

PERMITTING AND LEASING FOR MAINE OFFSHORE WIND ENERGY PROJECTS

Offshore Wind Energy Project Roadmap 2013



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The Maine Composites Alliance

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On behalf of

Maine Composites Alliance (MCA)

Maine Wind Industry Initiative (MWII)

*Environmental and Energy Technology Council of Maine
(E2Tech)*

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Project Background

Maine possesses considerable natural wind and ocean energy resources and has assets in its current business base – precision and composites manufacturing, engineering, construction, marine services and trades, applied research and development, and transportation and logistics – to play a significant role in the onshore, offshore and ocean energy supply chains necessary to develop these resources.

The **Maine Composites Alliance (MCA)**, **Maine Wind Industry Initiative (MWII)** and **Environmental and Energy Technology Council of Maine (E2Tech)** are collaborating to help organize, promote and expand Maine's ocean and wind energy cluster through a) strengthening the industry's supply chain in Maine, b), fostering collaboration between Maine businesses and global partners, and c) recruiting major suppliers and/or manufacturers to Maine.

Jeff Thaler, an energy and environmental attorney presently serving as Visiting Professor of Energy Law and Policy at the University of Maine Schools of Law and Economics, used his years of experience working with the DeepCWind Consortium and on other energy projects to create roadmaps for potential developers and interested parties on federal, state and local laws and regulations applicable for Maine Marine Hydrokinetic Projects (MHK) and for offshore wind energy projects. Each roadmap serves as an instructional outline for permitting and licensing in the Gulf of Maine for developers and is intended to help interest and guide potential wind and ocean energy developers to the Gulf of Maine. Mr. Thaler served as the primary author and Maine Law student Andrew Wells assisted with the research and editing.

MCA is an alliance of composite businesses in Maine who work together to recognize and promote Maine's leadership in the international composite industry. They enhance the competitiveness of Maine's existing composite industry and their members by providing opportunities for new commercial ventures, and by providing education and training for members and their employees. MCA serves marine, automotive, aerospace, architecture and industrial industries throughout Maine, the United States and the world.

<http://www.mainecompositesalliance.org>.

MWII is a collaborative created to organize Maine wind industry interests, act as a knowledge transfer network linking opportunities to Maine companies, relate industry needs to the state and federal government and act as a communication hub, representing Maine-based industrial partners in the wind energy industry. www.mainewindindustry.com.

E2Tech seeks to build and expand the State's environmental, energy and clean technology sectors. In addition to providing networking and educational events, E2Tech promotes business development and sustainable job growth, research and development, new product commercialization, cluster initiatives and supply chain development. www.e2tech.org.

Permitting and Leasing Roadmap for Offshore Maine Wind Energy Projects

December 2012—by Jeff Thaler¹

I. WIND ENERGY PROJECTS IN STATE WATERS

A. Within One of Maine's Test Sites

1. Maine Statutes and Programs

In order to facilitate the development of alternative ocean energy in Maine, the Governor's Ocean Energy Task Force recommended and drafted [L.D. 1465 \(.pdf\)](#), which was passed unanimously by the Maine State Legislature in June 2009.

The legislation directed the Maine Department of Conservation, in consultation with the Maine State Planning Office, to select up to five locations within Maine state waters to be designated as "Ocean Energy Testing Areas."

Through comprehensive review of available map information and numerous meetings with the public and interest groups, three sites were designated by MDOC on Dec. 15, 2009—off of Monhegan Island, Boon Island, and Damariscove Island. More information on the test sites can be found at the Maine ocean energy website, <http://www.maine.gov/doc/initiatives/oceanenergy/oceanenergy.shtml>.

As part of Maine's efforts to expedite regulatory review of demonstration wind or wave projects proposed to be developed within a test site, a special general permit program was established to be administered by the Department of Environmental Protection.

Maine DEP's General Permit

A general permit can be acquired for an "Offshore wind energy demonstration project", which is defined as follows:

H. "Offshore wind energy demonstration project" or "project" means a wind energy development that uses a wind turbine to convert wind energy to electrical energy and that employs no more than 2 wind energy turbines, each of which may use different technology, for

¹ **NOTE:** This Roadmap document was prepared with the research and initial drafting assistance of Andrew Wells, a Maine Law student. It is not intended to provide legal advice to any reader, nor is any attorney-client relationship created. This document is for educational purposes only to convey general information and a general understanding of the law, not to provide specific legal advice. There is no attorney client relationship between you and any of the authors. This document should not be used as a substitute for competent legal advice from a licensed professional attorney applied to your circumstances.

the primary purpose of testing and validating a turbine blade design, floating platform or other support structure, mooring or anchoring system or other offshore wind energy technology that the applicant certifies is designed for use in ocean waters and is not in use elsewhere in the Gulf of Maine for commercial production of electricity and that may also include:

- (1) Up to 3 meteorological towers per wind energy turbine proposed;
- (2) One submerged utility line that is sized to transmit:
 - (a) An amount of electricity less than or equal to that produced by the offshore wind energy demonstration project; or
 - (b) Up to 25 megawatts of electricity if the line is intended to serve multiple offshore wind energy demonstration projects located within the Maine Offshore Wind Energy Research Center and the department has not previously granted approval for such a submerged utility line pursuant to this section; and
- (3) A wave energy test project.² 38 M.R.S.A. §480-HH(1)(H)

If a general permit is acquired, then a permit under 38 M.R.S.A. §480-C (Natural Resources Protection Act) is not required. 38 M.R.S.A. §480-HH(1). The Maine DEP is the lead agency for permits under 480-HH.

Contents of General Permit

Pursuant to 38 M.R.S.A. §480-HH(3), the application must include the following:

- Written certification that all of the wind farm test site facilities will be entirely within the test site, with the exception of the submerged utility line.
- A site plan, which includes a plan view drawing of the entire site, and all proposed facilities that would be constructed. This includes geographic system references, the energy generating facilities, meteorological tower, monitoring equipment, and any submerged utility lines. The site plan should include a narrative, which describes the proposed construction activities. This includes the proposed methods of construction, operation, and eventual removal of the offshore wind energy demonstration project. Additionally, there must be an explanation of management of fuels, lubricants and other materials that would be used for project maintenance. There must also be a site drawing that includes the design and location of the

² Note that a wave energy test project, which can be developed within a test site along with a wind project, is defined in the statute as: "Wave energy test project" means a hydropower project, as defined by section 632, subsection 3, that uses ocean wave action to produce electricity and that: (1) Is proposed as part of an offshore wind energy demonstration project and is designed and sited to test production of electricity from wave energy in conjunction with and in a manner that complements electricity produced by an offshore wind energy turbine; (2) Employs up to 2 wave energy converters, each of which may use different technology, that the applicant certifies are designed for use in the ocean and are not in use elsewhere in the Gulf of Maine for commercial production, for the primary purpose of testing and validating the overall design of the converter and its related systems, subsystems or components; and (3) May include one or more of the following additional elements: (a) A mooring or anchoring system; and (b) An ocean sensor package. 38 M.R.S.A. §480-HH(1)(K)

mooring lines, and anchoring system. Additionally, there must be a scale drawing of the location of the utility lines, which is accompanied by an explanation of the proposed plans for the construction of the lines, and how the location and construction of the lines will comply with permit rule standards. Furthermore, the plan must include a drawing of the location of the proposed wind turbines in relation to other offshore wind energy demonstration projects within 10 kilometers, and a written verification that the proposed project would not interfere with the operation of any other wind energy projects.

- Before applying for a General Permit, the applicant must consult with the Department of Marine Resources. The application should include a report following the consultation that would include present information concerning the commercial fishing and other current uses of the project area, and any information taken from a field report concerning marine resources, benthic communities in the marine areas in and surrounding the proposed location of any mooring lines, anchors, utility lines, meteorological tower, ocean sensor package, or other project elements secured to the seabed.
- Written acknowledgement that the DEP may require the applicant to take remedial action, which might include the termination and removal of all facilities and submerged utility lines. The applicant must also acknowledge that they would bear the cost of the remedial action.
- A fish and wildlife monitoring plan that would include an explanation of the monitoring process of the behavior and interaction of species listed as endangered or threatened under Title 12 MRSA §6975 or Title 12 MRSA §12803, as well as all bird species, bats, marine mammals and other marine resources for the duration of the general permit. The plan should account for the monitoring of the potential impacts resulting from all of the project equipment, facilities, and actions. These actions include the mooring system, anchoring system, and submerged utility lines on the various animal species and marine resources. The plan should also include details concerning the methods and the equipment used in the monitoring process. Additionally, the plan would include a description of how the monitoring information will be analyzed, put into an electrical format, and send the information to the DEP. Furthermore, there must be a detailed explanation of the monitoring schedule and implementation of the data recovery, maintenance of the monitoring equipment and the quarterly reports to the DEP, as well as a schedule that considers ocean conditions, seasonal variations in species presence or absence, and other biological factors. Furthermore, the plan should describe the remedial measures that will be taken if any adverse impact to any fish or wildlife in the vicinity is found, and a description of the equipment that will be used to monitor and potential adverse impact from any noise and electromagnetic fields produced by the project's construction and subsequent operation. The application must include provisions for applicants to provide annual monitoring reports and any recommendations for any modifications to the facilities or removal plan. Thirty days prior to the submission of the report to the DEP, the applicant shall supply a draft of the report to the Department of Marine Resources, Department of Inland Fisheries and Wildlife, the DOC, the United States Fish and Wildlife Services and the National Marine Fisheries Service, and allow the agencies to make comments and recommendations pertaining to the draft report. The submitted report must include these comments.

- A Navigation safety plan, which would be designed to protect the public safety, public property, and project facilities from potential events such as collisions between commercial and recreational vehicles with the proposed facilities, and the possible entanglement of fishing equipment with the facility's underwater equipment and devices, and electrocution. The plan must consider and provide for the following;
 - A boundary of an exclusion zone around the proposed generation facilities, anchoring system, submerged utility lines, and other facilities. The boundary should be described with global positioning system coordinates and should be designed to take up only enough area needed by the project to accomplish its purposes. The extreme corners of the exclusion zone must be marked with lights, buoys, or other indicators that would be sufficient to warn sea vessels of the project elements both above and underneath the water, and the exclusion zone boundaries both day and night.
 - The generating facilities must be marked with fog signals, low-intensity navigation lights, hazard marking lights, or other aids to navigation. The generation facilities must also be painted "in a way that considers the aesthetic resources of the project area as well as the safety of the public and project facilities. . ." and meets the Federal Aviation Administration and United States Coast Guard guidelines.
 - Procedures to ensure the safety of the public near the project area.
 - A description of the monitoring procedures, and the actions that the applicant will partake in detecting and addressing an emergency situation.
- A removal plan that indicates the applicant will initiate a project removal plan within 60 days of the expiration of the general permit at the applicant's expense. The removal plan should provide for the complete removal of the project from the water, unless the applicant supplies substantial proof to the DEP that there are plans for continued beneficial use. The removal plan should minimize the disturbance of the seabed as much as possible, and include provisions to monitor the potential impact of the removal on endangered or threatened species, and marine resources. The plan should also include an implementation schedule and the estimated cost of the removal, prepared by a professional engineer. There must also be written evidence and certification that the applicant possesses the necessary funds for the project removal. The applicant is required to post the removal funds with a bond company or federal or state-chartered lending institution authorized to do business in Maine. The amount can never be less than 25% of the estimated removal cost.
- The applicant must provide documentation that there has been a consultation with Department of Marine Resources, Department of Inland Fisheries and Wildlife, DOC, Maine Land Use Regulation Commission (LURC) (now the Maine Land Use Planning Commission), the Executive Department, United States Army Corps of Engineers, United States Coast Guard, National Marine Fisheries Service (NMFS), National Park Service, United States Fish and Wildlife Service, the lobster management policy council established under Title 12 section 6447 for the lobster management zone, and each municipality in which or adjacent to the location of the project. The applicant must also include the recommendations of the agencies, and if the recommendations are not followed, specific reasoning why they were not carried out. The

agencies shall be given 60 days to comment, and the municipalities shall be notified at least 30 days before the initiation of the project and invited to participate in the consultation process.

