

Outer Continental Shelf Programs



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*“(T)he outer Continental Shelf is a **vital national resource reserve held by the Federal Government for the public**, which should be made available for **expeditious and orderly development**, subject to **environmental safeguards**, in a manner which is consistent with the maintenance of competition and other national needs”*

Outer Continental Shelf Lands Act (OCSLA)

Sec 3(3)

“...may grant a lease [for] energy from sources other than oil and gas...in a manner that provides for safety and protection of the environment.”

Energy Policy Act of 2005 Sec. 388



Oil and Gas Program

BOEM manages offshore oil and gas resources in Federal waters to ensure that exploration and development activities are conducted in a safe and environmentally sound manner.

Renewables Program

BOEM is responsible for offshore renewable energy development in Federal waters and anticipates future development on the OCS from three general sources: offshore wind energy, ocean wave energy, and current wave energy.

Marine Minerals Program

BOEM is responsible for managing non-energy minerals (primarily sand and gravel) in Federal waters. Marine minerals are used primarily in coastal restoration projects, including beach nourishment and coastal habitat restoration, with increased attention to building resilience to deal with future storms and rising sea levels.

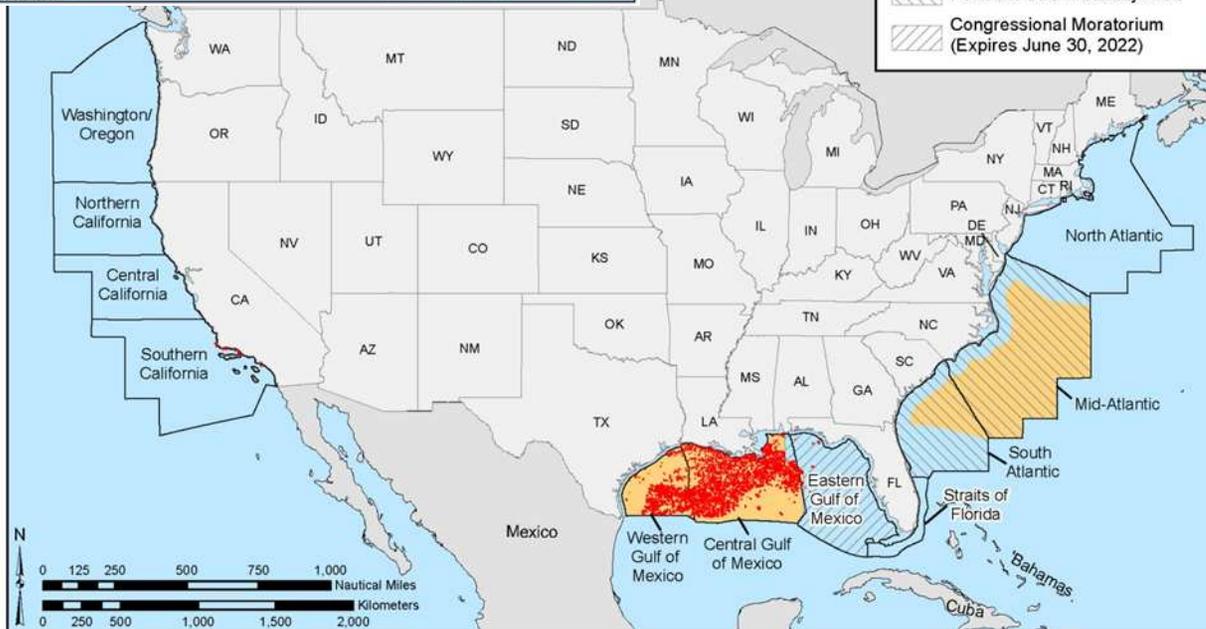
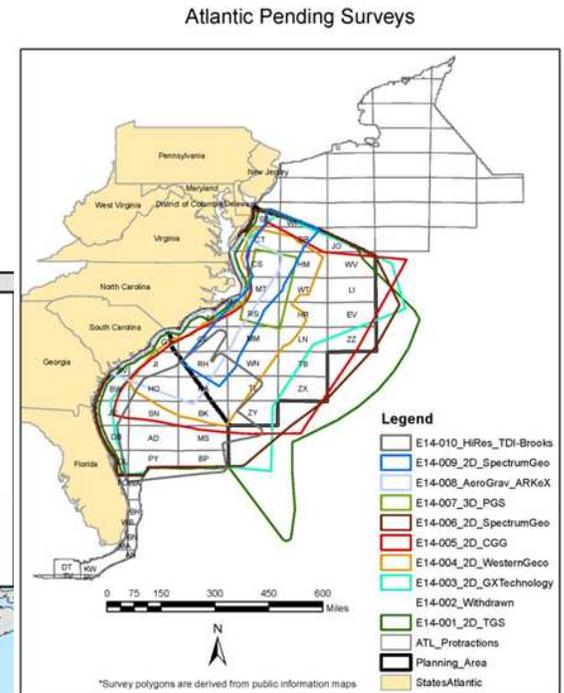
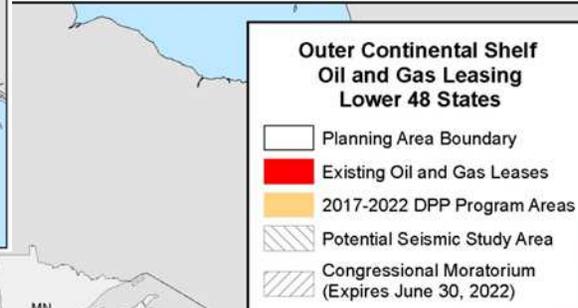
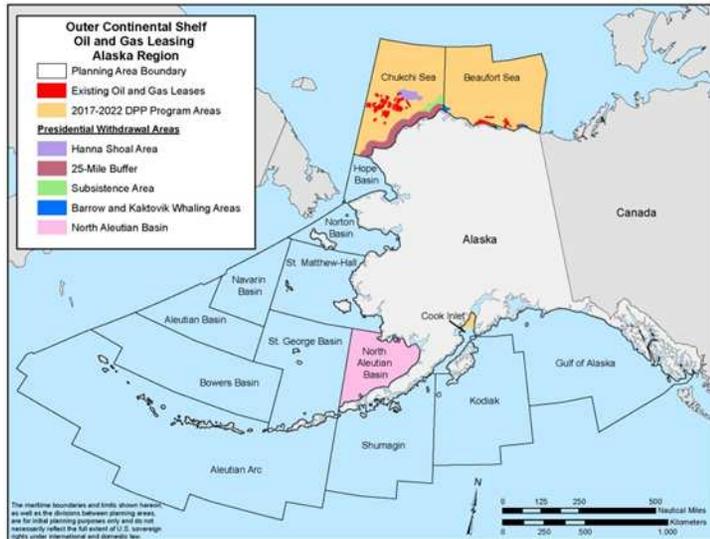


BOEM Offshore Oil and Gas Responsibilities Include:

- Identifying and calculating appropriate boundaries and legal descriptions;
- Identifying, inventorying, and assessing the Nation's offshore energy and mineral endowment;
- Developing a transparent, systematic, and comprehensive schedule for OCS oil and gas resource offerings; and
- Developing appropriate financial terms to ensure the Nation receives fair market value for its OCS resources.

