "NEPA substitution" process at 36 C.F.R. § 800.8(c). See the Section on "National Historic Preservation Act Information and Reports" below for more information.

Federal Consistency under: Coastal Zone Management Act, 16 USC §§ 1451 et seq.²¹

Federal Aviation Administration: Notice of Proposed Construction or Alteration (if located within 12 nautical miles of shore)²²

e. The NOI Checklist, FAST-41 Permitting Timetables and Schedules for Completion of Environmental Review and Authorizations Under the FRA

Many of the commercial offshore wind projects subject to COP approvals potentially qualify as "covered projects" under FAST-41.²³ Once the Federal Permitting Improvement Steering Council (FPISC) makes a "covered project" determination and posts a project to the Permitting Dashboard, a Coordinated Project Plan (CPP), which includes a Permitting Timetable, must be developed within 60 days.²⁴ The Permitting Timetable must include "intermediate and final completion dates for action by each participating agency on any Federal environmental review or authorization required for the project."²⁵ As described in the section entitled, "Supplemental Filings," below, if a lessee chooses not to provide a portion of the information listed in the NOI Checklist prior to submitting a FAST-41 Initiation Notice (FIN), the lessee should coordinate with BOEM and the cooperating agencies to establish a supplemental filing schedule for such information that will inform the development of the Permitting Timetable. BOEM intends to incorporate deadlines for those supplemental filings into the Permitting Timetable to create a structured framework for timely delivery. This coordination should commence at least as soon as the project is determined to be a "covered project" that will be added to the Permitting Dashboard. BOEM also strongly encourages coordination with the BOEM project team and the FPISC Office of the Executive Director in advance of any FIN submission.

Similarly, under section 107 of NEPA, BOEM must "develop a schedule, in consultation with each cooperating agency, the lessee, and such other entities as the lead agency determines appropriate, for completion of any environmental review, permit, or authorization required to carry out the proposed agency action." BOEM may develop a schedule for a COP that has not yet been determined to be a "covered project" under FAST-41 by FPISC, or for which the lessee has decided not to seek a "covered project" determination. In those cases where FPISC has made a "covered project" determination, BOEM intends to use the Permitting Timetable for the purpose of meeting the FRA permitting schedule requirements.

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²¹ See 30 C.F.R. § 585.627(9).

²² https://www.faa.gov/documentLibrary/media/Form/FAA_Form_7460-1_052026.pdf

²³ See 42 U.S.C. § 4370m(6).

²⁴ A CPP is a "concise plan for coordinating public and agency participation in, and completion of, any required Federal environmental review and authorization for the project." 42 U.S.C. § 4370m-2(c)(1)(A).

²⁵ 42 U.S.C. § 4370m-2(c)(2)(A).

²⁶ *Id.* § 4336a(2)(D).

1. Application is Consistent with the Notice of Intent Checklist Milestone

Beginning with the date of publication of this guidance, BOEM intends to include a milestone entitled, "Application is Consistent with the Notice of Intent Checklist," in its Permitting Timetable and Fiscal Responsibility Act schedules. This milestone documents whether a project's COP is sufficiently complete for the purposes of issuing an NOI, in accordance with the NEPA regulations at 40 C.F.R. 1501.9, and BOEM's regulations at 30 C.F.R. §§ 585.626-.628.27 BOEM will rely on its regulations to determine whether a submitted COP contains the information needed to efficiently proceed with the environmental and technical reviews necessary to satisfy BOEM's obligations under the NEPA regulations, OCSLA, and other applicable statutes. Failure to provide the information described in the NOI Checklist may result in BOEM determining that the COP lacks the information necessary to issue the NOI and formally commence the necessary technical and environmental reviews; or may result in a longer Permitting Timetable, or a longer schedule developed under section 107(a)(2)(D) of NEPA.

2. Relationship Between NOI Checklist and Two-Year Environmental Reviews

If BOEM issues an NOI with one or more components of the NOI Checklist outstanding, BOEM intends to incorporate deadlines for those supplemental filings into the project schedule. In such cases, BOEM will exercise its discretion to extend the statutory deadline set by section 107 of NEPA, based on a finding that the additional time "is necessary to complete such environmental impact statement or environmental assessment." See 40 U.S.C. § 4336a(g)(2).²⁸This pathway would typically constitute a determination that BOEM is not able to meet the two-year timeline between NOI and ROD for an EIS under the FRA, and coordination with the lessee on the Permitting Timetable, or NEPA schedule, would constitute "consultation with the applicant" under the FRA.²⁹ It is BOEM's expectation that in these cases the timeline between the NOI and the Notice of Availability for the Draft EIS would be extended by three months, with the possibility of longer extensions if the supplemental filings are received more than three months after NOI.³⁰ The additional time should account for time added to the permitting process resulting from incorporating information from supplemental filing(s) into ongoing environmental and technical reviews and consultations, including consultations under the Endangered Species Act and Magnuson-Stevens Fishery Conservation and Management Act, Section 106 of the NHPA, and government-to-government consultations with federally recognized Tribes, where

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²⁷ See e.g., "Scoping may begin as soon as practicable after the proposal for action is sufficiently developed for agency consideration. Scoping may include appropriate pre-application procedures or work conducted prior to publication of the notice of intent." 50 C.F.R. § 1501.9(d). See also "What information and certifications must I submit with my COP to assist the BOEM in complying with NEPA and other relevant laws?" 30 C.F.R. § 585.627.
²⁸ Section 107 of NEPA requires BOEM to extend the deadline "in consultation with the applicant." See id.
Generally speaking, BOEM will not agree to publish an NOI before the applicant has completed all the items from the attached checklist unless the applicant agrees to extend the statutory deadline to accommodate the applicant's delay in completing the items.

²⁹ See 40 U.S.C. § 4336a(g)(2).

³⁰ As of spring 2023, BOEM's own experience with FAST-41 offshore wind COPs indicates that 2 years and 3-6 months is a typical timeline from NOI to the ROD for a COP EIS that includes supplemental filings after the NOI.

applicable. As stated above, BOEM also reserves the ability to exercise its discretion to decline to issue an NOI for those projects that are not "sufficiently developed for agency consideration" under NEPA.³¹

f. Supplemental Filing Schedule

Lessees proposing to submit data and information after their first COP submission should include a written supplemental filing schedule with their first COP submission. Data and information submitted through *supplemental filings should be submitted and reviewed by BOEM* to allow BOEM adequate environmental and technical review time before an upcoming milestone, such as: the issuance of an NOI; the publication of a DEIS or final EIS; or the issuance of an approval, approval with modifications, or disapproval for the COP. Prior to COP submission, the lessee should discuss with BOEM what schedule would be appropriate for the timely review and processing of the COP by BOEM and the consulting agencies.