- The applicant must provide documentation of insurance that would include a liability policy for bodily injury, environmental, and property damage.
- Documentation must be provided that shows that the applicant has the technological and financial means to complete project.
- The applicant must provide certification that they or anyone with a financial interest in the project does not have any other permit for an offshore wind development project pending. This does not apply for any applications by the University of Maine System that are funded in part or in whole federally or by the state.
- If offshore wind energy demonstration project proposed for location within Maine Offshore Wind Energy Research Center, needs to be in cooperation with University of Maine Systems, and there must be written evidence of such.

Notification by the Department of Environmental Protection

There is a review period of 60 days for the applications. The review period begins when the department has accepted the application for processing. The DEP must notify the applicant if the department determines that the requirements have not been met, within the 60-day period. If the department finds that the application does not meet the requirements, then they must also specifically explain which requirements have not been satisfied. §480-HH(4)

Permit Term

If the project is not located in the Maine Offshore Wind Energy Research Center off of Monhegan Island, than the permit term is either three years from the date construction on submerged lands started or five years from the date the general permit has been granted, whichever date that comes first. However, if the site is located in the Maine Offshore Wind Energy Research Center than the permit term is from five years from the date construction begins on submerged lands, or seven years from the date the application has been granted, whichever date that comes first. §480-HH(8).

Removal

Within 60 days of the expiration of the general permit term, the applicant must initiate their removal plan. If the applicant has not implemented the removal plan within the 60 days of the expiration of the permit, then the department may do what the department deems is necessary to initiate the removal process. §480-HH(11)

Submerged Lands Lease

“Within 15 days of receipt of a copy of an application submitted to the Department of Environmental Protection for a general permit under Title 38, section 480-HH or Title 38, section 636-A, the director [of the Division of Parks and Public Lands] shall, if requested by the applicant, provide the applicant a lease option, to be effective on the date of receipt of the application, for use of state-owned submerged lands that are necessary to fulfill the project purposes as identified in the application. Within

30 days of receiving notice and a copy of a general permit granted pursuant to Title 38, section 480-HH or Title 38, section 636-A, the director shall waive the review procedures and standards under this section and issue a submerged lands lease for the permitted activity. The term of the lease must be consistent with that of the permit, including any extension of the permit, and the period of time needed to fully implement the project removal plan approved pursuant to Title 38, section 480-HH or Title 38, section 636-A, as applicable. The director may include lease conditions that the director determines reasonable, except that the conditions may not impose any requirement more stringent than those in a permit granted under Title 38, section 480-HH or Title 38, section 636-A, as applicable, and may not frustrate achievement of the purpose of the project. 12 M.R.S.A. §1282(2)(F).”

Natural Resources Protection Act §480-C and §480-D

If the demonstration wind energy project is confined within the test site, then a permit under the Natural Resources Protection Act, 38 M.R.S.A. §480-A-HH, other than the general permit described above, is not required. However, if a cable is run from the energy device to shore,³ then a permit would be required for dredging, soil replacement, bulldozing, filling, drilling, or construction or alteration to permanent structures in or on any protected natural resource or any land that is adjacent to and could be washed into a coastal wetland, pond, river, stream, brook, or “significant wildlife habitat” located in a freshwater wetland. 38 M.R.S.A. 480-C. This includes coastal shores. The DEP is again the lead agency for this permit. 38 M.R.S.A. §480-A. Regulations for NRPA can be found in Chapters 305, 310, 315 and 335 here: <http://www.maine.gov/sos/cec/rules/06/chaps06.htm>.

The DEP requires that the application fit the following standards:

- The proposed activity does not interfere with existing, scenic, aesthetic, recreational or navigational uses.
- The proposed activity would not cause unreasonable soil erosion and/or prevent soil to naturally transfer from the land to the marine environment.
- The proposed activity cannot cause any unreasonable harm to any “significant wildlife habitat,” freshwater wetland plant habitat, threatened or endangered plant habitat, aquatic habitat, travel corridor, freshwater, estuarine or marine fisheries, or other aquatic life. The DEP will also consider the proposed mitigation the applicant intends to utilize to diminish the potential impact of the project.
- The proposed project cannot unreasonably interfere with the natural water flow of any surface or subsurface waters.
- The proposed activity will not violate any Maine state water quality laws.
- The proposed activity will not unreasonably increase the risk of flooding adjacent lands.

³ If a cable is run to shore, then local or municipal ordinances may also be triggered, such as shoreland zoning; also, depending on the local zoning, Planning Board approval may be required if the cable comes ashore into a Resource Protection District. It is beyond the scope of this document to analyze different local ordinances.

- If the proposed project is on or adjacent to sand dunes, then the proposed activity will not unreasonably interfere with the sand supply to the sand dunes, or increase the erosion hazard to the dunes.
- If the proposed project crosses any outstanding river segment, then the applicant must show that there are no reasonable alternatives that would have less of an effect on the river segment.
- If the proposed activity involves dredging, dredge spoil disposal, or the transporting of dredge spoils by water then the applicant must show that the chosen transportation route minimizes adverse impacts to the commercial fishing industry, and that the site is suitable geologically. The DEP will consult with the Commissioner of Marine Resources, who will assess the potential impacts of the transportation route to the area and the area's fishing industry. The Commissioner of the Marine Resources is required to hold a public meeting pertaining to the proposed dredging operation in at least one of the municipalities impacted by the operations. Furthermore: the applicant must do the following:
 - Clearly mark the or designate the dredging area, and the spoil disposal and transportation routes;
 - Publish the approved transportation route in a newspaper of "general circulation" in the "area adjacent to the route";
 - Publish in a newspaper of "general circulation" in the adjacent area to the approved route the procedure that the applicant will use to answer inquiries concerning the loss of fishing gear during the dredging. 38 M.R.S.A. §480-D.

2. Federal Statutes and Programs

Federal statutes must be considered and federal permits are required for offshore wind energy projects installed and operated in Maine waters and submerged lands, including but not limited to the Maine test sites. However, while BOEM has jurisdiction over offshore wind energy development in federal waters, it does not have such jurisdiction for turbines or cables solely in Maine waters, which begin at the shore and end three nautical miles from shore. Activities performed in state waters can have various impacts upon federal waters, which include but are not limited to the effect on navigation of commercial and recreational vessels, the marine environment, and the commercial and recreational fishing industry. Also, if a cable is run to shore from the test site, than additional federal oversight would be required, as discussed below. For a general flowchart of federal statutes and programs discussed below, see Appendices C and D attached to this document.

Rivers and Harbors Act Section 10 Permit

In order to prohibit the obstruction or alteration of navigable waters, any structures or activities (e.g., anchoring cables, aids to navigation) occurring in or affecting the navigable waters of the U.S., including the Territorial Seas and the Outer Continental Shelf, are subject to authorization by the Army Corps of Engineers. 33 U.S.C.A. §403. The ACOE can authorize activities by a standard individual permit, letter-of-permission, nationwide permit, or regional permit. Based on the level of impacts associated

with a proposed project, the ACOE will make a determination on what type of permit is needed. For example, Aids to Navigation may be authorized by a nationwide permit if they are approved by and installed in accordance with requirements of the U.S. Coast Guard. (33 CFR 330.5(a)(1)). However, if the ACOE can exercise its authority through mandatory Federal Power Act §4(e) conditions to the license, it is possible that structures and activities that are part of a project authorized by a FERC license may not require a § 10 Permit.

If a project may affect threatened or endangered species (or their designated critical habitat), then the ACOE must consult with NMFS and USFWS before making a permit decision; additionally, permit applicants will be required to submit a Biological Evaluation describing the species in the area, the impact the project may have on the species or its critical habitat, and measures that can be taken to minimize impacts. Before issuing a decision on a Standard Individual Permit, the ACOE will provide a 15 to 30 day public notice period. Also, the ACOE must provide notice of and opportunity for public hearings before issuing a permit.

Ports and Waterways Safety Act (PWSA) Private Aids to Navigation

The PWSA was designed to allow for the Coast Guard to ensure safe navigation through U.S. waters while protecting the marine environment. The USCG would also consult with the Secretary of State, the Secretary of the Interior, the Secretary of Commerce, the Secretary of the Army, and the Governors of affected States, to discuss other uses of U.S. waters including offshore energy projects. 33 U.S.C.A. §1223(c)(3)(B). The impact of the project needs to be considered, as well as the mitigation measures the applicant will take. Potential radar interference resulting from the turbines and the impact on navigational safety will also be taken into consideration and evaluated. Additionally, the applicant might be required to provide an emergency response plan. Once the proposed navigation aids are reviewed by the Coast Guard, the applicant must obtain either a permit or a letter of no objection.

Federal Aviation Act

The wind turbines could also interfere with airport radar as well. Specifically, the grouping of numerous large turbines could create a “clutter” on the radar screen that could potentially confuse air traffic controllers and needs to be evaluated. Therefore, the Federal Aviation Act (FAA), 49 U.S.C. § 1301 et. seq. needs to be considered as well. The lead agency for the FAA is the Federal Aviation Administration. The “clutter” from the grouping of the turbines could potentially cause issues for aircraft navigation. Also, if a structure is erected that is over 200 feet above ground level there must be public notice. In addition, if the structure is near an airport, the FAA requests notice. 14 CFR §77.5 and 14 CFR §77.9. A structure is considered an obstruction if its height is 499 feet above ground level at the site of the object, or 200 feet above ground level or above the airport elevation within 3 nautical miles of an established reference point from the airport. 14 CFR §77.17. Thus, if the proposed structures to be installed fit these height standards such as floating or offshore wind turbines, than a notice will need to be filed with the FAA and approval obtained prior to construction.

Clean Water Act §404 Permit

Enacted to conserve and restore the quality of the nation's waterways, §404 of the Clean Water Act, 33 USC § 1344, requires authorization for dredge and fill activities for activities in waters of the United States, including certain wetlands. The 404 permit program is administered jointly by EPA and the U.S. Army Corps of Engineers (ACOE). The ACOE handles the actual issuance of permits, and it determines whether a particular area of land is a wetland or water of the United States. The ACOE also has primary responsibility for ensuring compliance with permit conditions, although EPA plays a role in compliance and enforcement.

The ACOE can authorize dredge and fill activities with a standard individual permit, a letter-of-permission, a nationwide permit, or a regional permit. Based on the level of impacts associated with a proposed project, the ACOE will make a determination on what type of permit review and authorization is appropriate. Authorizations expire within 2-5 years from the date of issuance; however, they may be renewed if the ACOE is notified at least one month prior to expiration.

In its application review, the ACOE will consult with federal and state agencies, to evaluate potential impacts, such as effects on fish and wildlife, water quality, navigation, historic, cultural, scenic and recreational values, and economics. The inter-agency consultation process also involves review and negotiations to identify conservation measures that can help protect and mitigate potential effects. Before issuing a decision on a Standard Individual Permit, the ACOE will provide a 15 to 30 day public notice period. Also, the ACOE must provide notice of and opportunity for public hearings before issuing a permit. Depending on the scope of the project and construction methods, certain activities associated with advanced water-power renewable energy projects (e.g., transmission cables) may require a §404 permit.

If a project could affect a threatened or endangered species or its critical habitat, then the ACOE must consult with the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (FWS) before issuing an authorization. Additionally, the project applicant may be required to submit a Biological Evaluation.

National Environmental Policy Act (NEPA)

NEPA, 42 USC §§ 4321 et seq., was enacted so that federal agencies will evaluate the environmental impacts of a proposed action and reasonable alternatives to those actions before authorizing the action. NEPA provides a framework to identify and assess environmental effects and reasonable alternatives to the proposed actions. The federal action agency, which is the agency issuing the license, lease or permit (usually the Army Corps or Bureau of Ocean Energy Management (BOEM) for

offshore wind), is expected to utilize alternatives and/or mitigation to avoid or minimize impacts so that the purpose and need for the proposed action is accomplished in a manner that does not result in significant environmental effects. A detailed flowchart of the process can be found in Appendix E to this document.

The federal action agency documents the NEPA process by first determining that either 1) the proposed action is categorically excluded from detailed environmental review, or 2) the proposed activity requires a detailed environmental review and documentation containing information about the proposed project, alternatives considered, and likely environmental effects. If a categorical exclusion does not apply, then the federal agency prepares either an Environmental Assessment (EA) or an Environmental Impact Statement (EIS). If substantial issues are not identified in the scoping period, agency staff will prepare an EA indicating that project is not likely to have significant effects, along with a Finding of No Significant Impact (FONSI). 40 CFR §1508.9. If substantial issues are identified and there is not a FONSI after the EA review, than an EIS must be prepared. 40 CFR §1501.4.