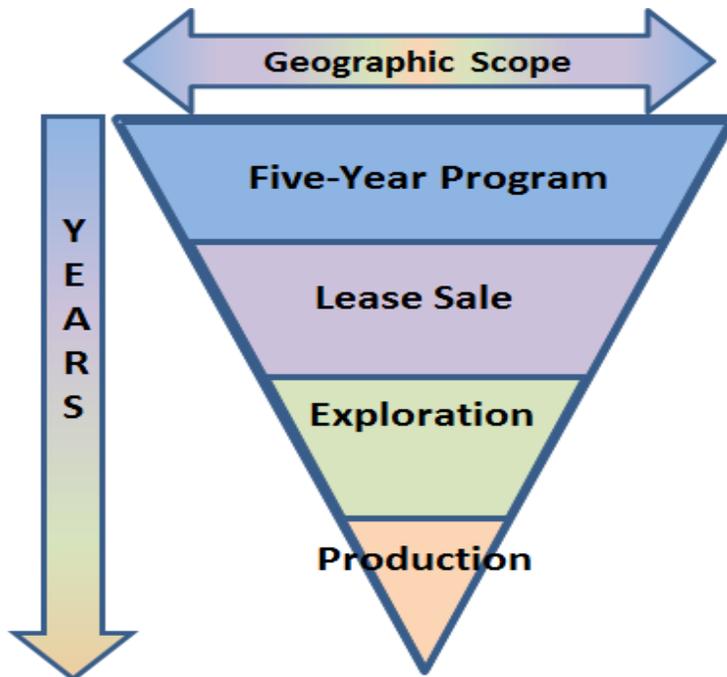


Overview of OCS Oil and Gas Energy Activities



Multi-Year/Multi-Phase Process

- Collaborative effort among Government, industry, tribal, and public stakeholders
- Multiple steps, decision points, and opportunities for public input during each phase

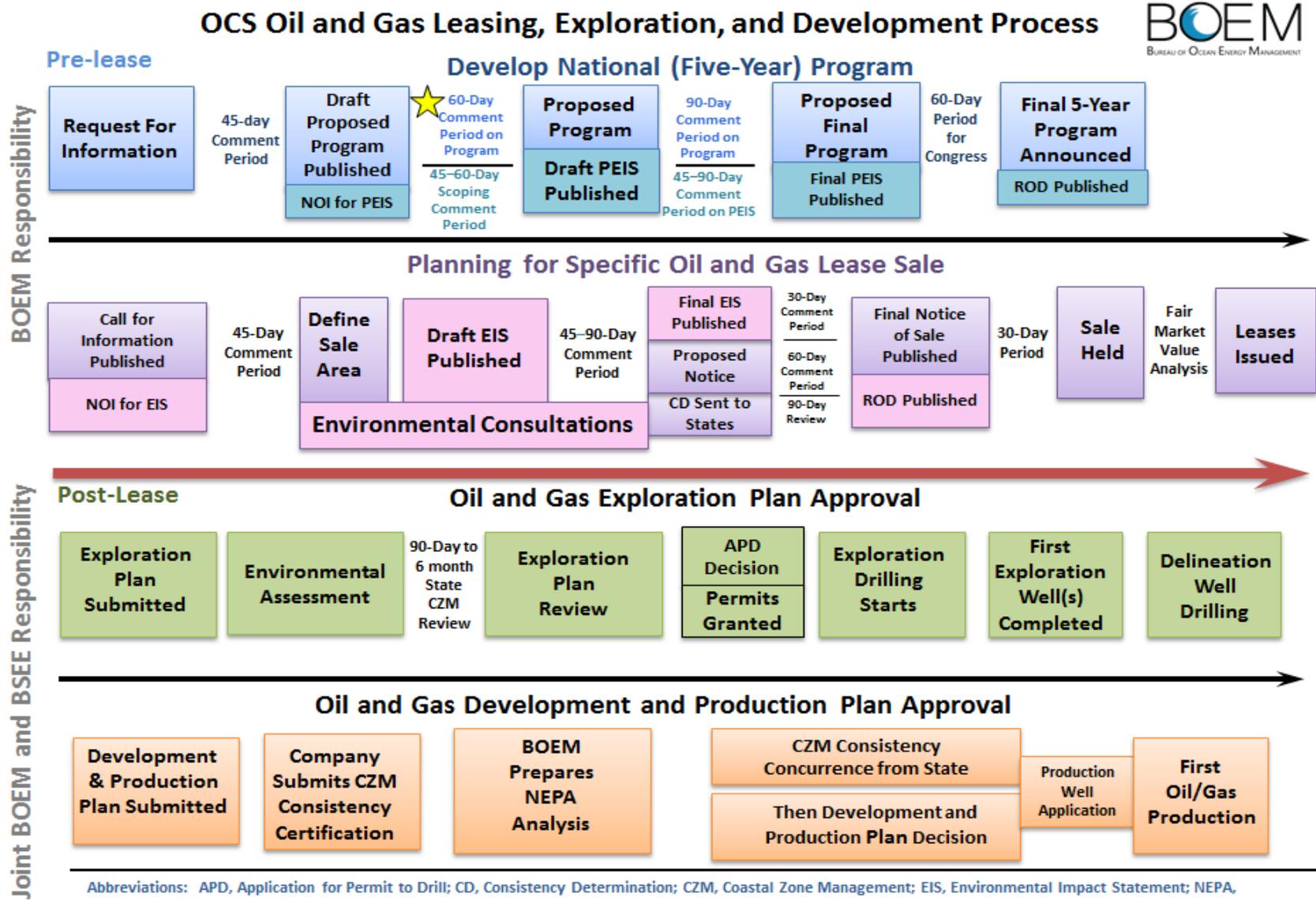


The following eight factors are considered in determining the timing and location of leasing:

- Geographical, geological, and ecological characteristics
- Equitable sharing of developmental benefits and environmental risks
- Location with respect to regional and national energy markets and needs
- Location with respect to other uses of the sea and seabed
- Interest of potential oil and gas producers
- Laws, goals, and policies of affected states
- Environmental sensitivity and marine productivity
- Environmental and predictive information



OCS Oil and Gas Leasing, Exploration, and Development Process



Abbreviations: APD, Application for Permit to Drill; CD, Consistency Determination; CZM, Coastal Zone Management; EIS, Environmental Impact Statement; NEPA, National Environmental Policy Act; NOI, Notice of Intent; OCS, Outer Continental Shelf; PEIS, Programmatic Environmental Impact Statement; ROD, Record of Decision.

