

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

February 24, 2016

Guidelines for
Information Requirements for a Renewable Energy
Site Assessment Plan (SAP)

Acronyms and Abbreviations

BMP	Best Management Practice
BOEM	Bureau of Ocean Energy Management
CD	Consistency Determination
CFR	Code of Federal Regulations
CMP	Coastal Management Plan
COP	Construction and Operations Plan
CVA	Certified Verification Agent
CZMA	Coastal Zone Management Act
EMF	Electromagnetic Field
EPAct	Energy Policy Act
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FAA	Federal Aviation Administration
IPF	Impact-Producing Factor
MBTA	Migratory Bird Treaty Act
MMPA	Marine Mammal Protection Act
MSFCMA	Magnuson-Stevens Fishery Conservation and Management Act
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanographic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
OCS	Outer Continental Shelf
OCSLA	Outer Continental Shelf Lands Act
OMB	Office of Management and Budget
OSRP	Oil Spill Response Plan
PRA	Paperwork Reduction Act
ROW	Right-of-Way
RUE	Right of Use and Easement
SAP	Site Assessment Plan
SHPO	State Historic Preservation Office
SMS	Safety Management System
USACE	U.S. Army Corps of Engineers
USCG	United States Coast Guard
USFWS	United States Fish and Wildlife Service
VIA	Visual Impact Assessment

I. Introduction to Guidelines

This document provides guidance on the information requirements for a Site Assessment Plan (SAP) for Outer Continental Shelf (OCS) renewable energy activities on a commercial lease, as required by 30 CFR 585. The Bureau of Ocean Energy Management (BOEM) is providing these guidelines to clarify and supplement information requirements for SAP submittals. This information is necessary for BOEM to complete analyses under National Environmental Policy Act (NEPA) and other applicable laws and regulations.

This document is intended to be used as guidance to the regulated community and is not intended to set information or data standards or prescribe additional requirements. Rather, the purpose of this document is to further explain the applicable provisions of BOEM's renewable energy regulations, found at 30 CFR 585, and provide examples of documentation that you should submit to help BOEM evaluate whether the requirements found in the regulations have been met.

II. Authority and Background

BOEM published the regulations found in 30 CFR 585 to establish procedures for issuance and administration of leases, right-of-way (ROW) grants, and right-of-use and easement (RUE) grants for renewable energy production on the OCS. BOEM requires the submission of a SAP by the commercial lease applicant or leaseholder to describe the initial activities necessary to characterize a lease site (e.g., installation of meteorological towers and meteorological buoys), resource assessment surveys (e.g., meteorological and oceanographic data collection), or technology testing activities that involve the installation of bottom-founded facilities. BOEM requires the results of site characterization studies to be submitted with your SAP pursuant to 30 CFR § 585.610(b) to evaluate the impact of proposed activities on physical, biological, and socioeconomic resources as well as the seafloor and sub-seafloor conditions that could be affected by the construction, installation, and operation of facilities and supporting structures.

Pursuant to 30 CFR § 585.601, a SAP must be submitted 12 months from lease or grant issuance. A SAP and a Construction and Operations Plan (COP) may also be submitted concurrently. The information required in a SAP is specified in 30 CFR §§ 585.610 and 585.611. This information is used to comply with the Outer Continental Shelf Lands Act (OCSLA), as amended by the Energy Policy Act of 2005 (EPA), and other applicable laws and regulations. A SAP is also used to inform BOEM, other Federal agencies, affected states (as defined in 30 CFR § 585.112), and the public, of proposed site assessment activities to ensure that activities on the OCS leases will be safe and will protect the human, marine, and coastal environment.

A SAP must demonstrate that the proposed site assessment activities are being conducted in a manner that conforms to responsible offshore development per 30 CFR § 585.606; including the demonstration of Best Management Practices (BMPs). Additional information regarding BMPs resulting from the Record of Decision for the 2007 *Programmatic Environmental Impact Statement for Alternative Energy Development and Production and Alternate Use of Facilities on the Outer Continental Shelf* (Section 2.7), prepared by BOEM, is presented in Attachment C. You should review and refer to the BMPs when planning site assessment activities and incorporate them in all project planning and implementation stages. BOEM is in the process of

preparing guidance for several BMPs. These guidance documents will be made available at <http://www.boem.gov/Regulatory-Framework-Guidelines/>.

III. Release of SAP Information

BOEM will conduct completeness and a sufficiency review after your SAP submittal. Once the Bureau has deemed your submittal complete and sufficient, the SAP will be made available on BOEM's website as a public document. Before doing so, BOEM will protect privileged or confidential information, as described in 30 CFR § 585.113.

To assist in BOEM's determination of proprietary information, please label privileged or confidential information "Contains Confidential Information" and consider submitting such information as a separate attachment. In addition, the National Historic Preservation Act (NHPA) requires BOEM to withhold from public disclosure the location, character, or ownership of historic resources if the agency determines that the disclosure may, among other concerns, risk harm to the historic resources or impede the use of traditional religious sites by practitioners.

IV. Number of Copies

30 CFR § 585.607: You are required to provide BOEM with one hard copy and one electronic version of the SAP and all supporting materials. Please consult the appropriate regional office for the preferred electronic format (see Contacts and Submittal Addresses). If the SAP contains information considered proprietary, depending on the amount of proprietary information, prepare a submittal that either:

- (1) Contains a version stamped "public copy" without proprietary information and an agency version stamped "proprietary information"; or
- (2) Consists of a public copy with all proprietary information in an appendix that can be removed before the SAP is made public.

BOEM may request additional hard copies if states require the copies for their Coastal Zone Management Act (CZMA) consistency review or concurrence.

Table of Contents

Contents of a Site Assessment Plan (SAP) 5

- 1. SAP Purpose and Scope..... 5
- 2. Pre-Survey Coordination with BOEM: SAP Survey Plan and Meeting..... 5
- 3. SAP Review Process..... 6
- 4. Survey Results and Supporting Data 7
- 5. Project-Specific Information Requirements 11

Required Information to Accompany the SAP 17

Information for Compliance with National Environmental Policy Act (NEPA) and Other Relevant Laws..... 17

Revisions to an Approved SAP 17

Contacts and Submittal Addresses..... 18

Paperwork Reduction Act (PRA) Statement..... 19

Attachment A: Information Requirements for NEPA and Other Relevant Laws..... 20

Attachment B: Best Management Practices..... 39

Contents of a Site Assessment Plan (SAP)

1. SAP Purpose and Scope

The purpose of the SAP is to provide a description of the proposed site assessment activities that you plan to perform on your commercial lease or for testing devices that involve installation of bottom-founded facilities, such as meteorological towers or buoys. For example, the activities proposed in a SAP may include the installation of facilities permanently or temporarily attached to the seafloor, such as meteorological towers or buoys. The information in the SAP provides the basis for analysis of the environmental and socioeconomic effects of proposed site assessment or technology testing activities¹.

Site assessment may be limited to confirmation that an energy resource is adequate for commercialization, or may be scoped to anticipate the ultimate build-out on your lease. Pursuant to 30 CFR 585.610(b) the SAP must provide the results of site characterization and baseline environmental collection studies (e.g., geotechnical investigations, geophysical surveys, hazard surveys, biological studies, and archaeological surveys).

To facilitate our review of your SAP, BOEM recommends that the survey data submitted with your SAP should be solely for the proposed site assessment activities. BOEM recommends that survey data for the construction and operation of your project be submitted with your COP. Submitting survey data with your SAP that is outside the scope of your site assessment or technology-testing activities will likely delay BOEM's review of your SAP.

BOEM recommends structuring your SAP around the regulatory requirements in 30 CFR § 585.610 and 30 CFR § 585.611 and identifying how the information satisfies each section. If you choose an alternate organization for your SAP, please provide adequate cross-references to the corresponding regulatory sections to allow us to trace your inputs back to the requirements of the regulations. Attachment A provides an example of an organizing theme for your project description and identification of impacting factors. If you choose to use such a theme, ensure all appropriate regulatory sections are cross-referenced within it.

2. Pre-Survey Coordination with BOEM: SAP Survey Plan and Meeting

Prior to submittal of any plan, BOEM strongly encourages you to discuss your pre-survey planning with BOEM to ensure all surveys are conducted in a manner that addresses the regulatory information requirements for a SAP. Pre-survey coordination provides an opportunity to discuss common goals and expectations, agree upon the technical aspects and key parameters for the surveys, and to advise you of the authorizations or permits from other resource agencies that are necessary before you contract and mobilize an offshore survey.

¹ The SAP Guidelines can be applied to technology testing activities.