Broadly, an EIS must detail “the environmental impact of the proposed action, . . . any adverse environmental effects which cannot be avoided should the proposal be implemented, . . . alternatives to the proposed action, . . . the relationship between local short-term uses of man’s environment and the maintenance and enhancement of long-term productivity, . . . and any irreversible and irretrievable commitments of resources involved in the proposed action should it be implemented.” 42 U.S.C. § 4332(C). The NEPA regulations require consideration of direct, indirect and cumulative impacts, 40 C.F.R. § 1508.25(c) as well as a “rigorous” evaluation of “all reasonable alternatives”. Id. § 1502.14.

There is an early and open process to determine the significant issues associated with the proposed action to be examined in the EIS called “scoping.” During scoping the lead agency invites local agencies, Federal agencies, and affected Indian tribes to be involved in the process. 40 CFR §1501.7. Once the decision is made that an EIS will be necessary, the lead agencies will publish a notice of intent before the scoping process begins. 40 CFR §1507.1. In accordance with the significant issues identified in the scoping process, the lead agency shall prepare a draft EIS, which will be made available to cooperating agencies who are then given an opportunity to work with the lead agency and provide comments. 40 CFR §1502.9(a). The agency shall then prepare a Final EIS, which responds to the comments provided from the draft EIS. 40 CFR § 1502.9(b).

The lead agency prepares the EIS in a format which allows for a clear analysis, the recommended structure includes the following: a cover sheet; summary; table of contents; purpose and reason for action; the alternatives included with the proposed actions; potential environmental consequences; list of preparers; list of agencies, organizations, and individuals to whom the statements are sent; index; and appendices if necessary. 40 CFR §1502.10. Agencies will circulate the Draft EIS and the Final EIS, unless the EIS is unusually long than the summary can be circulated. 40 CFR §1502.19.

An EA or an EIS must include a detailed description of the location and technology of the proposed project. There must also be a clear and detailed description of the location of the

transmission wires. The permittee or licensee must also be able to demonstrate that they have the technological capacity to complete the project. Potential alternative locations should also be included in the description as well. 42 U.S.C. §4332.

Any other State or Federal agency, which has jurisdiction or expertise to the specific environmental issue, is a cooperating agency. The lead agency is required to request the participation of the coordinating agencies as early as possible in the process, and shall use the cooperating agencies' proposals to the greatest extent possible within the lead agency's responsibilities. 40 CFR §1501.6.

Environmental Review and Consultations Under NEPA or Section 10

Clean Air Act

The lead agency would need to work with the Environmental Protection Agency (EPA) and the Maine Department of Environmental Protection (DEP) to determine whether the project could potentially have an adverse impact on air quality pursuant to the Clean Air Act. The EIS would also take into consideration the impact of construction and decommission of the project on the air quality. Under the General Conformity Rule, federal actions that result in air emissions within a designated non-attainment area, or an area with worse air quality than the National Ambient Air Quality Standards (NAAQS), will have to conform to a federally approved state implementation plan (SIP). A federal action can be issuing a license or a permit for the construction of an offshore renewable energy project. 40 CFR §93.152. Thus, if it is found that the air quality is below the NAAQS, than the SIP must be followed, which is dictated by the Maine DEP.

Endangered Species Act (ESA)

The ESA prohibits the "take" of endangered or threatened species that are listed in 50 CFR §17.11. The "resource agencies" U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS) administer the ESA. "Take" is defined as to harass, harm, pursue, wound, kill, capture, collect or to disrupt the behavioral patterns or significantly impair the behavioral patterns. 16 U.S.C.A. §1539. Under section 7 subsection 2 of the act, a federal action agency must consult with the resource agencies to ensure that the agency's activities, such as issuing a permit or a lease, shall not "jeopardize the continued existence of any endangered or threatened species. . . ." or adversely impact the species' habitat. 16 U.S.C.A. §1536.

Generally, an applicant will prepare a draft biological assessment (BA) under the supervision of the action agency and in cooperation with the Service. Once complete, the applicant will submit the BA to the action agency (e.g., FERC, ACOE) for its adoption and submission to the Service. Under the FERC licensing process, FERC's NEPA documentation includes an ESA section that serves as the final BA to the Service. Any additional consultation after this is FERC's responsibility.

If the action agency determines from the BA that the proposed action is not likely to have adverse impacts and the Service concurs with this determination, then the consultation process is

complete. However, if the Service does not concur with such determination, or if the action agency determines that the proposed action is likely to adversely impact an ESA-listed species or its critical habitat, then the action agency must initiate formal consultation. To initiate formal consultation, a written request must be submitted to the Service.

During formal consultation, the Service develops a “jeopardy analysis” and uses this analysis to make informed decisions about the action’s effects. If the Service’s analysis concludes that the proposed project is not likely to jeopardize the species and/or its critical habitat, then the Service will issue a “no jeopardy” biological opinion (BO), along with an Incidental Take Statement (ITS) detailing the amount and extent of expected incidental take, and terms and conditions that the applicant and the action agency must take to minimize impacts. If the Service’s analysis concludes that the proposed project is likely to jeopardize the species and/or adversely impact its critical habitat, then the Service will issue a “jeopardy” BO, including any “reasonable and prudent alternatives” (“RPAs”) to the action that would prevent adverse impacts. Issuance of the BO concludes the formal consultation process.

Also, if it is found that there would be a taking of an endangered or threatened species, then a Section 10 (of the ESA) Incidental Take Permit (ITP) can be sought, even for a non-federal activity. In order to receive an ITP, the applicant first must prepare a detailed habitat conservation plan (HCP) outlining, among other elements, the likely impacts from anticipated taking, mitigation measures to minimize and mitigate such impacts, and alternatives considered. Depending on the species involved, if the relevant Service finds, in part, that the taking would be incidental, that the applicant will “to the maximum extent practicable, minimize and mitigate the impacts of such a taking”, and that the taking “will not appreciably reduce the likelihood of the survival and recovery of the species in the wild”, then the ITP will be issued. 16 U.S.C.A. §1539.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA), 16 U.S.C. §§ 703-712, provides that it is illegal to pursue any action that would result in the “taking” of migratory birds listed in 50 CFR §10.13 unless a permit is obtained from the Secretary of the Interior. The regulations under the Act are regulated by USFWS. 50 CFR §10.1. If in the EA or EIS analysis, or monitoring, it is determined that there is a risk of taking under the Migratory Birds Act, a Special Purposes Miscellaneous application would need to be completed and filed with the U.S. Fish and Wildlife Service. 50 CFR §21.27.

However, the MBTA is relatively unique compared to other species protection laws in that it only provides for criminal sanctions and does not allow for incidental take. 16 U.S.C. §§ 706-07. Consequently, the MBTA exists as a lingering threat over existing and proposed offshore wind development, with potentially significant liabilities. The MBTA codifies and implements four separate treaties between the United States and Mexico, Great Britain, Japan, and Russia, respectively. The MBTA imposes strict liability, prohibiting the taking or killing of migratory birds. The Act allows for a misdemeanor conviction based upon strict liability, while a felony conviction requires a knowing violation of the Act. 16 U.S.C. § 707(a)-(b) (2011). Under the MBTA, “take” means to “pursue, hunt,

shoot, wound, kill, trap, capture, [or] collect,” and includes both intentional and unintentional actions. 50 C.F.R. § 10.12.

The one caveat to the Act’s application to wind projects, however, is that prosecution for take is left solely to the discretion of the USFWS; there is no citizen suit provision under the MBTA. Consequently, the USFWS may exercise prosecutorial discretion when “a wind developer has employed mitigation measures intended to minimize risk to avian species.”

Marine Mammals Protection Act

The Marine Mammals Protection Act (MMPA), 16 U.S.C. §§ 1361-1423(h), prohibits the taking of marine mammals unless the taking is permitted by law. Under MMPA Section 101(a)(5)(A), an incidental take permit can be applied for and acquired. 16 U.S.C.A. §1371. Section 101(a)(5)(A) authorizes, on request, for the USFWS to allow for the application specific activity (other than commercial fishing) in a specific geographical region the incidental, unintentional take of small numbers of a species or stock of marine mammals if certain findings are made and regulations prescribed. 16 U.S.C.A. §1371. If it is found that there would be a possible taking, the applicant will be advised to seek an Incidental Harassment Authorization with NMFS and an Endangered Species Act Incidental Take Statement before the project commences. There must be analysis, mitigation, and monitoring measures and these must be consulted with the NMFS. Additionally, there should be an analysis done regarding the impact of the potential noise from the construction and operation of the project on whales and sea turtles. The implementing regulations can be found at 50 C.F.R. § 18.27 (USFWS regulations); 50 C.F.R. § 216 (NOAA Fisheries regulations).

Magnuson-Stevens Fishery Conservation Act

The Magnuson-Stevens Fishery Conservation Act calls for an assessment of federally managed fish and invertebrate species when the potential essential fish habitat (EFH) might be affected. The lead agency for the Magnuson-Stevens Act is the NOAA’s NMFS, and the NMFS must be consulted to ensure that there will not be an adverse impact on nearby fisheries. 16 U.S.C.A. §1855. The consultation would include the NMFS and the permit’s lead agency, or the applicant acting as a non-federal representative pursuant to 50 §CFR 600.920. Furthermore, the parties in the consultation are required to use the best available scientific information to mitigate the potential impacts on the EFH. 50 CFR §600.920(d).

National Historic Preservation Act (NHPA) Section 106

Under NHPA, the construction of the proposed facility cannot be located on a historic property listed in the National Register of Historic places, Maine’s State Register of Historic places, tribal lands, and other historic lands that are not yet listed in the National or Maine State Historical Registers. Consultations need to take place with National Park Service (NPS), Advisory Council on Historical Preservation, and the State or Tribal Historic Preservation Officer. The visual effect on historic properties within the “Area of Potential Effect” (APE) needs to be taken into consideration as well. If the proposed project would have an adverse physical effect on a historical property, then that effect might need to be mitigated or minimized. There can also be historical sites offshore, such as shipwrecks, which must be taken into consideration. 16 U.S.C. §470(f).

In Maine, the State Historic Preservation Office, which would be consulted concerning the project's potential impact on historic landmarks, is the Maine Historic Preservation Commission. Additionally, any Indian Tribes that may be adversely impacted must be consulted with.

There are three stages of formal consultation with defined time frames; however, FERC includes NHPA analysis in its NEPA documentation, so the timeframes of the consultation stages are not necessarily formally followed. The federal action agency will seek concurrence from the SHPO or the ACHP at each stage.

Initiation of Consultation (60 days)- First, the action agency initiates a 30 day consultation period with other relevant agencies to identify the Area of Potential Effect (APE) and to determine if any historic resources exist within the APE that are listed or eligible for listing in the National Register.

Assessment of Adverse Effects (60 days)- If the action agency concedes that the action will affect historic properties (or those eligible for listing), then the action agency consults with SHPO and Indian tribes to assess what effect the project would have on the historic properties. Concurrence on determination of effects is sought from SHPO and tribes, who have 30 days to respond to the finding. If there is no response to a determination of effects, then the § 106 consultation concludes. If the SHPO or a Tribe objects and the action agency cannot resolve the objection, then the action agency forwards the objection to the ACHP, which can provide its opinion. Concurrence on project APE is then sought from SHPO, Tribal governments, and other agencies involved. If it is determined that no historic properties are present or that present properties will not be affected, then the action agency notifies SHPO. If SHPO does not object within 30 days, then § 106 consultation concludes.

Resolution of Adverse Effects (60 days)- If the action agency concedes that that the project will have adverse effects, then the action agency must consult with SHPO and tribes on mitigation measures to protect or mitigate the effects on the historic properties. If the parties agree, they can incorporate those measures into a Memorandum of Agreement (MOA).

In situations where FERC is the federal action agency for a proposed project, FERC typically incorporates the PA (or MOA) into the project license, which defines the APE and requires the licensee to develop and implement a Historic Properties Management Plan between the action federal agency and SHPO. If the effects of the project on historic properties cannot be fully assessed before the action agency approves the project, consultation may result in a Programmatic Agreement (PA) between the SHPO and the action agency (e.g., FERC). If the action agency and SHPO are unable to agree on how to resolve adverse effects, then the ACHP will make recommendations.

