

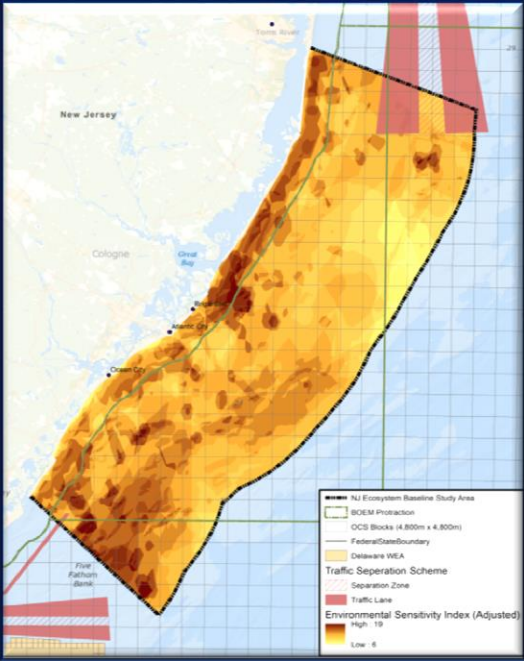
Next Steps for Commercial Leases OCS-A 0498 & OCS-A 0499

BOEM NEW JERSEY TASK FORCE
MAY 19, 2016

BUREAU OF OCEAN ENERGY MANAGEMENT
OFFICE OF RENEWABLE ENERGY PROGRAMS

Stages of Offshore Wind Authorization Process

Planning and Analysis



The map shows the New Jersey coastline with various planning and analysis overlays. A legend in the bottom right corner includes:

- NJ Ecosystem Baseline Study Area
- BOEM Protection
- OCS Blocks (4,800m x 4,800m)
- Federal/State Boundary
- Disturbance NREA
- Traffic Separation Scheme
 - Separation Zone
 - Traffic Lane
- Environmental Sensitivity Index (Adjusted)
 - High: 19
 - Low: 6

Leasing




The top image shows a document titled "LEASE AGREEMENT" with "LEASE CONDITIONS" and "IN THIS AGREEMENT ARE:" visible. A pencil is resting on the document. The bottom image shows a wooden gavel on a wooden block next to a red tag that says "ONLINE AUCTION SOLD".

Site Assessment



The top image shows a tall, yellow offshore wind tower under construction in the ocean. The bottom image shows a yellow survey vessel with solar panels on its deck, also in the ocean.

Construction and Operations



The top image shows a construction vessel working on an offshore wind turbine. The bottom image shows a large array of offshore wind turbines in the ocean.

New Jersey's Journey...

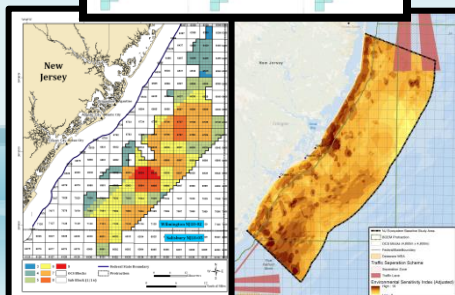
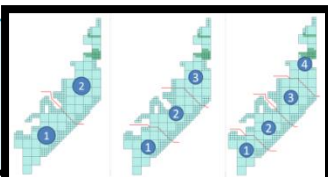
Planning & Analysis

Establish Task Force
(Nov. 2009)

Call for Information
and Nominations
(April 2011)

Environmental
Assessment
Complete
(November 2012)

NREL Technical
Evaluation Report
(October 2013)



Leasing

Proposed Sale
Notice
(June 2014)

Final Sale Notice
(September 2015)

Auction ATWL5
(November 2015)

Commercial Leases
OCS-A 0498 & 0499
(March 1, 2016)