BOEM recommends, and may require through lease stipulation, the development of a survey plan and the scheduling of one or more pre-survey meetings to discuss the survey plan. A SAP survey plan should provide a general description of the environmental and physical condition of the lease area and the timeline of the surveys to be completed during the site assessment phase. The survey plan and pre-survey meetings are used to support the submission of the SAP and satisfy the information requirements in the applicable regulations, including but not limited to 30 CFR § 585.610, 30 CFR § 585.611, and 30 CFR § 585.612.

The survey plan should also include a desktop study on offshore activities, potential hazards, and environmental conditions. The desktop studies typically include the following topics.

Anthropogenic Conditions and Hazards

Cables/pipelines, hydrocarbon exploration, restricted areas, subsea hazards (shipwrecks, anchorage zones, etc.), navigational aids, and territorial claims, etc.

Biological Conditions

Fisheries, marine sanctuaries, protected species, and benthic habitats

Environmental Conditions and Hazards

Oceanography, geology, bathymetry, geomorphology, seafloor conditions, seismic and volcanic activity, sediment transport, and meteorology

BOEM also encourages early coordination with U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS) to avoid or minimize potential adverse impacts to protected species and designated habitat areas of special concern. The avoidance of potential adverse impacts should be consistent with the requirements of the Endangered Species Act (ESA), Marine Mammal Protection Act (MMPA), and Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA).

3. SAP Review Process

The submission of your SAP is the initial step in a multi-step review and approval process. Your SAP will be reviewed by BOEM to determine completeness and sufficiency, under 30 CFR § 585.613.

1. **Completeness Review:** whether it contains all of the categories of information required by BOEM's renewable energy regulations;
2. **Sufficiency Review:** whether the information provided is of sufficient quality and quantity to conduct technical and environmental reviews.

BOEM may request additional information if we determine that the information provided is deficient. When providing additional information or an update to your SAP, BOEM recommends that you submit three versions together: an electronic copy showing the changes that were made, a clean electronic copy, and a clean hard copy.

Upon completion of the reviews, BOEM may approve, disapprove, or approve your SAP with modification. If we approve your SAP (with or without modifications) we will publish a version on the BOEM website with confidential information redacted.

Complexity or Significance

During the review process, BOEM will determine whether your planned activities will rely on a proven technology or a design that has been well-tested. For example, hull-based buoys with a single point mooring system are widely used and accepted for meteorological testing, so use of this type of equipment may not be considered complex or significant.

If BOEM deems your proposed site assessment activities complex or significant, BOEM will notify you and require a Certified Verification Agent (CVA) nomination for reports pursuant to 30 CFR § 585 subpart G. BOEM will approve the CVA nomination in accordance with 30 CFR § 585.706 prior to deeming the SAP complete. In addition, you must provide information required in 30 CFR § 585, subpart G. The requirements for complex or significant structures mandate additional detail and information to the General Information in 30 CFR § 585.605 and may be incorporated into these headings as appropriate (see subpart G).

4. Survey Results and Supporting Data

Pursuant to 30 CFR § 585.610(b), you must submit as part of your SAP the results and supporting data from survey investigation conducted in support of the design and siting of the site assessment instrumentation proposed for installation on your commercial lease (e.g., a meteorological data collecting tower or buoy). To ensure the accuracy and quality of the data, BOEM recommends this information detail the methodology, data processing, spatial information, and acquisition of your surveys, etc.

As discussed above, BOEM recommends—and may require through lease stipulation—that you consult with BOEM at one or more pre-survey meetings to ensure the survey outputs are adequate and sufficient for BOEM decision-making purposes. Note that the regulations require the results of surveys, *as applicable* (30 CFR 585.610). It is likely that not all surveys will be equally important, or may not be relevant to your proposed activities at all. The pre-survey meetings will provide an opportunity to discuss with BOEM the appropriate effort that should be devoted to each category of data.

BOEM has prepared separate guidelines containing recommendations for conducting baseline collection studies to support the acquisition of site characterization data. These regional and national guidelines can be found at <http://www.boem.gov/National-and-Regional-Guidelines-for-Renewable-Energy-Activities/>. These guidelines may be updated periodically, and all new versions will supersede previous versions. BOEM has prepared the following guidance for complying with the survey requirements in 30 CFR 585.610(b) (1-5) (Table 1).

Table 1: Survey Requirements

Section	Survey Requirements	Guideline
(b)(1)	Geotechnical Investigation	<p>To conduct a design and hazard assessment, BOEM requests information regarding the type and properties of sediments within the area of disturbance on the seabed. The level of geotechnical investigation required to obtain this information will depend on the type and dimensions of the proposed structure and the level of pre-existing knowledge of the seabed geology. BOEM recommends that large structures such as met towers which are supported by a pile or gravity based foundation should have at least one deep boring at the proposed tower location with sediment sampling, laboratory testing, and geotechnical engineering analysis.</p> <p>Floating structures such as buoys that are anchored to the seabed may not require deep borings. Geophysical surveys with shallow sampling methods, such as vibracores, may be sufficient. The scope of the geotechnical investigation should be submitted to BOEM for review before implementation.</p> <p>The geotechnical investigation results and report must be submitted with the SAP and are to be integrated with the information needs of 30 CFR § 585.611(b) (1).</p>

Section	Survey Requirements	Guideline
(b)(2)	Shallow Hazards	<p>The shallow hazards survey results and supporting data must provide information sufficient to determine the presence of surface and shallow subsurface geological features and conditions that may adversely affect your site assessment activities. Such conditions may include, but are not limited to:</p> <ul style="list-style-type: none"> (i) Shallow faults (ii) Gas seeps or shallow gas (iii) Mobile sediments, slumps or slides, potentially unstable slopes, creep, karst topography (iv) Gas hydrates (v) Surface hardgrounds (hard bottom features—in particular, hard substrate exposed at the surface and not overlain with sediment veneer), buried channels and scour features (vi) Ice scour of seabed sediments Cables, artificial reefs, buoys, debris and other man-made objects

Section	Survey Requirements	Guideline
(b)(3)	Archaeological Resources Survey	<p>The historic property identification survey results, supporting data, and report should identify and describe any historic properties that may be potentially affected by your proposed activities, as defined by the NHPA (16 U.S.C § 470 et. seq). These include, but are not limited to, historic properties that are (1) located onshore with a view of the proposed project; (2) in onshore/terrestrial areas where cables may come ashore; (3) in onshore staging areas; (4) in nearshore environments in state waters; and (5) in offshore areas. This information will be used by BOEM to comply with NHPA, NEPA, and other applicable environmental and preservation laws.</p> <p>The report should be a stand-alone document that is submitted in conjunction with the site characterization survey report. The report represents an evaluation and synthesis of the data (both geophysical and geotechnical) gathered during site characterization activities for the purpose of identifying potential archaeological resources. To facilitate consultations, BOEM prefers to receive the report in complete form; therefore, any changes to a lessee’s plan(s) that may occur after submittal of a report to BOEM as a result of either changes in the design of the proposed project or a request for additional information made by BOEM should be incorporated into a revised report. The proposed project details presented in this report should match those presented in other portions of the SAP. Details on the required contents of the archaeological resources assessment report may be found in BOEM’s Guidelines for Providing Archaeological and Historic Property Information pursuant to 30 CFR § 585.</p>

Section	Survey Requirements	Guideline
(b)(4)	Geological Survey	<p>BOEM recommends that your geological survey results, supporting data, and report should provide an integrated interpretation of surficial and shallow subsurface conditions based on your shallow hazards survey and geotechnical investigation. The survey report should discuss how identified features may impact your proposed facilities, and should contain interpretations of the following:</p> <ul style="list-style-type: none"> (i) Seismic activity at your proposed site (ii) Fault zones (iii) The possibility and effects of liquefaction and seabed subsidence (iv) The extent and geometry of faulting attenuation effects of geologic conditions near your site (v) Scour and sand waves (vi) Slope stability <p>Your geological survey(s) results and report are submitted with the SAP and information acquired from the survey is to be integrated with the information needs for 30 CFR § 585.611(b) (1).</p>
(b)(5)	Biological Survey	<p>BOEM recommends following the posted guidelines for biological survey results found within BOEM’s Guidelines for Providing Benthic Habitat Survey Information for Renewable Energy Development on the Atlantic Outer Continental Shelf.</p>

5. Project-Specific Information Requirements

30 CFR § 585.610(a): BOEM recommends the use of section headings that correspond to 30 CFR § 585.610(a) which are the topic headings in the following table (Table 2). A complete and detailed project description is the foundation for understanding the impacts your project will have and how it will potentially impact the environment. The information required by 30 CFR § 585.610(a) may be organized and developed into a complete project description (see Attachment A). The project description should be written in such a way that it can be easily understood by people unfamiliar with specialist terminology. To ensure that your SAP meets BOEM’s information needs required by 30 CFR § 585.610, you should provide the following project-specific information (Table 2).

