

Post-Lease Surveys Site Assessment and Environmental Studies

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Renewable Energy Process: Leasing to Operations

Initiate Leasing Process (RFI/Call)



Area Identification
Wind Energy Areas

Publish Leasing Notices



NEPA/Environmental Reviews

Lease Granted



Submit SAP



Pre-survey Meetings/Plan



Site Assessment & Surveys
(maximum timeframe)



BOEM Deems COP Complete & Sufficient



BOEM Environmental & Technical Reviews



BOEM Approves COP



Installation



Auction



BOEM Reviews & Approves SAP



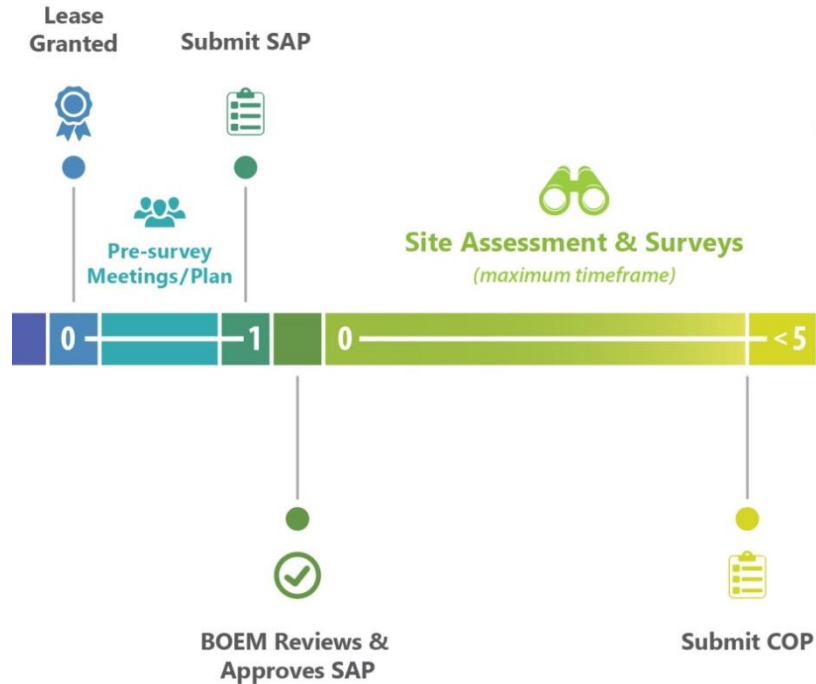
Submit COP



Submit Design & Installation Plans



Renewable Energy Process: Leasing to Site Assessment



The lease gives the lessee the exclusive **right to seek** BOEM approval **for the development** of the leasehold.

The lease **does not** grant the lessee the right to **construct facilities.**



The lessee will conduct **site characterization surveys** (e.g., shallow hazards, geological, geotechnical, archaeological, and biological) to support plan submission



- **Survey Plans** – 30 days prior to pre-survey meeting
 - Details of survey activities
 - Consistent with lease stipulations
- **Pre-Survey Meeting** – to discuss the proposed survey plan and timelines; at least 60 days prior to survey activities
- Other permits and authorizations

Within one year of lease issuance, the lessee submits its **Site Assessment Plan (SAP)** with the results of the site characterization surveys to BOEM

- Contains a detailed proposal for construction of a meteorological tower and/or the installation of meteorological buoys
- BOEM conducts environmental and technical reviews
- Approve, approve with modification(s), or disapprove

Must develop a **Fisheries Communications Plan** describing the strategies the Lessee intends to use for communication with fisheries stakeholders

- Contact information for Fisheries Liaison
- Available to BOEM and the public



Environmental Lease Stipulations | North Atlantic Right Whale

North Atlantic Right Whale Mitigation Measures for Atlantic Renewable Energy Activities



Protected species observer requirements

No surveys or pile-driving at night
(unless alternative monitoring plan)