Bids Received for Lease Sale ATWL5 Offshore New Jersey
November 9, 2015

Company Name	Bid Type	Bid Amount	Lease Area
Round 1			
RES America Developments Inc.	Low	\$120,960	South (OCS-A 0498)
U.S. Wind Inc.	Low	\$166,716	North (OCS-A 0499)
Hubbards Energy, LLC	Low	\$166,716	North (OCS-A 0499)
Round 2			
RES America Developments Inc.	Low	\$120,960	South (OCS-A 0498)
U.S. Wind Inc.	Low	\$113,100	North (OCS-A 0499)
Hubbards Energy, LLC	Low	\$113,100	North (OCS-A 0499)
Round 3			
RES America Developments Inc.	Low	\$120,960	South (OCS-A 0498)
U.S. Wind Inc.	Low	\$120,960	South (OCS-A 0498)
Hubbards Energy, LLC	Low	\$120,960	South (OCS-A 0498)
Round 4			
RES America Developments Inc.	Low	\$449,164	South (OCS-A 0498)
U.S. Wind Inc.	Low	\$7,182,432	North (OCS-A 0499)
Hubbards Energy, LLC	Low	\$449,164	North (OCS-A 0499)
Round 5			
RES America Developments Inc.	Low	\$629,402	South (OCS-A 0498)
U.S. Wind Inc.	Low	\$7,182,432	North (OCS-A 0499)
Hubbards Energy, LLC	Low	\$629,402	South (OCS-A 0498)
Round 6			
RES America Developments Inc.	Low	\$889,715	South (OCS-A 0498)
U.S. Wind Inc.	Low	\$7,182,432	North (OCS-A 0499)
Hubbards Energy, LLC	Low	\$7,182,432	North (OCS-A 0499)
Round 7			
RES America Developments Inc.	Low	\$889,715	South (OCS-A 0498)
U.S. Wind Inc.	Low	\$1,056,249	North (OCS-A 0499)
Hubbards Energy, LLC	Low	\$7,224,010	North (OCS-A 0499)

Low bid: If bid that results the selling price for one or more Lease Areas.
 Bidder's Bid: If bid that consists of a single offer price for the same Lease Area included in the
 bidder's bid and the previous round, indicating that the bidder is not willing to meet the current
 round's selling price, but it is willing to pay more than the previous round's selling price.
 Bold bids in Round 7 are provisionally winning bids.

Preliminary Term

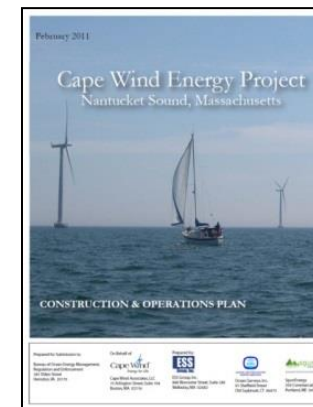
12 - Month
Extension of
Preliminary Term
Request for OCS-A-
0499

Site Assessment Activities

Site Assessment
Plans (SAP) Due
March 1, 2017*

Construction & Operations Plan

4.5 Years After SAP
Approval



Lease OCS-A 0498 - "Ocean Wind LLC"

