

**Solving the Regulatory Puzzle for Permitting
Offshore Energy Facilities**

What regulations apply to an offshore wind energy “facility”?

Facilities may include offshore components of subsea transmission cable, wind turbine generator(s), and transformer platform. Onshore components consist of power transmission cables, substation, and pipelines.

- National Environmental Policy Act (Stewardship of the Oceans, Our Coasts & the Great Lakes)
- Endangered Species Act
- Marine Mammal Protection Act
- Magnuson-Stevens Fishery Conservation and Management Act
- Marine Protection, Research, and Sanctuaries Act
- National Marine Sanctuaries Act
- Executive Order 13186 (Migratory Birds)
- Coastal Zone Management Act
- Clean Air Act
- Clean Water Act
- Marking of Obstructions
- Executive Order 13547
- Ports and Waterways Safety Act
- Rivers and Harbors Appropriation Act
- Resource Conservation and Recovery Act
- National Historic Preservation Act
- Archaeological and Historical Preservation Act
- American Indian Religious Freedom Act
- Federal Aviation Act
- Federal Power Act
- Executive Order 13007 (Indian Sacred Sites)



Who are the primary regulators?



What is the difference in the permitting process for wind projects in state versus federal waters?

**State Waters Primary Permitting Agencies
(up to 3 nautical miles)**

- Coastal states from Maine to North Carolina seaward limits are 3 nautical miles seaward of the baseline.
- The U.S. Army Corps of Engineers has jurisdiction over offshore structure permitting, as do the State Coastal Structure Permitting Agency and State Water Quality Agency (if separate from structure permitting).

**Federal Outer Continental Shelf Permitting
(beyond 3 nautical miles)**

Federal jurisdiction is the farthest of 200 nautical miles seaward of the baseline. The Energy Policy Act of 2005 grants the Department of the Interior (DOI) authority to regulate federal offshore renewable energy and alternate uses of the Outer Continental Shelf (OCS) (Section 388), creating the Alternative Energy and Alternative Use Program. The DOI’s Bureau of Energy

Ocean Management (BOEM, formerly Minerals Management Service) created a regulatory framework for the issuance of leases for renewable energy and alternate uses (30 Code of Federal Regulations [CFR] 285).

- State Coastal Zone Management Agency (Coastal Zone Consistency Certification)
- Federal and state agencies involved include:
 - National Oceanic and Atmospheric Administration (NOAA) Fisheries Service (marine mammals, sea turtles, essential fish habitat)
 - U.S. Fish and Wildlife Service (migratory birds, certain threatened and endangered species)
 - U.S. Army Corps of Engineers (Section 10, Rivers and Harbors Act/Section 404, Clean Water Act)
 - State Historic Preservation Officer (Section 106 of National Historic Preservation Act)
 - U.S. Environmental Protection Agency (EPA) Clean Air Act Federal Conformity Analysis and EPA Clean Water Act (National Pollutant Discharge Elimination System [NPDES])
 - U.S. Coast Guard
 - Federal Aviation Administration (Notice of Proposed Construction)
 - U.S. Department of Defense

What is the permitting process on the Outer Continental Shelf?

Federal agencies are required to evaluate the potential impacts to the human environment associated with a proposed federal action. According to the National Environmental Policy Act (NEPA), the lead federal agency

“Major federal actions” may include new and continuing activities; project/program financed, assisted, conducted, regulated, or approved by a federal agency; new or revised agency rules/plans/policies/procedures; and legislative proposals.

needs to determine whether the proposed action (a major federal action) is significantly affecting the quality of the human environment (40 CFR § 1502.3). The federal agency will prepare an **Environmental Assessment (EA)** or an **Environmental Impact Statement (EIS)** to analyze the effects on resources and determine if impacts will be “significant.”

The potential resources to be analyzed include:

- Physical Resources – geology and sediments, oceanography, water quality, air and climate, noise, and electromagnetic fields;

- Biological Resources – avian and bat resources, freshwater and coastal wetlands, wildlife, fisheries, benthos, vegetation, and threatened and endangered species; and
- Socioeconomic Resources and Cultural Resources – urban and suburban infrastructure, population and economics, visual resources, cultural resources, recreation and tourism, competing uses, and navigation and transportation.

Applicants may have an ownership interest on the OCS via:

- a **Limited Lease** for resource assessment and technology testing;
- a **Commercial Lease** for full development and power generation;
- a **Right-of-Way (ROW) Easement** for cables, pipelines, and associated facilities that are not associated with a single lease and/or a **Right of Use and Easement (RUE)** for installations such as a substation or maintenance platform not associated with a single lease.