Five Year Program: A Planning Document

- “The Outer Continental Shelf is a vital national resource reserve held by the Federal Government for the public, which should be made available for expeditious and orderly development, subject to environmental safeguards, in a manner which is consistent with the maintenance of competition and other national needs.” Outer Continental Shelf Lands Act Sec. 3.(3)
- Under OCSLA, the Secretary of the Interior has the responsibility to “prepare and periodically revise, and maintain an oil and gas leasing program” in order to “best meet national energy needs” while still balancing other important factors.
- Development of the 5-Year Program is a multi-step phased process with requirements and opportunities for substantial public involvement and extensive analysis, ultimately resulting in a schedule of lease sales balancing natural, environmental, economical, geographical, and legal factors.

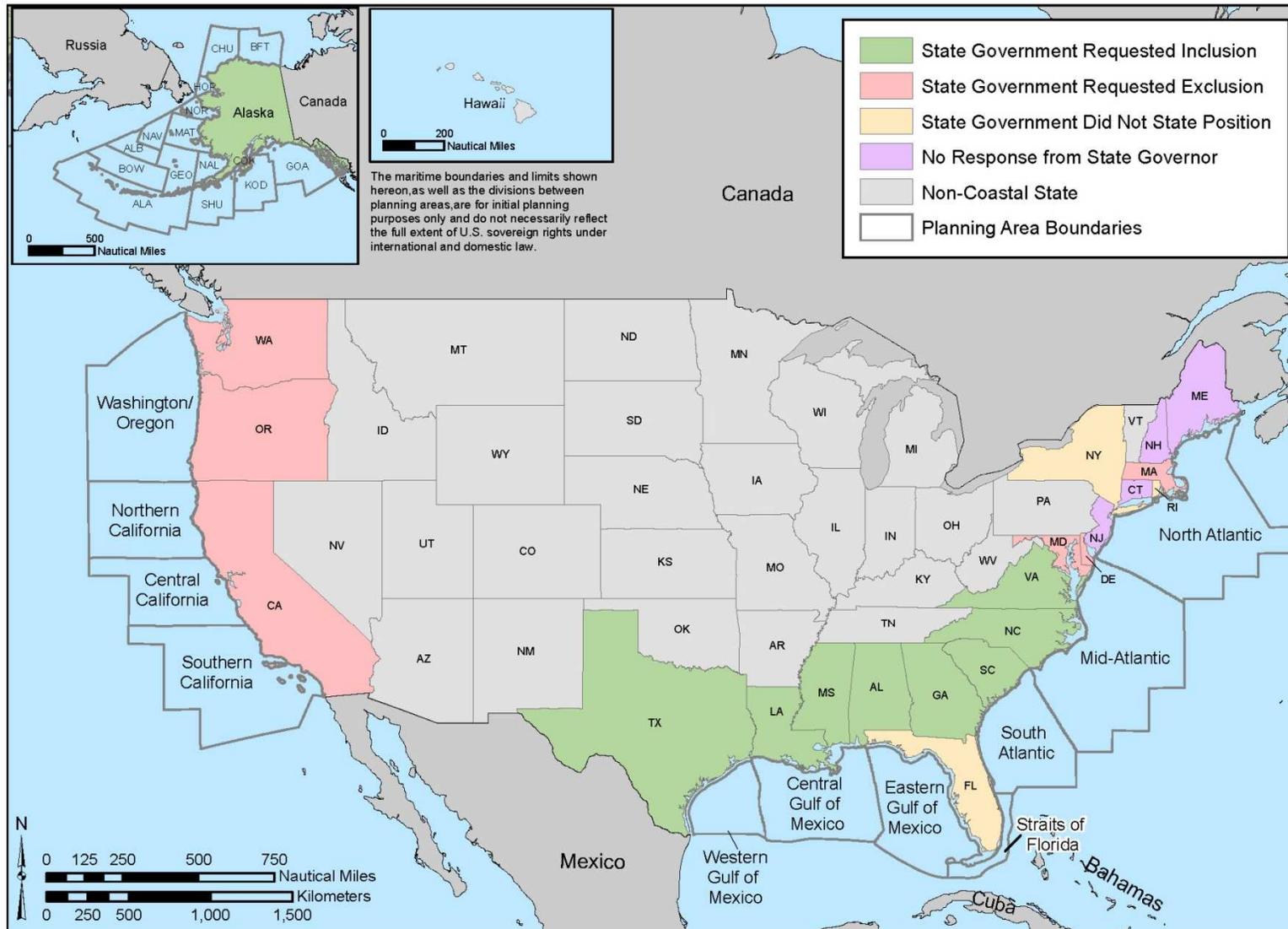
	Year	Planning Area	Sale Number
1	2017	Gulf of Mexico Region	249
2	2018	Gulf of Mexico Region	250
3	2018	Gulf of Mexico Region	251
4	2019	Gulf of Mexico Region	252
5	2019	Gulf of Mexico Region	253
6	2020	Gulf of Mexico Region	254
7	2020	Beaufort Sea	255
8	2020	Gulf of Mexico Region	256
9	2021	Gulf of Mexico Region	257
10	2021	Cook Inlet	258
11	2021	Gulf of Mexico Region	259
12	2021	Mid-Atlantic and South Atlantic	260
13	2022	Gulf of Mexico Region	261
14	2022	Chukchi Sea	262

The Draft Proposed Program (DPP) Decision Document and related information are available at: <http://www.boem.gov/Five-Year-Program/>