The proposed filing schedule and references to any delayed information should be clearly documented in each COP submission for clarity and transparency. The proposed schedule should account for the timing of the lessee's surveys and processing of survey data. Submission of a schedule that does not meet the timing of BOEM's environmental and technical review, or a failure to comply with the schedule submitted, will likely result in BOEM delaying its environmental and/or technical reviews of the COP. If the project is a FAST-41 "covered project", the FAST-41 Permitting Timetable should reflect and incorporate the supplemental filing schedule. If the lessee needs to change any dates in the supplemental filing schedule, the lessee should contact BOEM as soon as possible and submit a revised schedule that clearly identifies what dates the lessee is requesting to change. BOEM should review and inform the lessee whether any of the date revisions will have a negative impact on BOEM's review schedule. If the project is a covered project under FAST-41, delays to the supplemental filing schedule are likely to result in Permitting Timetable extensions. ³² Change in dates and delays could also affect the Fiscal Responsibility Act schedule.

g. Project Description

In addition to the information requirements listed in 30 C.F.R. § 585.626, the project description should include a complete, well-defined, and illustrated description of the project, including:

- The associated project area within the lease (sometimes called the "Wind Development Area").
- The "action area" under the Endangered Species Act. 33
- All anticipated easements on the OCS under 30 C.F.R. 585.620, as well as nearshore and onshore easements and rights-of-way.

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³¹ See 50 C.F.R. § 1501.9(a).

³² See e.g., OMB memo M-17-14, "Guidance to Federal Agencies Regarding the Environmental Review and Authorization Process for Infrastructure Projects," section 4.31: "If there are actions outside the control of Federal agencies (or state agencies that have opted to participate in FAST-41 process)...the permitting timetable may be modified without going through the modification steps in 42 U.S.C. § 4370m-2(c)(2)(D)."

³³ "Action area" for Endangered Species Act purposes is defined at 50 C.F.R. § 402.02 as: "all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action."

- All connected actions under NEPA, where applicable. (For example, some port upgrades and maintenance sites may meet the "connected action" threshold).³⁴
- A complete description of the preliminary area of potential effect (PAPE) before BOEM may initiate the section 106 process. Additional information can be found in the NHPA section below.³⁵
- The Project Design Envelope (PDE), if applicable. 36
- All facilities you plan to construct and use for your project that are on the OCS, nearshore and onshore, including all landfalls, subsea and terrestrial cables and support facilities.
- All foundation designs (i.e., monopiles, piled jackets, suction buckets, gravity-based structures, and floating systems, etc.) and proposed foundation technologies should be described in the COP and include a preliminary foundation feasibility analysis of the proposed action, including a pile drivability analysis if applicable.

All designs, layouts, and technologies proposed within the PDE should be described in a similar level of detail that is sufficient for BOEM to assess during the NEPA review. The project should be described consistently throughout all COP volumes and appendices.

1. Project Design Envelope Refinement:

BOEM issued its *Draft Guidance Regarding the Use of a Project Design Envelope in a Construction and Operations Plan* in 2018. The PDE approach gives the project proponent the option to submit a reasonable range of design parameters within its COP and allows the EIS to analyze the maximum impacts that could occur from the range of design parameters. If approved, the PDE would result in a project that is constructed and operated within the analyzed range of designs. BOEM has already approved two COPs that use a PDE and expects most future applications to include a PDE.

If the COP submission includes a broad PDE that the lessee plans to refine throughout their pre-construction planning, stakeholder feedback, permitting, site assessment, design, procurement, financing, and engineering activities; and such refinements occur after the NOI, potential delays may occur. Agencies may be required to revise the proposed action described and analyzed for consultations (e.g., ESA, EFH), and lessees may need to revise applications for authorizations (e.g., MMPA, CWA 404(b)). These delays and revisions may be necessary to ensure analyses properly evaluate revised project designs and corresponding impacts to resources. To reduce the risk of delays and additional work for all parties BOEM is sharing the following recommendations:

A lessee may propose a broad PDE in their initial COP submission. Then, prior to NOI, the lessee may select a proposed action that is composed of a subset of the PDE to be analyzed in the EIS and in subsequent consultations and authorizations occurring after NOI. The lessee should submit a supplemental filing that clearly describes their proposed action at least 3 months prior to the scheduled NOI to avoid delays. This refined proposed action could be informed by early coordination with federal agencies, federally recognized Tribes, state agencies, and other stakeholders.

³⁴ 30 C.F.R. §§ 585.620(a); 40 C.F.R. § 1501.9(e)(1).

³⁵ 30 C.F.R. §§ 585.626(a)(5); 585.627(a)(6).

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³⁶ For more information on the project design envelope see BOEM's "Guidance Regarding the Use of a Project Design Envelope in a Construction and Operations Plan" available at https://www.boem.gov/sites/default/files/renewable-energy-program/Draft-Design-Envelope-Guidance.pdf

- Likewise, refining the PDE through a supplemental filing during the following time periods also reduces the risk of delays, promotes efficiencies, and facilitates clearer communication of project evolution to all stakeholders:
 - o At least 3 months prior to the scheduled issuance of the NOI
 - At least 6 months prior to the scheduled publication of the Notice of Availability (NOA) for the DEIS. If the refinements affect a significant portion of the COP and the DEIS, then submission more than 6 months (i.e., 8 months) in advance of the NOA may be necessary.

Notably, the EIS may continue to include alternatives analyzed in detail that incorporate aspects of the initial broader PDE, as appropriate and in accordance with BOEM's *Process for Identifying Alternatives for Environmental Reviews of Offshore Wind Construction and Operations Plans pursuant to the National Environmental Policy Act.*³⁷ Finally, a one-size-fits all approach to PDE refinement may not be necessary or effective. For example, large ranges in the total number of piled foundations to be installed may create challenges for ESA consultations and MMPA authorizations that would incentivize PDE refinement prior to DEIS NOA. In contrast, keeping several potential ports to be used for maintenance activities within the PDE throughout the permitting process may *not* cause any substantial challenges, moreover, it may avoid the need for additional NEPA analysis and COP modifications after ROD. In contrast, expansion of the PDE after the NOI is published is likely to cause delays and disruption to the NEPA review process, which may include re-scoping, or supplemental NEPA review.

2. Layout and Design Options Considered for the Proposed Action³⁸

The lessee should identify layout and design options considered for the proposed action contained in the COP that <u>may</u> avoid or minimize: (1) potential impacts to biological and cultural resources based on previous environmental reviews and the best available scientific information and; (2) any other known concerns to federal agencies, federally recognized Tribes, cooperating state agencies, and other stakeholders, including communities with environmental justice concerns. For example, if the proposed onshore cable route crosses through sensitive habitat, such as a large area of wetlands, the lessee should propose a potential alternative route to be analyzed that is feasible and may reduce impacts to the sensitive habitat, if one can be reasonably identified.

In addition, the lessee should document, including basic comparative information, all wind turbine generators (WTG), offshore substations and export cable layouts and design options considered, but ultimately not proposed by the lessee. The lessee should also include one or more indicative inter-array layouts with the information needed for subsea cables included

https://www.boem.gov/sites/default/files/documents/renewable-energy/BOEM%20COP%20EIS%20Alternatives-2022-06-22.pdf

³⁷ Process for Identifying Alternatives for Environmental Reviews of Offshore Wind Construction and Operations Plans pursuant to the National Environmental Policy Act (NEPA) *available at*

³⁸ 30 C.F.R. §§ 585.621; 585.626(b)(15). This information may also be used to inform the U.S. Army Corps of Engineer's initial review for Section 404 of the Clean Water Act, and Section 10 and Section 14 (Section 408) of the Rivers and Harbors Act of 1899. Prior to the submittal of the COP to BOEM, the applicant should meet with the appropriate USACE District office to discuss information requirements and timing. The Corps District office can work with the applicant and provide a general template for identifying and screening alternatives.

from the section below. The lessee should include the technical, practical, environmental, and economic reasoning for eliminating them from further consideration as applicable. The lessee should also summarize the coordination with federal agencies, federally recognized Tribes, cooperating state agencies, and other stakeholder engagement that was used to consider, select, and eliminate layout and design options.