The steps in the **BOEM lease issuance** and development process trigger NEPA environmental review including:

- a **Site Assessment Plan (SAP)** which describes site characterization activities including any relevant site survey results;
- a **Construction and Operations Plan (COP)** which describes the plan that will be executed for construction including a detailed Facility Design Report and Fabrication & Installation Report; and
- a **General Activities Plan (GAP)** must be submitted within six months of lease issuance describing all activities and operations related to technology testing including any facilities siting and project easement.

How are the SAP, COP, and GAP approved?

BOEM will issue leases through either a competitive or noncompetitive process. Both processes will comply with federal statutes and seek input from affected states, local governments, and stakeholders. BOEM has streamlined the permitting process for offshore energy facilities. For example:

- **Established an Atlantic Offshore Wind Energy Consortium.** Secretary of the Interior Ken Salazar and the governors of ten East Coast states signed a Memorandum of Understanding to promote the efficient, orderly, and responsible development of wind resources on the OCS.

- **Established State Task Forces.** Assist government decision-making regarding renewable energy leasing and development on the OCS, (Maine, Rhode Island, Massachusetts, New Jersey, Virginia, Delaware, Oregon, Maryland, New York, Hawaii, North Carolina, and South Carolina, and are in process for Florida).
- **Launched Smart from the Start.** A wind energy initiative to facilitate siting, leasing and construction of new projects on the Atlantic OCS, thus spurring the rapid and responsible development of wind resources. The goals of the initiative are tri-fold: to identify priority Wind Energy Areas for potential development, improve coordination among local, state, and federal regulators, and accelerate the leasing process. (For information on Smart from the Start, see: <http://boem.gov/Renewable-Energy-Program/Smart-from-the-Start/Index.aspx>.)

What studies need to be conducted for a project to gain state and federal approval?

Onshore and offshore environmental studies and surveys are conducted in accordance with the requirements of the SAP, COP, and GAP, including:

- Bathymetric surveys
- Sediment surveys
- Benthic surveys
- Archaeological surveys
- Fish surveys
- Lobster surveys
- Marine mammal surveys
- Hydrodynamic modeling
- Avian and bat surveys
- Noise assessment
- Visual assessment
- Navigational risk assessment
- Threatened and endangered species surveys
- Wetlands surveys
- Geological survey

Additionally, BOEM, through its Division of Environmental Sciences, manages the Environmental Studies Program which develops, conducts, and oversees scientific research specifically to inform policy decisions regarding development of OCS energy and mineral resources. Past and ongoing studies within the Atlantic Region include:

- Effects of Pile Driving Sounds on Auditory and Non-Auditory Tissues of Fish
- Characterization and Potential Impacts of Noise-Producing Construction and Operation Activities on the OCS (Part I)
- Characterization and Potential Impacts of Noise Producing Construction and Operations Activities on the OCS (Part II)
- Underwater Hearing Sensitivity in the Leatherback Sea Turtle (*Dermochelys coriacea*): Assessing the Potential Effect of Anthropogenic Noise

- Atlantic Marine Mammal and Sea Turtle Data Search and Literature Synthesis Including Stranding and Nesting Sites
- South Atlantic Information Resources: Data Search and Literature Synthesis
- Ecospatial Information Database (ESID) U.S. Atlantic Region
- Information Synthesis on the Potential for Bat Interactions with Offshore Wind Facilities
- Synthesis, Analysis, and Integration of Air Quality and Meteorological Data for the Atlantic Region
- Surveying for Marine Birds in the Northwest Atlantic
- Acoustic Monitoring of Temporal and Spatial Abundance of Birds Near Structures on the OCS of the Atlantic and Gulf of Mexico
- Pilot Study of Aerial High-Definition Video Surveys for Seabirds, Marine Mammals, and Sea Turtles on the Atlantic OCS
- Compendium of Avian Information: Part 2
- Exploration and Research of Mid-Atlantic Deepwater Hard Bottom Habitats and Shipwrecks with Emphasis on Canyons and Coral Communities
- Roadmap: Technologies for Cost Effective, Spatial Resource Assessments for Offshore Renewable Energy
- Atlantic Marine Assessment Program for Protected Species (AMAPPS)
- Evaluating Acoustic Technologies to Monitor Aquatic Organisms at Renewable Sites
- Developing Environmental Protocols and Modeling Tools to Support Ocean Renewable Energy and Stewardship
- OCS Renewable Energy and Space-Use Conflicts and Related Mitigation
- Energy Market and Infrastructure Information for Evaluating Alternative Energy Projects for OCS Atlantic and Pacific Regions
- Protocols for Baseline Studies and Monitoring For Ocean Renewable Energy
- Inventory and Analysis of Archaeological Site Occurrence on the Atlantic OCS
- Atlantic Wind Energy Development: Recreation and Tourism Economic Assessment

(For more information on the individual studies, see <http://boem.gov/Studies/>.)