B. State Waters Outside of One of Maine's Test Sites—Maine Programs

If a project is proposed for Maine waters outside of one of the three designated test sites, then the General Permit program discussed above is not applicable, and the applicant must seek unexpedited State approval under the Site Location of Development Act, 38 M.R. S. A. §481 et seq. The applicant will have to demonstrate to the Maine DEP, in part, that there will be no adverse effect on natural environment, scenic character, or natural resources in the area; and also demonstrate that it has made adequate provision to fit development harmoniously into the existing natural environment. There are a variety of implementing regulations that should be examined, in Chapters 371-377, that can be found here: <http://www.maine.gov/sos/cec/rules/06/chaps06.htm>.

All of the other state and federal statutes and programs discussed in Subsection (A) above (other than the General permit) would also apply to a project in State waters but outside of a test site. In addition, a developer should be aware that the following statutes may also be applicable, depending on specific circumstances and agency consultations.

Clean Water Act Section 401

An applicant for a federal license or permit to conduct an activity that may result in a discharge to a navigable water of the United States must supply the federal licensing authority with a certification, pursuant to 33 U.S.C. 1341, from the State that any such discharge will comply with State water quality standards. The federal license or permit may not be issued until water quality certification has been issued or waived. DEP may add conditions to the certification, and these must become conditions of the federal license.

Where possible, the DEP has combined the decision concerning water quality certification with the review of an application for a state permit that already requires compliance with state water quality standards. In this case, the issuance of the order approving the project constitutes both the state permit and the water quality certification. This may occur with reviews pursuant to, for example, the Natural Resources Protection Act. See generally a graphic flowchart at Appendix A to this document.

Coastal Zone Management Act (CZMA) Consistency Certification

According to Section 307 of the CZMA, 16 U.S.C.A. § 1456, for any applicant for a federal permit to activities that would impact a state's land or water use or natural resources in or outside the coastal zone (in other words, Maine may also have CZMA jurisdiction over activities wholly in federal waters—the location of the impacts is the key focus, not the location of the regulated activities), the applicant must provide a certification showing that the activity would comply with the state's federally approved coastal zone program. 15 CFR §§930.50-930.66. The State of Maine created the Maine Coastal Zone Management Program, and the National Oceanic and Atmospheric Administration (NOAA) approved it.

For a project within one of the three State designated test sites, approval of a General Permit should satisfy the State's Consistency requirement. However, for a project outside of the test site requiring federal permitting, the State may still be required to review for consistency, and that would be handled by the Department of Conservation.

The State or its designated CZMA agency has up to six months from receipt of the certification to notify the federal licensing or permitting agency that it concurs with or objects to the consistency certification. An objection means that the federal license or permit can be issued if the Secretary of the Department of Commerce finds that the activity is consistent with the CZMA's objectives or is otherwise needed because of national security reasons. No federal license, lease or permit can be issued until there is either actual or deemed (by failure to act within six months) concurrence by the state.

The Federal Agencies from which an applicant seeks a permit where a consistency review might be required include the following:

- The Army Corps of Engineers- Permits under section 404 of the CWA, Section 10 of the River and Harbors Act, and a permit for transporting dredged material under section 103 of the Marine, Protection, Research, and Sanctuaries Act.
- Environmental Protection Agency (EPA) NPDES permit under the CWA section 402, Ocean Dumping permit (jointly with the Army Corps of Engineers) under MPRSA section 103.
- Department of the Interior- Outer Continental Shelf Lands Act
- Department of Energy/FERC- license under the Federal Power Act (FPA) section 4(e)
- The DOC will also request a consistency review of other federal license or permit activity if the action is reasonably expected to affect the Maine coastal zone.

Specific to offshore wind development, consistency review is triggered by the lease sale and SAP process, and by approval of the COP; also, because the COP is considered a federal license or permit under the CZMA, state approval of the Secretary of Commerce's consistency determination is required.⁴ In the case of a COP, CZMA consistency review involves a consistency certification submitted by the applicant, rather than a consistency determination submitted by BOEM. For a competitive lease sale, if the state objects to a consistency determination, then BOEM can go forward if it concludes that the sale is consistent with that state's CZMP and it so notifies the state.⁵ For a noncompetitive lease sale, a state's consistency objection triggers an applicant's ability to submit an amended plan to BOEM.⁶ BOEM then requests the state's consistency determination; if the state objects to the modified plan, then

⁴ 16 U.S.C. §§ 1456(c)(1)(A), (1)(C), (3)(A) (2011); Preamble, Renewable Energy and Alternate Uses of Existing Facilities on the Outer Continental Shelf, 30 C.F.R. §§ 250, 285, 290 (2009), 76 Fed. Reg. 19,638, Apr. 29, 2009, at 19691. *See generally*, Peter J. Schaumberg & Angela F. Colamaria, *Siting Renewable Energy Projects on the Outer Continental Shelf: Spin, Baby, Spin!*, 14 ROGER WILLIAMS U. L. REV. 624, 659 (2009).

⁵ 15 C.F.R. §§ 930.43(d), (e) (2008). The procedure BOEM follows also is found in the Preamble to the Final Rules, *supra* note 3, at 19651-52.

⁶ 15 C.F.R. §§ 930.77-930.78, 930.82.

BOEM cannot override its decision, and the applicant can attempt to address any continuing state concerns with another modified plan.⁷

Below are the steps of the CZMA consistency review process; for a graphic flow chart representation of the CZMA process, see Appendix B to this document:

Step 1) Federal agency sends consistency determination, request for review, which includes the supporting documents to DOC. If they have already consulted with DOC, the agency can go directly to DEP and send consistency determination reference materials to the DOC. This process must be done 90 days prior to final federal approval.

Step 2) The DOC sends copy of submission to the DEP and other appropriate agencies as soon as they can.

Step 3) The DEP checks for completeness. The process must be done within 14 days. If the submission is complete, then the state review process begins and a 60-day period begins from when submission was received. If the submission is not complete then the DOC, in consultation with the DEP, notifies the federal agency in writing and they work together to solve the information needs. When the submission is found to be complete, the 60-day period starts.

Step 4) The State ensures public notification of federal consistency determination and the public can comment. The comment period is usually 14 days. The notification and public comment period is usually around 30 days.

Step 5) The lead agency (DEP) consults with other state agencies that may be involved. The consultations must be done within 60 days, absent an approved extension.

Step 6) The DEP makes a determination on whether they concur or object and send the decision to DOC in an agency order, which grants or denies permit.

Step 7) The DOC communicates the state's concurrence or objection with federal agency once the determination is made. If there is an objection, there needs to be an explanation concerning what the inconsistency is and what can be done. The determination must be done within 90 days. 15 CFR 930.43(b).

Step 8) The DOC notifies director of Ocean Coastal Resource Management (OCRM) if there are any objections and what they are. 15 CFR 930.43c. If there is no resolution in the 90 days, either party can seek mediation through the Department of Commerce or the NOAA office of the OCRM. 15 CFR §§930.110-116.

Submerged Lands Leasing Program

The director of the Bureau of Parks and Lands within the Department of Conservation (DOC) may determine whether or not to grant a lease and grant the right to dredge, fill or erect pilings, moorings, or other permanent structures on state owned submerged and intertidal for a term of 30 years. 12 M.R.S.A. §1862(2). For the director to grant a lease it is required that the proposed lease

⁷ *Id.* at § 930.84.

activity would not unreasonably interfere with navigation, fishing, or other marine uses of the area; unreasonably diminish the availability of services and facilities needed for commercial marine activities; nor interfere with the ingress and egress of riparian owners. 12 M.R.S.A. §1862(2)(A)(6). In addition, the director may grant an easement for the use of state intertidal or submerged lands. 12 M.R.S.A. §1862(3).

The director must consult with the Commissioner of the DOC, the Commissioner of Marine Resources, the Commissioner of Inland Fisheries and Wildlife, and other agencies the director deems appropriate in developing and enforcing the terms and conditions for conveyances of the grants. For rental terms for a renewable ocean energy project, the director must consult with the Public Utilities Commission as well. 12 M.R.S.A. §1862(7).

Within 30 days before filing applications for a lease or easement for a renewable energy project, the applicant also must participate in a joint interagency pre-application meeting involving the Department of Marine Resources and follow the permit procedures of the DEP or the LURC if necessary. 12 M.R.S.A. §1262(13)(B)(1). Furthermore, the applicant must communicate to the director that the applicant has filed completed applications for necessary state permits for the project. 12 M.R.S.A. §1262(13)(B)(2). The director must also provide notice to the Maine Resource Advisory Council and any lobster management council. 12 M.R.S.A. §1262(13)(B)(3).

II. WIND ENERGY PROJECTS IN FEDERAL WATERS

Introduction

For a wind project where the turbines are in federal waters but the transmission cable to shore goes through Maine waters, then the outside-of-test-site State provisions described in the previous section may be applicable, along with the federal permitting and consultation statutes. For a project that is entirely in federal waters, i.e. no cable crossing through Maine waters to shore, then the Maine statutes may not apply, but the federal permitting and consultation statutes previously described would apply.

Additionally, a Bureau of Ocean Energy Management (BOEM) commercial lease would also be required for a renewable energy project on the outer continental shelf (OCS) pursuant to the Outer Continental Shelf Lands Act (OCSLA). 43 USCA §1337(p). In Maine, the OCS includes the submerged lands beginning three nautical miles from the ocean's shore and ending 200 nautical miles from the shore, which is where federal waters begin and end. 43 U.S.C.A. § 1301 and 30 CFR §585.10.

BOEM's regulations for offshore wind development on the OCS allow for the competitive or non-competitive lease of access rights in the OCS as well as permitting and licensing of test sites for new technologies related to the development of renewable energy. Preamble, Renewable Energy and

Alternate Uses of Existing Facilities on the Outer Continental Shelf, 30 C.F.R. §§ 250, 285, 290 (2009), 76 Fed. Reg. 19,638, Apr. 29, 2009, <http://www.gpo.gov/fdsys/pkg/FR-2009-04-29/pdf/E9-9462.pdf>. Generally, commercial leases last for twenty-five years and allow “development, construction, and ultimately commercial production activities.” *Id.* at 19,670. For a general flowchart on the BOEM leasing process, see Appendix F attached to this document.

After BOEM first grants a competitive preliminary lease, the lessee has six months (60 days for a noncompetitively issued lease or grant) to submit a Site Assessment Plan (SAP) that details the proposed site surveys and resource assessment, *Id.* at 19,840-41, and is subject to review under NEPA. *Id.* at 19,689-90. Upon the SAP’s approval, the lessee receives a five-year lease during which the lessee conducts site assessment activities necessary for the submission of a Construction Operation Plan (COP), a detailed description of the project activities, construction and operations that also is subject to NEPA review. To somewhat “reduce the review time and gain efficiency,” however, BOEM allows a project developer to combine its SAP and COP submissions for NEPA review purposes. Upon final approval of the COP, a developer’s twenty-five year operations lease term begins. *Id.* at 19,670, 19,688.

Additionally, the Department of the Interior recently began implementing its “Smart from the Start” approach to offshore wind development. The thrust of this approach is the designation of several “Wind Energy Areas” (WEAs) along the Atlantic coast, which aims to allow for “coordinated environmental studies, large-scale planning and expedited approval processes to speed offshore wind energy development.” Although the long-term impact of such designations is not yet known, WEAs are likely to partially simplify the leasing process for certain future offshore wind projects.

BOEM Leases

Competitive lease

BOEM may publish a public notice of a Request for Interest to lease all or parts of the OCS for renewable energy projects in the Federal Register. 30 CFR §585.210. In the competitive lease process, BOEM will use auctions to award the leases, and for each lease a proposed sale notice with a comment period of 60 days and a final sale notice will be published in the Federal Register at least 30 days before the date of the sale; additionally, the BOEM will publish calls for Information and Nomination for a lease in the Federal Register, and the comment period is 45 days. 30 CFR §585.211.

A potential lessee must respond to a Call or a Request for Interest with the following information: the area of the potential lease; a description of the applicant’s objectives and the facilities that would be used to accomplish the objectives; a schedule of the proposed activities, data and information pertinent to renewable energy and environmental conditions in the area of interest; appropriate documentation showing that the applicant is qualified to hold a lease; and any other necessary information. 30 CFR §585.213. If a lease or a grant is issued competitively, the applicant must submit the SAP or the GAP within 60 days of issuance. 585 CFR §585.601. Additionally, for a

competitive lease, BOEM conducts the consistency certification pursuant to the CZMA. 30 CFR § 585.611.

