



Department of the Interior

Bureau of Ocean Energy Management

James Bennett, Chief
Office of Renewable Energy Programs

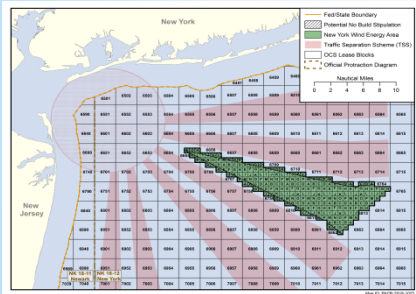


Advances in Earth Science – Offshore Energy
Congressional Webinar - American GeoSciences Institute
June 14, 2016



4-Stage Renewable Energy Authorization Process

Planning and Analysis



- Intergovernmental Task Force
- Request for Information (RFI)/Call for Information & Nominations (Call)
- Area Identification
- Environmental reviews

Leasing



- Publish leasing notices
- Issue lease(s)

Site Assessment



- Site Characterization
- Site Assessment Plan (SAP)

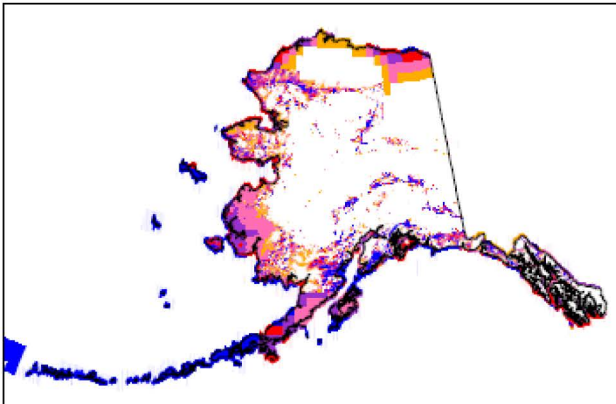
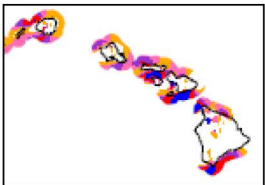
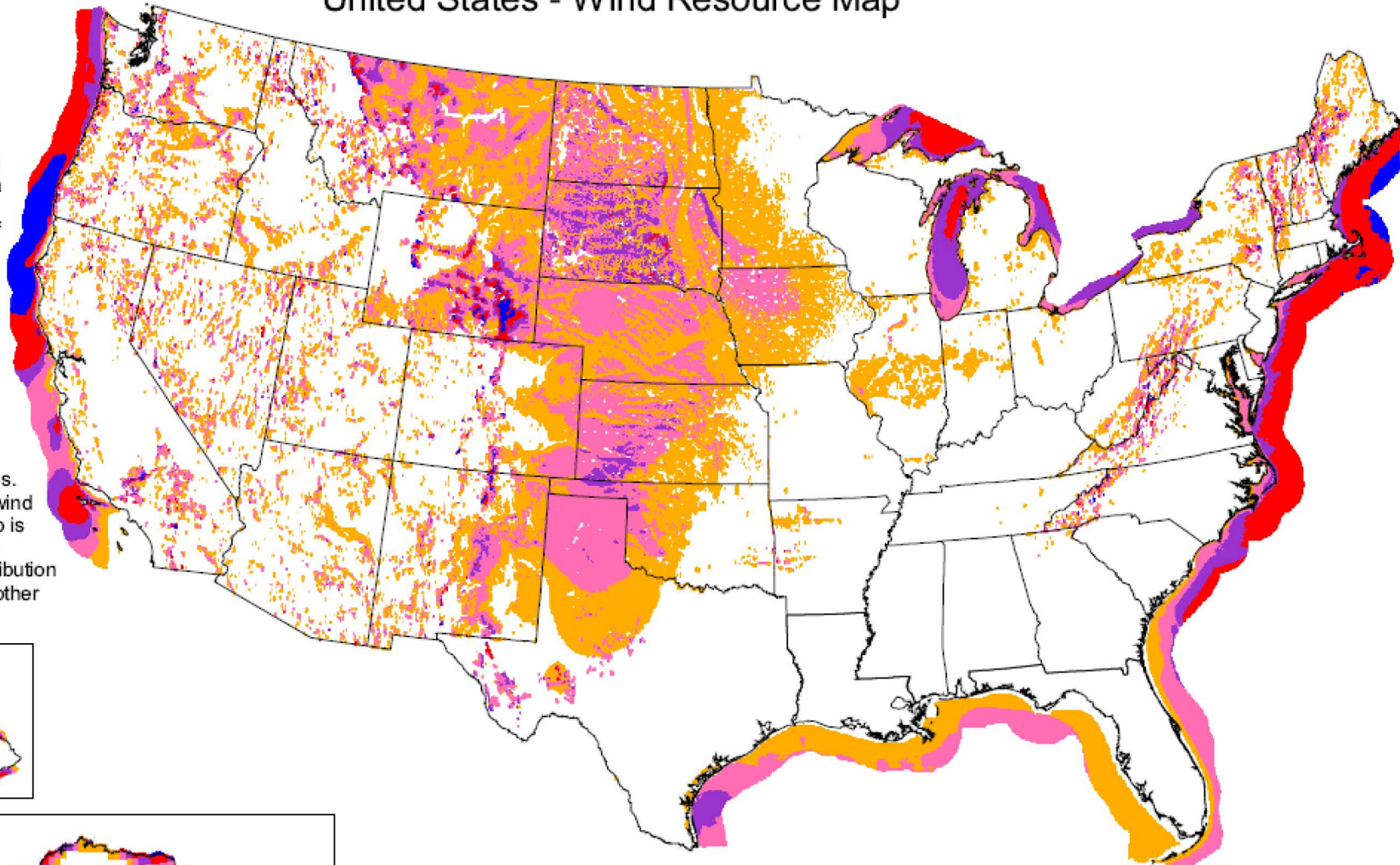
Construction and Operations



- Construction and Operations Plan (COP)
- Facility Design Report & Fabrication and Installation Report
- Decommissioning

United States - Wind Resource Map

This map shows the annual average wind power estimates at a height of 50 meters. It is a combination of high resolution and low resolution datasets produced by NREL and other organizations. The data was screened to eliminate areas unlikely to be developed onshore due to land use or environmental issues. In many states, the wind resource on this map is visually enhanced to better show the distribution on ridge crests and other features.