Table 2: Project-specific Information

Section	Project Information	Guideline
(a)(1)	Contact Information	Identify an authorized representative’s name, address, e-mail address, and phone number. This representative will be the main contact for the project.
(a)(2)	Site Assessment or Technology Testing Concept	<p>Include a discussion of the following, using tables as appropriate:</p> <ul style="list-style-type: none"> (i) Include a discussion of the overall objective(s) that the site assessment is designed to fulfill and that of each activity. (ii) Provide a project description of the site assessment activities including the surveys and any structures, cables, or other facilities proposed for installation, and all technology you will use including procedures for installation and removal of equipment and restoration of the leased area (see 30 CFR § 585.900 -904). (iii) Indicate the work commencement date and the schedule with best available beginning and ending dates for all characterization activities and for each proposed activity. (iv) Provide the name and location of the onshore support base(s). Indicate if existing facilities are to be used, if any modifications to existing facilities will be made, or if new facilities will be built. Include a schedule for expected shore base modifications. (v) Indicate the types of support vessel(s) or aircraft to be used and indicate the frequency of round trips that each vessel or vessel class is expected to make for each phase of activity planned in the SAP. Indicate the number of fuel tanks for each vessel or vessel class and the maximum fuel storage capacity for each tank. Indicate the maximum number of vessels expected to be on site at any one time including vessels, crews and onshore support, and estimate the number of people directly employed during each phase of site assessment activity.

Section	Project Information	Guideline
(a)(3)	Designation of Operator, if applicable	Designate an operator, if applicable, as required by 30 CFR § 585.405, by submitting the Designation of Operator form which can be found at http://www.boem.gov/Form-BOEM-1123/ .
(a)(4)	Commercial Lease Stipulations and Compliance	Include a description of the measures you took or will take to satisfy the conditions of any lease stipulations (if applicable) related to your proposed site assessment activities. A table is a suitable format for presenting this information.
(a)(5)	Location Plat (map drawn to scale)	<p>Provide a bathymetric map (at a scale of 1"=2000') showing surface location(s) for each proposed structure, cable, or other facilities with anchor sites or anchor radius for any construction barge(s). Use a depth contour interval that can be clearly mapped at the required scale. Indicate any existing structures, facilities, and appurtenances located both offshore and onshore that may be affected by your proposal or development of your lease.</p> <p>On a separate plat, show the location of your proposed activities in relation to the shoreline and the location of your onshore base(s), including any construction or modifications to your onshore base(s). Indicate the OCS block outlines of the leasehold or the lease area requested with latitude and longitude. Use the appropriate scale necessary to include all of these features.</p>

Section	Project Information	Guideline
(a)(6)	General Structural and Project Design, Fabrication, and Installation	<ul style="list-style-type: none"> (i) Describe each type of structure or facility proposed for installation with your project. (ii) Provide diagrams/design drawings and fabrication information for all proposed structures. (iii) Provide information regarding design, testing, maintenance, repair, safety devices, exterior corrosion protection, and inspection frequency for all associated structures or cables. (iv) Describe the installation method for all project-related structures or cables. (v) Provide a table of structure/activity locations, including surface location for each with XY coordinates, in latitude/longitude, and water depth. (vi) Indicate the anchor radius for any construction or derrick barges to be used during installation. If the exact position of construction vessel anchors is not known, indicate maximum radius of anchors on the location plat.
(a)(7)	Deployment Activities	<p>Provide details of how you propose to bring your equipment and materials to the construction site/project location from shore, as well as how you propose to conduct installation activities. Describe the safety, prevention, and environmental protection/pollution control features or measures that will be used.</p> <p>Describe how you will use a CVA, if applicable, to review and verify each stage of the project.</p> <p>Describe your normal operating procedures or system, as well as your operating procedures and systems in the case of accidents or emergencies, whether natural or manmade.</p>

Section	Project Information	Guideline
(a)(8)	Proposed Measures for Avoiding, Minimizing, Reducing, Eliminating, and Monitoring Environmental Impacts	<p>Describe measures you will take (and that will be carried out pursuant to your proposed site assessment activities) to avoid, minimize, reduce, eliminate, or mitigate environmental impacts. BOEM recommends that you demonstrate use of best management, particularly for benthic habitat, fisheries, and protected species protection.</p> <p>Describe any existing or planned environmental monitoring and mitigation systems you will implement before, during, and after construction, along with the effectiveness of these systems (see 30 CFR § 585.615). State whether your activities are likely to result in harassment, injury, or death of endangered or other protected species, and describe the measures you will take to avoid adverse interactions with these species.</p> <p>Based on your proposed activities, authorizations or permits may be required by the USFWS or NMFS before you begin work.</p> <p>Report if your operations require a Vessel General Permit or other National Pollutant Discharge Elimination System (NPDES) permit for your site characterization activities. Describe measures taken to comply with 30 CFR § 585, subpart H.</p>
(a)(9)	CVA Nomination, if required	If your proposed site assessment activities have been deemed complex or significant, provide nominations for a CVA as outlined in 30 CFR § 585.706, or a request to waive the CVA requirement as specified in section 585.705(c).
(a)(10)	Reference Information	Provide a list of all documents and published sources referenced as part of this plan or cross-reference to citations in any published material that is readily available to BOEM.
(a)(11)	Decommissioning and Site Clearance Procedures	Describe and explain the general concept and procedures proposed for the decommissioning of all installed components and facilities. Refer to 30 CFR § 585.906-910 for additional information on decommissioning and site clearance procedures.

Section	Project Information	Guideline
(a)(12)	Air Quality Information	BOEM regulates air quality for OCS facilities in the area of the Gulf of Mexico west of 87°30' W longitude. The U.S. Environmental Protection Agency (EPA) has air quality jurisdiction everywhere else on the OCS. The requirements for submittal of air emissions information for a renewable energy SAP are provided in 30 CFR § 585.659 You should provide BOEM a copy of the analysis that you submit to the EPA, or other agency authorized by EPA to enforce the Clean Air Act. The digital files should contain the formatted meteorological files used in modeling runs, along with the emission estimates and control measures that apply.
(a)(13)	List of all Federal, state, and local authorizations, approvals, or permits that will be required to conduct site assessment activities	List all federal, state, local application approvals or permits you must obtain from other regulatory agencies (e.g., coastal zone consistency certification or U.S. Army Corps of Engineers (USACE) permits) in order to conduct your proposed site assessment activities. Identify the originating statutes or regulations that require each permit, and provide information on status of each such permit. A table is a suitable format for presenting this information.
(a)(14)	List of agencies or persons with whom you consulted, or with whom you will be consulting, regarding potential impacts associated with your proposed activities	Provide contact information for Federal agencies responsible for consultations required under environmental law during a NEPA evaluation (e.g., ESA, MMPA, Migratory Bird Treaty Act (MBTA), MSFCMA, and NHPA). List the agencies or persons consulted, dates of contact, and a short summary of issues discussed. Provide the same information for contacts with state agencies requiring consultations relating to your proposed activities. BOEM encourages early and frequent consultations with agencies regarding potential impacts associated with your proposed activities. A table is a suitable format for presenting this information.
(a)(15)	Financial Assurance Information	Provide statements and documentation demonstrating that the activities and facilities proposed in your SAP are or will be covered by the appropriate bond or other approved security, as required by 30 CFR § 585.515 and 585.516.

Section	Project Information	Guideline
(a)(16)	Other Information	Additional information as requested by BOEM. Where general information is required, please indicate it is in fulfillment of 30 CFR § 585.610.

Required Information to Accompany the SAP

Information for Compliance with NEPA and Other Relevant Laws

To comply with the regulations at 30 CFR §§ 585.610 and 585.611, applicants must provide enough detail to support environmental analysis required by NEPA and other relevant environmental laws. BOEM recommends that you submit an Environmental Report with the SAP. The Environmental Report assists BOEM in determining how your proposed activities impact the environment, and in complying with the NEPA and other laws requiring consultation with Federal or state agencies, including consistency under the CZMA (30 CFR § 585.612).

The Environmental Report is intended to provide an overview of potential environmental impacts rather than a detailed analysis, and many of its informational needs are suited to abbreviated presentation and development of tables. The Environmental Report should include information describing the environmental and socioeconomic resources, and potential impact-producing factors on these resources resulting from your activities.