Non-competitive lease

If there is no Call for a commercial lease, than an unsolicited request for a commercial lease can still be sought, which must include the following: the area the applicant is requesting for the lease; a description of the applicant's objectives and the facilities that would be used to accomplish the objectives; a schedule of the proposed activities; data and information pertinent to renewable energy and environmental conditions in the area of interest; if possible, a statement from the appropriate state or local authority that the proposed activity conforms with the state and local energy requirements, and initiatives; documentation that shows the applicant is qualified to hold a lease; and the acquisition fee. 30 CFR §585.230. Upon receiving an unsolicited request for a lease, BOEM will publish a request for interest to gauge whether there is an interest, and if competitive interest exists then BOEM will proceed with the competitive process. 30 CFR §585.231. If it is determined that there is no competitive interest then a notice will be published in the Federal Register and the applicant must submit an SAP (site assessment plan) for a commercial lease, or a GAP (general activities plan) for a limited lease within 60 days of the notice to BOEM. 30 CFR §585.231. If a lease or a grant is issued non-competitively then the SAP or the GAP must be submitted within 60 days after the Director of BOEM issues a determination that there is no competitive interest. 30 CFR §585.601. Furthermore, an SAP for a non-competitive lease requires that the applicant provide a consistency certification pursuant to the CZMA. 30 CFR §585.611.

NEPA EA/EIS

The Bureau of Ocean Energy Management (BOEM) must conduct an EA or and EIS, if the EA does not yield a FONSI as explained above. The same Federal Statutes would need to be considered, the same consultations would be required, and the same federal permits are also needed. If it is found that there is a significant risk of a taking under the ESA or MMPA, then incidental take permits must be sought pursuant to the statutes. Furthermore, if a taking is found under the Migratory Birds Act, a Special Purposes permit is required. Additionally, a CWA section 401 clean water certification is required, and a permit under section 404 of the CWA is required if the project involves any dredging or filling as described above. Consultations and interagency coordination is required for the CWA, NHPA, and the Magnuson-Stevens Fishery Conservation and Management Act. BOEM also considers the environmental characteristics on the EA or the EIS that the applicant will eventually undertake to complete the COP. 76 FR 51391, Aug. 18, 2011.

SAP, COP, and GAP

An SAP (site application plan) must be submitted for the applicant to conduct any site assessment activities on the commercial lease, a COP (construction and operations plan) must be submitted to conduct any activities pertaining to the construction and operation of the facilities on the commercial lease, and a GAP (general activities plan) must be submitted to conduct any activities on a limited lease, a RUE (right of use and easements) grant, or an ROW (right of way) grant. 30 CFR §585.600.

SAP (Site Application Plan)

The SAP describes the activities planned to be performed under the commercial lease, which include the project easements and the test technology devices. The SAP is required to describe how resource assessment and technology testing would be conducted, and data gathered from physical characteristic surveys and environmental baseline surveys. 30 CFR §585.605. The plan must show that the applicant has planned and prepared to conduct the proposed site assessment in a manner that conforms to all applicable laws, regulations, and the lease provisions for the commercial lease. The site assessment activities must not unreasonably interfere with other uses of the OCS, with activities pertaining to national security, or activities pertaining to national defense. In addition, the plan must show that the proposed activities will not cause undue harm to the natural resources, wildlife or human life, property, objects, sites, or structures that have architectural or historical significance, or human, marine, or coastal environment. The plan also needs to show that the applicant will use the safest and best technology, the best management practices, and that the applicant will collect information that is required for the COP. 30 CFR §585.606. See generally the flowchart at Appendix H attached to this document.

Project Information

The SAP must include the following information:

- The applicant's contact information;
- A discussion of the objectives, and proposed activities including the technology that will be used;
- The proposed schedule from the beginning to the end;
- The designation of the operator;
- Commercial lease stipulations and compliance;
- A location plat;
- The general structural and project design that includes information on each type of facility associated with the proposed project;
- A description of safety measures, and the environmental protection measures;
- A description of proposed measures to be used to mitigate, minimize, or avoid any potential incidental take or adverse environmental impact from the proposed project's activities;
- A CVA (certified verification agent) nomination if required;
- Reference information;
- Decommission and site clearance procedures;
- Air quality information;
- A listing of all Federal, state, and local authorizations or approvals required for the proposed activities in the site assessment;
- A list of agencies and people that have been communicated with and will potentially need to be communicated with or consulted as a requirement to conduct the proposed activities in the site assessment;
- Financial assurance information;

- Other information required by BOEM. 30 CFR §585.610.

Surveys

The SAP must include survey data, which has been collected. The types of surveys and the information necessary are as follows:

- A geotechnical survey, which includes all necessary seabed data that shows the conditions below the seabed, will not jeopardize the integrity of the structures to be installed. The survey could include tests from multiple locations. The tests include in situ tests, boring tests, soil samples, and likely at least one deep boring test.
- A shallow hazards survey that provides significant information to describe whether risks such as shallow faults, gas seeps or shallow gas, slump blocks or slump sediments, hydrates, and ice scour seabed sediments would be likely to impact the proposed facilities.
- An archeological survey includes a description of the historic and prehistoric archeological resources in the area, pursuant to the NHPA.
- A geological survey includes data describing the seismic activity of the proposed site, fault zones, the possibility and effects of seabed subsidence, and “the extent and geometry of faulting attenuation effects of geologic conditions near the site.”
- A biological survey includes descriptions of hard-bottom or live-bottom habitats; topographic characteristics; and other resources such as fish habitats, migratory birds, marine mammals, sea turtles, and sea birds in the vicinity of the proposed project. 30 CFR §585.610.

NEPA/CZMA

The SAP must include information that would aid BOEM in complying with the NEPA and the CZMA, as a SAP may be subject to CZMA consistency review. For a competitive lease, BOEM will prepare a NEPA document, and a CZMA consistency determination. However, for a non-competitive commercial lease, or if a SAP submitted for a competitive lease shows changes in the information from the NEPA and the CZMA documents, then the applicant must provide a SAP with additional information, which describes resources, conditions, and activities which could be impacted by the proposed project. More specifically, the additional requirement would include information pertaining to water quality, biological resources, threatened or endangered species pursuant to the ESA, sensitive biological resources or habitats, archeological resources, social and economic resources, coastal and marine uses, consistency certification, hazard information, and other resources conditions and activities. 30 CFR §285.611.

Conducting SAP Activities

The applicant cannot begin conducting the activities in the SAP until BOEM has approved the SAP. 30 CFR §285.614. The applicant must notify BOEM within 30 days of completing installation activities approved in the SAP. 30 CFR §585.614. If the applicant files a timely Construction and Operations Plan or a FERC license prior to the expiration of the lease, then the applicant can keep the facilities in place while the COP or the FERC lease is being reviewed for approval. 30 CFR §585.618.

Construction and Operations Plan (COP)

The COP describes the applicant's construction and decommissioning plans under the commercial lease and project easement. The COP must describe all onshore, offshore, and support facilities associated with the project, and all anticipated project easements. Furthermore, the plan explains all proposed operation, construction activities, as well as the decommissioning plans. If the applicant has filed for a Federal Energy Regulation Commission (FERC) license, then a COP is not necessary. 30 CFR §585.620. A wind energy project on the OCS would not require a FERC license, and thus would require a COP. The COP must be safe, the activities cannot unreasonably interfere with other uses of the OCS, does not interfere with activities pertaining to national security or defense, must not cause undue harm to the natural resources, wildlife or human life, property, objects, sites, or structures that have architectural or historical significance, or human, marine, or coastal environment. The plan must also use the safest and best technology, it must use the best management practices, and properly trained personnel. 30 CFR §585.621. . See generally the flowchart at Appendix J attached to this document.

Content of the COP

The COP includes the following project information:

- The applicant's contact information;
- A designation of the operator if applicable;
- A discussion of the objectives, and proposed activities including a proposed schedule from the beginning to the end of the project and plans for phased development;
- Commercial lease stipulations and compliance;
- A location plat, and the general structural and project design that includes information on each structure associated with the proposed project and how a CVA would be utilized, unless BOEM specifies otherwise;
- The location of all cables, which includes the cables running through the project easements and a description of the installation techniques, testing maintenance, repair plans and techniques, safety devices, corrosion protection, inspections, and decommissioning procedure;
- A description of safety measures, and the environmental protection measures;
- A list of chemical products that will be used in the construction and operation of the project if the storage of the chemicals exceeds EPA's reportable volume;
- The waste disposal location and methods;
- A description of any and all sea vessels, vehicles, and aircrafts that will be used on the project;
- A description of the operating procedures and systems both under regular conditions and emergency situations;
- A description of proposed measures to be used to mitigate, minimize, or avoid any potential incidental take or adverse environmental impact from the proposed project's activities;
- The CVA nomination;
- Reference information;
- Decommission and site clearance procedures;
- Air quality information;

- A listing of all Federal, state, and local authorizations or approvals required for the proposed activities in the site assessment;
- A list of agencies and people that have been communicated with and will potentially need to be communicated with or consulted as a requirement to conduct the proposed activities in the COP;
- Financial assurance information;
- Construction schedule; and
- Other information required by BOEM. 30 CFR §285.626

The COP must include data from the following surveys:

- A shallow hazards survey that provides significant information to describe whether risks such as shallow faults, gas seeps or shallow gas, slump blocks or slump sediments, hydrates, and ice scour seabed sediments would be likely to impact the proposed facilities.
- An archeological survey including a description of the historic and prehistoric archeological resources in the area, pursuant to the NHPA.
- A geological survey includes data describing the seismic activity of the proposed site, fault zones, the possibility and effects of seabed subsidence, and “the extent and geometry of faulting attenuation effects of geologic conditions near the site.”
- A biological survey includes descriptions of hard bottom or live bottom habitats; topographic characteristics; and other resources such as fish habitats, migratory birds, marine mammals, sea turtles, and sea birds in the vicinity of the proposed project.
- A geotechnical survey, which includes all necessary seabed data showing that the conditions below the seabed will not jeopardize the integrity of the proposed structures and anchoring systems to be installed. The survey could include tests from multiple locations. The tests include in situ tests, boring tests, soil samples, and likely at least one deep boring test.
- The COP must also include an overall site investigation report, which takes into consideration the data from the surveys. The analysis describes the potential for scouring of the seabed, hydraulic instability, sand waves, instability of slopes at the location of the facilities, possible decrease in sediment strength resulting from increased pore pressures, cycle loading, lateral loading, dynamic loading, settlement and displacement, plastic deformation and formation collapse mechanism, and sediment reactions on the facility foundation and/or anchoring systems. For a floating wind farm project, the analysis would focus on the sediment reaction to the anchoring and mooring systems. 30 CFR §585.626

The COP must also include sufficient information to assist BOEM in complying in NEPA and potentially the CZMA. The COP must include the following information:

- Hazard information that includes meteorology, oceanography, sediment movement, geology, and shallow geological or manmade hazards;
- Water quality;
- Biological resources;
- Threatened or endangered species pursuant to the ESA;

- Sensitive biological resources or habitats;
- Archeological resources pursuant to NHPA;
- Social and economic resources which include but are not limited to employment, existing infrastructure, land use, recreation, recreational and commercial fishing, coastal zone management groups, and viewshed;
- Coastal and marine uses such as military activities and vessel traffic;
- Consistency certification pursuant to CZMA; and
- Other resources, conditions and activities. 30 CFR §585.627.

After COP Approval

Once the COP is approved, the construction and installation of the project can commence according to the construction schedule from the submitted COP unless BOEM requires a deviation from the schedule. However, the applicant is also required to submit a facility design report, fabrication and installation report, and Safety Management System before construction and installation of the project. 30 CFR §§585.631-585.632. Written notices must be provided to BOEM within 30 days after commencing the placement of the project's facilities, within 30 days of completing the construction and installation of project facilities, and within 7 days prior to commencing commercial operation. 30 CFR §585.636. An offshore wind project does not require a FERC license, and thus commercial operations can begin 30 days after the CVA or the project engineers submit the final Fabrication and Installation Report. 30 CFR §585.637.

Right-of-Use and Easement (RUE) Grants and Right-of-Way (ROW) Grants

A ROW grant allows the possessor of the grant to install cables, pipelines, and associated facilities involving the transportation or transmission of electricity from renewable energy projects. In addition, an RUE grant authorizes the construction and maintenance of facilities or other installations on the OCS that allow for the production, transportation, or transmission of electricity from any renewable energy resource. 30 CFR §585.300.