Wind Power Classification				
Wind Power Class	Resource Potential	Wind Power Density at 50 m W/m ²	Wind Speed ^a at 50 m m/s	Wind Speed ^a at 50 m mph
3	Fair	300 - 400	6.4 - 7.0	14.3 - 15.7
4	Good	400 - 500	7.0 - 7.5	15.7 - 16.8
5	Excellent	500 - 600	7.5 - 8.0	16.8 - 17.9
6	Outstanding	600 - 800	8.0 - 8.8	17.9 - 19.7
7	Superb	800 - 1600	8.8 - 11.1	19.7 - 24.8

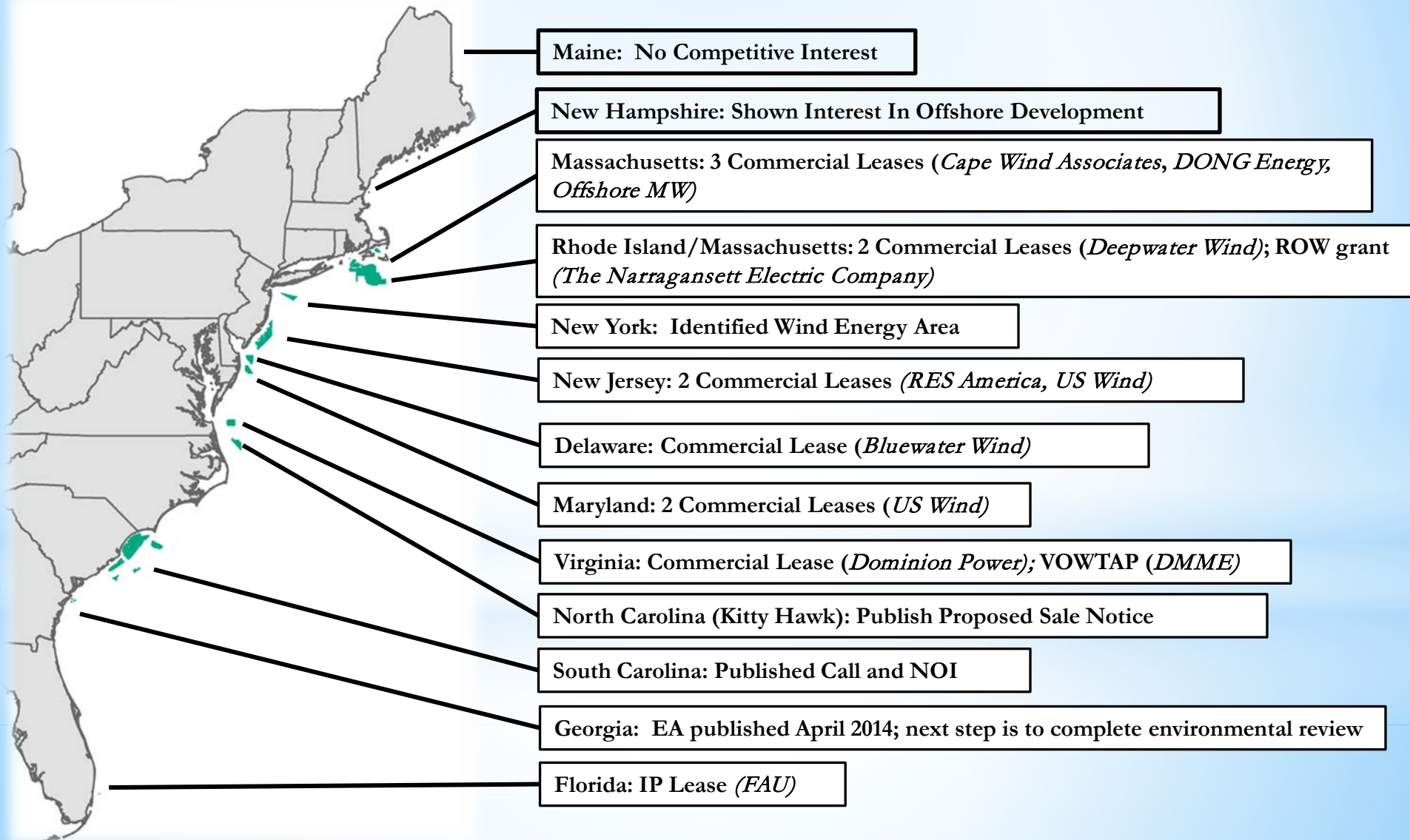
^aWind speeds are based on a Weibull k value of 2.0



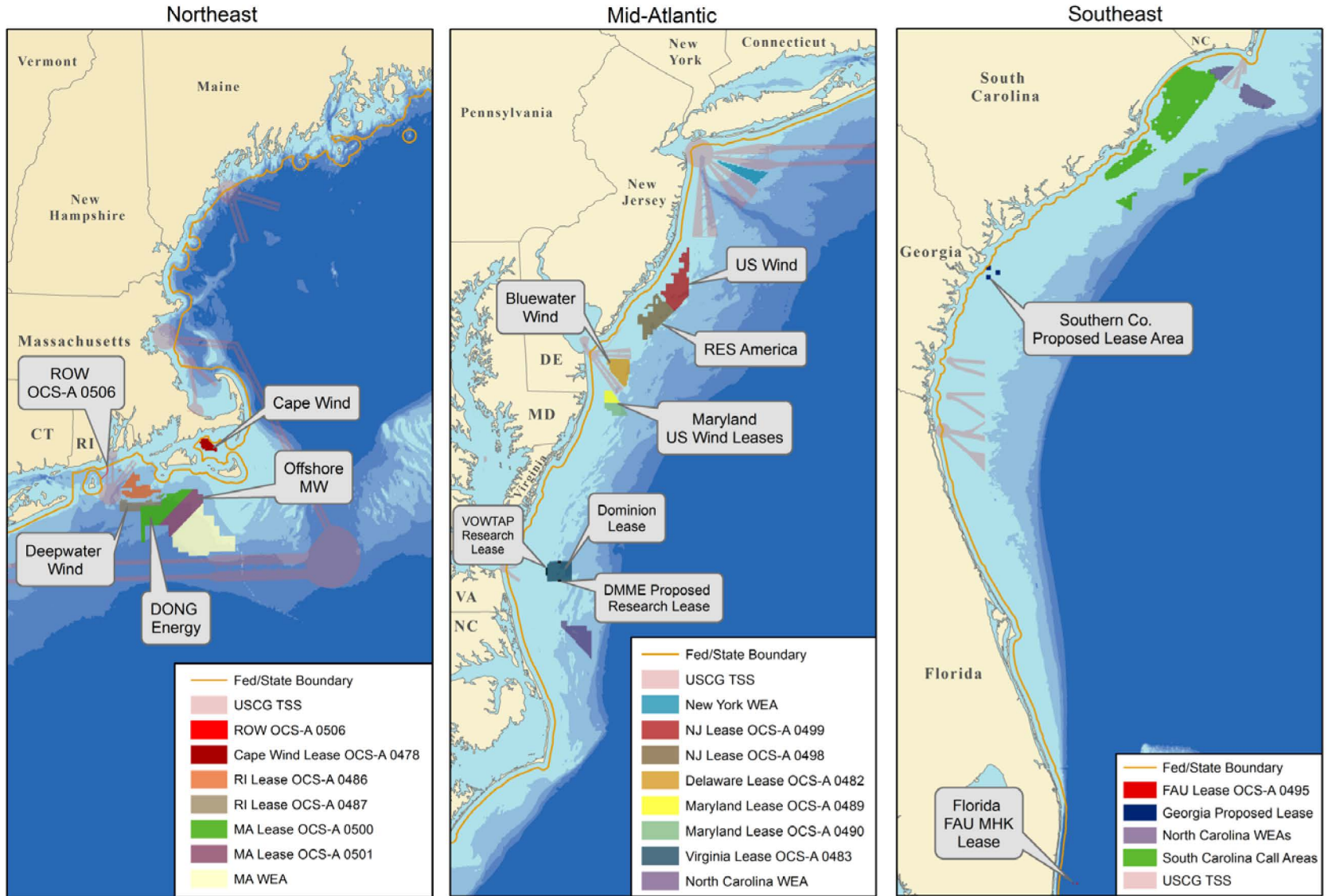
U.S. Department of Energy
National Renewable Energy Laboratory