General vessel-strike avoidance measures

Vessels $\geq 65'$ restricted to 10 knots (or less)

■ Nov 1 to April 30

10
knots



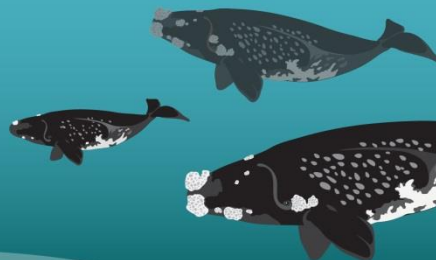
All sub-bottom profiling and pile driving
stops within 24 hrs of DMA establishment

Prohibition on pile driving (met tower)
■ Nov 1 to April 30

Exclusion zones for sub-bottom
profiling and pile driving

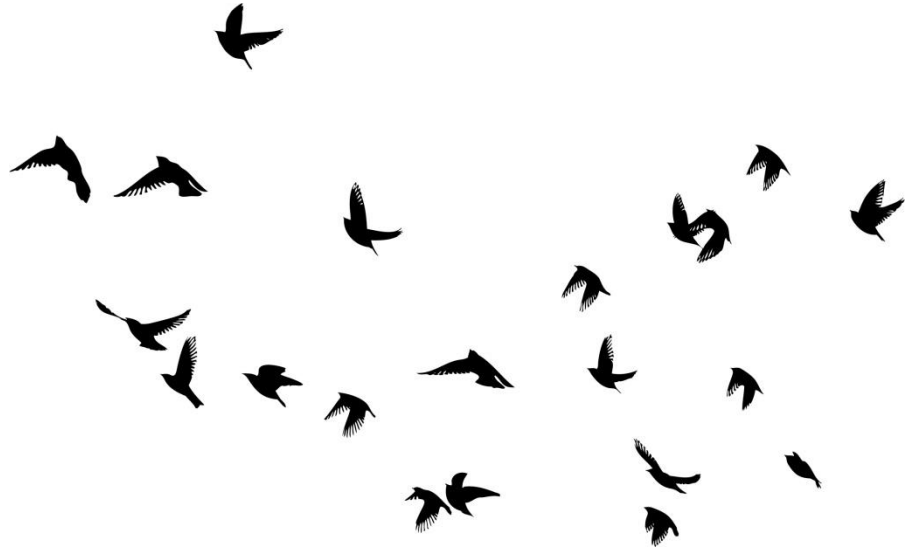
No sub-bottom profiling within right whale critical habitat

■ Nov 15 to April 15



Other examples include:

- Protected Species Observers
- Lighting requirements
- Reporting requirements
 - Birds and bats
 - G&G survey activities



BOEM has created a number of guidelines to better explain its **regulatory requirements** to the development community:

- Avian Survey Guidelines
- Archaeological and Historic Property Survey Guidelines
- Geophysical, Geotechnical, and Geohazard Survey Guidelines
- Fisheries Survey and Engagement Guidelines
- Benthic Habitat Survey Guidelines
- Marine Mammal and Sea Turtle Survey Guidelines
- Spatial Data Submission Guidelines

BOEM is developing or considering **additional guidelines**:

- Lighting and Marking Guidelines – *in preparation*
- Visual Assessment Guidelines – *in preparation*
- Design Envelope Guidelines – *in preparation*
- Post-Construction Guidelines – *in discussion*





The poster features a vertical layout with a blue and green color scheme. On the left, there is a vertical image of an underwater coral reef with various fish. The BOEM logo is at the top left, and the date 'October 2017' is at the top right. The main title 'Atlantic Study Highlights 2017' is prominently displayed. The text is organized into sections with icons: a fish icon for the first section, and a crab/lobster icon for the second section.

BOEM
BUREAU OF OCEAN ENERGY MANAGEMENT

October 2017

OFFSHORE RENEWABLE ENERGY

Atlantic Study Highlights

2017

The Bureau of Ocean Energy Management (BOEM) is responsible for overseeing renewable energy development on the Outer Continental Shelf (OCS) in an environmentally sound manner.