Limited Lease

Limited leases will be considered on a case-by-case basis. A limited lease will usually be issued for projects smaller in scale. The project for a limited lease will likely generate less than 5 MW, and is available for shorter terms (5 years or less).

Research Lease

Research leases will be considered by BOEM on a case-by-case basis. A research lease can only be issued to a Federal agency or a state that is using the lease for renewable energy research that will be utilized in the future for the generation, transmission, and transportation of renewable energy. Additionally, the site used for a commercial lease needs to be a site where BOEM determines that there is no competitive interest for the site. 30 CFR §585.238.

General Activities Plan (GAP)

The BOEM must approve the applicant's GAP before conducting any activity under an ROW, RUE, or a limited lease; also, a GAP may be subject to CZMA consistency review. 30 CFR §585.640. The GAP describes the applicant's proposed construction, activities, and decommissioning plan for all facilities, which includes testing facilities, the onshore support facilities, and any easements for the assessment and development of the lease or grant. The applicant must receive approval for the GAP from BOEM before any of the activity under the lease or grant can be commenced. 30 CFR §585.640. . See generally the flowchart at Appendix I attached to this document.

The activities under the GAP must be safe, they cannot unreasonably interfere with other uses of the OCS, the activities cannot interfere with activities pertaining to national security or defense, they must not cause undue harm to the natural resources, wildlife or human life, property, objects, sites, or structures that have architectural or historical significance, or human, marine, or coastal environment. The plan must also use the safest and best technology, the best management practices, and properly trained personnel. 30 CFR §585.641.

Surveys Required for the GAP

The GAP must include data from the following surveys:

- A shallow hazards survey that provides significant information to describe whether risks such as shallow faults, gas seeps or shallow gas, slump blocks or slump sediments, hydrates, and ice scour seabed sediments exist and would be likely to impact the proposed facilities.
- An archeological survey that includes a description of the historic and prehistoric archeological resources in the area, pursuant to the National Historic Preservation Act (NHPA).
- A geological survey that includes data describing the seismic activity of the proposed site, fault zones, the possibility and effects of seabed subsidence, and "the extent and geometry of faulting attenuation effects of geologic conditions near the site."
- A biological survey including descriptions of hard bottom or live bottom habitats; topographic characteristics; and other resources such as fish habitats, migratory birds, marine mammals, sea turtles, and sea birds in the vicinity of the proposed project.
- A geotechnical survey including relevant information pertaining to the seabed and engineering of the proposed facility to allow for the facility's foundation design, and to ensure that the seabed and below will not jeopardize the foundation's integrity. The survey should likely include tests from multiple locations. The tests include in situ tests, boring tests, soil samples, and likely at least one deep boring test. 30 CFR §585.645(a)

GAP Project Information

The GAP must include the following project information:

- The applicant's contact information;
- A designation of the operator if applicable;

- ROW, RUE, or limited lease grant stipulations;
- A location plat;
- The general structural and project design that includes information on each structure associated with the proposed project;
- A description of safety measures, and the environmental protection measures that will be utilized;
- A list of chemical products that will be used in the construction and operation of the project if the storage of the chemicals exceeds the EPA's reportable volume;
- The waste disposal location and methods;
- Reference information; decommission and site clearance procedures;
- Air quality information pursuant to the Clean Air Act (CAA, 42 U.S.C. §7409) ;
- A listing of all Federal, state, and local authorizations or approvals required for the proposed activities in the site assessment;
- A list of agencies and people that have been communicated with and will potentially need to be communicated with or consulted as a requirement to conduct the proposed activities in the GAP; financial assurance information;
- Construction schedule; and
- Other information required by BOEM. 30 CFR §585.645(b)

If the applicant is applying for an easement or constructing a facility that BOEM finds to be “complex or significant” the following additional project information must be included:

- A discussion of the construction activities, objectives and schedule;
- Information pertaining to the location, design, transmission cables including the cables on project easements, a description of environmental and safety measures for the project deployment;
- A general description of operating procedures and systems under normal circumstances and in emergency situations;
- CVA nomination;
- Construction schedule; and
- Any other information required by BOEM. 30 CFR §585.645(c)

GAP/NEPA Compliance

The applicant must submit information to assist BOEM in complying with the NEPA. The GAP should include information pertaining to the following resources, activities and conditions:

- Hazard information that includes meteorology, oceanography, sediment movement, geology, and shallow geological or manmade hazards;
- Water quality;
- Biological resources;
- Threatened or endangered species pursuant to the ESA;
- Sensitive biological resources or habitats;

- Archeological resources pursuant to NHPA;
- Social and economic resources which include but are not limited to employment, existing infrastructure, land use, recreation, recreational and commercial fishing, coastal zone management groups, and viewshed;
- Coastal and marine uses such as military activities and vessel traffic;
- Consistency certification pursuant to CZMA; and
- Other resources, conditions and activities. 30 CFR §585.646.

If the lease, ROW, or RUE grant was issued competitively, than the consistency certification is processed by the BOEM, however, if it was issued noncompetitively the applicant will produce the consistency certification. 30 CFR §585.647.

After the GAP is Completed

Once the BOEM approves the GAP, than the applicant can begin conducting activities in the GAP, unless BOEM deems the easement of facility to be complicated or significant. 30 §CFR 285.650. For facilities and easements deemed significant or complicated, than the applicant must submit additional requirements listed above and a Safety Management System. 30 CFR §585.651. The applicant must notify the BOEM in writing 30 days after completing the approved activities in the GAP. In addition the applicant must provide the BOEM annual reports that show the applicant's activities comply with the terms and conditions of the GAP. 30 CFR §585.653. Once all approved activities under the GAP have been completed, the applicant must commence their decommissioning plan. 30 CFR §585.657.

Reports Before Commencing Activities Under the SAP, COP, or GAP

Prior to beginning the construction of any activities approved in the applicant's SAP, COP or GAP, the applicant must submit a Facility Design Report and a Fabrication and Installation Report to BOEM. BOEM has 60 days to submit objections to the applicant. 30 CFR §585.700. The Facility Design Report must include the following:

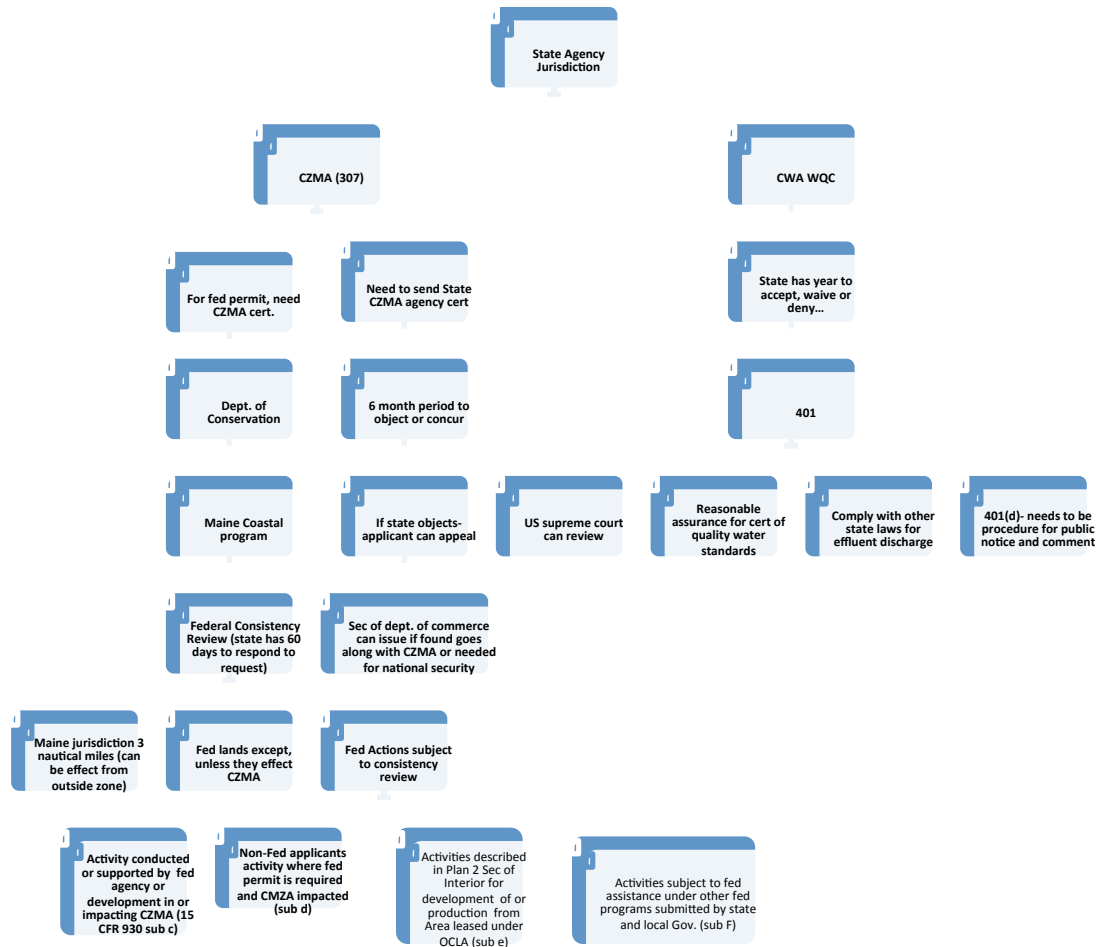
- A cover letter;
- A location plat;
- Front, side, and plain view drawings of the facilities and structures of the project;
- A complete set of structural drawings, which includes cathodic protection systems, jacket design, pile foundations, mooring and tethering systems, foundations and anchoring systems, and cable designs;
- A summary of environmental data, which includes information pertaining to extreme weather, wind and wave, current, tides, temperature, and water depth;
- Engineering data summary including loading information, structural information, and foundation information;
- A complete set of design calculations;

- Studies specific to the project used for facility design or installation;
- A description of the loads that will be imposed upon the facility; and
- A geotechnical report. 30 CFR §585.701.

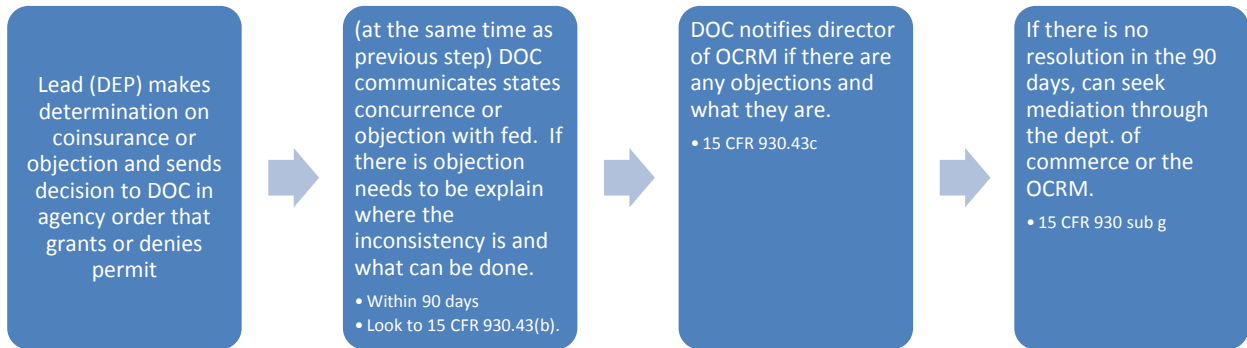
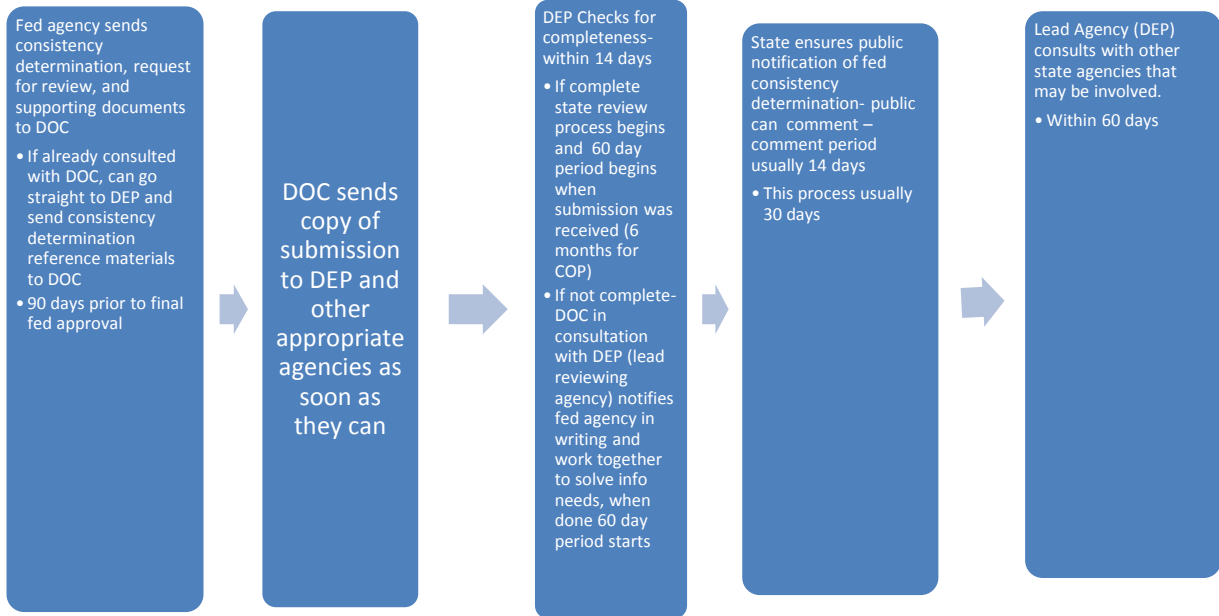
The Fabrication and Installation Report explains how the facilities will be fabricated and installed in compliance with the design criteria provided in the Facility Design Report, SAP, COP (if applicable), and GAP, and should conform to accepted industry standards as well. The report must include the following:

- A cover letter;
- A fabrication and installation schedule;
- The installation process;
- Federal, state, and local permits;
- Environmental information, which includes water discharge, waste disposal, vessel information, and onshore waste management; and
- Project easements. 30 CFR §585.702.

