

# Maryland Offshore Wind Update

Business Network for Offshore Wind Webinar

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Maryland Energy Administration  
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Energy  
Administration

[energy.maryland.gov](http://energy.maryland.gov)

# Maryland Energy Administration

**On behalf of Governor Hogan the mission of the Maryland Energy Administration (MEA) is to promote affordable, reliable and cleaner energy for the benefit of all Marylanders.**

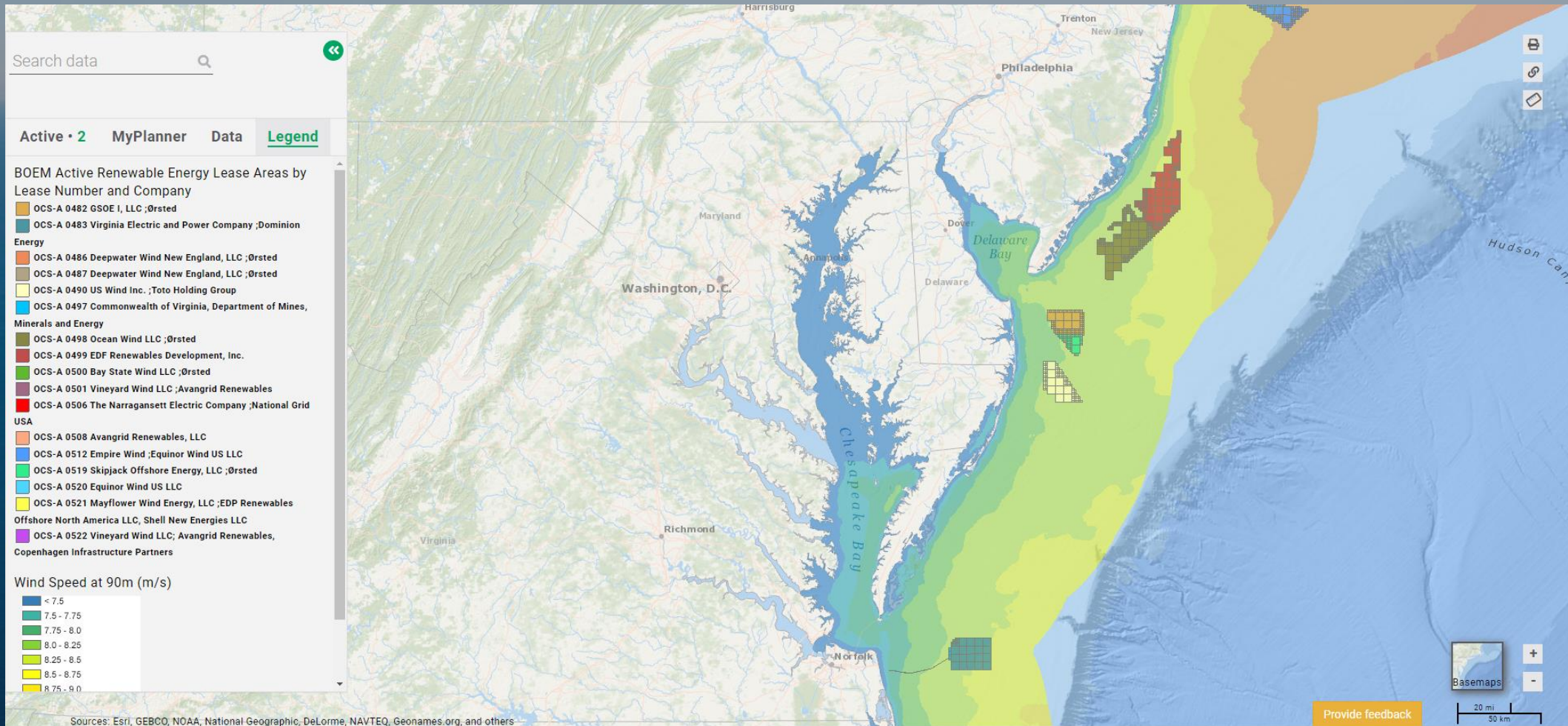
To achieve its mission, MEA advises the Governor, General Assembly on matters relating to energy policy. MEA administers grant and loan programs to encourage clean energy technologies in all sectors of Maryland's economy: Residential, Commercial, Agricultural, and Transportation.