The discussion of environmental resources and impacting factors should be narrative; however, the level of detail will ultimately depend on the area extent of your activities, the duration or intensity of impacting factors, and the sensitivity of resources in your project area. We strongly recommend that you contact BOEM if you have questions about information needs before submission of a plan.

If adverse environmental effects are expected to result from the proposed activities, the project description should include any monitoring and mitigation measures that are proposed as a part of your project. Additional mitigations may be developed and imposed as a condition of approving the SAP, after an evaluation under NEPA, and after conclusion of the environmental consultations required by law. Tables are provided in Attachment A to assist in developing the information needs for complying with NEPA and other environmental consultations required by law, identified in 30 CFR § 585.611(b)(1) through (10).

Revisions to an Approved SAP

30 CFR § 585.617: If BOEM has already approved your SAP, a SAP revision may become necessary. You must notify BOEM in writing before conducting any activities not described in your approved SAP, describing in detail the activities you propose to conduct. BOEM will also periodically review the activities conducted under an approved SAP. If the review indicates that the SAP should be revised because of any modifications listed in 30 CFR 585.617(c), we will require you to submit revisions to the SAP.

Contacts and Submittal Addresses

For further information or inquiries regarding these guidelines, please contact the Office of Renewable Energy Programs by telephone (703-787-1300) or by email (renewable_reporting@boem.gov). Submit one paper copy and one electronic version of the SAP to one of the addressees below (Table 3; Table 4).

Table 3: Mailing Locations for BOEM Inquiries

Project Location by State (Offshore)	Filing Address
<ul style="list-style-type: none"> • Maine • New Hampshire • Massachusetts • Rhode Island • New York • New Jersey • Delaware • Maryland • Virginia • North Carolina • South Carolina • Georgia • Florida (South Atlantic and Straits of Florida Planning Areas) 	Bureau of Ocean Energy Management Office of Renewable Energy Programs 45600 Woodland Road Mail Stop VAM-OREP Sterling, Virginia 20166 Phone: (703) 787-1320
<ul style="list-style-type: none"> • Florida (Eastern Gulf of Mexico Planning Area) • Alabama • Mississippi • Louisiana • Texas 	Bureau of Ocean Energy Management Gulf of Mexico OCS Regional Office Attn: Renewable Energy Program Mail Stop 5400 1201 Elmwood Park Boulevard New Orleans, Louisiana 70123-2394 Phone: 800-200-GULF
<ul style="list-style-type: none"> • Alaska 	Bureau of Ocean Energy Management Alaska OCS Regional Office Mail Stop 8200 Centerpoint Building 3801 Centerpoint Drive, Suite 500 Anchorage, Alaska 99503 Phone: (907) 334-5200
<ul style="list-style-type: none"> • Washington • Oregon • California • Hawaii 	Bureau of Ocean Energy Management Pacific OCS Regional Office 760 Paseo Camarillo, Suite 102 Camarillo, California 93010 Phone: (855) 320-1484

Table 4: Additional Contact Information

Bureau of Safety and Environmental Enforcement Submittal Address	
<ul style="list-style-type: none"> • Oil Spill Response Plan (OSRP) (Atlantic and Gulf Coastal States) 	Bureau of Safety and Environmental Enforcement Supervisor - Oil Spill Preparedness Division Gulf of Mexico Region OSP Section - GE 921C 1201 Elmwood Park Boulevard New Orleans, Louisiana 70123-2394
<ul style="list-style-type: none"> • Oil Spill Response Plan (OSRP) (Pacific Coastal States and Hawaii) 	Bureau of Safety and Environmental Enforcement Chief - Preparedness Verification Branch Oil Spill Preparedness Division 45600 Woodland Road Mail Stop VAE-OSPD Sterling, Virginia 20166
<ul style="list-style-type: none"> • Safety Management System (SMS) 	Bureau of Safety and Environmental Enforcement Office of Offshore Regulatory Programs 45600 Woodland Road Mail Stop VAE-ORP Sterling, Virginia 20166

Paperwork Reduction Act (PRA) Statement

The information-collection provisions of this document are intended to provide clarification, description, or interpretation of requirements contained in 30 CFR § 585 subpart F. The Office of Management and Budget (OMB) has approved the information collection requirements for these regulations and assigned them OMB Control Number 1010-0176.

Attachment A: Information Requirements for NEPA and Other Relevant Laws

BOEM recommends submitting the information in the following table to ensure that the SAP provides information sufficient to comply with NEPA and other environmental laws, including, but not limited to: ESA, MMPA, MBTA, MSFCMA, and NHPA. As noted, this guidance is not meant to apply equally to every scenario. The nature and level of detail of the data and analyses that you provide to BOEM will depend on the site assessment activities you are proposing and their reasonably foreseeable impacts. BOEM may request additional project-specific information, depending on the nature and complexity of the site assessment activities.

For each topic, BOEM recommends that you provide a succinct narrative, at a level of detail appropriate to the scale of the impacts that each category of proposed activities may cause. BOEM recommends including data/information in tables or maps where appropriate. You should also provide report(s) that present the methods used, results of, and conclusions reached by any numerical modeling performed.

Please note that you may combine the information provided for biological resources, threatened and endangered species, and sensitive biological resources and habitats (30 CFR § 585.611(b)(3), (4), and (5)) into an integrated section, provided you clearly indicate protected species.

Parameter	SITE ASSESSMENT PLAN (SAP) 30 CFR § 585.611(b)(1): Hazards
Focus	<ul style="list-style-type: none"> • Describe the extent of meteorological and oceanographic forcing, geology and geomorphology, sediment conditions and sediment transport processes, and physiographic conditions within the area of your proposed project.
Scope	<ul style="list-style-type: none"> • Describe a site-specific evaluation of meteorological and oceanographic conditions, geology and geomorphology, sediment conditions and sediment transport processes, and physiographic conditions having the potential to destabilize your planned activities or facilities. The area-wide evaluation should provide a description of the ecosystem context for the location where you intend to place your project.
Baseline Information	<ul style="list-style-type: none"> • Surveys should be conducted in accordance with BOEM's Guidelines for Providing Geophysical, Geotechnical, and Geohazard Information pursuant to 30 CFR § 585.
Impacting Factors	<ul style="list-style-type: none"> • Describe the following: <ul style="list-style-type: none"> ○ Activities that disturb the sea bottom during site assessment activities—the nature, intensity, and duration of disturbances to the sea bottom, such as pile driving, vessel anchoring, and decommissioning. ○ Natural hazards—nature, intensity, and duration of local and global scour, wave strike and overtopping, and slope instability and seismic events. ○ Accidental events—potential for and effects of collisions and structure failure.

Parameter	SITE ASSESSMENT PLAN (SAP) 30 CFR § 585.611(b)(1): Hazards
Other Information Needs	<ul style="list-style-type: none"> • Additional information may be needed to support the evaluation of hazards and physical impacts, including but not limited to: <ol style="list-style-type: none"> 1. Stability analysis of seafloor morphology; 2. Modeling of wave and current interaction with proposed structures; 3. Modeling of proposed scour protection; and 4. Modeling of disturbances associated with foundation installation, cable jetting and burial, and cable landfall.
Monitoring	<ul style="list-style-type: none"> • Describe any monitoring activities you propose to undertake as part of your proposed site assessment activities.
Environmental Protection Measures	<ul style="list-style-type: none"> • Describe any proposed environmental protection measures that are designed to minimize potential adverse effects of your project on physical resources.
Presentation of Information	<ul style="list-style-type: none"> • Provide reports and associated data in the format requested by BOEM and outlined in the Guidelines for Providing Geophysical, Geotechnical, and Geohazard Information pursuant to 30 CFR § 585, the Guidelines for Submission of Spatial Data for Atlantic Offshore Renewable Energy Development Site Characterization Surveys, or other relevant guidance provided by BOEM. • Provide succinct narratives by topic, at a level of detail appropriate to the scale of the impacts that each category of proposed activities may cause. • Provide report(s) of any numerical modeling performed, including the methods used, results, and conclusions reached. • Include data/information in tables where appropriate. • Include maps where appropriate (e.g., a bathymetric map, isopach, storm tracks, bottom type, and in sedimentary or geologic cross sections).