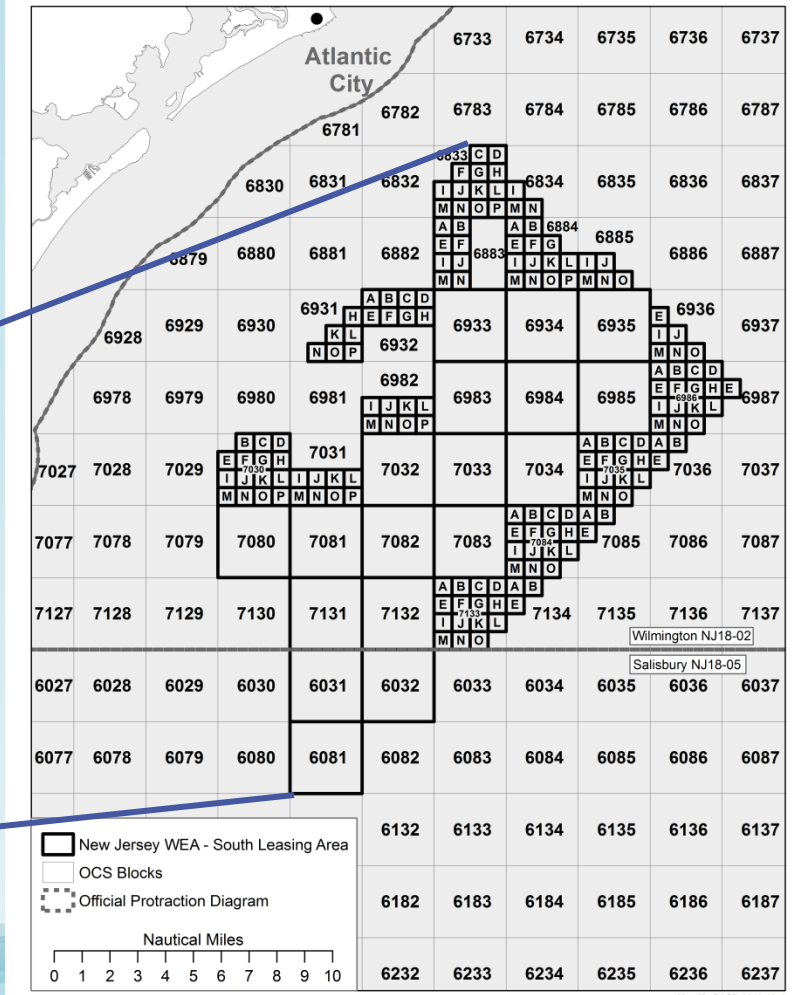
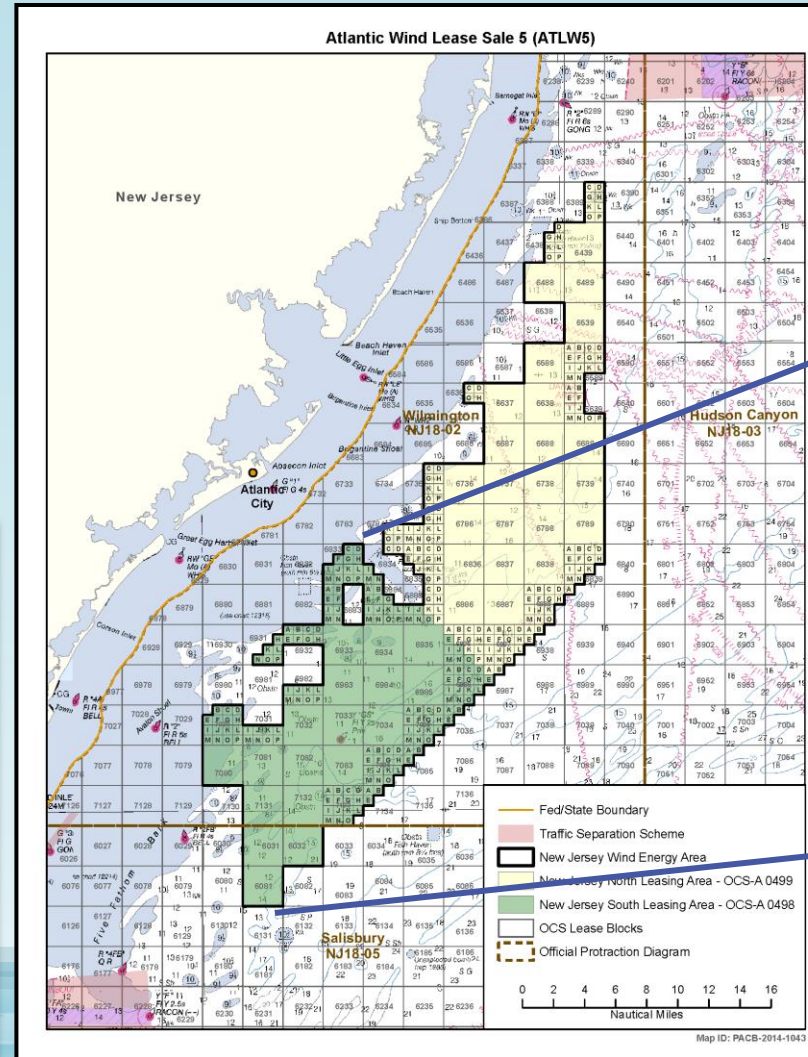
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF OCEAN ENERGY MANAGEMENT COMMERCIAL LEASE OF SUBMERGED LANDS FOR RENEWABLE ENERGY DEVELOPMENT ON THE OUTER CONTINENTAL SHELF <i>Paperwork Reduction Act of 1995 statement: This form does not constitute an information collection as defined by 44 U.S.C. § 3501 et seq. and therefore does not require approval by the Office of Management and Budget.</i>	Office	Renewable Energy Lease Number
	Sterling, VA	OCS-A 0498
	Cash Bonus and/or Acquisition Fee	Resource Type
	\$880,715	Wind
Effective Date	Block Number(s)	
March 1, 2016	See Addendum A	

This lease, which includes any addenda hereto, is hereby entered into by and between the United States of America, ("Lessor"), acting through the Bureau of Ocean Energy Management (BOEM), its authorized officer, and

Lessee	Interest Held
RES America Developments Inc.	100%

Lease Area Characteristics

Total Acres (1,000)	160.48
OCS Blocks	28.1875
Average Depth (m)	24
Bathymetry Range (m)	16-38
Avg. Wind Speed at 90 m (m/s)	8.4
Potential Capacity (MW)	1,660



Lease OCS-A 0499: U.S. Wind Inc.