Information on scoping for the Draft PEIS is available at: www.BOEMoceaninfo.com

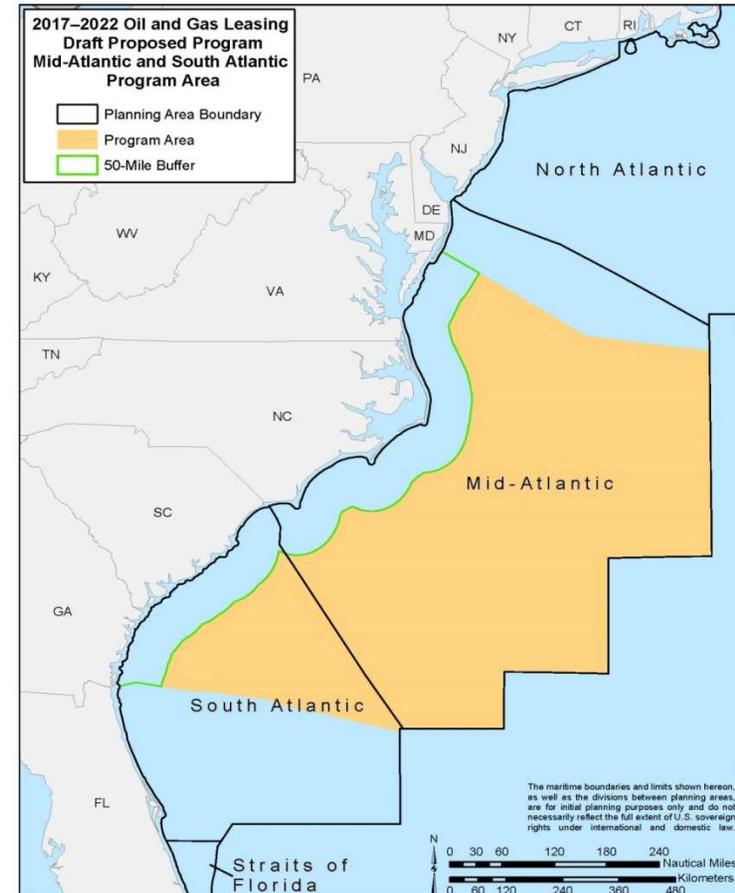


Status of Coastal State Comments on the Request for Information

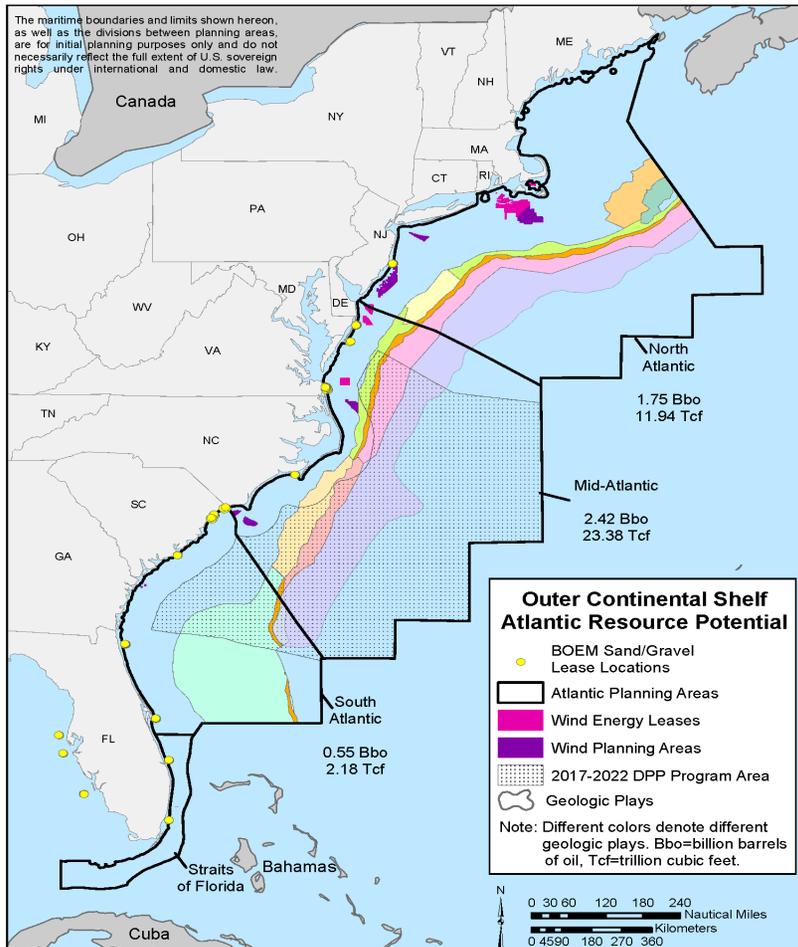


2017-2022 Proposed Atlantic Sale

- One sale in 2021 in a portion of the combined Mid-Atlantic and South Atlantic Planning Areas, offshore the Commonwealth of Virginia and the States of North Carolina, South Carolina, and Georgia, with a 50-statute-mile, no-leasing buffer from the coastline
- No sales in the North Atlantic or Straits of Florida Planning Areas



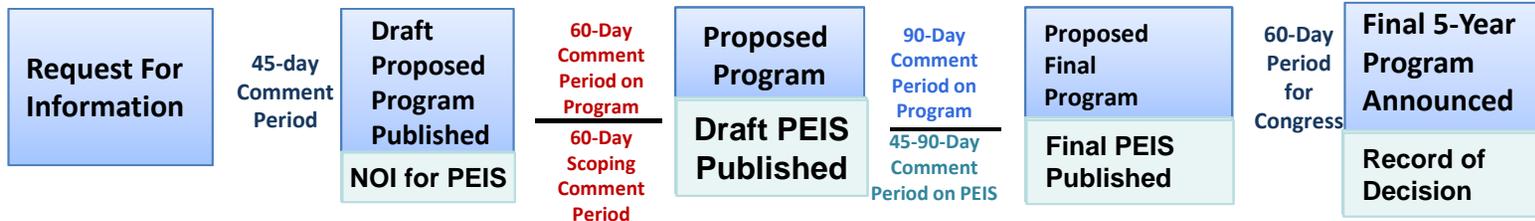
Atlantic Oil and Gas Resource Potential



- The total risked mean UTRR for the 2017 - 2022 Atlantic Program Area is 5.14 Billion Barrels of Oil Equivalent (BBOE).
 - Approximately 80% of Program Area resources are located off the coast of North Carolina.
 - Approximately 10% of Program Area resources are located off the coast of Virginia.
 - Remaining Program Area resources are located off the coasts of South Carolina and Georgia.
- Risked resource estimates are highly uncertain, especially in frontier areas such as the Atlantic OCS.
 - Conditional or "Unrisked" estimates could nearly triple BOEM's UTRR estimates given future drilling successes on the Atlantic OCS.
 - Conversely, UTRR estimates can be significantly reduced given poor drilling success or less prospectivity based on new seismic information.
- Currently 10 Geologic Plays have been identified on the Atlantic OCS.
 - 1 Established Play where hydrocarbons have been discovered (Hudson Canyon) No Geologic Play risk applied.
 - 9 Conceptual Plays where no known discoveries exist - Geologic Play Risk applied (Probability of success as low as 32% in some Plays).
- BOEM regularly updates their assessments to keep up to date with new analog discovery information and new/reprocessed seismic data (when available) that can affect geologic play risks as well as the uncertainty associated with geologic and reservoir engineering parameters.