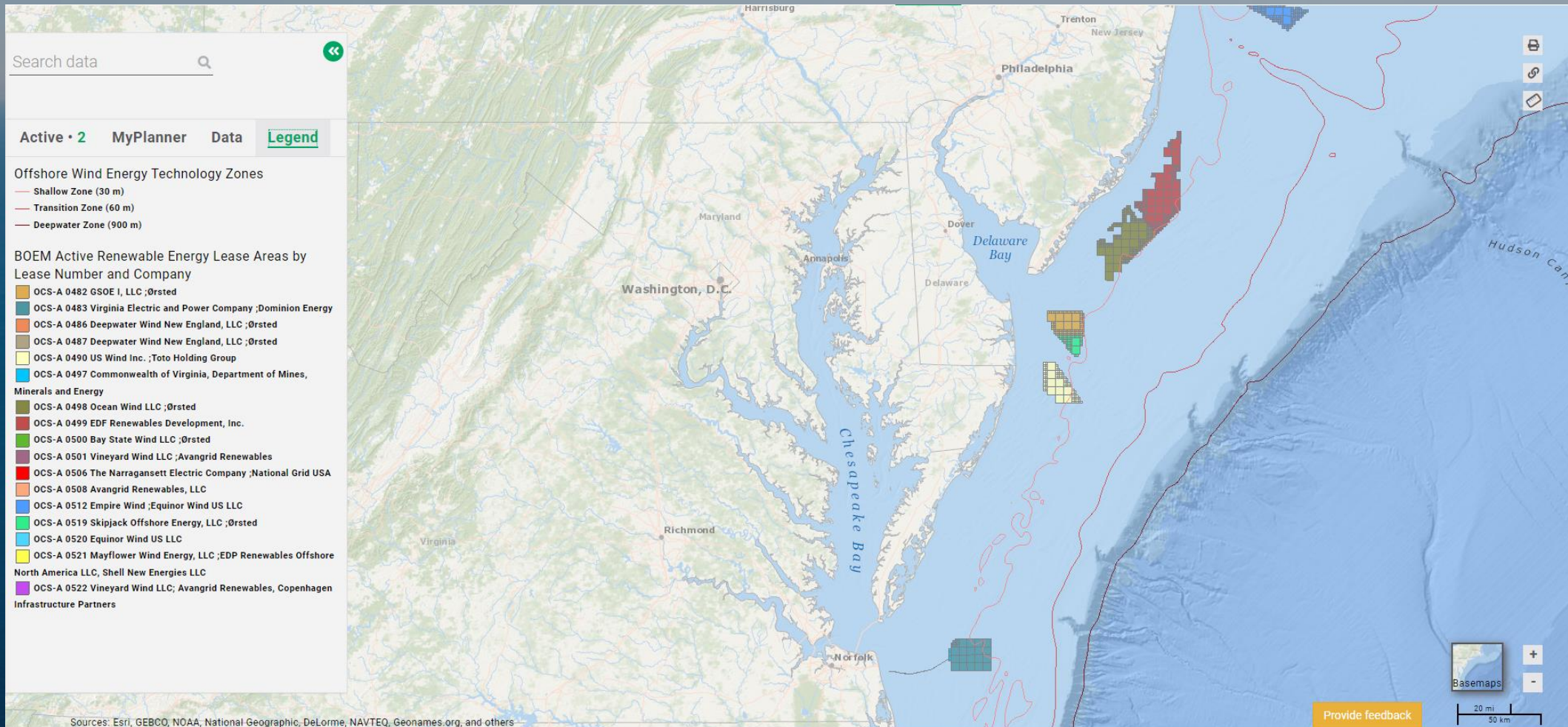
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# Offshore Wind Resources