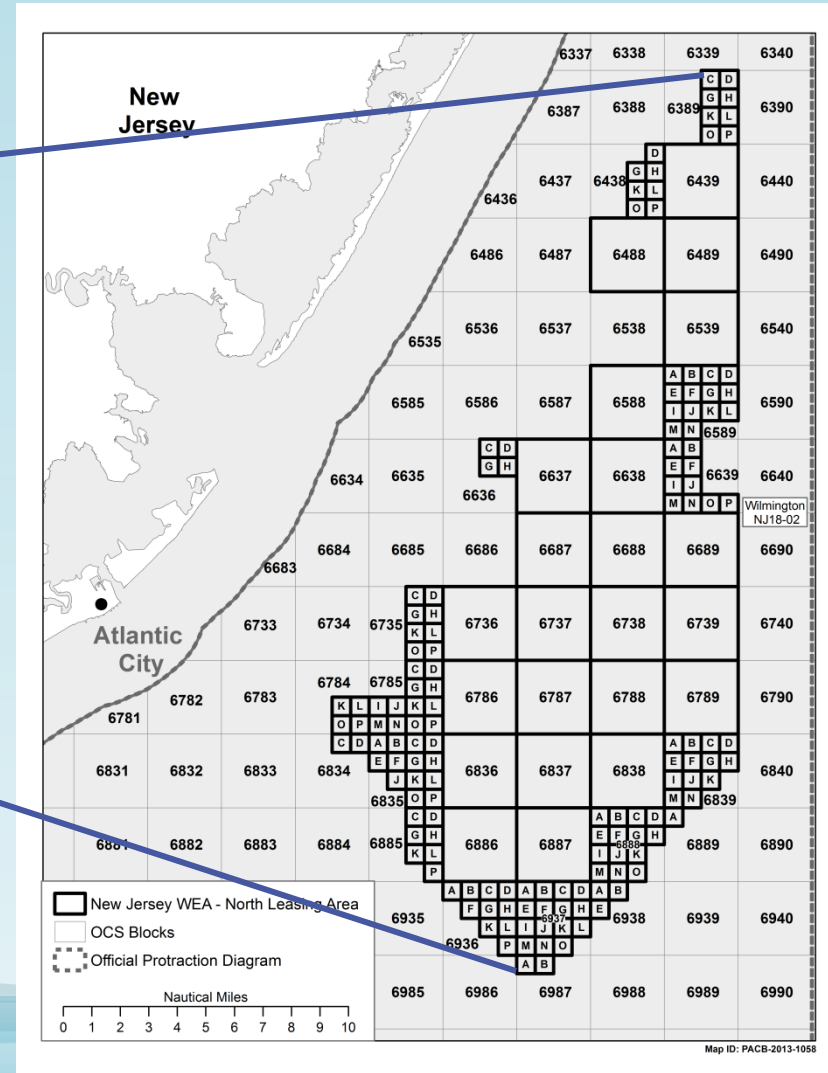
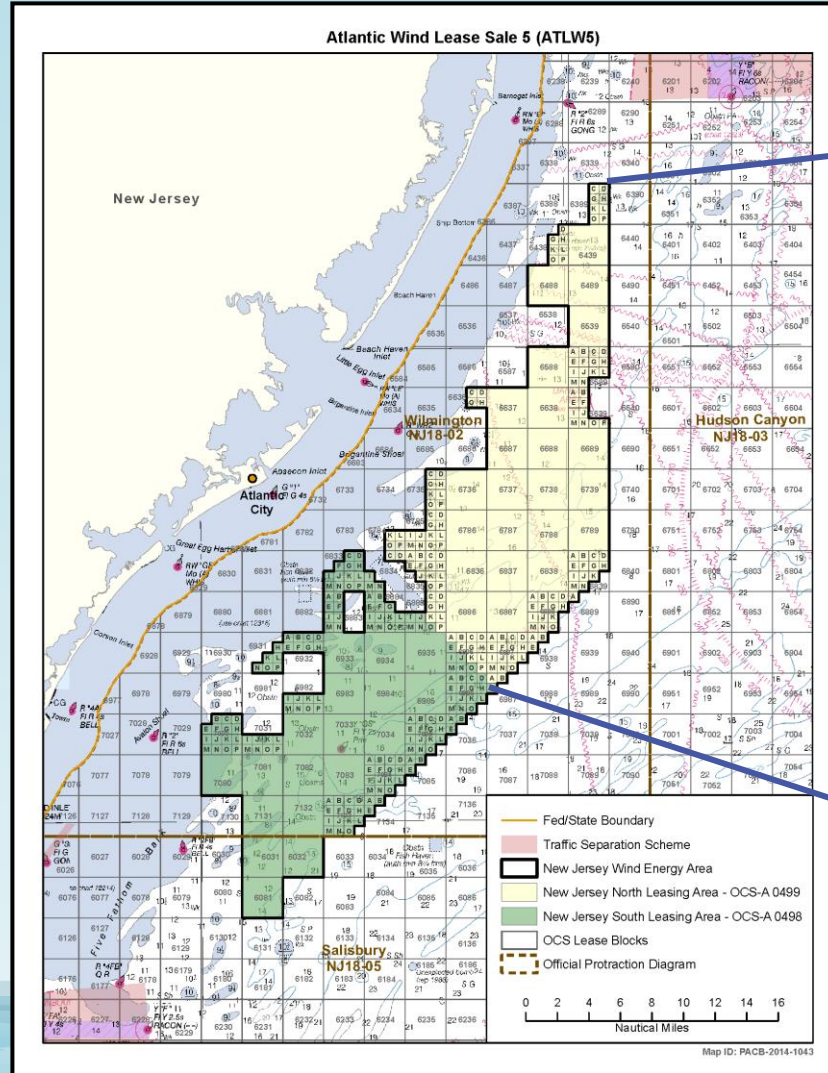
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF OCEAN ENERGY MANAGEMENT COMMERCIAL LEASE OF SUBMERGED LANDS FOR RENEWABLE ENERGY DEVELOPMENT ON THE OUTER CONTINENTAL SHELF <i>Paperwork Reduction Act of 1995 statement: This form does not constitute an information collection as defined by 44 U.S.C. § 3501 et seq. and therefore does not require approval by the Office of Management and Budget.</i>	Office	Renewable Energy Lease Number
	Sterling, VA	OCS-A 0499
	Cash Bonus and/or Acquisition Fee	Resource Type
	\$1,006,240	Wind
Effective Date	Block Number(s)	
March 1, 2016	See Addendum A	