Parameter	SITE ASSESSMENT PLAN (SAP) 30 CFR § 585.611 (b)(2): Water Quality
Focus	<ul style="list-style-type: none"> Describe the existing water quality conditions and project activities that could affect water quality.
Scope	<ul style="list-style-type: none"> Describe the water quality in the area proximate to your proposed activities, and the incremental changes to the parameters that define water quality that may be caused by your proposed activities.
Baseline Information	<ul style="list-style-type: none"> Describe the general state of water quality in the area proposed for your project by reporting typical metrics for quality, including the following: dissolved oxygen; chlorophyll; nutrient content; seasonal variations in algae or bacterial content; upwelling conditions; presence or absence of contaminants in water or sediment; turbidity or water visibility states and variation.
Impacting Factors	<ul style="list-style-type: none"> Activities that disturb the sea bottom—describe the nature, intensity, and duration of disturbances to the sea bottom that may increase turbidity or affect other water quality conditions. Natural hazards— describe the environmental hazards that could cause releases of non-hazardous or hazardous materials and wastes, such as storm events. Accidental events— describe potential accidental releases from construction equipment, vessels, and installed facilities.
Other Information Needs	<ul style="list-style-type: none"> Additional information may be needed to support the evaluation of water quality impacts, including but not limited to: <ol style="list-style-type: none"> Modeling of turbidity during foundation installation, cable jetting/burial, and cable landfall. Oil or other fluid spill probability and spill trajectory modeling. Operation, Service and Maintenance Plan; Oil Spill Response Plan; Storm Water Pollution Prevention Plan; and any other pollution control plan prepared to avoid and minimize impacts to water quality.
Monitoring	<ul style="list-style-type: none"> Describe any monitoring of water quality that you propose to undertake as part of your proposed site assessment activities.

Parameter	SITE ASSESSMENT PLAN (SAP) 30 CFR § 585.611 (b)(2): Water Quality
Environmental Protection Measures	<ul style="list-style-type: none"> • Describe any part of your project that is designed to minimize adverse effects on water quality. • If an NPDES permit is required by the EPA or if Water Quality Certification is required by the state(s) or ACOEUSACE, include a summary of the anticipated reporting and monitoring requirements.

Parameter	SITE ASSESSMENT PLAN (SAP) 30 CFR § 585.611(b)(3): Biological Resources*
Focus	<ul style="list-style-type: none"> Describe the nature and extent of biological resources that may be affected by activities proposed in your SAP, along with the nature and extent to which your activities will affect such resources.
Scope	<ul style="list-style-type: none"> Include site-specific descriptions of species with potential impacting factors that may result from your proposed activities.
Baseline Information	<ul style="list-style-type: none"> Identify and describe coastal sandy and rocky intertidal, dune, wetland and marsh species, and habitats that may be disturbed by proposed activities or reasonably foreseeable extensions of your project that could be impacted by accidental spills, discharges, or collisions. Conduct a survey in accordance with BOEM's Guidelines for Providing Benthic Habitat Survey Information for Renewable Energy Development on the Atlantic Outer Continental Shelf pursuant to 30 CFR § 585.
Impacting Factors	<ul style="list-style-type: none"> Activities that disturb the sea bottom—indicate maximum area of sea bottom that would be disturbed as a result of your activities; describe the duration and intensity of disturbances and how those disturbances are relevant to biological resources. Activities that introduce sound into the environment: Characterize the sound produced in both air and water. Include source level and frequency of each anthropogenic source and the expected sound attenuation path calculations for transmission loss, if applicable. Activities that result in changes to ambient lighting—report the type, duration, and intensity of lighting at your facilities during site assessment activities. Annotate areas of steady and/or flashing lighting if used. Activities that result in electromagnetic fields (EMF)—report the type, duration, and intensity of EMF-producing activities at your facilities, including testing, operations, and decommissioning. Activities that may displace biological resources—describe vessel traffic patterns through all phases and locations of proposed structures, as well as any other proposed activities that may displace biological resources. Activities that may result in direct injury or death of biological resources (e.g., support/construction vessel activities). Accidental events—describe possible accidental events, such as materials or fuel spills and ship strikes.

Parameter	SITE ASSESSMENT PLAN (SAP) 30 CFR § 585.611(b)(3): Biological Resources*
Other Information Need	<ul style="list-style-type: none"> • Modeling of impact-producing factors on biological resources may include, but are not limited to the following: <ol style="list-style-type: none"> 1) Sound dispersion models 2) EMF models 3) Materials and fuel spill modeling 4) Collision hazard and risk modeling 5) Species distribution modeling
Research or Monitoring	<ul style="list-style-type: none"> • Describe any monitoring activities you propose to undertake as part of your proposed site assessment activities. These activities may include plans to monitor and evaluate the results of mitigation over time to ensure that the intended outcomes are achieved.
Environmental Protection Measures	<ul style="list-style-type: none"> • Describe proposed environmental protection measures that are designed to avoid, minimize, and/or mitigate adverse effects on biological resources.

Additional mitigation measures may be required for approval of your SAP. These may be developed through scoping and consultations with other stakeholders and state and Federal resource agencies.

You may combine the information provided for biological resources, threatened and endangered species, and sensitive biological resources and habitats into an integrated section, provided you clearly indicate protected species.

Parameter	SITE ASSESSMENT PLAN (SAP) 30 CFR § 585.611(b)(4): Threatened and Endangered Species*
Focus	<ul style="list-style-type: none"> • Describe the nature and extent of threatened, endangered, and candidate species for ESA listing that may be affected by activities proposed in your SAP.
Scope	<ul style="list-style-type: none"> • Include site-specific descriptions of species and potential impacting factors that may result from your proposed activities.
Baseline Information	<ul style="list-style-type: none"> • A survey should be conducted in accordance with BOEM's Guidelines for Providing Information on Marine Mammals and Sea Turtles for Renewable Energy Development on the Atlantic Outer Continental Shelf pursuant to 30 CFR § 585 subpart F and the Guidelines for Providing Information on Fisheries Survey for Renewable Energy Development on the Atlantic Outer Continental Shelf pursuant to 30 CFR § 585.
Impacting Factors	<ul style="list-style-type: none"> • Activities that disturb the sea bottom—indicate approximate area of sea bottom disturbed as a result of your activities and a description of the duration and intensity of disturbance and how those disturbances are relevant to threatened and endangered species. • Activities that introduce sound into the environment—characterize the sound produced in both air and water and its potential effect on threatened and endangered species. Include source level and frequency of each anthropogenic source and the expected sound attenuation path calculations for transmission loss. • Activities that result in changes to ambient lighting—report the type, duration, and intensity of lighting at your facilities. • Activities that result in changes to ambient EMFs including testing, operations, and decommissioning. Report the type, duration, and intensity of EMF-producing activities at your project site. • Activities that may displace threatened and endangered species—describe vessel traffic patterns through all phases and locations of proposed structures. • Activities that may result in direct injury or death of threatened and endangered species (e.g., turbine operations, support/construction vessel activities). • Accidental events—describe possible accidental events, such as materials or fuel spills and ship strikes.

Parameter	SITE ASSESSMENT PLAN (SAP) 30 CFR § 585.611(b)(4): Threatened and Endangered Species*
Other Information Need	<ul style="list-style-type: none"> • In lieu of direct observations, modeling of impact-producing factors and their potential effects on threatened and endangered species may include, but are not limited to, the following: <ol style="list-style-type: none"> 1. Sound dispersion models 2. EMF models 3. Materials and fuel spill modeling 4. Collision hazard and risk modeling 5. Species distribution modeling
Monitoring	<ul style="list-style-type: none"> • Describe any research or monitoring activities you propose as part of your SAP proposal. These activities may include plans to monitor and evaluate the results of mitigation over time to ensure that the intended outcomes are achieved.
Environmental Protection Measures	<ul style="list-style-type: none"> • Describe environmental protection measures that are proposed as part of your project that are designed to avoid, minimize, and/or mitigate adverse effects on threatened and endangered species.
Presentation of Information	<ul style="list-style-type: none"> • Provide reports and associated data in the format requested by BOEM and outlined in the Guidelines for Providing Information on Marine Mammals and Sea Turtles for Renewable Energy Development on the Atlantic Outer Continental Shelf pursuant to 30 CFR § 585 subpart F, the Guidelines for Providing Information on Fisheries Survey for Renewable Energy Development on the Atlantic Outer Continental Shelf pursuant to 30 CFR § 585, or other relevant guidance provided by BOEM. • Provide a succinct narrative by topic, targeted to a level-of-detail proportionate to the scale of the activities you propose. • Include names of species and impact factor tables where appropriate. • Include maps where appropriate.

You may combine the information provided for Biological Resources, Threatened and Endangered Species, and Sensitive Biological Resources and Habitats into an integrated section, provided you clearly indicate protected species.