3. Subsea Cables³⁹

Information included in the COP to describe the PDE for the subsea export cable routings should include:

- o Maximum and minimum number of export cables;
- Easement(s) and export cable corridor(s) width estimates and location; and width estimates and indicative locations for inter-array cables:
- o Maximum length of subsea cable;
- o Minimum and maximum cable target burial depths;
- Minimum length of the cable routings that are expected to meet the minimum burial depth;
- o Estimate of the stable seabed depth in relation to the surveyed seabed;
- o Maximum and minimum length of dynamic cables, if applicable;
- o A description of all subsea cable installation methods and equipment types;
- A description of cable protection methods, maximum amount of cable protection needed and information on where cable protection may be necessary and how the determination was made.
- Seabed preparation activities methodology (e.g., sandwave clearance, boulder relocation, etc.) and maximum estimates of potential seafloor disturbance;

4. Subsea Cable Risk Assessment

Additionally, the COP should include a preliminary assessment of cable burial risk for export and inter-array cables that includes at least a desktop-level analysis of the risks that project subsea cables may present to other maritime users in the vicinity (e.g., shipping, fishing, dredging, and sand borrow activities). That analysis should include information on the vertical and horizontal extents of subsea cable risks and how the submarine cable PDE takes into consideration such risks over the project lifetime. Analyses should aim to support cable burial feasibility and cable target burial depths provided in the submarine cable PDE. This analysis should also include identification of any Federal Aids to Navigation (ATON) or Private Aids to Navigation (PATON) within 500 meters of the proposed cable corridor. BOEM recommends that lessees follow the 2015 Carbon Trust's *Cable Burial Risk Assessment Methodology: Guidance for the Preparation of Cable Burial Depth of Lowering Specification*, or equivalent industry guidance as they continue to mature their analysis. 40 BOEM understands that additional refinement of cable burial risks is anticipated after publication of the NOI.

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³⁹ 30 C.F.R. § 585.626(b)(7).

⁴⁰ *Available at*: https://ctprodstorageaccountp.blob.core.windows.net/prod-drupal-files/documents/resource/public/cable-burial-risk-assessment-guidance.pdf

5. Description of the Lessee's Goals⁴¹

Lessees should include a description of their goals, including any offtake agreements the project is planning to meet; any solicitations for offshore wind power the project intends to compete for; any additional power generation for future sale that is necessary for economic viability; as well as any relevant state and federal renewable energy goals. Particularly if the project is primarily intended to meet future offtake demands, lessees should identify the minimum amount of energy the project must generate for it to be "technically and economically practicable or feasible" for consideration by BOEM in developing reasonable alternatives during its NEPA review, as well as the maximum nameplate capacity for the project that the lessee is seeking to generate. Likewise, lessees should identify scheduling constraints and obligations related to offtake agreements, points of interconnection, electricity tariffs, and any other critical timeline obligations for BOEM's consideration, to the extent they are known at the time of COP submission.

6. Section 404 of the Clean Water Act (CWA) Information

For activities requiring a permit under Section 404 of the CWA, the description of the proposed action and the alternatives in the COP should include sufficient pre-application qualitative and quantitative information for BOEM and the USACE to evaluate and identify alternatives for the DEIS.⁴³ This provision of information for an initial comparative evaluation is intended to avoid potentially time-consuming concerns being raised during the later permit evaluation of the dredged or fill material analysis under 40 C.F.R. part 230. The proposed action and the alternatives should also include sufficient qualitative and quantitative information to help address restrictions on discharge under 40 C.F.R. § 230.10.

e. Detailed Description of Potential Impacts⁴⁴

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⁴¹ BOEM understands that in some cases this may include the disclosure of Confidential Business Information. An applicant may provide this information in an expressly labeled, confidential appendix, if necessary.

⁴² 43 C.F.R. § 46.420(b).

⁴³ The initial identification of layout and design options should be sufficient to allow for meaningful agency comment in the pre-application phase and should also help inform USACE initial review for Section 10 and Section 14 (Section 408) of the Rivers and Harbors Act of 1899. Prior to the submittal of the COP to BOEM, the applicant should meet with the appropriate USACE District office to discuss information requirements and timing. The USACE District office can work with the applicant and provide a general template for identifying and screening alternatives.

⁴⁴ 30 CFR § 585.627(a). One appropriate resource to begin identifying Impact Producing Factors (IPFs) is BOEM's Study "National Environmental Policy Act Documentation for Impact-Producing Factors in the Offshore Wind Cumulative Impacts Scenario on the North Atlantic Outer Continental Shelf" *available at* https://www.boem.gov/sites/default/files/environmental-stewardship/Environmental-Studies/Renewable-Energy/IPFs-in-the-Offshore-Wind-Cumulative-Impacts-Scenario-on-the-N-OCS.pdf; IPFs are defined in that study as follows: "IPFs identify the cause-and-effect relationships between actions (e.g., a wind energy project) and relevant physical, biological, economic, or cultural resources. They define the particular ways in which an action or activity affects a given resource. It is common that multiple IPFs affect the same resource." Fisheries information is also included in the following Technical Memorandum "Fisheries and Offshore Wind Interactions: Synthesis of Science" *available* at https://repository.library.noaa.gov/view/noaa/49151; Many other resources are also posted on BOEM's Renewable Energy Research Complete Studies site *available at* https://www.boem.gov/renewable-energy-research-completed-studies.

The discussion of environmental resources and impact producing factors (IPFs) in the COP submission should be informative and as specific as possible. The level of detail should be tailored to the geographic extent of your activities, the duration or intensity of the IPFs, and the sensitivity of resources in your project area, as opposed to assigning impact levels to project activities. Under NEPA, as amended by the Fiscal Responsibility Act, agencies must consider, at a minimum, reasonably foreseeable effects of the proposed action and alternatives; "any reasonably foreseeable adverse environmental effects which cannot be avoided should the proposal be implemented" and "any negative environmental impacts of not implementing the proposed agency action in the case of a no action alternative." These requirements should guide your selection of IPFs to discuss in the COP. There must be sufficient detail to support the environmental analyses required by NEPA and other relevant environmental laws. COPs must also include any environmental protection measures that avoid, mitigate, and minimize the identified adverse effects, and monitoring activities you are proposing as part of the proposed project.

For each biological, physical, and socioeconomic resources, lessees should identify all IPFs and provide a detailed assessment of each. The assessment should include, but is not limited to, a description of each IPF, spatial delineation of the affected area for each potentially affected resource, a quantified inventory of these affected resources, and a narrative describing how these resources would be affected. Lessees should use the best available information to develop impact assessments. Lessees should include illustrations, tables, and figures, as appropriate. Additional details can be found in the resource sections below.

h. Benthic Habitat Assessment⁴⁸

COP submittals should include a benthic habitat assessment that provides the information described in BOEM's *Guidelines for Providing Benthic Habitat Survey Information for Renewable Energy Development on the Atlantic Outer Continental Shelf Pursuant to 30 C.F.R. Part 585 and Guidelines for Providing Geophysical, Geotechnical, and Geohazard Information Pursuant to 30 C.F.R. part 585.*⁴⁹ BOEM recommends that the habitat assessment include multibeam and side scan sonar data for 100 percent of the lease area and offshore export cable route(s) included in the proposed action in the COP. However, if 100 percent coverage is impracticable, BOEM accepts modeled bathymetry and modeled surface feature classes (rippled scour depressions, sand, silt, clay) for project areas without geophysical survey data based upon the available acoustic surveys and grab sample survey results. The benthic habitat assessment should include all offshore, inshore, estuarine, and riverine areas within 100 percent of the lease area and offshore export cable route(s) included in the proposed action in the COP. Lessees

⁴⁵ NEPA § 102, 42 U.S.C. § 4322, as enacted by the Fiscal Responsibility Act of 2023.