This lease, which includes any addenda hereto, is hereby entered into by and between the United States of America, ("Lessor"), acting through the Bureau of Ocean Energy Management ("BOEM"), its authorized officer, and

Lessee	Interest Held
US Wind Inc.	100%

Lease Area Characteristics

Total Acres (1,000)	183.35
OCS Blocks	32.188
Average Depth (m)	25
Bathymetry Range (m)	17-34
Avg. Wind Speed at 90 m (m/s)	8.6
Potential Capacity (MW)	1,780



Elements of A Lease



Addenda to the Lease

Lease Form

Addendum
A

Addendum
B

Addendum
C

Addendum
D

Addendum
E

Description of
Lease Areas
&
Activities

Lease Term
&
Financial
Schedule

Lease Specific
Terms, Conditions
&
Stipulations

Project
Easement
(Post COP)

Rent
Schedule
(Post COP)

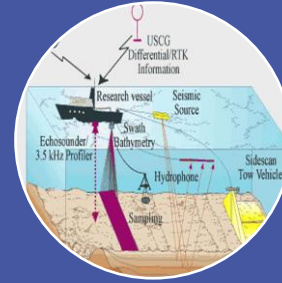
Addendum C: Environmental Lease Stipulations



Vessel Strike
Avoidance
Measures



Archeological
Survey
Requirements



HRG and
Geotechnical
Survey
Requirements



Reporting
Requirements

Included as Standard Operating Conditions in EA and Addresses Lease Issuance to Submittal of a Plan

Additional Construction or Operations Stipulations May Be Added As Terms and Conditions of Plan approval

Lease Terms & Conditions

Specified in Addendum
B, and at 30 CFR
585.235

Preliminary term of 12
months in which the
lessee must submit a Site
Assessment Plan (SAP)
to BOEM