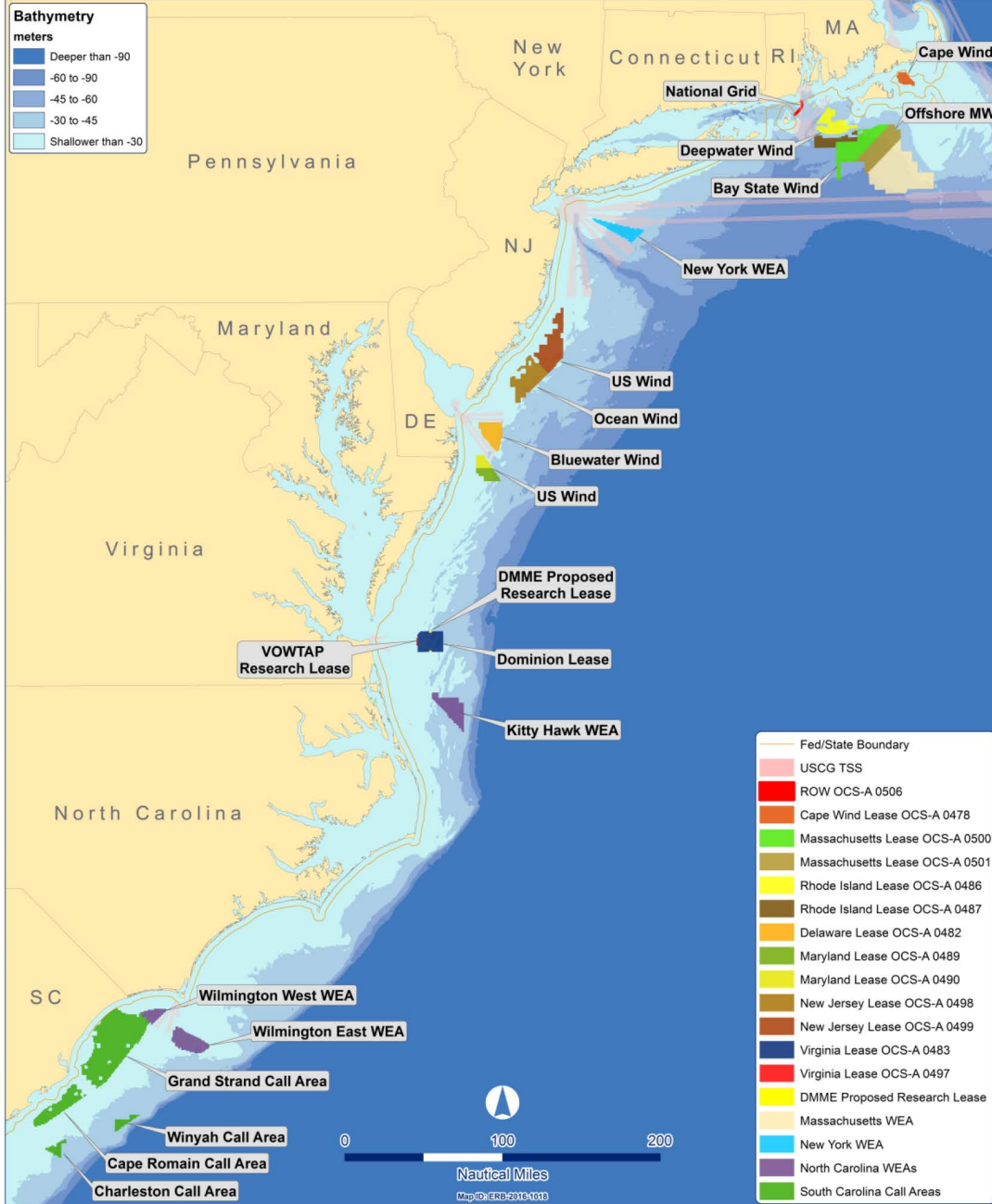


Atlantic Outer Continental Shelf (OCS) Activities



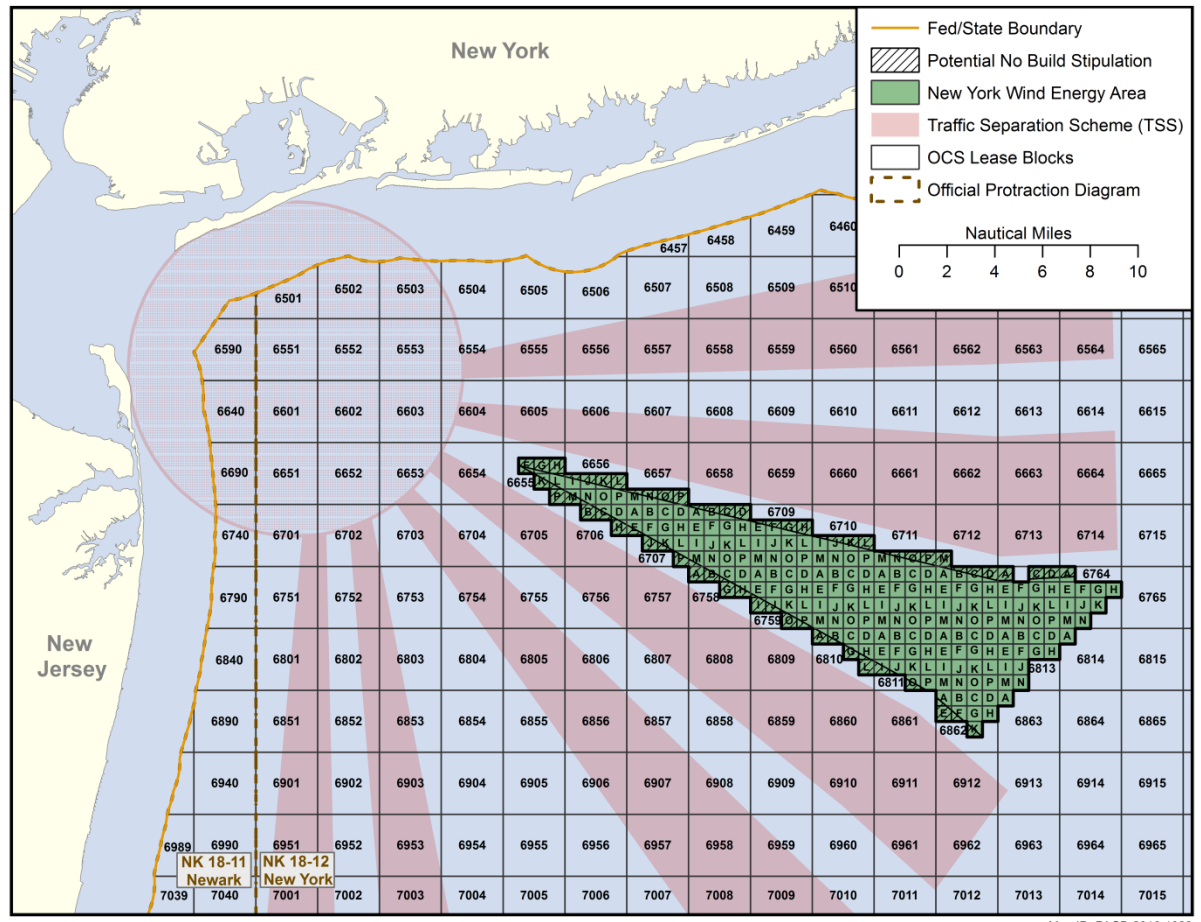
Atlantic OCS Renewable Energy - Massachusetts to Florida







New York Sale in 2016



* Environmental Assessment for Site Assessment Activities and Proposed Sale Notice - June 2016

* Auction Seminar - June 2016

Map ID: PACB-2016-1022



Upcoming Meetings for NY WEA