⁴⁶ 30 C.F.R. § 585.627.

⁴⁷ 30 C.F.R. § 585. 626(b)(15). For potential impacts to fisheries, the following draft guidance (or equivalent final guidance) is an appropriate resource. "Draft Guidelines for Mitigating Impacts to Commercial and Recreational Fisheries on the Outer Continental Shelf Pursuant to 30 C.F.R. Part 585 G" *available at* https://www.boem.gov/sites/default/files/documents/renewable-energy/DRAFT Fisheries Mitigation Guidance 06232022_0.pdf

⁴⁸ 30 C.F.R. § 585.626(a)(3) and 585.627(a)(5).

⁴⁹ Available at https://www.boem.gov/renewable-energy/survey-guidelines-renewable-energy-development.

should provide BOEM benthic habitat data and mapping data for 100 percent of the lease area and offshore export cable route(s) included in the proposed action before publication of the NOI.

Benthic habitat data provided with the COP should be characterized according to the Coastal and Marine Ecological Classification Standard (CMECS) to identify and describe the physical and biological components of benthic habitats and features. Benthic flora and fauna should be classified to the most precise taxonomic unit practicable (at least to family). For the sediment grain size analysis, silt and clay (in addition to sand) should be differentiated, and the Wentworth scale classification system should be used to report the percent sample composition of cobble, pebble, granule, sand, silt, and clay. The benthic habitat assessment maps should enumerate and delineate sensitive habitats, soft sediment habitats, complex habitats, and benthic features, consistent with CMECS. The CMECS delineations should be derived from acoustic survey and benthic sampling data as modified in NMFS' fish habitat mapping recommendations.⁵⁰ Lessees should identify all essential fish habitat and habitat areas of particular concern (HAPC) (e.g., habitats for inshore juvenile Atlantic cod, sand tiger shark, etc.) in the project area. Lessees should delineate areas consistent with HAPC designations, as appropriate. Lessees should also include a description of the habitat mapping methodology employed, including explanations of how survey data were collected and analyzed and how maps were developed.

Map products delineating benthic habitats should include appropriately scaled (zoomed in) maps of areas of sensitive or complex habitat.⁵¹ These products can be submitted in electronic format such as PDFs or ESRI-compatible map products.

BOEM also strongly recommends that the lessee meet with NMFS regarding its benthic habitat data and analysis prior to the publication of the NOI. In some cases, NMFS may request additional benthic sampling beyond the minimum required in BOEM guidelines as necessary to map and characterize habitats to inform BOEM's EFH consultation with NMFS. NMFS may also request additional targeted sampling based on acoustic survey results. Therefore, COP submittals should include a benthic habitat assessment that provides the information necessary for BOEM to adequately assess impacts to EFH from the project and to initiate consultation with NMFS on those impacts.

i. Marine Site Investigation Report (MSIR)⁵²

The MSIR included with the COP submission should include information on project-specific geologic conditions, shallow hazards, and a site investigation report based on site-specific data. The report should include information and supporting data that describes the geological ground model (including for inter-array and export cable routings that are included in the proposed action at NOI), geohazard analysis, sediment mobility estimates, and human-made risks.⁵³

⁵⁰ https://www.fisheries.noaa.gov/new-england-mid-atlantic/science-data/technical-guidance-offshore-wind-energyprojects-greater-atlantic-region.

⁵¹ Habitat maps that display the characterized delineations and benthic features should be provided at a landscape scale of 1:25,000. Maps that display complex habitats (i.e., complex, heterogeneous, large grained) should be provided at a larger scale (i.e., 1:1,000 or 1:5,000). Maps that display extensive areas of homogeneous can be provided at a smaller scale (i.e., 1:50,000 or 1:100,000). ⁵² 30 C.F.R. §§ 585.626(a); 585.627(a)(1).

⁵³ Munitions and Explosives of Concern (MEC)/Unexploded Ordnance (UXO) Risk Mitigation may not be fully assessed and complete by NOI. Additional information on the steps needed for a COP and for EIS is available at

Supporting data is described in BOEM's guidance document Guidelines for Providing Geophysical, Geotechnical, and Geohazard Information and includes geospatial data files for the proposed project facility, such as wind turbine locations, cable routings, APE, etc.⁵⁴

The MSIR should also meet the "Part 1: Evaluation Criteria" listed and defined in the BOEMsponsored report Data Gathering Process - Geotech Departures for Offshore Wind Energy. 55 Upon receipt of (1) a single, integrated site investigation report and; (2) associated data, BOEM intends to conduct a brief review regarding whether the report is complete for purposes of an NOI, based on the above-referenced evaluation criteria and whether the MSIR:

- Includes all referenced appendices to the report and they are accessible
- Provides charts and alignment sheets annotated with linear bar-scales, geographic and planar coordinates, lease boundaries, lease numbers, proposed facility site(s) and cable transmission routes.
- Addresses the baseline environmental conditions of the Lease Area and potential export cable route(s) as listed in 30 C.F.R. § 585.626(a)(1).
- Provides sufficient resolution and confidence in the ground model per the *Data* Gathering Process - Geotech Departures for Offshore Wind Energy. 56
- The geotechnical characteristics of the pertinent geologic unit are adequately characterized per 30 C.F.R. § 585.626(a)(4)) and Data Gathering Process - Geotech Departures for Offshore Wind Energy. 55
- The provided geophysical, geotechnical and geohazard data meet the data coverage, data quality, and data deliverables (e.g., not corrupted, contains navigation data, contains metadata, etc.) to perform a complete MSIR review as described in BOEM's guidelines.⁵⁷

Upon completion of this review, BOEM determines whether the MSIR is complete to support the issuance of a NOI.

j. Munitions and Explosives of Concern (MEC) and Unexploded Ordnances (UXO)

An MEC/UXO Desktop Study should be provided in the COP and include information about historical and present military exercise areas, known MEC/UXO locations, risk-based assessments for proposed activities, and mitigation methodologies. Projects should apply the "As Low As Reasonably Practical (ALARP)" risk mitigation process. Where applicable, the mitigation methodologies could include avoidance through cable re-route or re-position, MEC/UXO relocation or removal; and MEC/UXO detonation or incineration in place. Notably,

⁵⁷ *Id*.

https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/MEC-UXO%20White%20Paper.pdf

⁵⁴ Available at https://www.boem.gov/renewable-energy/survey-guidelines-renewable-energy-development.

⁵⁵ Available at https://www.boem.gov/sites/default/files/environmental-stewardship/Environmental-Studies/Renewable-Energy/Data-Gathering-Process.pdf. 56 *Id*.