Upon approval of the
SAP, the lessee will have
up to 4 ½ years in which
to submit a Construction
and Operations Plan
(COP) to BOEM

Upon approval of the
COP, the lessee will have
up to 25 years to
construct and operate
their proposed wind
facility

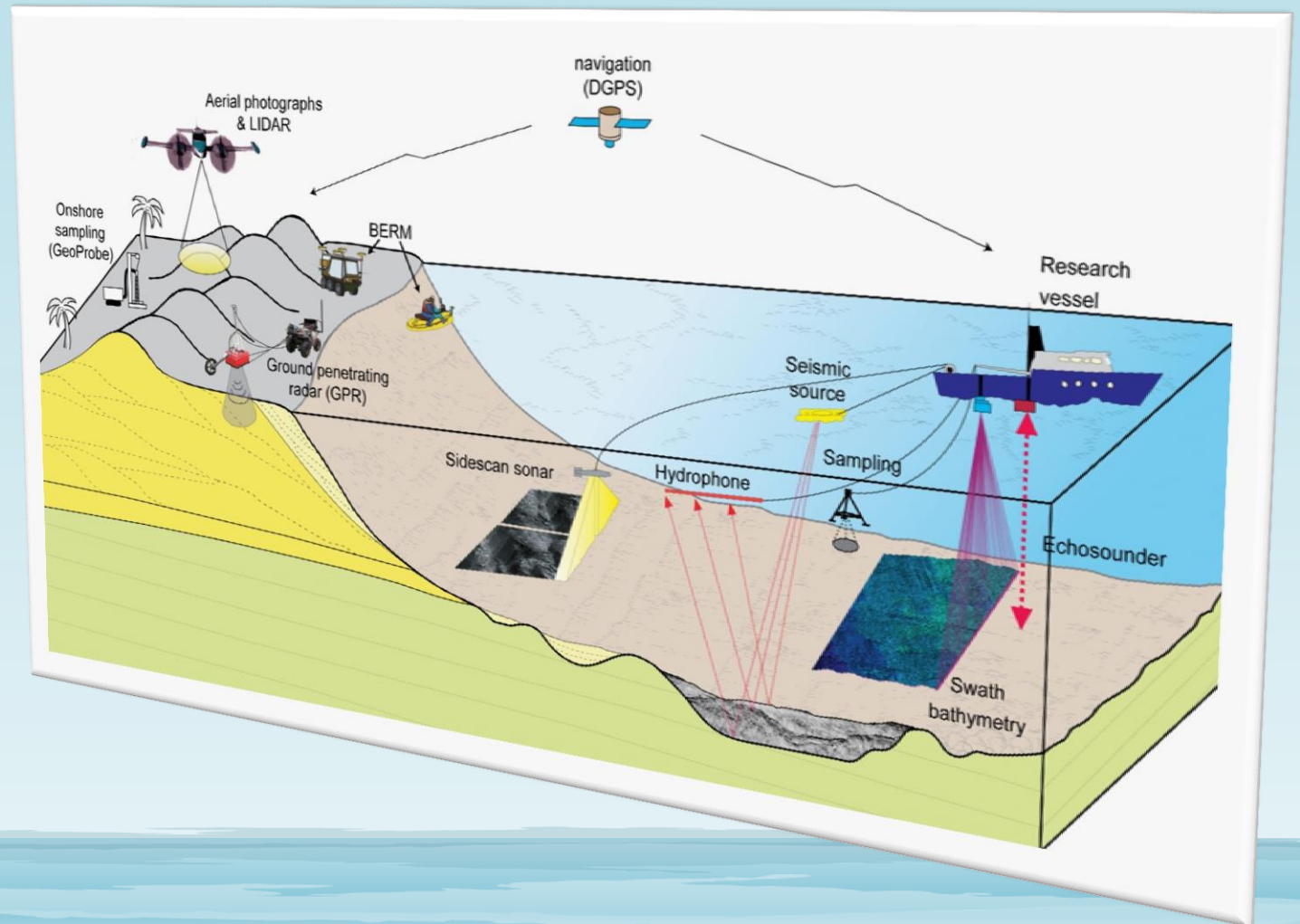
Lease Term	Duration
Preliminary Term	1 Year
Site Assessment Term	5 Years
Operations Term	25 Years
Decommissioning Application	2 Years Before Lease Expiration OR 90 Days After Activity Completion, Cancelation, Relinquishment or Termination

Site Characterization Activities

Site-specific surveys conducted to collect information regarding existing resources and conditions above the water, within the water column, and on & below the seafloor.