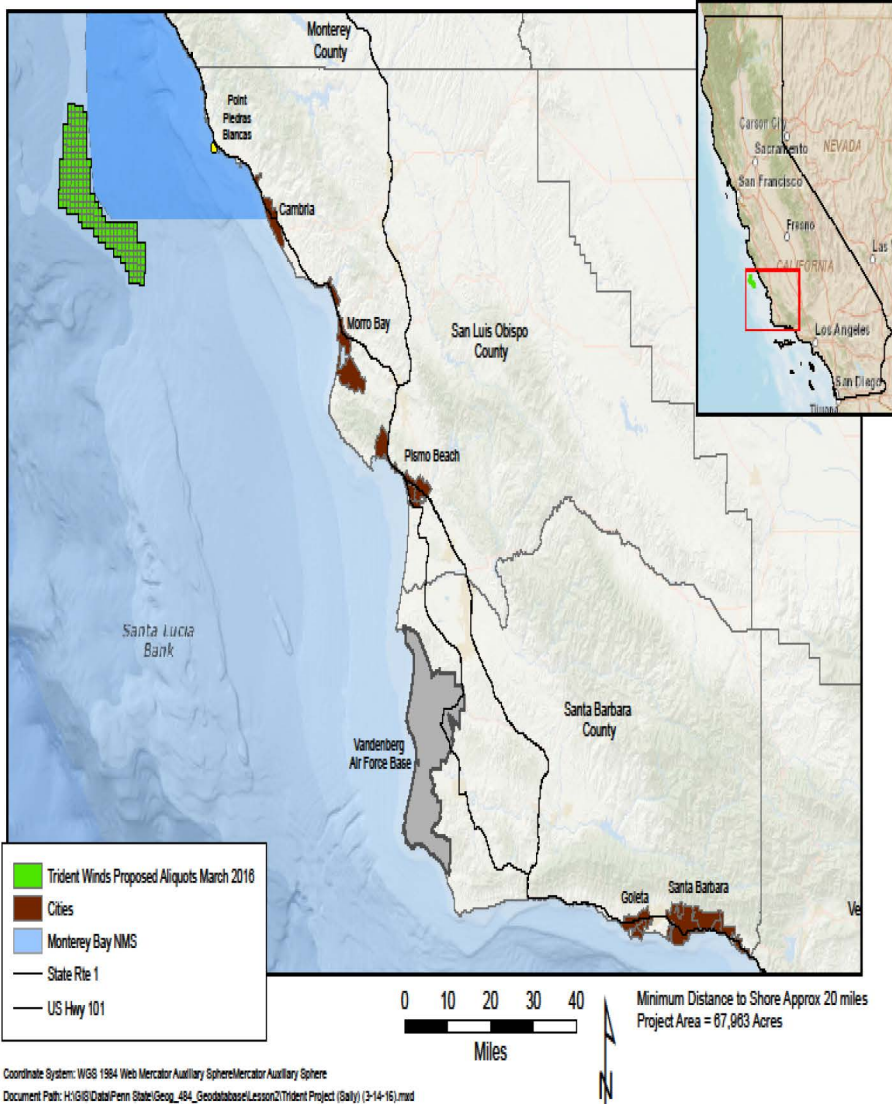
- * Public Meetings on EA (6:00- 8:00 p.m.)
 - * Monday June 20 - Long Branch, New Jersey
 - * Tuesday June 21 - Hempstead, New York
 - * Wednesday, June 22 - Westhampton Beach, New York
 - * Thursday, June 23 - Narragansett, Rhode Island
 - * Monday, June 27 - New Bedford, Massachusetts

- * Auction Seminar and Outreach Meeting
 - * Wednesday, June 29 - New York City, New York