BOEM expects that MEC/UXO risk mitigation may <u>not</u> be fully assessed and complete by publication of the NOI.⁵⁸

k. Navigation Safety Risk Assessment (NSRA)⁵⁹

The COP should include an NSRA that contains all the information required under the forthcoming U.S. Coast Guard's Navigation and Vessel Inspection Circular (NVIC) 01-23, once it is published and replaces the existing NVIC 01-19, for developing a navigation safety risk assessment of an offshore wind energy project. Examples of what the NVIC call for include a comprehensive traffic survey (including a description of data or methodology used to supplement AIS data), an assessment of navigation within the project area and within close proximity to a structure, effects of meteorological and oceanographic conditions on navigation risks within vicinity of the project, risk of incidents (collision, allision, and grounding), and impacts to vessel-based navigation aids. The document should be clear and understandable by the public. The data and analysis should be of sufficient quality for the public to adequately provide comment to BOEM during the scoping process.

l. Radar Assessment⁶¹

The radar assessment should include all land-based radar systems potentially impacted by the project and identify the owners and users of those systems.⁶² During the site assessment phase of the project, the lessee should consult with owners, users, and operators of the identified land-based radar systems to mitigate impacts. Land-based radar systems potentially impacted by wind facilities may include, but are not limited to, the following:

- Airport Surveillance Radars (ASR);
- Air Route Surveillance Radars (ARSR);
- NEXt-generation RADars (NEXRAD);
- Relocatable Over-The-Horizon-Radar (ROTHR);
- Oceanographic HF-Radars (e.g., SeaSonde); and
- Terminal Doppler Weather Radars (TDWR).

m. List of Solid and Chemical Waste to be Generated and Chemical Products to be Used (if Stored Volume Will Exceed EPA Reportable Quantities)⁶³

Before publication of the NOI, the lessee should submit general descriptions and volume estimates of solid and chemical waste to be generated and chemical products to be used during the project's construction and operations. Typically, the lessee needs not submit specific product

60 NVIC 01-19 is available at

https://www.dco.uscg.mil/Portals/9/DCO%20Documents/5p/5ps/NVIC/2019/NVIC%2001-19-COMDTPUB-P16700-4-dtd-01-Aug-2019-Signed.pdf?ver=2019-08-08-160540-483. Note that the 2023 Circular will be published after the NOI Checklist was published.

⁵⁸ Additional information on the steps needed for a COP and for EIS is *available at* https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/MEC-UXO%20White%20Paper.pdf

⁵⁹ 30 C.F.R. § 627(a)(8).

^{61 30} C.F.R. § 627(a)(8).

⁶² BOEM notes that vessel-based radar impacts are included in the NSRA.

^{63 30} C.F.R. § 626(b)(9-10)

identification and a chemical and waste management plan until the Final Design Report and Facility Installation Report stage.

n. Viewshed Modeling and Visual Resource Assessment⁶⁴

The lessee's COP submittal should include a complete and sufficient viewshed model generated from digital elevation data to define the geographic analysis area or zone of theoretical visibility (ZTV). The COP should also include a second sufficient viewshed model that adds LiDARbased digital surface data (vegetation, buildings, etc.) to determine the visually impacted areas within the ZTV. Using the viewshed models as the foundation, the lessee's COP should include a complete and sufficient seascape, landscape, and visual impact assessment ("SLVIA") report.

The SLVIA has two parts, a seascape and landscape impact assessment (SLIA) and visual impact assessment (VIA):

- The SLIA should include a quantified inventory and analysis of potential impacts by activities and facilities proposed in the COP to the physical elements and features, and the aesthetic, perceptual, and experiential aspects of ocean, seascape, and landscape character areas within the ZTV. The SLIA should contain a narrative, tables, maps, characteristic photo library, representative photo-simulations, and graphics.
- The VIA part of the report should include a complete and sufficient inventory of visually sensitive resources, and an analysis and evaluation of impacts to people caused by proposed development that changes the composition of views at selected viewpoints. Sufficient VIAs include photo-simulations and video simulations from key observation points (KOPs) of all proposed offshore and onshore components of the project (including lighting) visible from KOPs. The VIA should contain a narrative, tables, maps, character photos of KOP and viewpoint settings, photo-simulations, video-simulations, and graphics that describe how the addition of the visible elements and associated lighting of the proposed project (or the associated removal or change to existing visual elements) would change the composition of the views and how those changes would affect the visual experiences of people at the KOPs and viewpoints during the day and nighttime.

For more guidance on preparing a complete and sufficient SLVIA analysis and report, see OCS Study BOEM 2021-032: Assessment of Seascape, Landscape, and Visual Impacts of Offshore Wind Energy Developments on the Outer Continental Shelf of the United States (April 2021).⁶⁵

Note: Additional viewshed modeling considerations are identified in the NHPA section below.

o. National Historic Preservation Act Information and Reports⁶⁶

The COP should include the following information to allow BOEM to initiate consultation under section 106 of NHPA, which typically occurs concurrently with issuance of the NOI under the "NEPA substitution" process at 36 C.F.R. § 800.8(c):

⁶⁴ 30 C.F.R. § 585.627(a)(7).

⁶⁵ Available at https://www.boem.gov/sites/default/files/documents/environment/environmental-studies/BOEM-2021-032.pdf.

⁶⁶ 30 C.F.R. §§ 626(a)(5); 627(a)(6). See also Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 C.F.R. Part 585 at https://www.boem.gov/sites/default/files/documents/aboutboem/Archaeology%20and%20Historic%20Property%20Guidelines.pdf

- 1. The Preliminary Area of Potential Effect (PAPE): The lessee should include a complete, well-defined, and clearly illustrated project description and presentation of the PAPE, which may be described in terms of the PDE. This should include consideration of all aspects of the PAPE, which includes:
- The viewshed PAPE, as developed through GIS-based viewshed modeling (i.e., the viewshed from which renewable energy structures, whether located offshore or onshore, would be visible, with definition of viewsheds for both offshore and any onshore project elements [e.g., substations, interconnections facilities]);
- The terrestrial archaeology PAPE (i.e., the depth and breadth of terrestrial areas potentially impacted by any ground disturbing activities); and
- The marine archaeology PAPE (i.e., the depth and breadth of the seabed potentially impacted by any bottom-disturbing activities).

The lessee should consider developing a broad enough PAPE to allow flexibility for the development of alternatives and potential revisions to the specific siting of structures. A reasonably expansive PAPE minimizes possible delays caused when supplemental surveys are necessary because the original PAPE was insufficiently sized to accommodate changes and alternatives.