Enables the lessee to characterize existing seafloor and sub-seafloor conditions to select and propose appropriate design, construction, and installation techniques.

Results required to be submitted with SAP & COP.



Required Survey Plans

Prior to conducting surveys in support of submission of the SAP or COP, each lessee is required to submit survey plans for BOEM's review and hold a pre-survey meeting with BOEM



Two Types of Survey Plans

SAP Survey Plan

- For surveys proposed to be conducted in support of SAP submission

COP Survey Plan

- For surveys proposed to be conducted in support of a COP submission

Survey Plans

HRG Survey Equipment Field Verification Plan

- Must be Submitted 45 days prior to conducting



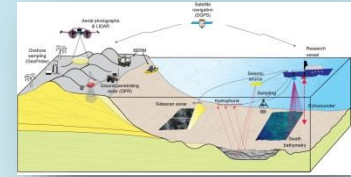
Submit SAP/COP Survey Plan

- Must be Submitted 30 Days Prior to Pre-Survey Meeting
- Include Results of HRG Survey Equipment Field Verification



Tribal Pre-Survey Meeting

- 30 Days Prior to Conducting Surveys
- Held Subsequent to the Pre-Survey Meeting



Conduct HRG Survey Equipment Field Verification

Hold Pre-Survey Meeting with BOEM

- Must Occur 60 Days Prior to Conducting Surveys



Conducts Surveys

Site Assessment Plan (SAP)

A SAP describes:

the activities (e.g., installation of meteorological towers, meteorological buoys) the lessee plans to perform for the characterization of the commercial lease

The SAP must include the results of the following surveys to support the installation of the site assessment facilities:

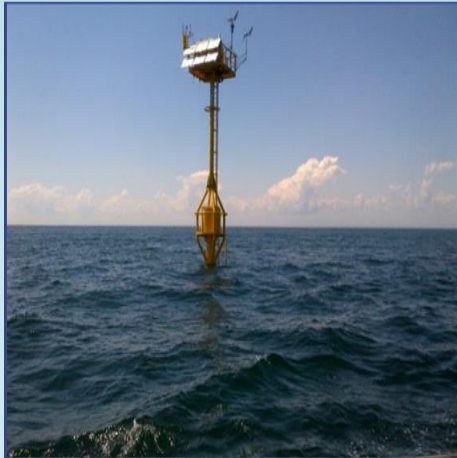
Physical Characterization Surveys

- Geological
- Geophysical surveys
- Shallow Hazards surveys

Baseline Environmental Surveys

- Biological
- Archaeological Resources

Site Assessment Activities



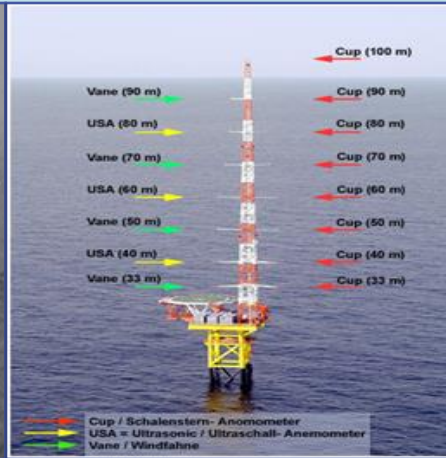
New Jersey Offshore Research Device (NJORD)

- Tension Leg Platform Design
- 40 ft above MSL
- Light Detection and Ranging (LIDAR)



Wind Sentinel

- Boat shaped hull
- 6 m in length
- LIDAR



FINO 1

- 100 m high above MSL
- Radar
- Helipad
- Hydrophones
- Video
- Anemometer



Cape Wind Metrological Tower

- 60 meters high above MSL
- Anemometers



Remote Instrument Unit

- Ecological Acoustic Recorder (EAR)
- Conductivity, Temperature Depth (CTD)
- Acoustic Current Doppler Profile (ADCP)
- Trawl Resistant Bottom Mount (TRBM)

Site Assessment Plan Review

Initial SAP Review

Completeness Determination

- Does it contain all of the information required? (completeness)

Adequacy Determination

- Is the information adequate for conducting technical and environmental reviews

Complex and Significant

- If YES, Certification Verification Agent (CVA) FDR and FIR required.