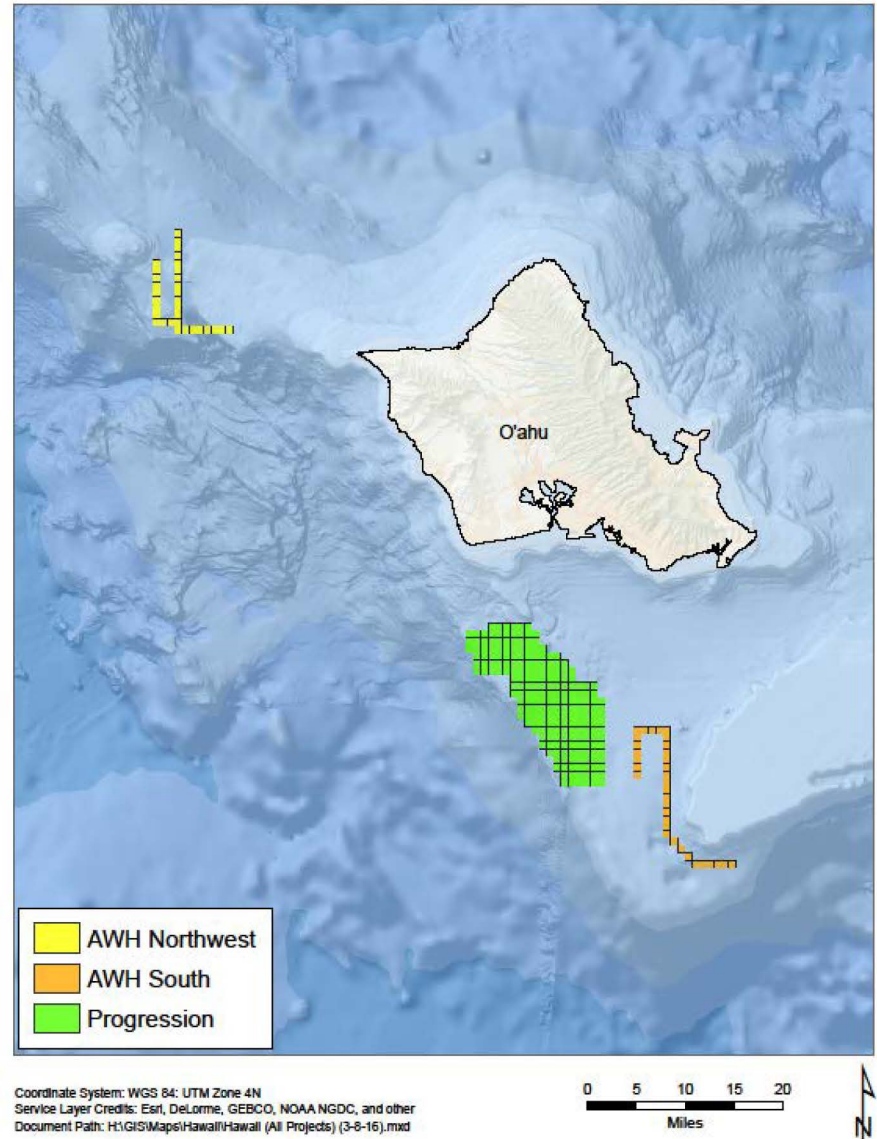
For more information see: <http://www.boem.gov/New-York/>

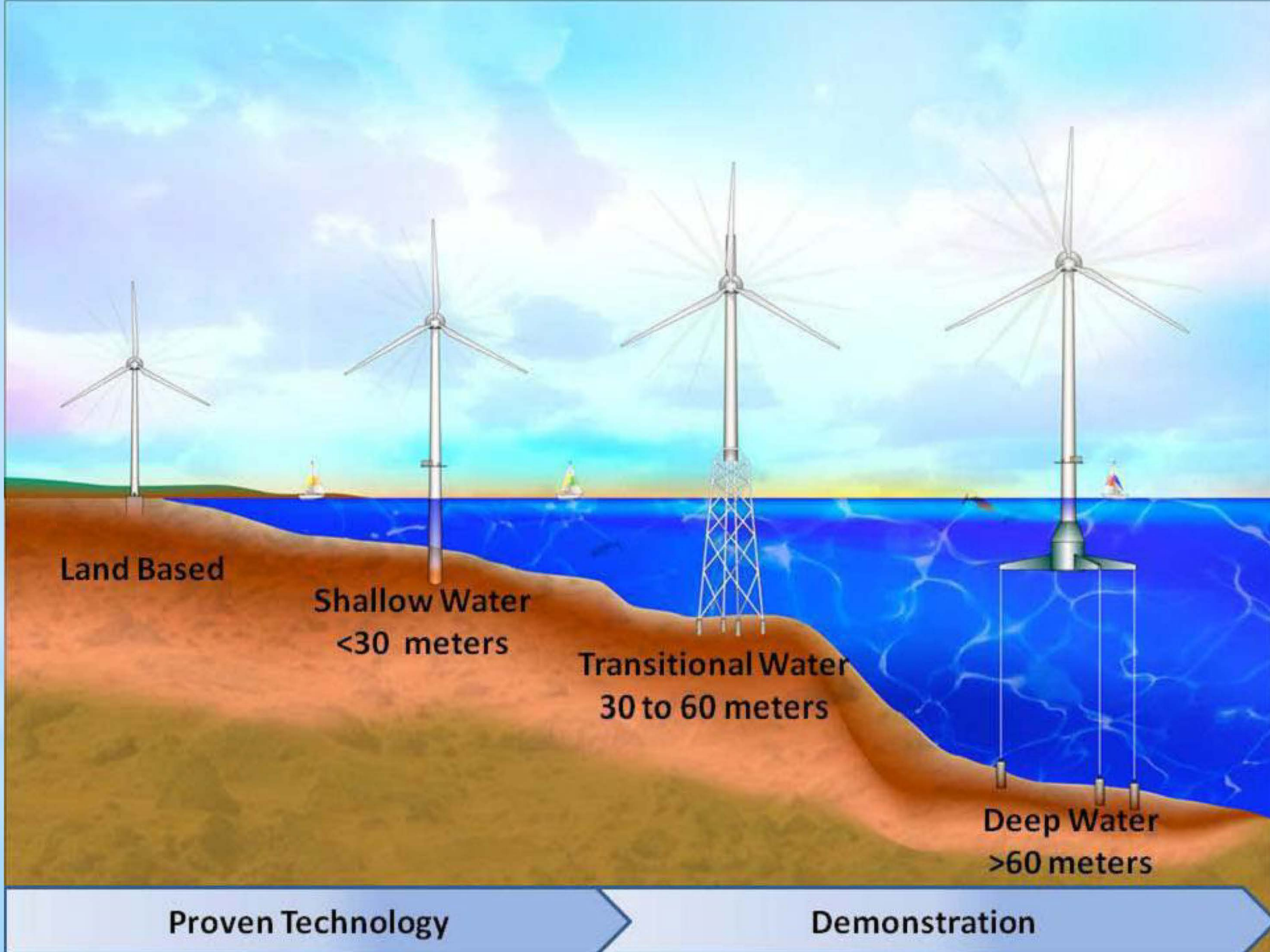
Pacific OCS Renewable Energy-California and Hawai'i