Development of a Five Year Program

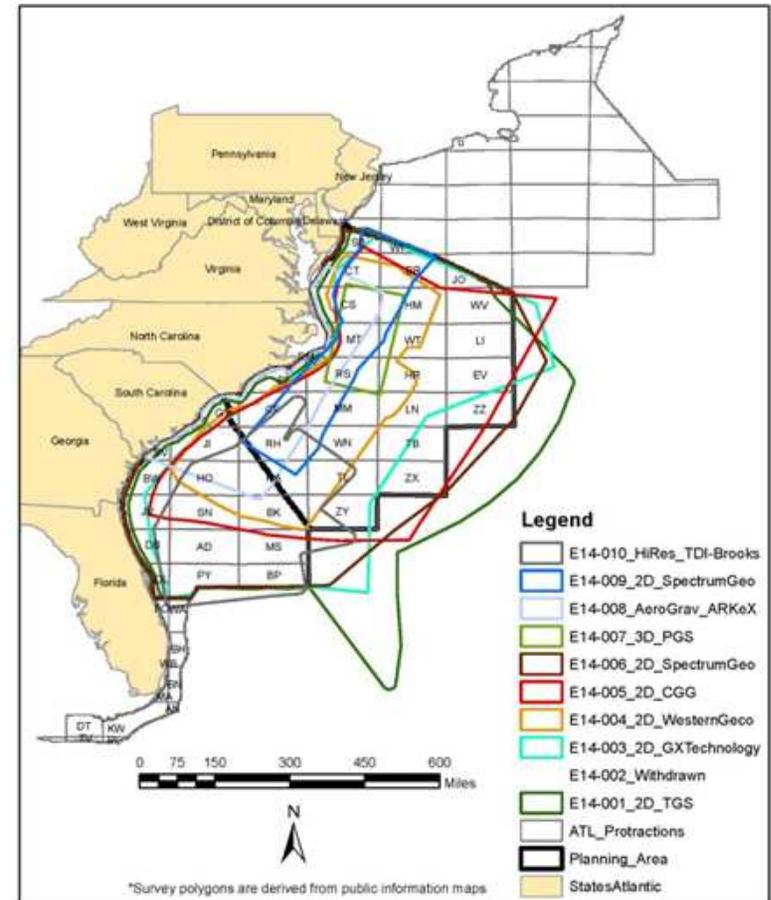


- DPP/NOI comment period ended on March 30, 2015.
 - Scoping meetings were held in Wilmington (2/17) and Kill Devil Hills (3/16)
- Proposed Program and DEIS scheduled to publish early 2016 with comment and scoping period.
- Proposed Final Program and FEIS scheduled to publish late 2016.



- BOEM released a PEIS for proposed geological and geophysical (G&G) survey activities on the Mid and South Atlantic OCS in February 2014.
- There are currently 10 applications for G&G in the Atlantic.
- BOEM has been conducting significant public outreach on G&G in the Atlantic. Meetings in NC include: Wilmington (4/7) and Kill Devil Hills (4/27).
- These meetings provide an opportunity for citizens to receive an overview of the G&G permitting process and allow the public to comment on active permit applications in the Atlantic OCS.

Atlantic Pending Surveys



Office of Renewable Energy Programs (OREP)

The mission of the Bureau of Ocean Energy Management's Office of Renewable Energy Programs (OREP) is to regulate environmentally-responsible offshore renewable energy development activities.

- Offshore Wind Farms
- Hydrokinetics
- Determining and evaluating the effects on natural, historical, and human resources



Renewables Program: Wind Energy Development Process

Planning and Analysis

The top map shows various planning zones such as 'Offshore Wind Energy Zones', 'Coastal Zone Management Act (CZMA) Zones', and 'Marine Mammal Stocking Areas'. The bottom map is a density plot of vessels, with a color scale ranging from blue (low density) to red (high density).

Leasing

The top image shows a document titled "LEASE AGREEMENT" with a pencil resting on it. The bottom image shows a wooden gavel on a block with a red tag that says "ONLINE AUCTION SOLD".