- **2. Identification of Historic Properties Within the PAPE**: The lessee should submit the results of the historic property identification surveys within each element of the PAPE, including:
- O A stand-alone report identifying and presenting an assessment of visual effects to onshore historic properties (as defined in 36 C.F.R. § 800.16(1)(1)) per 36 C.F.R. § 800.5 (often referred to as the historic resources visual effects assessment (HRVEA) or the assessment of visual effects to historic properties (AVEHP)). The HRVEA or AVEHP should include the historic property survey report, as required by the appropriate State Historic Preservation Office (SHPO), for investigated properties.
- A stand-alone report identifying and presenting an assessment of effects to terrestrial archaeological resources as provided for in 36 C.F.R. § 800.5 (often referred to as the TARA). If an lessee requests to delay submission of the TARA and related proposed mitigation measures, the COP should include a schedule committing to when this information will be provided to BOEM.
- O A stand-alone report identifying and presenting an assessment of effects to marine archaeological resources per 36 C.F.R. § 800.5 and submission of supporting geophysical and geotechnical survey data (often referred to as the MARA).
- Sufficient detail as to how and the degree to which adverse effects to identified historic properties could be avoided, minimized, or mitigated.
- These reports should indicate whether any identified property is a National Historic Landmark, which may necessitate additional analysis under section 110(f) of NHPA.

p. Acoustic Exposure Analysis and Modeling, and Underwater Noise Generating Activities⁶⁷

The COP should include a complete and sufficient marine acoustic modeling submission for impact pile driving in support of BOEM's completion of an Endangered Species Act effects

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⁶⁷ 30 C.F.R. §§ 626(b)(15) and 627(a)(3)-(4).

analysis, as described below. BOEM's draft guidance document entitled, *Nationwide Recommendations for Impact Pile Driving Sound Exposure Modeling and Sound Field Measurement for Offshore Wind Construction and Operations Plans* was released in tandem with this guidance document and should be considered by lessees when they develop their marine acoustic modeling submission(s). Lessees should model the effects of proposed activities that are expected to result in impacts to protected species. BOEM also encourages lessees to meet with BOEM's Office of Renewable Energy Programs and Center for Marine Acoustics, along with NMFS' Office of Protected Resources before the initial COP submission, and/or shortly after submitting the initial COP, to discuss their acoustic modeling approach.

Lessees should also evaluate all the effects of the project's underwater noise generating activities that may occur (e.g., vibratory pile driving, socket drilling, screw piling, horizontal directional drilling, trenching, unexploded ordnance disposal, operational noise (i.e., maintenance activities, vessel operations), site preparation work, high-resolution geophysical surveys etc.) with detail and sophistication appropriate for the level of effect possible. However, a final evaluation of these effects is not typically necessary for the issuance of an NOI.

As a general matter, the lessee should explain why significant proposed noise generating activities are necessary for the proposed action, including relevant technical and economic considerations, and whether other potentially less impactful technologies were considered.

q. Endangered Species Information for Assessment of Impacts in the EIS and to Support BOEM's ESA Section 7 Consultation(s)⁶⁸

The lessee should include a description of any critical habitat in the "action area." The lessee should include seasonal abundance and distribution of ESA-listed species (and distinct population segments) in the "action area" by life history stage. The "action area" may be broken down into smaller components (e.g., area within the lease, export cable corridor(s), onshore, connected action(s), etc.) provided the full scope of the action area and the smaller components are properly defined and terminology is used consistently.

The lessee should identify IPFs in sufficient detail for BOEM to scope and conduct an effects analysis that includes a description of baseline conditions in the "action area" that impact endangered and threatened species. Baseline conditions include past, present, and reasonably anticipated human and natural factors impacting the status of the species, habitat, and ecosystem within the "action area."

For ESA-listed species:

- For each IPF, a description of each stressor and how it may affect protected species, including a description of any differences in exposure to different life history stages.
- A qualitative assessment of the duration and intensity of exposure to each species or species group and to each life history stage likely to be exposed.
- An analysis and description of the expected response to the exposure for species and life history stages.

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⁶⁸ 30 C.F.R. § 627(a)(3)-(4)

⁶⁹ "Action area" for Endangered Species Act purposes is defined at 50 C.F.R. § 402.02 as: "all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action."

• A description of all proposed mitigation measures designed to avoid and/or minimize impacts to ESA-listed species

For critical habitat:

- An assessment of the IPF stressors to potentially affect the physical and biological features of any designated critical habitat in the action area.
- A description of the effect to the physical and biological features, including duration and extent, and whether adverse modification and destruction of critical habitat may occur.
- A description of all proposed mitigation measures designed to avoid and/or minimize impacts to critical habitat.

r. Marine Mammal Information for Assessment of Impacts⁷⁰

- The lessee should include in its COP a description of the abundance and distribution of marine mammal species that could be affected by its proposed activities.
- The lessee should include in its COP a description of important habitat that could be affected by its proposed activities, such as biologically important areas, for all marine mammal species.
- The lessee should include in its COP a description of all proposed avoidance and mitigation measures designed to minimize impacts to marine mammal species and their habitat.
- The lessee should identify in its COP IPFs in sufficient detail for BOEM to scope and conduct an effects analysis by taxa or hearing group; and where necessary, individual species, that includes:
 - A description of the marine mammal species that may be exposed to the effects and stressors of the proposed action, including a description of the life history stages.
 - o A qualitative assessment of marine mammal life history stages likely to be exposed and the duration and intensity of that exposure.
 - An analysis and description of the expected response to the exposure for each marine mammal species.
 - An analysis and description of the effects of the response on each marine mammal species.
 - A description of whether the stressor may result in any impacts to marine mammal habitats.
 - An analysis and description of the response to the exposure by biologically important areas.
 - An analysis and description of the effects of the response on biologically important areas.
 - o An evaluation of the effects when added to baseline conditions.

s. Other Protected Species and Sensitive Biological Resources Information for Assessment of Impacts⁷¹

⁷⁰ 30 C.F.R.§ 585.627(a)(3)-(4). *See e.g.*, 50 C.F.R. § 216.31, et seq. *See also* NOAA's Incidental Take website at: https://www.fisheries.noaa.gov/permit/incidental-take-authorizations-under-marine-mammal-protection-act ⁷¹ 30 C.F.R. § 585.627(a)(3)-(5).

- National Marine Sanctuaries Act: The lessee should identify in its COP any national marine sanctuaries and marine national monuments that could be affected by their proposed activities.
- *Migratory Bird Treaty Act*: The lessee should include a description of the migratory bird action area. The lessee should include relative seasonal abundance and distribution of migratory birds in the action area that also highlights USFWS-designated Birds of Conservation Concern (BCC).
- **Bald and Golden Eagle Protection Act:** Although neither species use the OCS, the lessee should include in its COP information regarding the abundance and distribution of bald eagles and golden eagles, where present in the onshore areas impacted by the project.

Attachment 2: Recommendations for Pre-Notice of Intent (NOI) Federal Interagency Engagement on Construction and Operations Plans (COP) for Offshore Wind

Purpose & Scope

The purpose of these recommendations is to provide a recommended structure, schedule and content for federal interagency engagement among: (1) a lessee preparing a Construction and Operations Plan (COP); (2) BOEM; (3) anticipated cooperating and participating federal agencies under NEPA, including those with consulting and permitting responsibilities and; (4) potentially affected federally recognized Tribes and cooperating state agencies, where identified under "additional participants," and at the discretion of the lessee for meetings where Confidential Business Information is discussed.

However, some federally recognized Tribes indicated interest in participating in one or more of the meetings below. Therefore, BOEM encourages lessees to invite potentially affected federally recognized Tribes to many of these meetings. Similarly, the lessee may include cooperating state agencies in these meetings, where appropriate.

For those leases that include Progress Report and Communications Plan requirements (typically leases executed during or after 2022), these recommendations are intended to complement and support the implementation of those stipulations. The lessee is expected to follow its respective "Native American Tribes Communication Plan", "Agency Communication Plan", and "Fisheries Communication Plan," and meet its commitments under those plans regardless of its implementation of these recommendations.