BOEM works closely with Federal resource management agencies to identify information needs to support decisions about siting of offshore renewable energy facilities.

On the **Atlantic OCS in 2017**, BOEM is funding more than **\$8 million** in new and continuing projects for the collection of information regarding protected species, social, economic, and cultural resources, and environmental monitoring.

Below is a sample of the projects BOEM is funding:

Fishery Physical Habitat and Epibenthic Invertebrate Baseline Data Collection

The Northeast Fisheries Science Center is assessing and characterizing benthic habitat and the epibenthic macroinvertebrate community in existing and proposed wind energy areas from Massachusetts to North Carolina via multibeam sonar, and optical (still and video) imaging of the seafloor. The final report will be published in Fall 2017.

Spatial and Temporal Distributions of Lobsters and Crabs in the Rhode Island/Massachusetts Wind Energy Area

This project, led by University of Rhode Island, will help to fill a data gap in lobster abundance surveys. In partnership with Rhode Island-based commercial lobster fishermen, this project uses a ventless trap survey to establish baseline knowledge of lobster occurrence and environmental conditions in the offshore lease area.

The final report for the first two years of field work is available at www.boem.gov/Spatial-and-Temporal-Distributions. The study will be extended in 2018 for an additional year.

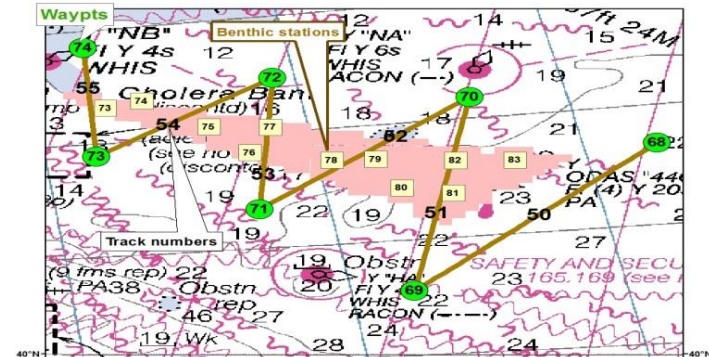
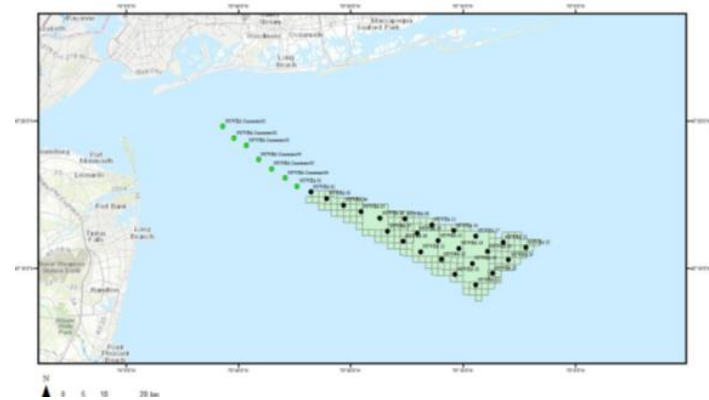
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Environmental Studies Program

- Information Sheet
- Poster
- www.boem.gov/New-York-Environmental-Studies/
- Southern New England Offshore Wind Science Forum

BOEM Studies | Fish and Fisheries

- Spatial and Temporal Distribution of Lobsters and Crabs Around Cox Ledge
- Benthic Habitat Mapping
- Fish Telemetry
- Electromagnetic Field effects on Lobster, Skates and Crabs
- Behavioral Effects of Construction Noise on Black Sea Bass and Longfin Squid



Culminates in the submission of a **Construction and Operations Plan:**

- Incorporates information from survey work, reports, site assessment data, BOEM studies
- At least 6 months prior to the end of the site assessment term

Questions?

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