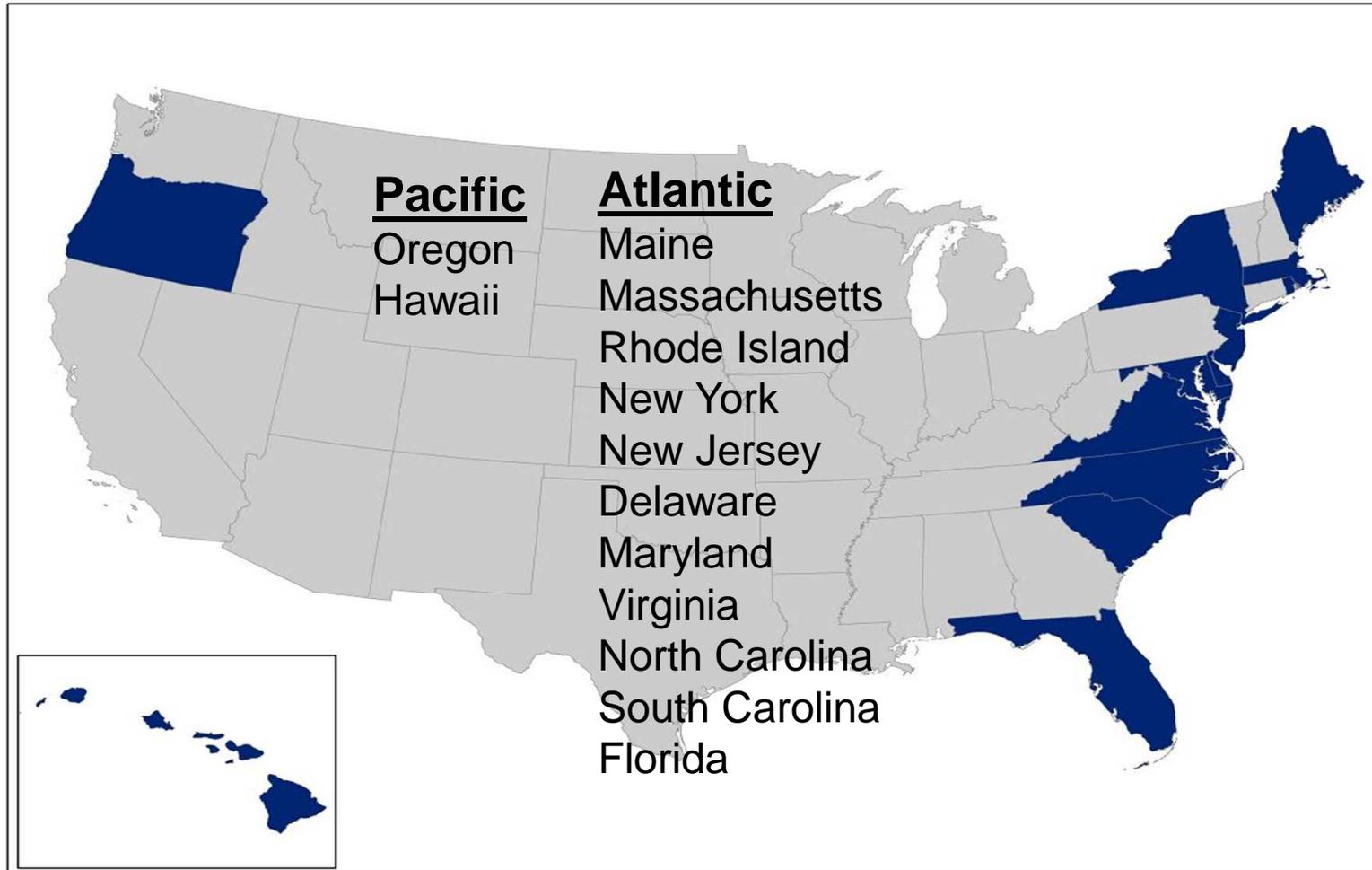
Site Assessment

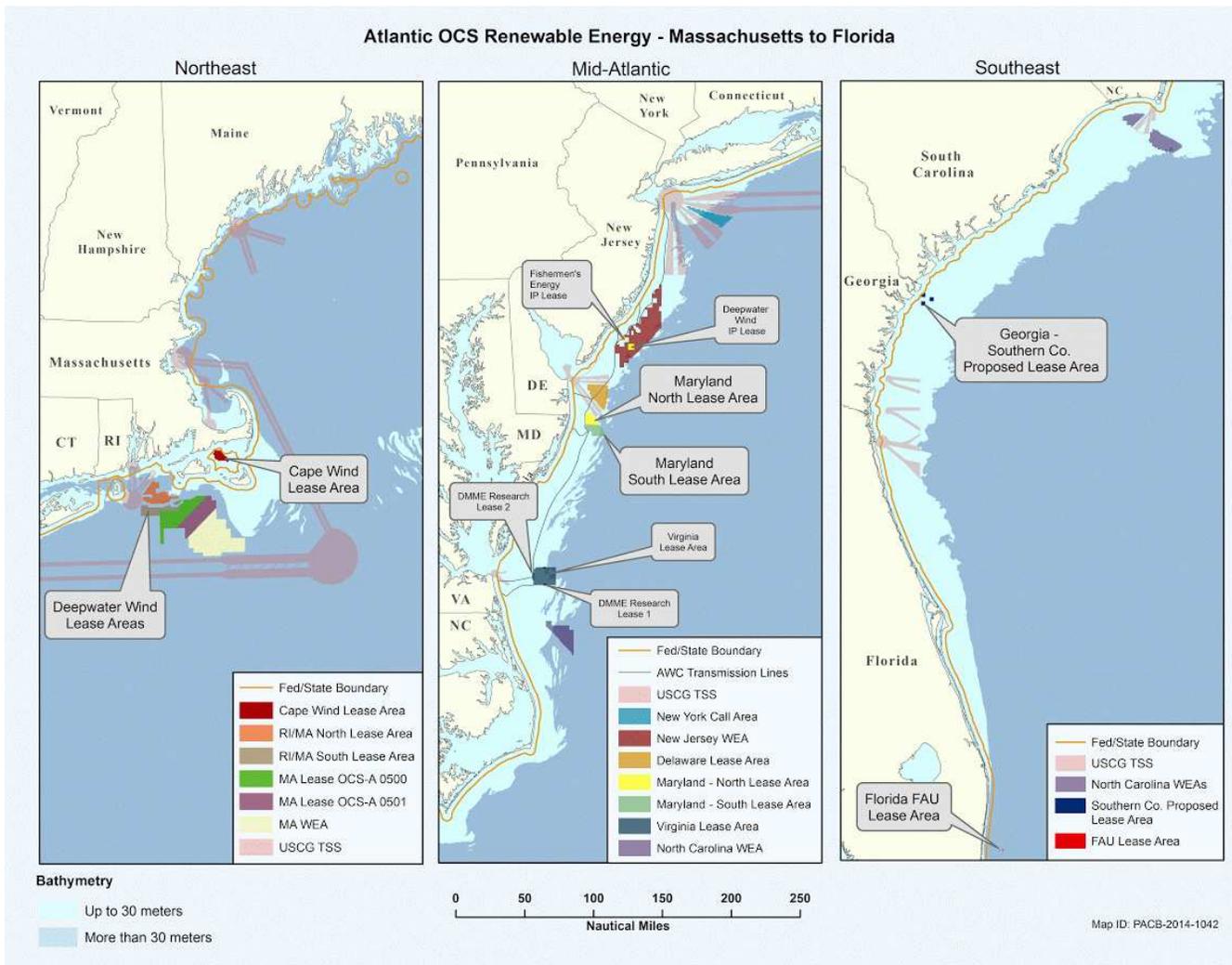
The top image shows a tall yellow offshore structure (likely a meteorological mast) in the ocean. The bottom image shows a yellow offshore supply vessel.