The timelines provided in the below *Template Schedule for Interagency Engagement* represent an illustration and do not supersede other timelines established by law, including under FAST-41 and NEPA. Each COP is unique and may require either additional or consolidated interagency engagement. For example, it may be effective to consolidate the two 'preliminary project design' meetings into a single meeting; and the "Confirming PDE for NOI" and "NOI Readiness" meetings into a single meeting, if the project timeline and maturity of design warrants. While the guidance in this document primarily focuses on best practices and engagement among cooperating agencies, it is not intended to be exhaustive. BOEM acknowledges the significance of incorp orating the input of federally recognized Tribes, state agencies and stakeholders throughout the COP development and NEPA processes. In addition, most lessees should conduct significant engagement with Federal agencies, federally recognized Tribes, state agencies, and other stakeholder as they prepare their COP for NOI. Moreover, these meetings are not substitutes for agency-to-applicant discussions regarding a specific authorization.

The *Template Schedule for Interagency Engagement* below is broken down according to stages of lease development. If a project is already past certain stages of lease development, then the lessee should consider following the remaining steps in the table. Once an NOI is published, a separate set of procedures apply. BOEM's project team can provide additional details regarding the post-NOI procedures, as appropriate. Finally, deviating from these recommendations or the template schedule will not necessarily be construed as a failure to meet regulatory requirements.

Suggested best practices regarding roles and responsibilities for engagement:

- 1. The BOEM project team and the lessee should work together to identify appropriate meeting participants and schedule meetings that accommodate attendees' schedules.
- 2. The lessee should request meetings well in advance of when it expects the meeting to occur (typically at least 1 month).
- 3. The lessee should provide supporting materials, including a meeting agenda, at least 1 week in advance of the meeting date. These materials may be sent directly from the lessee to meeting participants.

- 4. The lessee should designate a note-taker for the meeting and circulate draft notes focused on the meeting outcomes and action items within 1 week after the meeting date.
- 5. If action items are identified through a meeting, the BOEM project team and the lessee should work together to ensure prompt completion of all action items, or identification of clear timelines for complex tasks. Action items may include: requests for information; follow-up meetings with one or more agencies and the applicant; or feedback to the applicant from the interagency or a specific agency, among others.

Confidentiality:

BOEM and the cooperating and participating federal agencies recognize our shared duty to keep properly identified Confidential Business Information confidential under the Freedom of Information Act.⁷² BOEM continues to support rigorous engagement with federally recognized Tribes, state agencies, local government, and all stakeholders through other processes that complement this one while balancing the request for confidentiality, and may at times have to limit agendas or participation with the goal of promoting transparent and complete communication between lessees and federal agency staff, at the discretion of the lessee.

BOEM Guidance Portal:

In addition to the regulations at 30 C.F.R. §§ 585 *et seq.*, BOEM's online Guidance Portal is a critical source of information for lessees and applicants as they prepare their survey plans, site characterization and site assessment activities and Construction and Operations Plans. ⁷³

⁷² See e.g., 30 C.F.R. § 585.114.

⁷³ Select the Renewable Energy tab at https://www.boem.gov/about-boem/regulations-guidance/guidance-portal

Template Schedule for Interagency Engagement

Meeting	Federal Agency	Additional Participants	Timeline for	Materials Prepared by Lessee	Information Given to Lessee	Objectives
	Participants	T ur trespuntes	Completion	Zessee	Zessee	
		Lease	e Development S	Stage: Site Assessment and Si	te Characterization	
Pre-COP Kick Off Meeting	All anticipated cooperating and participating federal agencies.	Lessee, potentially affected Federally Recognized Tribes, anticipated cooperating state agencies.	3-4 months after lease execution; or at least 1 year prior to COP submission. Even earlier engagement (2 years in advance of COP submission) is advisable if there are limited ecological survey baseline data available.	 Tentative schedule through COP submittal including key site assessment and site characterization; project planning; design; and engineering steps. High level description of lease development proposal (partial or full lease development, single project, multiple projects, phased, etc.) Lessee's questions for agencies. (As applicable) Agency Communication Plans 	 Identification of lease and region-specific potential areas and resources of concern. Overview of permitting and consultation processes and available resources (e.g., regional guidance), and interagency coordination strategy on multiple permit and consultation reviews. Discussion of preliminary schedule and survey strategy, and when to engage on key issues. (4) (As applicable) Discussion of Agency Communication Plan implementation. 	 (1) Agencies understand lessee's goals for the lease area. (2) Agencies explain regulatory authority and roles, processes, and information needs, and timing for information submission to facilitate efficient permitting and consultations. (3) Lessees informs agencies of a high-level site characterization and site assessment plans; design processes and timelines; and constraints, etc. (4) Discuss factors that inform PDE development and potential avoidance, minimization and mitigation measures. (5) (As applicable) Supports compliance with lease stipulations requiring

Meeting	Federal Agency Participants	Additional Participants	Timeline for Completion	Materials Prepared by Lessee	Information Given to Lessee	Objectives
						Agency Communication Plans. (6) Lessees/applicants understand individual agency and interagency expectations for engagement on key issues
Survey Strategy Meeting: Site Characterizati on and Pre- Construction	BOEM, NOAA NMFS, USACE, USFWS, other authorizing federal agencies. Optional: USCG, NPS, BSEE, EPA, other NOAA offices.	Lessee Optional: potentially affected Federally Recognized Tribes, cooperating state agencies.	As early as practicable during survey planning, and at least 3 months before first survey plans are submitted to BOEM. If the survey strategy changes significantly from year(s)-to-year(s), a follow-up meeting in later years may be beneficial.	 (1) Preliminary timeline and list of planned surveys for offshore, nearshore, and onshore including methodologies and survey objectives. Timeline should include how long after the survey campaign data/analysis will be available. (2) Maps and/or shapefiles of areas to be surveyed that are outside of the lease area. (3) Conceptual plans for pre-construction monitoring plans. 	 (1) Feedback on timing and scope of survey campaigns. (2) Initial discussion of plans to share resulting data and analysis. (3) Discussion on how survey information would be used be used for authorizations and consultations. 	 Effective and efficient use of survey campaigns. Discuss proposed preconstruction monitoring plans including objectives and proposed methods. Continued discussion and identification of any additional permits/consultations/authorizations needed to carry out preconstruction surveys. Ensure follow-on next steps are clear to facilitate continued agency-specific discussions with lessee.

Meeting	Federal Agency Participants	Additional Participants	Timeline for Completion	Materials Prepared by Lessee	Information Given to Lessee	Objectives
Preliminary Project Design Meeting #1: WTG Layouts, Offshore Export Cable Routes, and Landfalls, and Resource Concerns	BOEM OREP/Regio n, BOEM Marine Minerals Program, NOAA NMFS, USACE, USFWS, USCG. Other authorizing federal agencies Optional: NPS, BSEE, EPA, other NOAA offices, DoD.	Lessee/Appli cant Optional: potentially affected Federally Recognized Tribes, cooperating state agencies.	As early as practicable (in parallel to the lessee's process of identifying potential layouts, routes, and landfalls).	 Maps and/or shapefiles of preliminary layouts and export cable routes, including landfall(s). Presentation outlining layout, route planning, site selection considerations, and constraints identified to-date. Schedule updates, as applicable 	 Discussion of potential conflicting uses and potential need(s) to identify alternative layouts, route(s) and/or landfalls. Overview of additional information needed for authorizations and consultations. Update when to engage on key issues, as applicable. Identify any additional permits/consultations/ authorizations needed to carry out preconstruction surveys and site assessment. 	 Early identification of factors influencing layout (wind resource, vessel traffic, potential areas to avoid, etc.) Begin identification of deconflicted cable routes and landfalls. Early identification of issues related to parklands (e.g., Land and Water Conservation Fund sites, Special Use permits and Rights-of-Way); special aquatic sites, including wetlands and SAV; Sec. 408 projects; Essential Fish Habitat; protected species; navigation aids and resources; marine minerals. Discuss factors that inform PDE development and potential avoidance, minimization and mitigation measures.