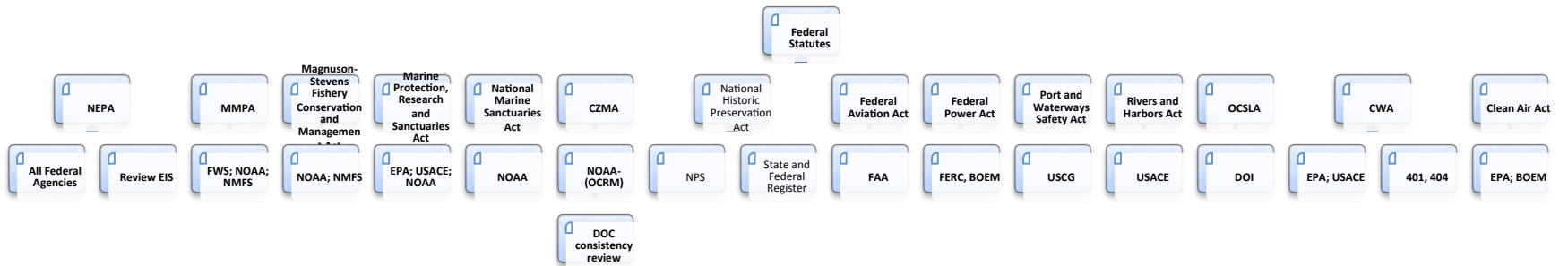
Appendix A: Before FERC can issue License for construction, BOEM can issue lease, or Corps can issue Permit, Federal Agency needs CWA and CZMA reviews with state agency



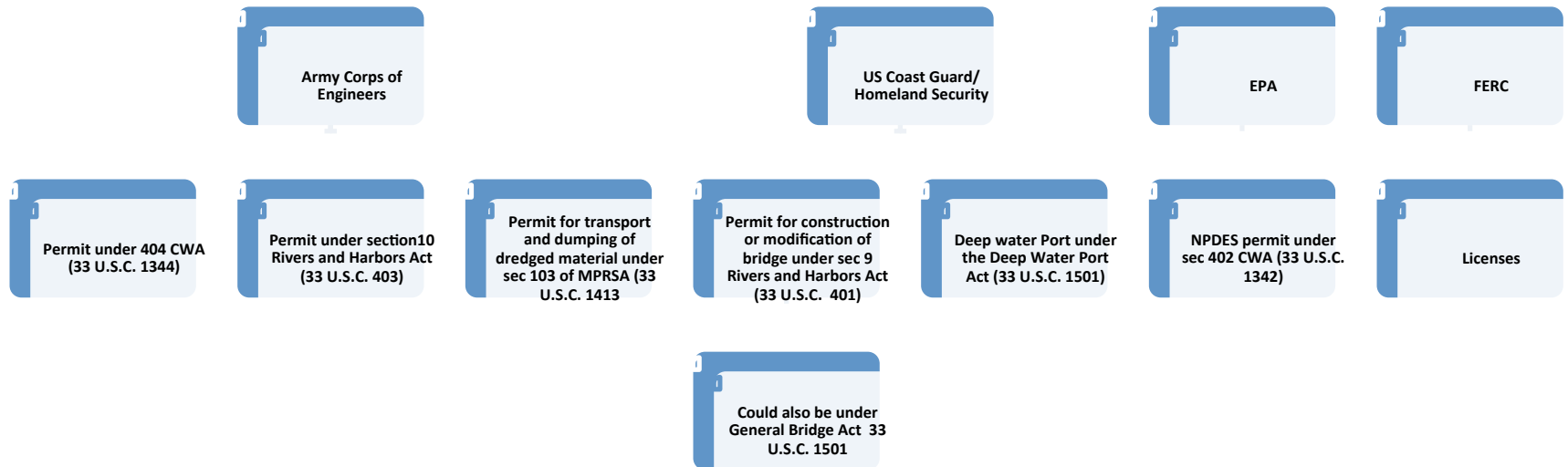
Appendix B-- CZMA Consistency Review



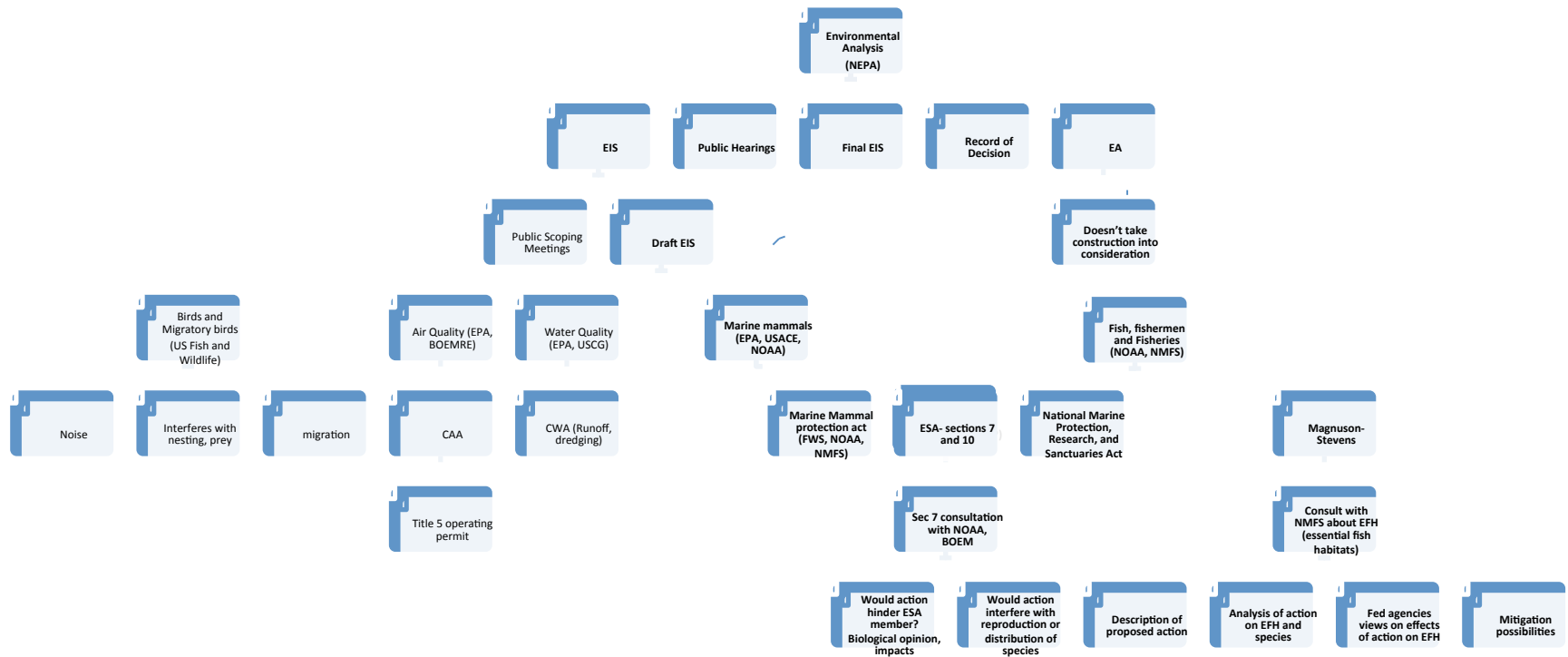
Appendix C--Federal Permitting Process



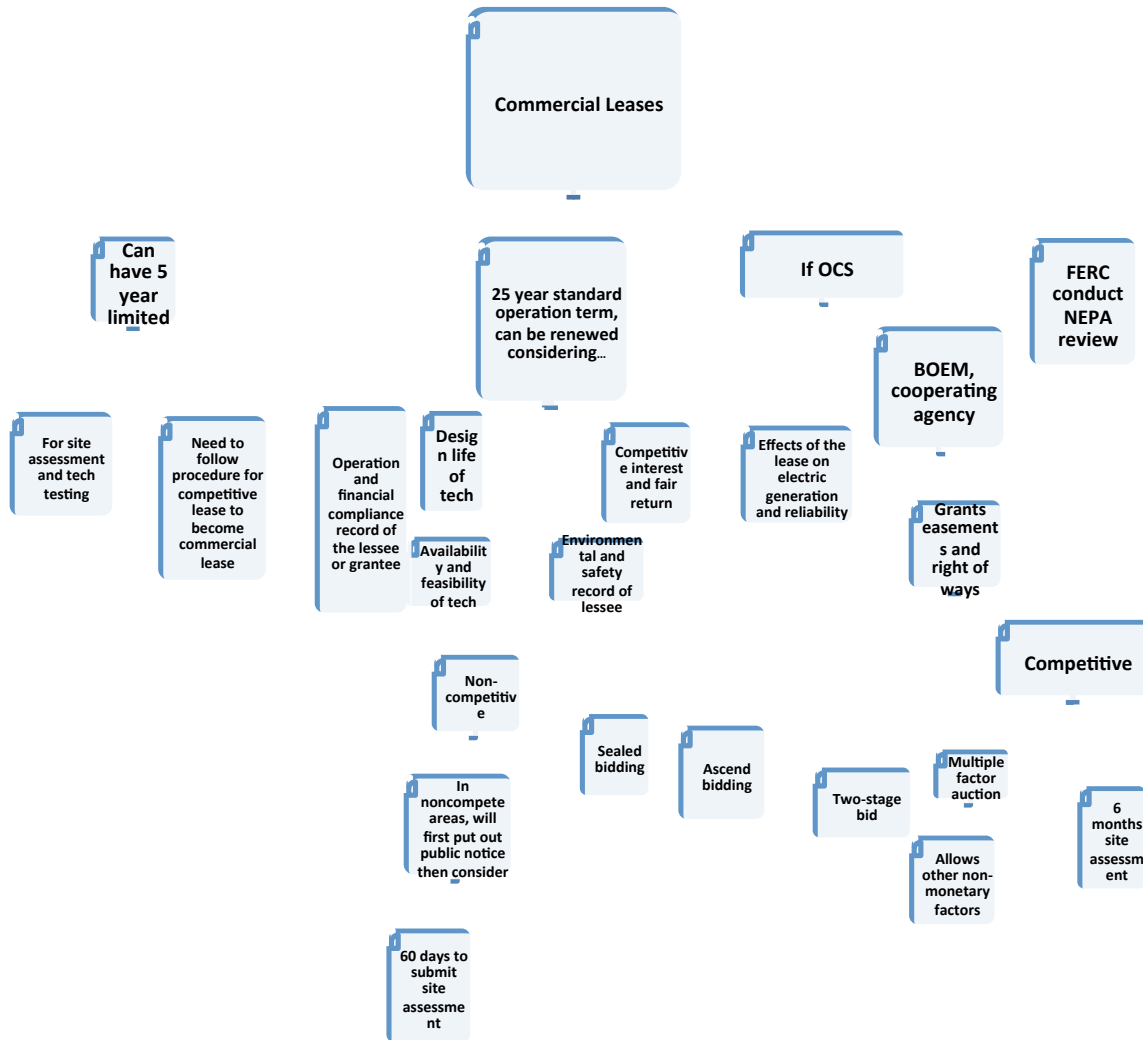
Appendix D: Some Federal Permits and Licenses