Conduct Technical & Environmental Reviews

Environmental Compliance

Coordinate and Consult with Federal, State, Local agencies and Affected Indian Tribes

Provide relevant non-proprietary data and information on the proposed activities to Federal, State, Local agencies and Affected Indian Tribes

BOEM may:

Approve the SAP

Disapprove the SAP

Approve the SAP with Modifications

Lessee has up to 5 years to Conduct Site Assessment Activities



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graph TD; A[Does not cause undue harm or damage to natural resources; life; property; the marine, coastal, or human environmental; or sites, structures, or objects of historical or archaeological significance] --> D((SAP Review)); B[Is safe] --> D; C[Uses properly trained personnel] --> D; E[Use best available and safest technology and best management practices] --> D; F[30 CFR 585.105(a)] --> D; G[Conforms to applicable laws, regulations, and lease provisions] --> D; H[Does not unreasonably interfere with other uses of the OCS, including national security] --> D;
```

SAP Review

Does not cause undue harm or damage to natural resources; life; property; the marine, coastal, or human environmental; or sites, structures, or objects of historical or archaeological significance

Is safe

Uses properly trained personnel

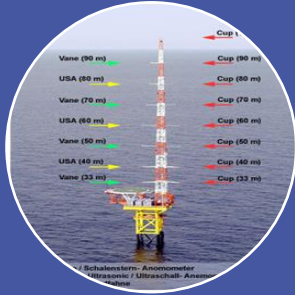
Use best available and safest technology and best management practices

30 CFR 585.105(a)

Conforms to applicable laws, regulations, and lease provisions

Does not unreasonably interfere with other uses of the OCS, including national security

Plan Guidelines



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

(Feb. 2016)



Guidelines for Information Requirements for a Renewable Energy Construction and Operations Plan (COP)

(April 2016)

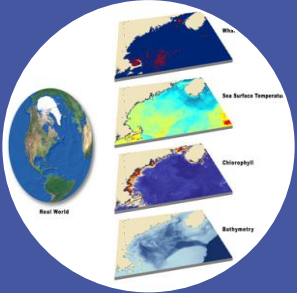


Guidelines for Providing Information on Fisheries, Social and Economic Conditions

(October 2015)

Guidelines Can Be Found at: <http://www.boem.gov/National-and-Regional-Guidelines-for-Renewable-Energy-Activities/>

Survey Guidelines



Guidelines for Submission of Spatial Data for Site Characterization Surveys (Feb. 2013)



Guidelines for Providing Avian Survey Information (Nov. 2013)



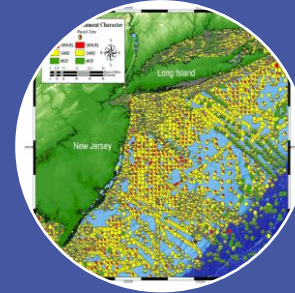
Guidelines for Providing Geological and Geophysical Hazards Information (July 2015)



Guidelines for Archaeological and Historical Property Identification Surveys (July 2015)



Guidelines for Providing Information on Fisheries (Aug. 2013)



Guidelines for Providing Benthic Habitat Survey Information (Nov. 2013)



Guidelines for Providing Information on Marine Mammals and Sea Turtles (July 2013)

Survey Guidelines Can Be Found at: www.boem.gov/Survey-Guidelines/

Next Steps: Near Term

Submit SAP Survey Plan

- 30 Days Prior to Pre-Survey Meeting

Conducts Surveys

Hold SAP Pre-Survey Meeting

- 60 Days Prior to Conducting Surveys

Site Assessment Plan (SAP) Due

Ocean Wind, LLC: March 1, 2017

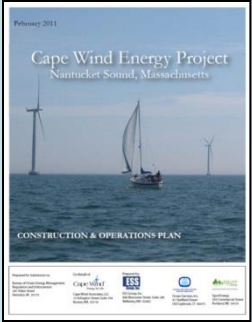
U.S. Wind Inc: March 1, 2017

Next Steps: Long Term

Submit COP Survey Plan

- 30 Days Prior to Pre-Survey Meeting

Conduct Surveys



Hold COP Pre-Survey Meeting

- 60 Days prior to Conducting Surveys

Construction & Operation Plan (COP) Due

4.5 Years after the SAP Approval

Questions?