Meeting	Federal Agency	Additional Participants	Timeline for	Materials Prepared by Lessee	Information Given to Lessee	Objectives
	Participants		Completion			
Preliminary	BOEM	Lessee	At least 6	(2) Follow up from	(1) Updated identification of	(1) Information sharing on
Project	(Office of		months	Preliminary Project	potential areas and	project design
Design	Renewable	Optional:	before COP	Design Meeting #1:	resources of concern.	considerations,
Meeting #2:	Energy	potentially	submission.	Updated maps and/or		especially for novel
Project	Programs	affected		shapefiles for layouts	(2) Potential avoidance and	technologies and
Design	and Marine	Federally		and cable routes;	minimization measures	designs.
Envelope	Minerals	Recognized		summary of how	for lessee consideration.	
(PDE),	Program),	Tribes,		agency feedback was		(2) Identify ways to
onshore cable	NOAA	cooperating		considered.	(3) Discuss strategy for	integrate avoidance and
routes, Points	NMFS,	state			integrating PDE	minimization measures
of	USACE,	agencies.		(3) Presentation of	approach into EIS,	into project design and
Interconnectio	USFWS,			preliminary Project	consultations, and	construction plans.
n (POIs),	other			Design Envelope,	authorization processes.	•
supporting	authorizing			onshore cable routes,	•	(3) Early identification of
onshore	federal			POIs, supporting	(4) Identify potential need	potential project
infrastructure	agencies.			onshore infrastructure	for oceanographic HF-	alternatives for
				(substations, ports, etc.)	radar interference	consideration in the EIS.
	Optional:				mitigation.	
	USCG, NPS,			(4) Discuss proposed		
	BSEE, EPA,			technologies and		
	other NOAA			constraints including		
	offices.			initial survey results.		
				(5) (Optional) Draft of		
				COP Vol. 1		
		<u> </u>	3.4	or COP Submitted by the An	1: 4	1

Milestone: COP Submitted by the Applicant

Lease Development Stage: COP Submission to Notice of Intent to Prepare an Environmental Impact Statement (EIS)

A I	Federal Agency Participants	Additional Participants	Timeline for Completion	Materials Prepared by Lessee	Information Given to Lessee	Objectives
Overview Competing and H	All Cooperating and Participating Federal Agencies	Lessee, potentially affected Federally Recognized Tribes, cooperating state agencies	Approximate ly 1 month after the COP is submitted.	 (1) Presentation summarizing the proposed project that highlights: PDE, layout, offshore export and nearshore cable route(s); landfall(s); onshore routes and Points of Interconnection. (2) Summary of deconfliction efforts and incorporation of agency, Federally Recognized Tribes, and stakeholder feedback. (3) Summary of project evolution from early planning to COP submission. (4) Overview of proposed avoidance, minimization, mitigation, and monitoring measures incorporated in the COP. 	(1) Identify any unresolved issues that could impact timing of NOI and other regulatory processes.	 Provide baseline level of knowledge among all authorizing, cooperating and participating agencies, Federally Recognized Tribes and cooperating state agencies. Obtain or identify additional information needed to inform development of permitting timelines, including consultation schedules. Identify differences between pre-submission PDE and the PDE in COP submission.

Meeting	Federal Agency Participants	Additional Participants	Timeline for Completion	Materials Prepared by Lessee	Information Given to Lessee	Objectives
Confirming PDE for NOI	BOEM, NOAA NMFS, USACE, USFWS, other authorizing federal agencies Optional: USCG, NPS, EPA, BSEE, other NOAA offices.	Lessee Optional: potentially affected Federally Recognized Tribes, cooperating state agencies.	3-4 months before scheduled NOI date.	 Summary of PDE with emphasis on any reduced optionality for designs, layout(s), cable routes. Landfalls, POIs and reasoning for changes. Identify any potential additions in scope (e.g., additional options for onshore infrastructure, potential connected actions, etc.) (Optional) Draft of the applicant's proposed action with an emphasis on any aspects that are a subset of the PDE included in the COP. 	 Action items for follow-up meeting(s), requests for information, and feedback. Discuss timing of future PDE refinement, if applicable, and how it interacts with EIS development, consultations, and authorizations. 	 (1) Identify any unresolved issues that could impact NOI or cause project delays after NOI. (2) Identify availability of remaining information needed for authorizations and consultations.

Meeting	Federal Agency Participants	Additional Participants	Timeline for Completion	Materials Prepared by Lessee	Information Given to Lessee	Objectives
NOI Readiness	BOEM, NOAA NMFS, USACE, USFWS, other authorizing federal agencies. Optional: USCG, NPS, EPA, BSEE, other NOAA offices.	Lessee Optional: potentially affected Federally Recognized Tribes, cooperating state agencies.	Within 1 month after BOEM determines whether the "Application is Consistent with the Notice of Intent Checklist."	(1) Applicant would submit any supplemental filings it planned to provide prior to NOI, as applicable, before this meeting should take place.	(1) BOEM provides results of Completeness for NOI Review to the applicant and updated schedule for EIS process (or Permitting Timetable under FAST-41).	 Transparency for the lessee and the interagency. Sets up efficient and effective environmental review, consultations and agency authorization decisions.
Pre-NOI Initial Identification of Alternatives	All Cooperating and Participating Federal Agencies	Note: lessee will not participate in this meeting. Potentially affected Federally Recognized Tribes, cooperating state agencies.	No later than 4-6 weeks after BOEM determines whether the "Application is Consistent with the Notice of Intent Checklist."	N/A. Applicant will not participate in this meeting	(1) After the meeting, BOEM provides initial table of alternatives to applicant approximately 30 days before NOI to allow the applicant to inform BOEM whether some of the alternatives are not technically and economically practicable or feasible. The same table will be presented by BOEM during public scoping meetings.	 (1) Participants discuss areas of concern and potential project modifications to guide preliminary alternatives for consideration ahead of the scoping period. (2) Participants discuss any outstanding information that may be necessary to support development of alternatives for DEIS. (3) Begin application of the screening criteria to the

Meeting	Federal Agency Participants	Additional Participants	Timeline for Completion	Materials Prepared by Lessee	Information Given to Lessee	Objectives
						preliminary alternatives. ⁷⁴
						(4) Support the identification of alternatives to be analyzed in detail, alternatives considered but not carried forward.
						(5) Lessee may identify other possible design modifications and mitigations that may address the root concern leading to the development of an initial alternative.

⁷⁴ Process for Identifying Alternatives for Environmental Reviews of Offshore Wind Construction and Operations Plans pursuant to the National Environmental Policy Act (NEPA) *available at* https://www.boem.gov/sites/default/files/documents/renewable-energy/BOEM%20COP%20EIS%20Alternatives-2022-06-22.pdf 32