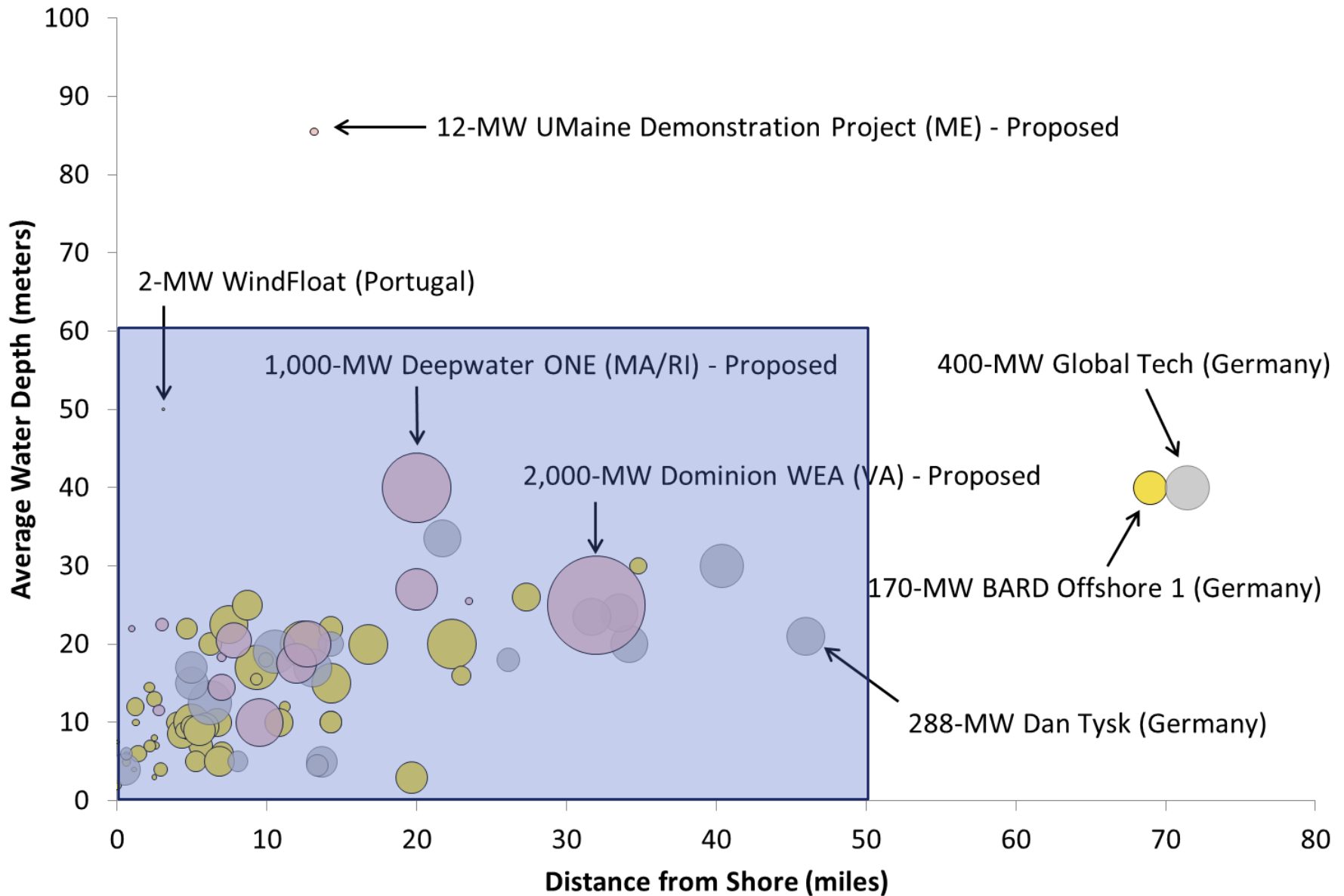
Trident Winds Proposed Project Area



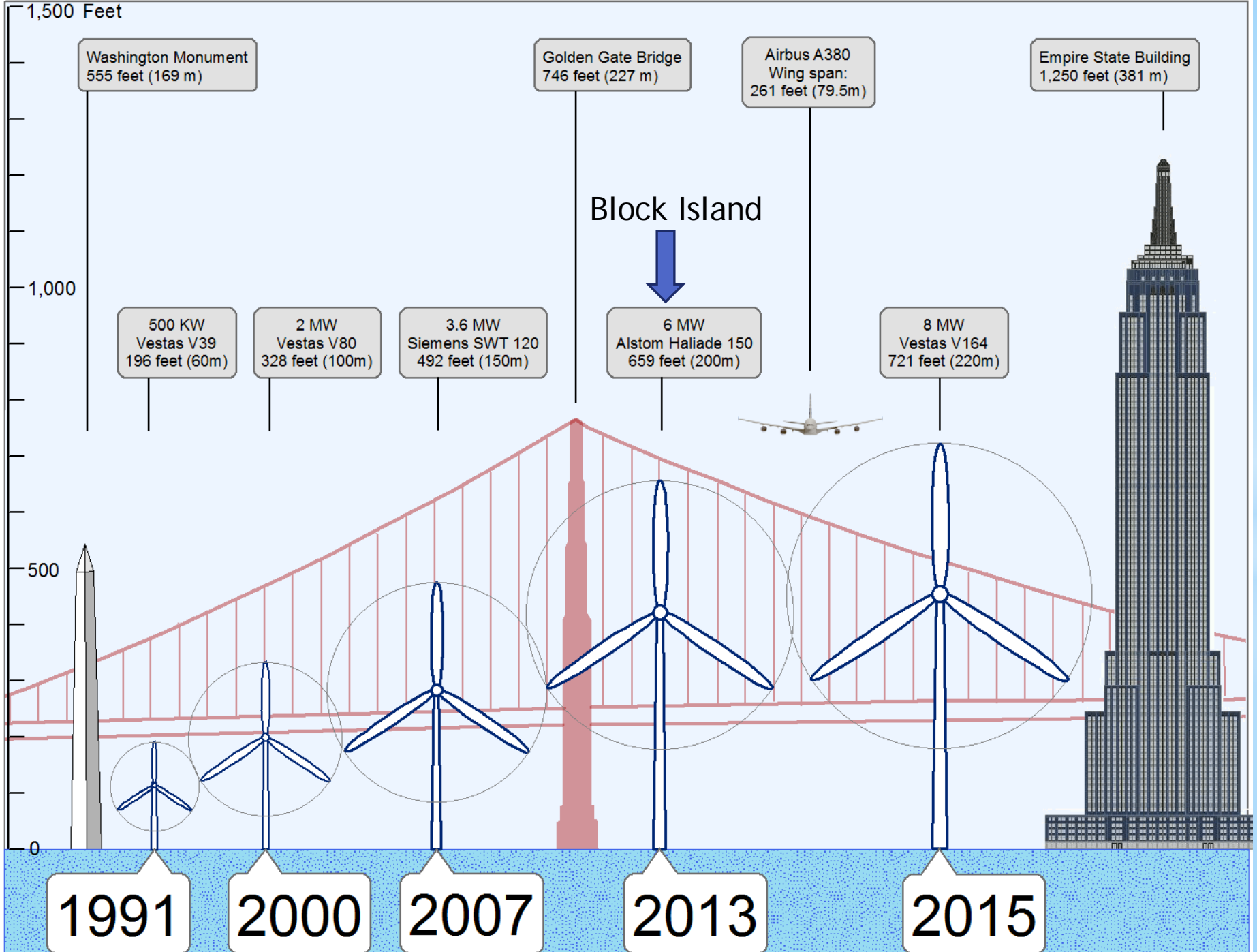
Unsolicited Lease Requests







- Operational Projects
- Projects Under Construction
- US Advanced Stage Projects



Washington Monument
555 feet (169 m)

Golden Gate Bridge
746 feet (227 m)

Airbus A380
Wing span:
261 feet (79.5m)