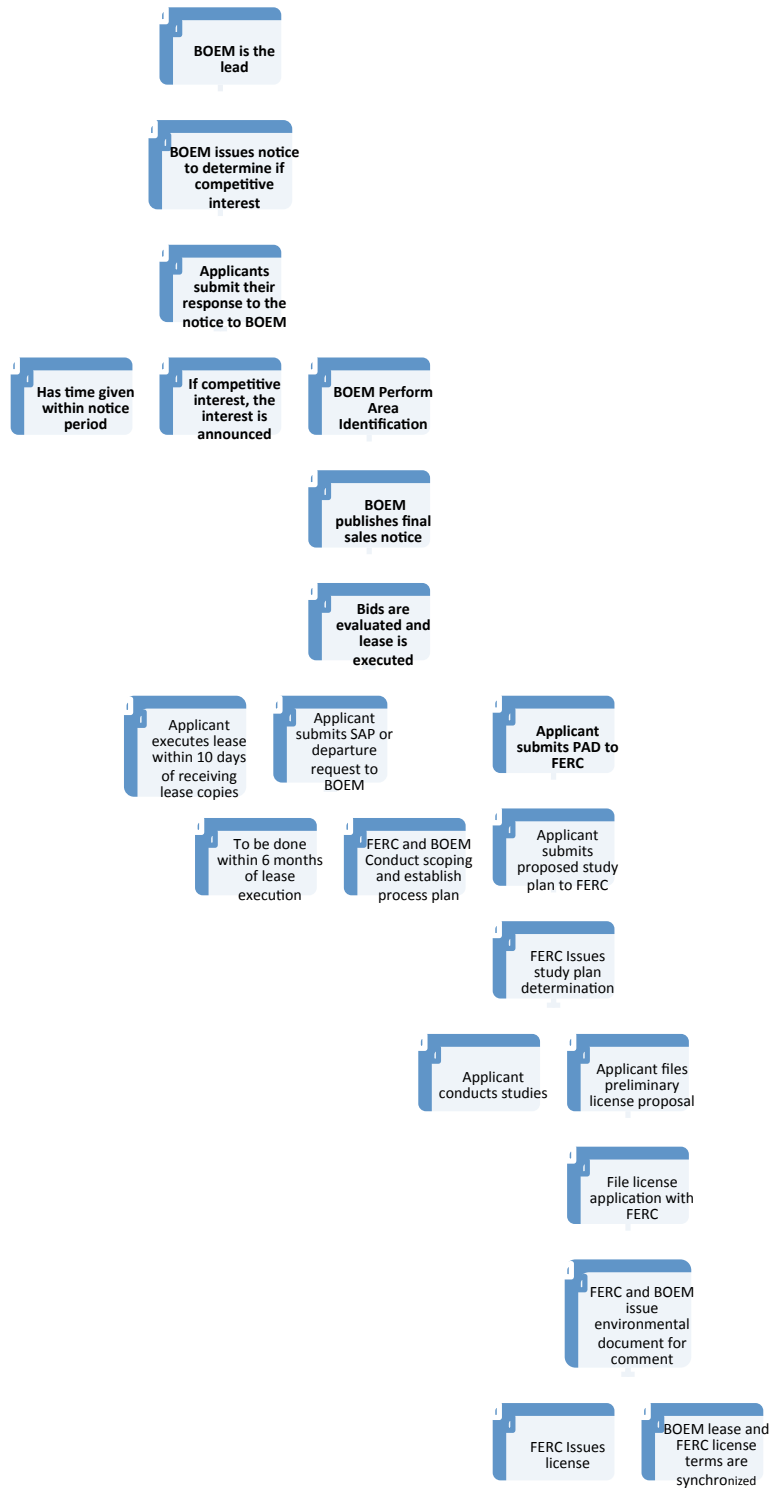
Appendix E: NEPA Environmental Analysis- Federal Lead Agency



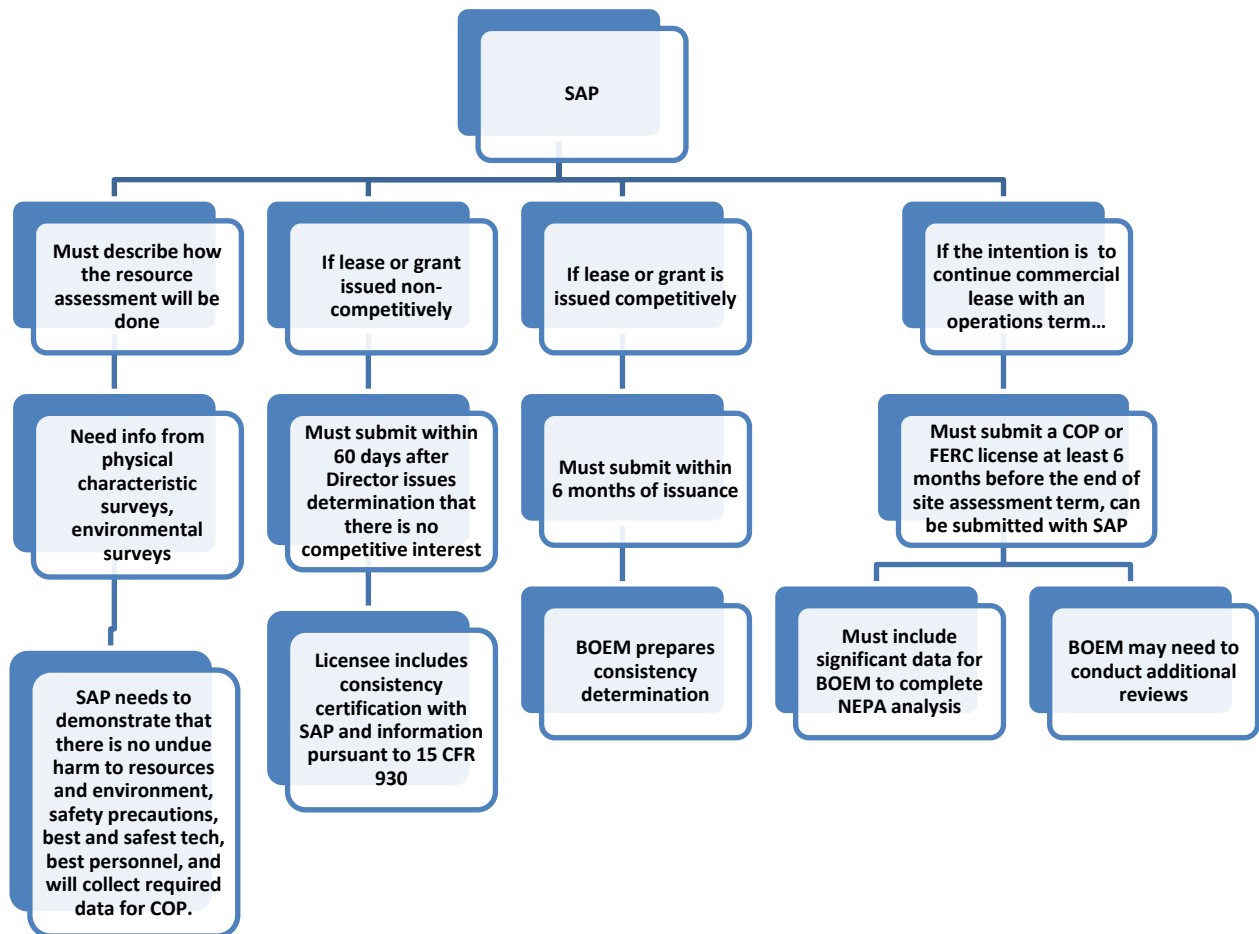
APPENDIX F-- BOEM COMMERCIAL LEASE PROCESS



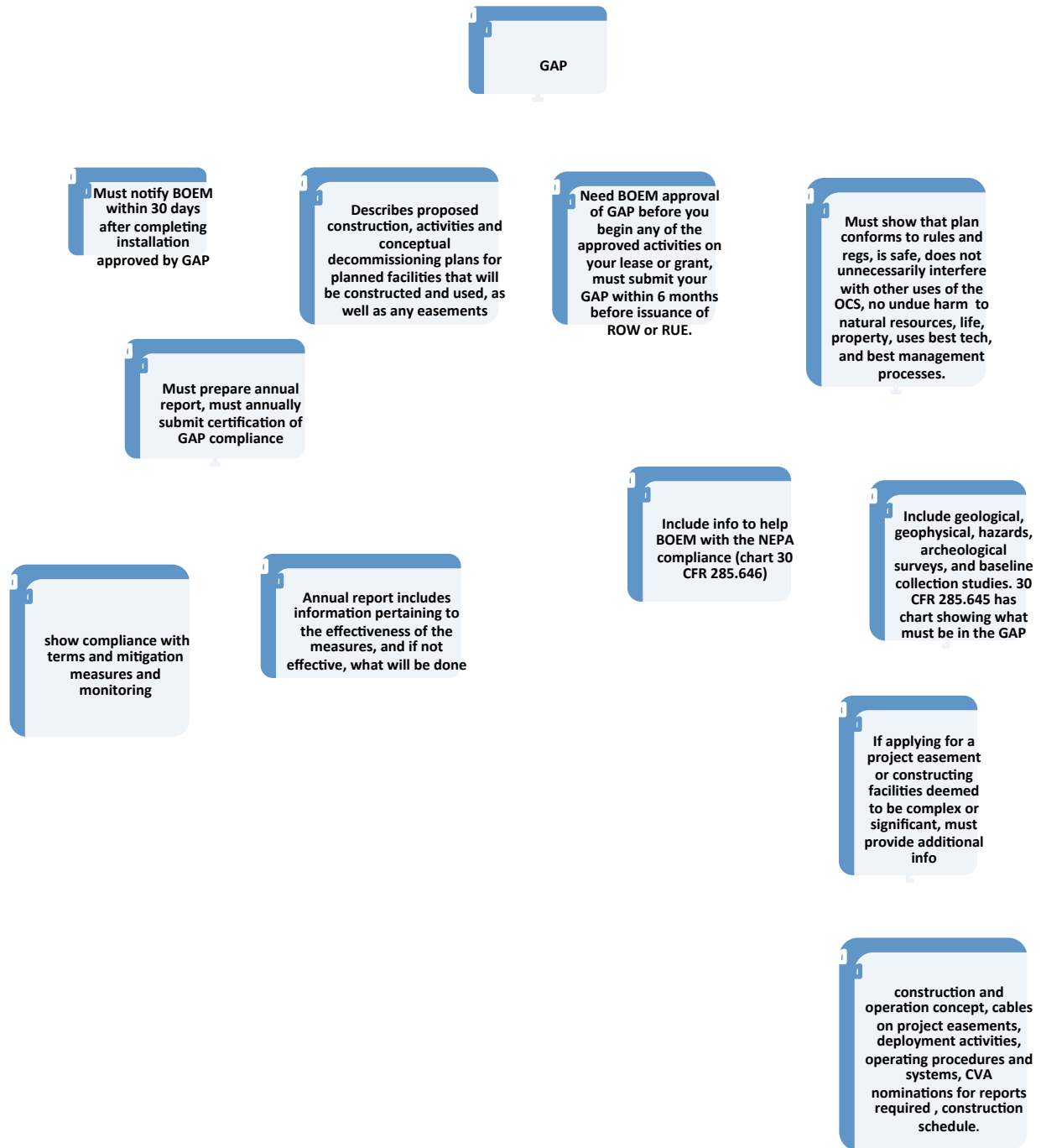
Appendix G: Hydrokinetic Energy Project on the OCS: Commercial Leasing and Licensing; Competitive Interest (FERC and BOEM)



Appendix H--SAP (Site Assessment Plan) – BOEM



Appendix I: GAP (General Activities Plan) BOEM



Appendix J: COP (Construction Operations Plan)- BOEM