Parameter	SITE ASSESSMENT PLAN (SAP) 30 CFR § 585.611(b)(5): Sensitive Biological Resources or Habitats*
Focus	<ul style="list-style-type: none"> • Describe the nature and extent of sensitive biological resources or habitats that may be affected by activities proposed in your SAP. Include sensitive habitats that may be scarce on a regional scale and vulnerable to proposed activities or are designated as special areas (e.g., essential fish habitat, parks, sanctuaries, and marine protected areas).
Scope	<ul style="list-style-type: none"> • Include area-wide and site-specific descriptions of species that may be impacted resulting from your proposed activities.
Baseline Information	<ul style="list-style-type: none"> • Survey should be conducted in accordance with BOEM's Guidelines for Providing Information on Marine Mammals and Sea Turtles for Renewable Energy Development on the Atlantic Outer Continental Shelf pursuant to 30 CFR § 585 subpart F and Guidelines for Providing Information on Fisheries Survey for Renewable Energy Development on the Atlantic Outer Continental Shelf pursuant to 30 CFR § 585.
Impacting Factors	<ul style="list-style-type: none"> • Activities that disturb the sea bottom—indicate approximate area of sea bottom disturbed as a result of your activities, as well as a description of the duration and intensity of disturbance and how those disturbances are relevant to sensitive biological resources or habitats. • Activities that introduce sound into the environment—characterize sound produced in both air and water by your activities and noise on sensitive biological resources or habitats. Include source level and frequency of each anthropogenic source and the expected sound attenuation path calculations for transmission loss. • Activities that result in changes to ambient lighting—report the type, duration, and intensity of lighting at your facilities. • Activities that result in changes to ambient EMF including testing, operations, and decommissioning—report the type, duration, and intensity of EMF-producing activities at your facilities. • Activities that may displace sensitive biological resources or alter habitats—describe vessel traffic patterns through all phases, locations of proposed structures, and locations of sensitive biological resources or habitats. • Activities that may result in direct injury or death of sensitive biological resources (e.g., turbine operations, support/construction vessel activities). • Activities that increase the turbidity of the water column and re-suspension of sediment—report the type and duration of activities creating turbidity and how turbidity is relevant to sensitive biological resources or potential sedimentation of benthic fauna and habitats.

Parameter	SITE ASSESSMENT PLAN (SAP) 30 CFR § 585.611(b)(5): Sensitive Biological Resources or Habitats*
	<ul style="list-style-type: none"> • Accidental Events—describe possible accidental events, such as materials or fuel spills and ship strikes and how these may affect sensitive biological resources or habitats.
Other Information Need	<ul style="list-style-type: none"> • BOEM may recommend a biological survey if survey information from any available source shows that possible sensitive biological resources could be negatively affected by your proposed activities. • In lieu of direct observations, modeling of impact producing factors on sensitive biological resources or habitats may include, but are not limited to the following: <ol style="list-style-type: none"> 1) Sound dispersion models 2) EMF models 3) Materials and fuel spill modeling 4) Collision risk and hazard modeling 5) Species distribution modeling
Monitoring	<ul style="list-style-type: none"> • Describe any research or monitoring activities you propose to undertake as part of your SAP proposal. These activities may include plans to monitor and evaluate the results of mitigation over time to ensure that the intended outcomes are achieved.
Environmental Protection Measures	<ul style="list-style-type: none"> • Describe environmental protection measures that are proposed that are designed to avoid, minimize, and/or mitigate adverse effects on sensitive biological resources or habitats.
Presentation of Information	<ul style="list-style-type: none"> • Provide reports and associated data in the format requested by BOEM and outlined in the Guidelines for Providing Information on Marine Mammals and Sea Turtles for Renewable Energy Development on the Atlantic Outer Continental Shelf pursuant to 30 CFR § 585 subpart F and other relevant guidance provided by BOEM. • Provide a succinct narrative by topic, targeted to a level-of-detail proportionate to the scale of the activities you propose. • Include names of species and impact factor tables where appropriate. • Include maps where appropriate.

You may combine the information provided for Biological Resources, Threatened and Endangered Species, and Sensitive Biological Resources and Habitats into an integrated section, provided you clearly indicate protected species.

Parameter	SITE ASSESSMENT PLAN (SAP) 30 CFR § 585.611(b)(6): Archaeological Resources
Focus	<ul style="list-style-type: none"> • Provide detailed information regarding the nature and location of historic properties in the area(s) where site assessment activities will take place, to assist BOEM in reviewing your SAP under NEPA and Section 106 of the National Historic Preservation Act (36 CFR subpart 800).
Scope	<ul style="list-style-type: none"> • Describe the methods and results of surveys conducted to identify historic properties that may be affected by your proposed activities. As defined in the Section 106 regulations at 36 CFR § 800.16(l)(1), historic property means any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places, which is maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to or located within such properties. This term also includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization (as defined at 36 CFR § 800.16) and that meet the National Register criteria.

Parameter	SITE ASSESSMENT PLAN (SAP) 30 CFR § 585.611(b)(6): Archaeological Resources
Baseline Information	<ul style="list-style-type: none"> • Provide a detailed description of the methods and results of surveys conducted to identify historic properties that may be affected within the geographic area(s) of your activities. These geographic areas include, but may not be limited to: <ol style="list-style-type: none"> 1) The depth and breadth of the seabed potentially affected by bottom-disturbing activities; 2) The onshore view shed from which renewable energy structures would be visible; 3) The depth and breadth of ground disturbing activities and the view shed on onshore locations where transmission cables come ashore; or 4) Any temporary or permanent construction, staging, or anchoring locations. • For the identification of historic properties within the seabed portions of the proposed site assessment area a historic property identification survey should be conducted in accordance with BOEM's Guidelines for Providing Archaeological and Historic Property Information pursuant to 30 CFR § 585. • For the identification of historic properties within state submerged lands, within the onshore view shed, and within onshore terrestrial areas, a historic property identification survey(s) should be conducted in a manner acceptable to the relevant State Historic Preservation Office(s) (SHPO). If located on tribal lands, the historic property identification survey(s) should be conducted in a manner acceptable to the affected tribe. The term tribal land is defined at 36 CFR § 800.16(w) to mean all lands within the exterior boundaries of any Indian reservation and all dependent Indian communities.
Impacting Factors	<ul style="list-style-type: none"> • Activities that disturb the sea bottom—indicate the nature, intensity, extent, and duration of disturbances to the sea bottom that may affect historic properties. • Activities that disturb the ground—indicate the nature, intensity, extent, and duration of disturbances to the ground that may affect historic properties. • Visual impacts.
Other Information Need	<ul style="list-style-type: none"> • Additional site-specific information may be requested for compliance with NEPA or NHPA, depending on the nature of the survey results. This may include requests for additional information to verify the presence of historic properties, evaluate National Register eligibility of identified properties, or resolve adverse effects to historic properties.
Monitoring	<ul style="list-style-type: none"> • Describe any monitoring activities you propose to as part of your SAP.

Parameter	SITE ASSESSMENT PLAN (SAP) 30 CFR § 585.611(b)(6): Archaeological Resources
Protection Measures	<ul style="list-style-type: none"> • Describe protection measures that are proposed as part of your project that are designed to minimize potential effects to historic properties. • Report recommended avoidance measures and buffers from potential historic properties (including side scan sonar targets, magnetometer anomalies, sub-bottom reflectors, or other data that may indicate the presence of a potential historic property). • Report how proposed site assessment activities will be conducted to adequately protect known or potential historic properties.
Presentation of Information	<ul style="list-style-type: none"> • Provide reports and associated data in the format requested by BOEM and outlined in the Guidelines for Providing Archaeological and Historic Property Information pursuant to 30 CFR § 585, the Guidelines for Submission of Spatial Data for Atlantic Offshore Renewable Energy Development Site Characterization Surveys, or other relevant guidance provided by BOEM or SHPOs. • For meteorological buoys, provide anchor maps showing the estimated locations, types, and sizes of anchors that will be used during installation activities. Include any areas identified for avoidance. Provide information on proposed anchoring locations (or radius of potential anchoring locations) and a detailed description of all ground tackle and mooring methods that may be employed for the installation of site assessment equipment or structures.

Post-construction maps that show all areas of seafloor impacts with precise locations may be necessary after installation and should include any areas that were identified for avoidance.