Construction and Operations

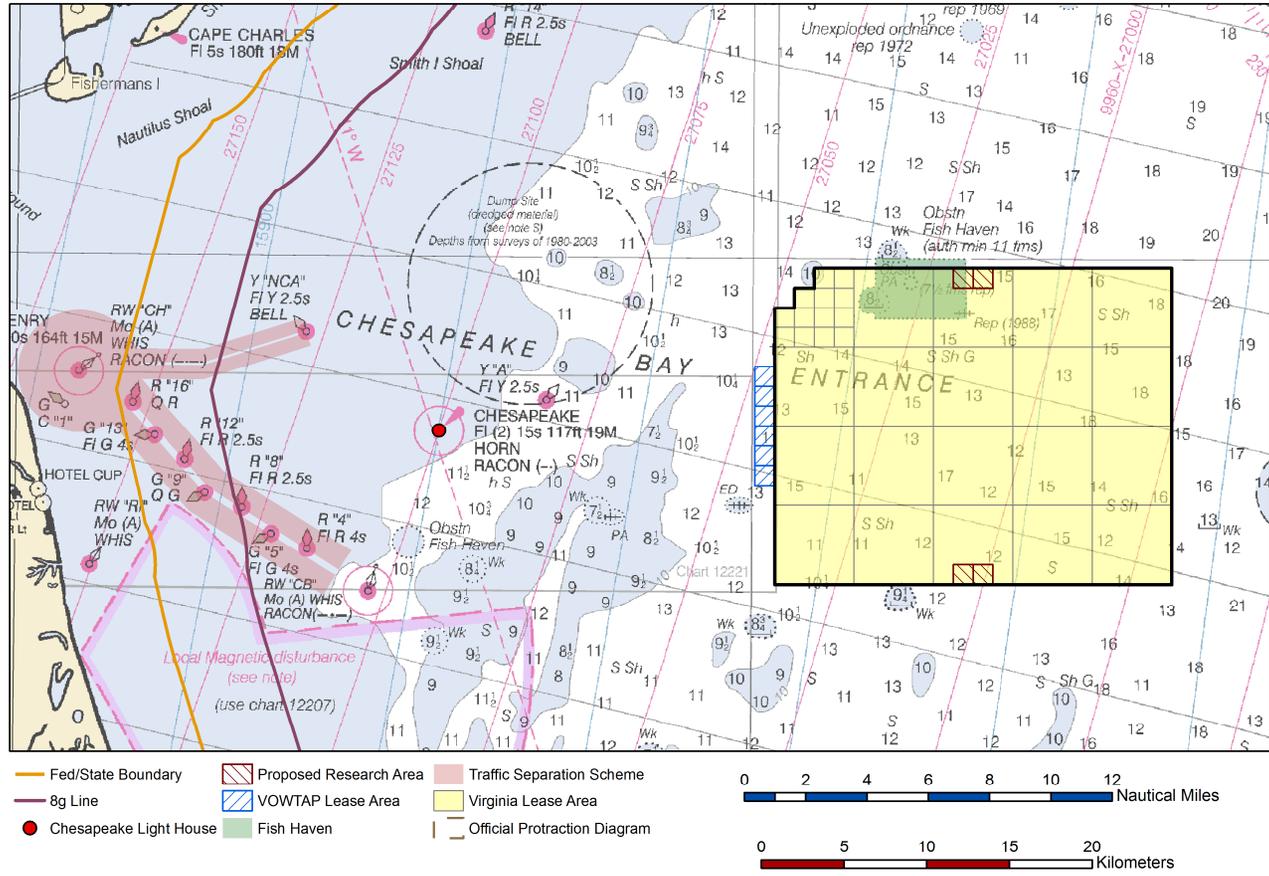
The top image shows a construction vessel working on an offshore wind turbine. The bottom image shows a completed offshore wind turbine in the ocean.





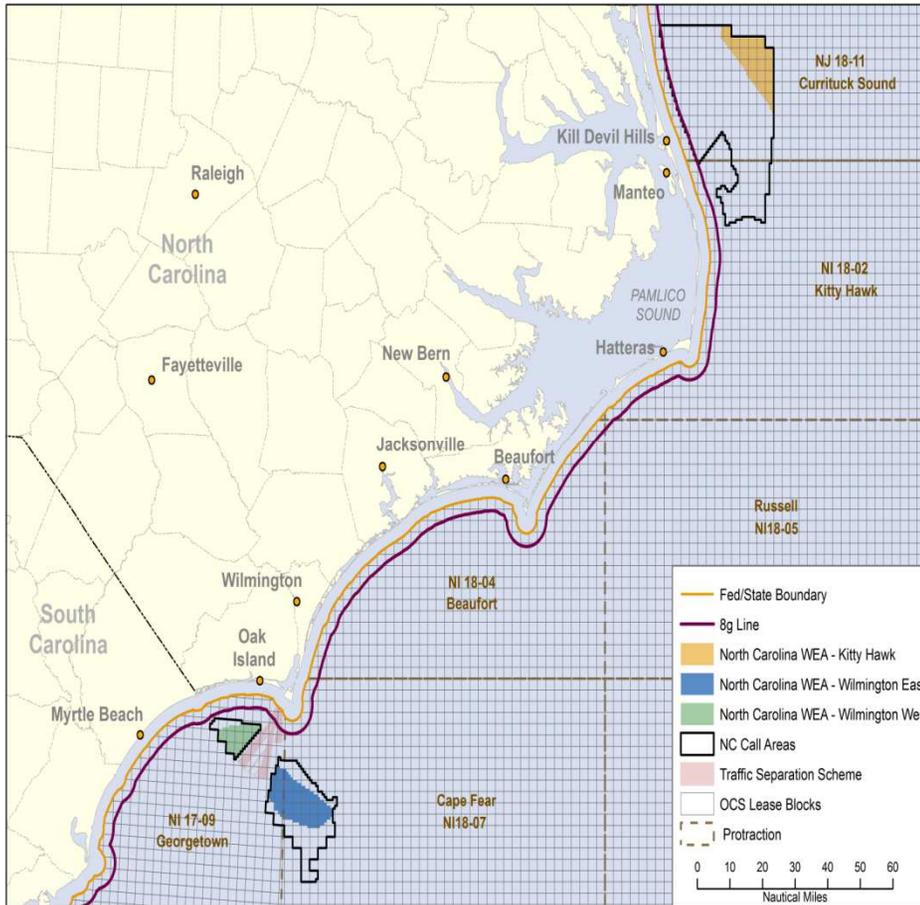


Virginia Commercial and Research Lease Areas



North Carolina Wind Energy Areas (WEAs)

Wind Energy Areas (WEAs) - North Carolina



Stage 1:
Planning & Analysis

Stage 2:
Leasing

North Carolina Task Force

- January 2011: Wilmington, NC
- May 2011: Raleigh, NC
- October 2011: Wilmington, NC
- August 2012: Nags Head, NC

You are here

Area Identification
• August 2014

- Proposed Sale Notice
- 60 – Day Comment Period
- Final Sale Notice
- Mock Auction
- Auction

Publish Call for Information and Nominations and NOI to Prepare an EA

- Published December 13, 2012
- Comment Period Ended March 7, 2013

Conduct Environmental Compliance Reviews

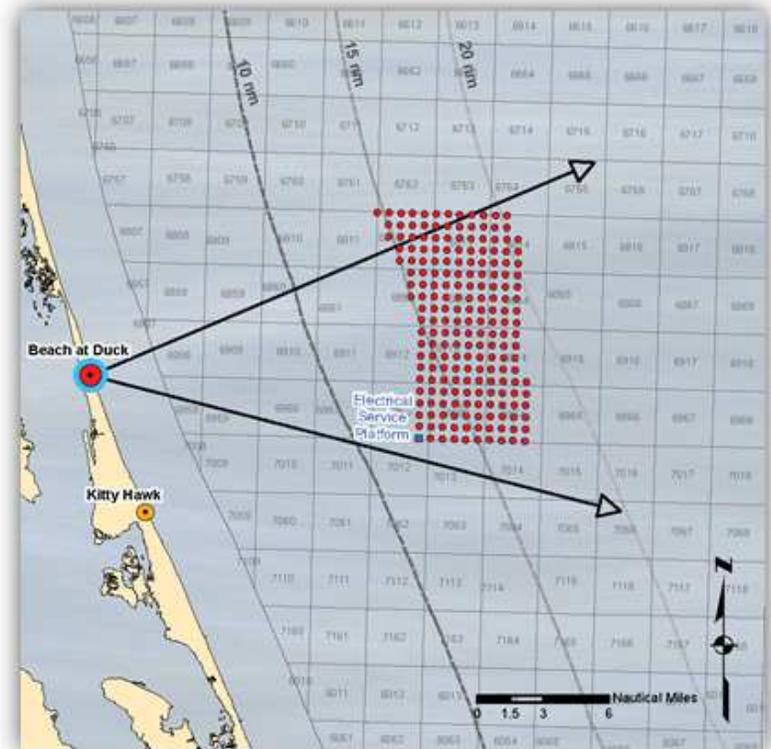
- Published NOA of EA Jan. 22, 2015
- Comment Period Closed Feb. 23.