Empire State Building
1,250 feet (381 m)

Block Island

500 KW
Vestas V39
196 feet (60m)

2 MW
Vestas V80
328 feet (100m)

3.6 MW
Siemens SWT 120
492 feet (150m)

6 MW
Alstom Haliade 150
659 feet (200m)

8 MW
Vestas V164
721 feet (220m)

1991

2000

2007

2013

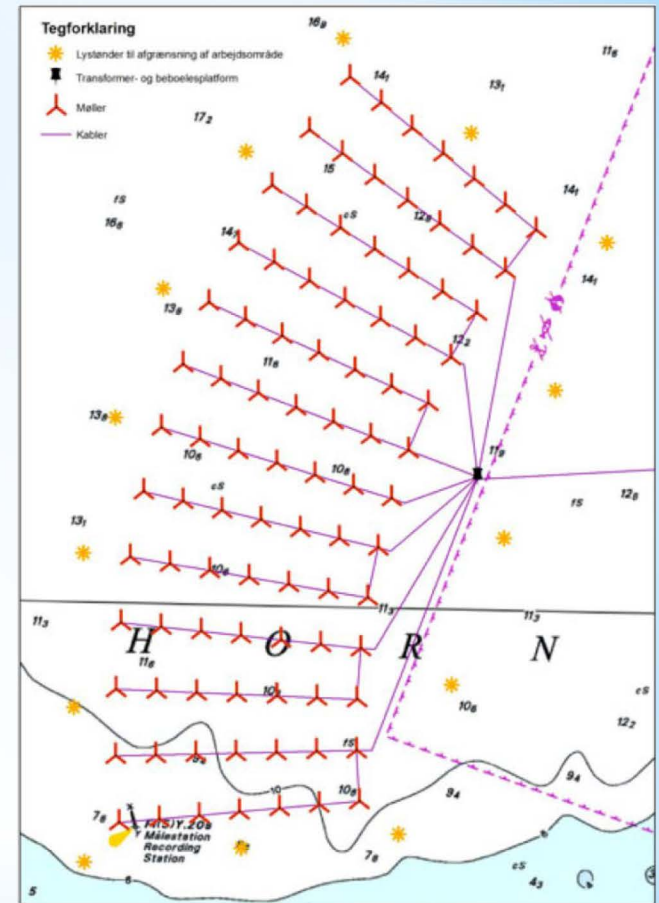
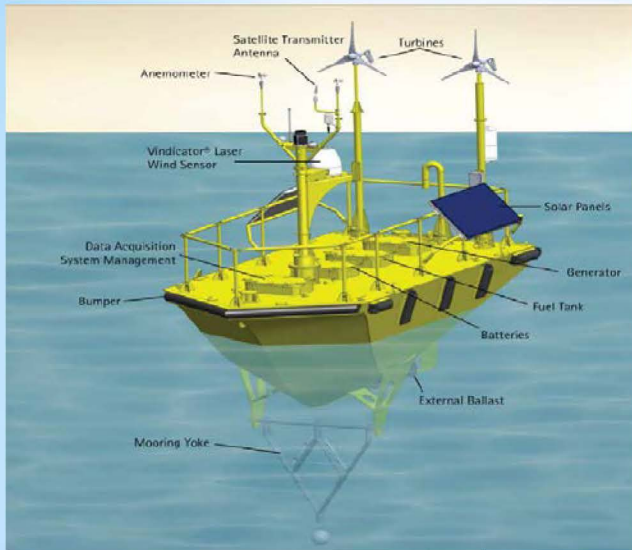
2015