Parameter	SITE ASSESSMENT PLAN (SAP) 30 CFR § 585.611(b)(7): Social and Economic Resources
Focus	<ul style="list-style-type: none"> • Describe the onshore economic baseline of the coastal areas that may be affected by your project. Describe the context of existing socioeconomic activities and resources and extant demographic and economic patterns for the proposed site assessment activities.
Scope	<ul style="list-style-type: none"> • Describe what socioeconomic activity and resources in the onshore and coastal environment are affected by your proposed site assessment activities.
Baseline Information	<ul style="list-style-type: none"> • Identify the major coastal industries (onshore and offshore) of the affected area. • Describe any economic modeling (e.g., job creation). • Describe the commercial and recreational fisheries, recreational resource use patterns, employment and demographic patterns (particularly those related to environmental justice considerations), transportation use patterns, and visual expressions that would be affected by your proposed site assessment activities. • Refer to the Fisheries Best Management Practices in Attachment B. • Describe the commercial and recreational fisheries, recreational resource use patterns, employment and demographic patterns, transportation use patterns, and visual expressions that would be affected by the removal of your facilities.
Impacting Factors	<ul style="list-style-type: none"> • Activities that may displace or impact fishing, recreational, and tourism activities. • Influx of non-local employees that may impact housing availability.

Parameter	SITE ASSESSMENT PLAN (SAP) 30 CFR § 585.611(b)(7): Social and Economic Resources
Other Information Need	<ul style="list-style-type: none"> • If your operating facilities are visible from the shoreline, BOEM recommends that you submit a Visual Impact Assessment (VIA) as part of your NEPA to evaluate: <ol style="list-style-type: none"> i. Visual impacts from variable heights at and above the beach and shoreline; ii. Visual impacts from variable heights at and above known protected areas (see 30 CFR § 585.627(a)(5) and (6)); iii. Visual impacts from variable heights at and above potential places or areas that are eligible for entry onto historic lists; iv. Land cover types or frequented locations along the coastal area that are not directly on the beach; v. How seasonal sun angles, times of day, and meteorological conditions affect the above; and vi. The potential visual impacts to any coastal prehistoric or historic resources that are listed, eligible, or potentially eligible for listing on the National Register of Historic Places.
Monitoring	<ul style="list-style-type: none"> • Describe any monitoring activities you propose to undertake as part of your SAP proposal.
Environmental Protection Measures	<ul style="list-style-type: none"> • Describe environmental protection measures that are proposed as part of your project that are designed to minimize adverse effects on social and economic resources.

Parameter	SITE ASSESSMENT PLAN (SAP) 30 CFR § 585.611(b)(8): Coastal and Marine Uses
Focus	<ul style="list-style-type: none"> Describe all known current sea surface, subsurface, and sea bottom uses of state and OCS waters nearest to your proposed project.
Scope	<ul style="list-style-type: none"> Describe existing uses of areas where site assessment activities are taking place. Existing uses include points (for example, navigation buoys) and zones (for example, dredge material disposal sites). Describe the point and zoned uses or authorizations of state or OCS air space, sea surface, subsurface, or sea bottom in the area planned for your project.
Baseline Information	<ul style="list-style-type: none"> Describe how your site assessment activities would be able to co-exist with any other authorized use of the OCS (short of the other potential needs for SAP approval (below). Map the coastal and marine uses and include commercial or military air ascent or descent corridors. Describe the intensity or seasonality of use.
Impacting Factors	<ul style="list-style-type: none"> Activities that may cause conflict with temporal and seasonal space use by other authorized users of the coastal zone or OCS.
Other Information Need	<ul style="list-style-type: none"> Integrated maps and descriptions of extant coastal and marine use patterns defined by intensity and seasonality in your project area. A geo-referenced (GIS-type) 3-D analysis of your facilities together with all other authorized users of OCS air, or water surface, column, and bottom space in context of temporal or seasonal use pattern. A Navigational Safety Risk Assessment is recommended in accordance with the Navigation and Vessel Inspection circular 02-07, “Guidance on the Coast Guard’s Roles and Responsibilities for Offshore Renewable Energy Installations.” The U.S. Coast Guard (USCG) uses the Navigational Safety Risk Assessment to evaluate the following: (1) the impact the offshore energy installation will have on other marine users; and (2) the potential for it to interfere with vessels, aircraft, or other authorized users of the air space, sea surface, water column, or sea bottom.
Monitoring	<ul style="list-style-type: none"> Describe any monitoring activities you propose to undertake as part of your SAP proposal. Refer to the Coastal Habitats Best Management Practices in Attachment B.
Environmental Protection Measures	<ul style="list-style-type: none"> Describe environmental protection measures that are proposed that are designed to minimize adverse effects on other coastal and marine uses.

Parameter	<p style="text-align: center;">SITE ASSESSMENT PLAN (SAP) 30 CFR § 585.611(b)(9): Consistency Certification</p>
Focus	<ul style="list-style-type: none"> • Provide CZMA consistency certification if required.
Scope	<ul style="list-style-type: none"> • Affected state(s) may require that your project be consistent to the maximum extent practicable with the enforceable policies of their state Coastal Management Plan (CMP) (15 CFR § subpart 930). • Federal consistency must be certified prior to SAP approval.
Baseline Information	<ul style="list-style-type: none"> • If BOEM previously prepared a consistency determination (CD) that covered site assessment activities, a separate consistency certification may not be required.² However, if you submit a SAP that shows changes in impacts from those previously considered in the CD, you may be subject to a new consistency review. • If BOEM has not prepared a CD and has <i>not</i> awarded a lease, you must submit a copy of the SAP, consistency certification, and necessary data and information, pursuant to 15 CFR part 930, subpart D, to BOEM and the applicable State CZMA agency or agencies at the same time. • If BOEM has not prepared a CD and has awarded a lease, you must submit a copy of the SAP, consistency certification, and necessary data and information, pursuant to 15 CFR part 930, subpart E, to BOEM. After BOEM has determined that all information requirements for the SAP are met, it will forward to the applicable State CZMA agency or agencies one paper copy and one electronic copy of the SAP, consistency certification, and necessary data and information required under 15 CFR part 930, subpart E. • You should discuss any decommissioning of bottom-founded site assessment facilities in your consistency certification submittal. To verify compliance with each applicable state’s approved CMP, you must include one paper copy and one electronic copy of the consistency certification for the project, including the required information and analysis, pursuant to section 585.612.

² The requirement under 30 CFR 585.612 to submit a Consistency Certification to the State will only apply if BOEM has not previously reviewed the proposed site assessment activities pursuant to CZMA. BOEM will review the activities in your SAP and follow the process outlined in 30 CFR 585.611 to determine whether further consistency review is required.

Parameter	SITE ASSESSMENT PLAN (SAP) 30 CFR § 585.611(b)(9): Consistency Certification
Impacting Factors	<ul style="list-style-type: none">• Conduct site assessment activities in a manner that is consistent to the maximum extent practicable with the enforceable policies of each applicable state's CMP.

Parameter	SITE ASSESSMENT PLAN (SAP) 30 CFR § 585.611(b)(10): Other Resources, Conditions, and Activities
Focus	<ul style="list-style-type: none"> • Depending on the nature and potential impacts of your proposed site assessment activities, BOEM may impose additional informational requirements for your SAP.
Scope	<ul style="list-style-type: none"> • If the nature of your project presents environmental impacts that are novel or imprecisely understood, BOEM may request the appropriate data or information in order to complete the environmental analysis and to support the necessary consultations with other state and Federal agencies. Therefore, BOEM strongly recommends that you consult with BOEM before submitting a SAP.
Information Need	<ul style="list-style-type: none"> • Contact the appropriate BOEM Regional Office for more information.
Impacting Factors	<ul style="list-style-type: none"> • Contact the appropriate BOEM Regional Office for more information.
Monitoring	<ul style="list-style-type: none"> • Contact the appropriate BOEM Regional Office for more information.
Environmental Protection Measures	<ul style="list-style-type: none"> • Contact the appropriate BOEM Regional Office for more information.

Attachment B: Best Management Practices

Source: Establishment of an OCS Alternative Energy and Alternate Use Program, Record of Decision, Dec. 2007. U.S. Department of the Interior, Bureau of Ocean Energy Management, Regulation and Enforcement, Washington, D.C.

In 2007, BOEM prepared a programmatic environmental impact statement to support the establishment of the Alternative Energy and Alternate Use Program. The Record of Decision for the programmatic environmental impact statement adopted BMPs that may be applicable to a range of renewable energy projects. These BMPs are included for your reference to assist you in preparing your SAP for submission. BOEM is currently clarifying these BMPs through guidance documents that will be available at <http://www.boem.gov/Regulatory-Framework-Guidelines/>. Check this website prior to developing your SAP. Upon request, BOEM will assist you in determining which of these policies and BMPs are appropriate for a specific lease, easement, or right-of-way.