- Atlantic Tourism Baseline Study (completed 2012)
 - County level sensitivity
- Cooperative agreement with UNC-Chapel Hill
 - Recreational and charter boat fishing hotspots (report published 2014)
 - Seafloor mapping of hard bottom habitat and shipwrecks (final report expected Spring 2015)
- Public Attitudes, Values, and Implications for Recreation and Tourism
 - Survey of beach goers Fall 2015



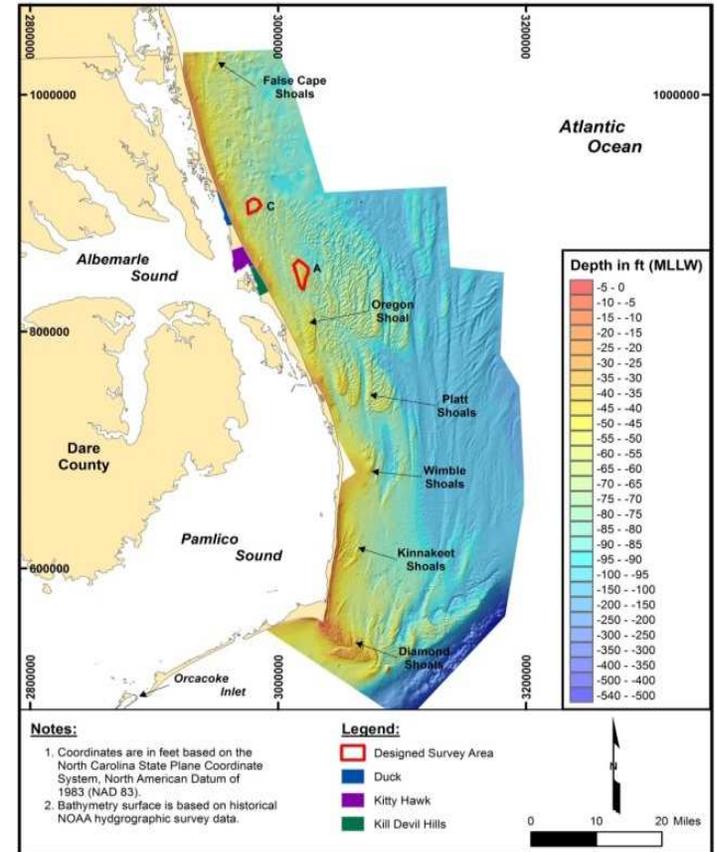
- Collaborated with National Park Service
- Simulations from 18 different viewpoints under four lighting conditions at three distances (10, 15, and 20 nm)
- Simulated largest turbine model available (Vestas 8 MW)
- Open houses held in North Carolina (January and August 2013)
- Simulations available on BOEM's website



- NC Visual Simulation Meteorological Report (BOEM)
 - Turbines 10 nm away visible 35% of the time (27% in summer)
- An Assessment of the Potential Costs and Benefits of Offshore Wind Turbines (Global Insight)
 - Negative impacts to tourism decrease with distance from coast
 - A wind facility over 6 nm from the coast generally results in no net negative impacts to tourism, and can possibly result in an increase in tourism revenues



- **Dare County**
 - Duck, Kitty Hawk, Kill Devil Hills
- **Carteret County**
 - **Post-Irene Renourishment Project (2013)**
 - Bogue Banks Storm Damage Reduction Project
 - Bogue Banks Master Beach Renourishment Plan
- **Pender and Onslow Counties**
 - Surf City and North Topsail Beach
 - West Onslow Beach and New River Inlet
- **Brunswick County Beaches**
- **Atlantic Sand Inventory Project**



Office of Environmental Programs

The OCS Lands Act requires BOEM, in coordination with (BSEE), to provide effective environmental safeguards for Outer Continental Shelf (OCS) exploration and production of oil and natural gas; offshore renewable energy; and non-energy minerals.

The Office of Environmental Programs is comprised of two programs:

- **Environmental Assessment**
 - National Environmental Protection Act (NEPA)
 - Compliance with other Environmental Laws
- **Environmental Studies**
 - Environmental Studies Program – applied research for decision-making
 - Oil Spill Modeling



- NEPA provides an opportunity to make better decisions through public disclosure, development of alternatives, mitigation measures, integrated analyses, and public involvement.
- BOEM complies with multiple environmental laws and associated regulations, including: Marine Mammal Protection Act, Endangered Species Act, Magnuson-Stevens Act (fisheries), Clean Air Act, Coastal Zone Management Act, and many others.
- BOEM also coordinates or consults with agencies throughout the federal government on many of these laws.





- **U.S. Coast Guard** -- oil-spill response, port and vessel security, and inspection
- **Environmental Protection Agency** -- air and water quality
- **Fish and Wildlife Service** -- marine mammals/endangered species
- **National Marine Fisheries Service** -- fish and essential fish habitat
- **Army Corps of Engineers** -- sand and gravel program
- **Federal Aviation Administration** -- radar interference from wind turbines
- **U.S. Geological Survey** -- resource evaluation
- **NOAA Fisheries** -- marine mammals/endangered species
- **Department of Commerce** -- coastal program
- **Department of Defense** -- military installations and wetlands



Recent and Upcoming Events

Renewable Energy North Carolina Wind Energy Areas Environmental Assessment Public Meetings

February 9	Kitty Hawk, NC
February 11	Wilmington, NC
February 12	Carolina Shores, NC

Oil and Gas 2017-2022 Draft Proposed Program (DPP) Draft Environmental Impact Statement Scoping Meetings

February 9	Washington, DC
February 11	Norfolk, VA
February 17	Wilmington, NC
February 19	Jacksonville, FL
March 9	Annapolis, MD
March 11	Charleston, SC
March 16	Kill Devil Hills, NC
March 18	Atlantic City, NJ
March 24	Savannah, GA

Seismic Atlantic Geological and Geophysical Activities Public Meetings

March 31	Norfolk, VA
April 1	Annapolis, MD
April 2	Dover, DE
April 7	Wilmington, NC
April 8	Charleston, SC
April 9	Savannah, GA
April 27	Kill Devil Hills, NC
TBD	Jacksonville, FL





Thank you!

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