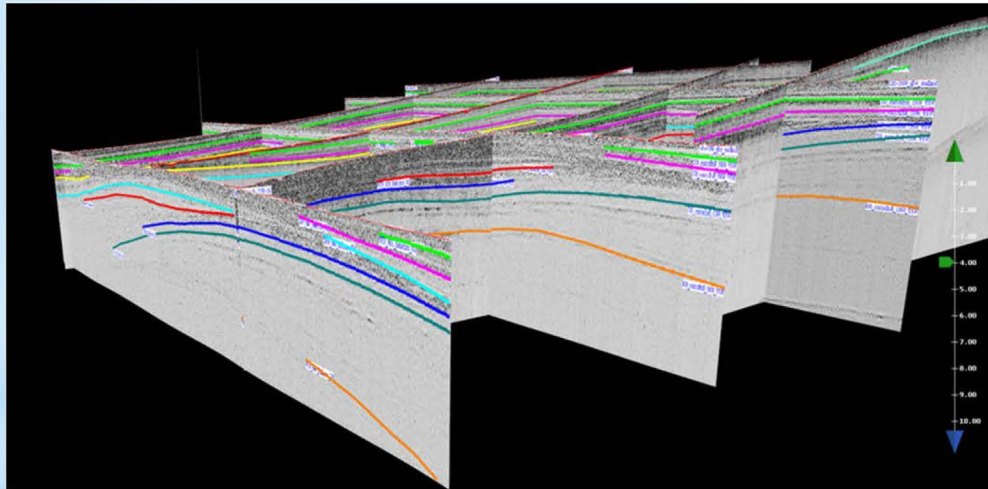
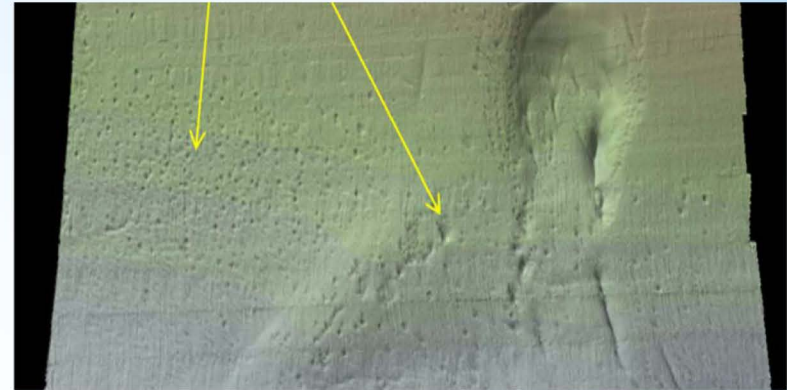
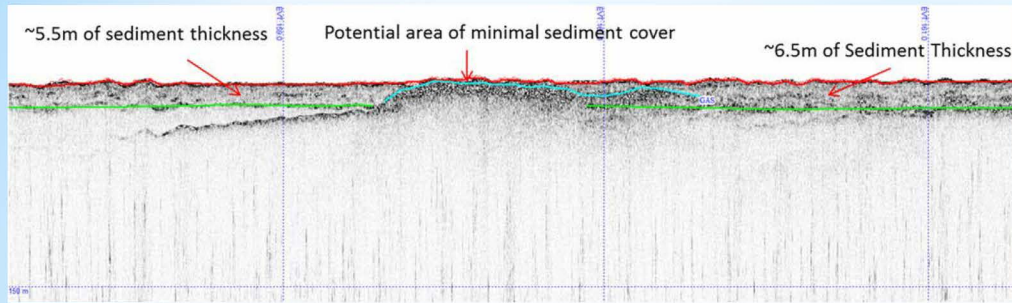
Block Island/Bottom-founded Structures



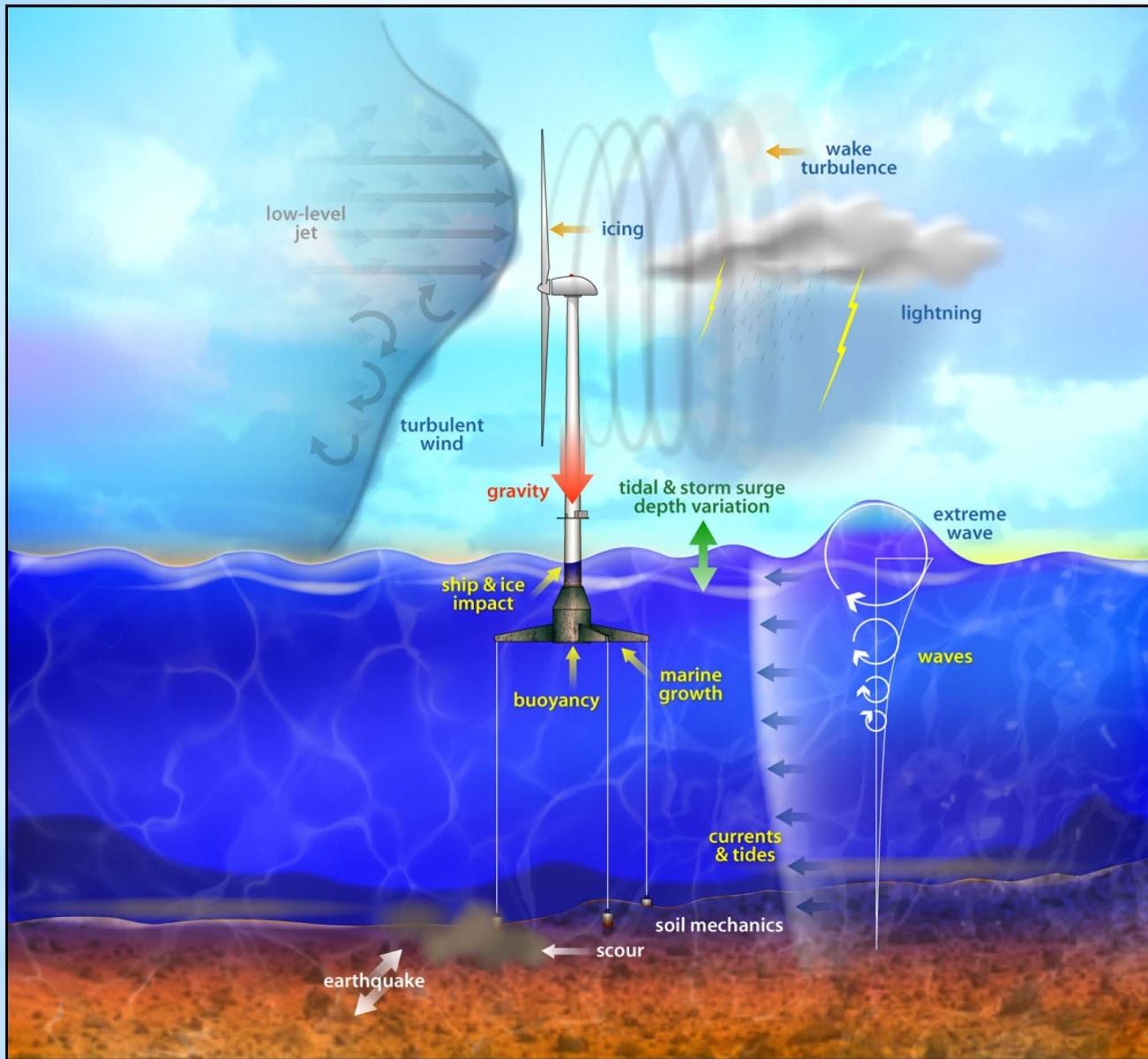
Floating turbines



Resource assessment



Seafloor & Subsurface Assessment



Facility Design



Bureau of Ocean Energy Management

www.boem.gov

Renewable Energy Program

www.boem.gov/Renewable-Energy

Regulatory Information

www.boem.gov/Regulatory-Development-Policy-and-Guidelines

Questions