Phase/Resource	Best Management Practice
<i>Preconstruction Planning</i>	
	<p>Lessees and grantees shall minimize the area disturbed by preconstruction site monitoring and testing activities and installations.</p> <p>Lessees and grantees shall contact and consult with the appropriate affected Federal, state, and local agencies early in the planning process.</p> <p>Lessees and grantees shall consolidate necessary infrastructure requirements whenever practicable.</p> <p>Lessees and grantees shall develop a monitoring program to ensure that environmental conditions are monitored during construction, operation, and decommissioning phases. The monitoring program requirements, including adaptive management strategies, and shall be established at the project level to ensure that potential adverse impacts are mitigated.</p>
<i>Seafloor Habitats</i>	
	<p>Lessees and grantees shall conduct seafloor surveys in the early phases of a project to ensure that the alternative energy project is sited appropriately to avoid or minimize potential impacts associated with seafloor instability or other hazards.</p> <p>Lessees and grantees shall conduct appropriate pre-siting surveys to identify and characterize potentially sensitive seafloor habitats and topographic features.</p> <p>Lessees and grantees shall avoid locating facilities near known sensitive seafloor habitats, such as coral reefs, hard-bottom areas, and chemosynthetic communities.</p> <p>Lessees and grantees shall avoid anchoring on sensitive seafloor habitats.</p>

Phase/Resource	Best Management Practice
	<p>Lessees and grantees shall employ appropriate shielding for underwater cables to control the intensity of electromagnetic fields.</p> <p>Lessees and grantees shall reduce scouring action by ocean currents around foundations and to seafloor topography by taking all reasonable measures and employing periodic routine inspections to ensure structural integrity.</p> <p>Lessees and grantees shall avoid the use of explosives when feasible to minimize impacts to fish and other benthic organisms.</p> <p>Lessees and grantees shall take all reasonable actions to minimize seabed disturbance and sediment dispersion during cable installation.</p>
<i>Marine Mammals</i>	
	<p>Lessees and grantees shall evaluate marine mammal use of the proposed project area and design the project to minimize and mitigate the potential for mortality or disturbance. The amount and extent of ecological baseline data required will be determined on a project basis.</p> <p>Vessels related to project planning, construction, and operation shall travel at reduced speeds when assemblages of cetaceans are observed, and maintain a reasonable distance from whales, small cetaceans, and sea turtles as determined during site-specific consultations.</p> <p>Lessees and grantees shall minimize potential vessel impacts to marine mammals and turtles by requiring project-related vessels to follow the NMFS Regional Viewing Guidelines while in transit. Operators shall be required to undergo training on applicable vessel guidelines.</p> <p>Lessees and grantees shall take efforts to minimize disruption and disturbance to marine life from sound emissions, such as pile driving, during construction activities.</p> <p>Lessees and grantees shall avoid and minimize impacts to marine species and habitat in the project area by posting on-site a qualified observer, approved by BOEM and NMFS, during construction activities.</p>
<i>Fish Resources and Essential Fish Habitat</i>	
	<p>Lessees and grantees shall conduct pre-siting surveys (may use existing data) to identify important, sensitive, and unique marine habitats in the vicinity of the projects and design the project to avoid, minimize, or otherwise mitigate adverse impacts to these habitats.</p> <p>Lessees and grantees shall minimize construction activities in areas containing anadromous fish during migration periods.</p> <p>Lessees and grantees shall minimize seafloor disturbance during construction and installation of the facility and associated infrastructure.</p>

Phase/Resource	Best Management Practice
<i>Sea Turtles</i>	
	Lessees and grantees shall minimize potential vessel impacts to marine mammals and sea turtles by requiring project-related vessels to follow the NMFS Regional Viewing Guidelines while in transit. Operators shall be required to undergo training on applicable vessel guidelines.
	Lessees and grantees shall take efforts to minimize disruption and disturbance to marine life from sound emissions, such as pile driving, during construction activities.
	Lessees and grantees shall locate cable landfalls and onshore facilities so as to avoid impacts to known nesting beaches.
<i>Avian Resources</i>	
	The lessee shall evaluate avian use in the project area and design the project to minimize or mitigate the potential for bird strikes and habitat loss. The amount and extent of ecological baseline data required will be determined on a project-to-project basis.
	Lessees and grantees shall take measures to reduce perching opportunities.
	Lessees and grantees shall locate cable landfalls and onshore facilities so as to avoid impacts to known nesting beaches of sensitive species during the breeding season.
	Lessees and grantees shall comply with Federal Aviation Administration (FAA) and U.S. Coast Guard requirements for lighting while using lighting technology (e.g., low-intensity strobe lights) that minimize impacts to avian species.
<i>Acoustic Environment</i>	
	Lessees and grantees shall plan site characterization surveys by using the lowest sound levels necessary to obtain the information needed.
	Lessees and grantees shall take efforts to minimize disruption and disturbance to marine life from sound emissions, such as pile driving, during construction activities.
	Lessees and grantees shall employ, to the extent practicable, state-of-the-art, low-noise turbines or other technologies to minimize operational sound effects.
<i>Fisheries</i>	
	Lessees and grantees shall work cooperatively with commercial/recreational fishing entities and interests to ensure that the construction and operation of a project will minimize potential conflicts with commercial and recreational fishing interests.
	Lessees and grantees shall review planned activities with potentially affected fishing organizations and port authorities to prevent unreasonable fishing gear conflicts. Lessees and grantees shall

Phase/Resource	Best Management Practice
	<p>minimize conflict with commercial fishing activity and gear by notifying registered fishermen of the location and time frame of the project construction activities well in advance of mobilization with updates throughout the construction period.</p> <p>Lessees and grantees shall use practices and operating procedures that reduce the likelihood of vessel accidents and fuel spills.</p> <p>Lessees and grantees shall avoid or minimize impacts to the commercial fishing industry by marking applicable structures (e.g., wind turbines, wave generation structures) with U.S. Coast Guard-approved measures (such as lighting) to ensure safe vessel operation.</p> <p>Lessees and grantees shall avoid or minimize impacts to the commercial fishing industry by burying cables, where practicable, to avoid conflict with fishing vessels and gear operation. If cables are buried, lessees and grantees shall inspect cable burial depth periodically during project operation to ensure that adequate coverage is maintained to avoid interference with fishing gear/activity.</p>
<i>Coastal Habitats</i>	
	<p>Lessees and grantees shall avoid hard-bottom habitats, including seagrass communities and kelp beds, where practicable, and restore any damage to these communities.</p> <p>Lessees and grantees shall implement turbidity reduction measures to minimize effects to hard-bottom habitats, including seagrass communities and kelp beds, from construction activities.</p> <p>Lessees and grantees shall minimize effects to seagrass and kelp beds by restricting vessel traffic to established traffic routes.</p> <p>Lessees and grantees shall minimize impacts to wetlands by maintaining buffers around wetlands, implementing BMPs from erosion and sediment control, and maintaining natural surface drainage patterns.</p>
<i>Electromagnetic Fields</i>	
	<p>Lessees and grantees shall use submarine cables that have proper electrical shielding and bury the cables in the seafloor when practicable.</p>
<i>Transportation and Vessel Traffic</i>	
	<p>Lessees and grantees shall site alternative energy facilities to avoid unreasonable interference with major ports and USCG-designated Traffic Separation Schemes.</p> <p>Lessees and grantees shall meet FAA guidelines for sighting and lighting of facilities.</p> <p>Lessees and grantees shall place proper lighting and signage on applicable alternative energy structures to aid navigation per U.S. Coast Guard circular navigation and vessel inspection circular 07-02 (U.S. Coast Guard 2007) and comply with any other applicable U.S. Coast</p>

Phase/Resource	Best Management Practice
	<p>Guard requirements.</p> <p>Lessees and grantees shall conduct all necessary studies of potential interference of proposed wind turbine generators with commercial air traffic control radar systems, national defense radar systems, and weather radar systems, including identification of possible solutions.</p>
<i>Visual Resources</i>	
	<p>Lessees and grantees for wind projects shall address key design elements, including visual uniformity, use of tubular towers, and proportion and color of turbines.</p> <p>Lessees and grantees for wind projects shall use appropriate viewshed mapping, photographic and virtual simulations, computer simulation, and field inventory techniques to determine with reasonable accuracy the visibility of the proposed project. Simulations should illustrate sensitive and scenic viewpoints.</p> <p>Lessees and grantees shall comply with FAA and U.S. Coast Guard requirements for lighting while minimizing the impacts through appropriate application.</p> <p>Lessees and grantees shall seek public input in evaluating the visual site design elements of proposed wind energy facilities.</p> <p>Within FAA guidelines, directional aviation lights that minimize visibility from shore should be used.</p>
<i>Operations</i>	
	<p>Lessees and grantees shall prepare waste management plans, hazardous material plans, and oil spill prevention plans, as appropriate, for the facility.</p>