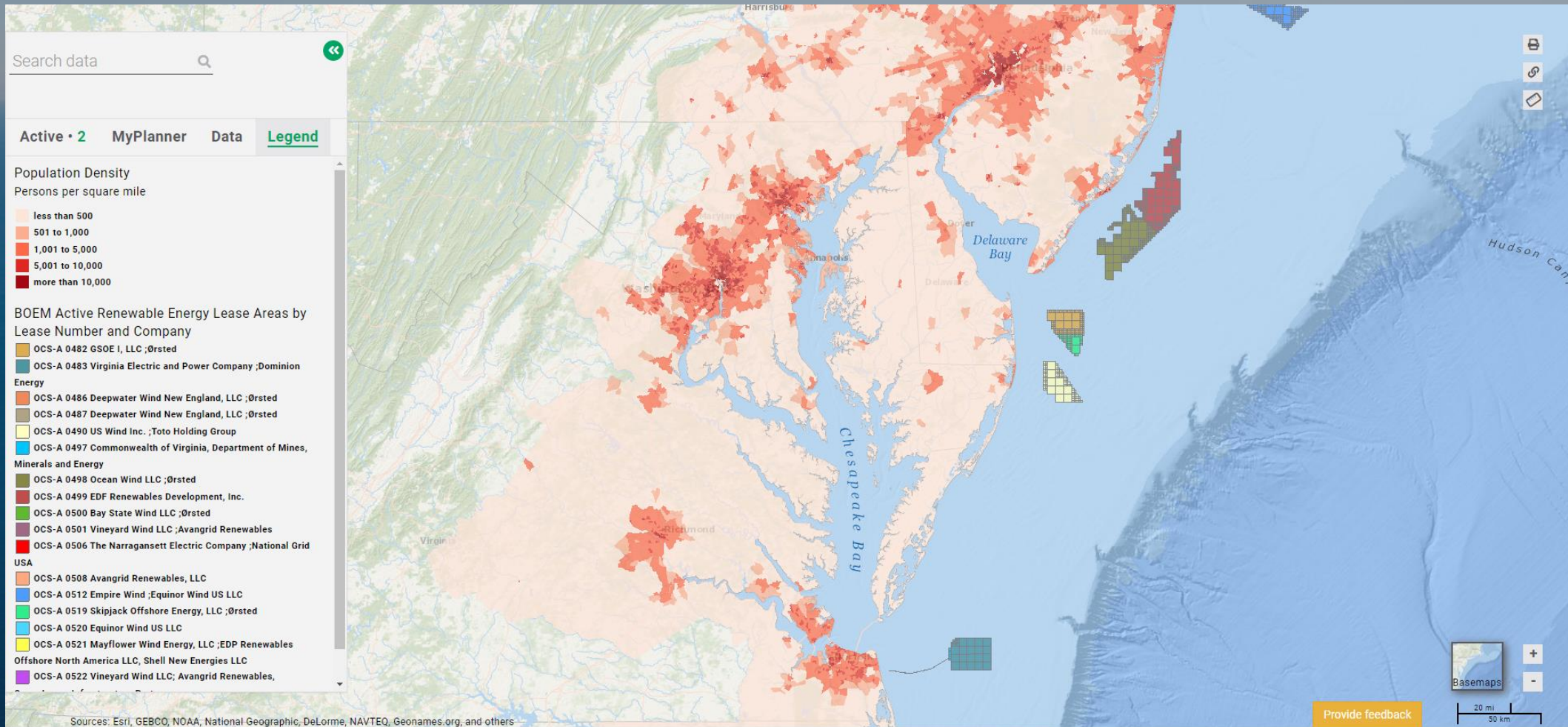


# Atlantic OCS Depths

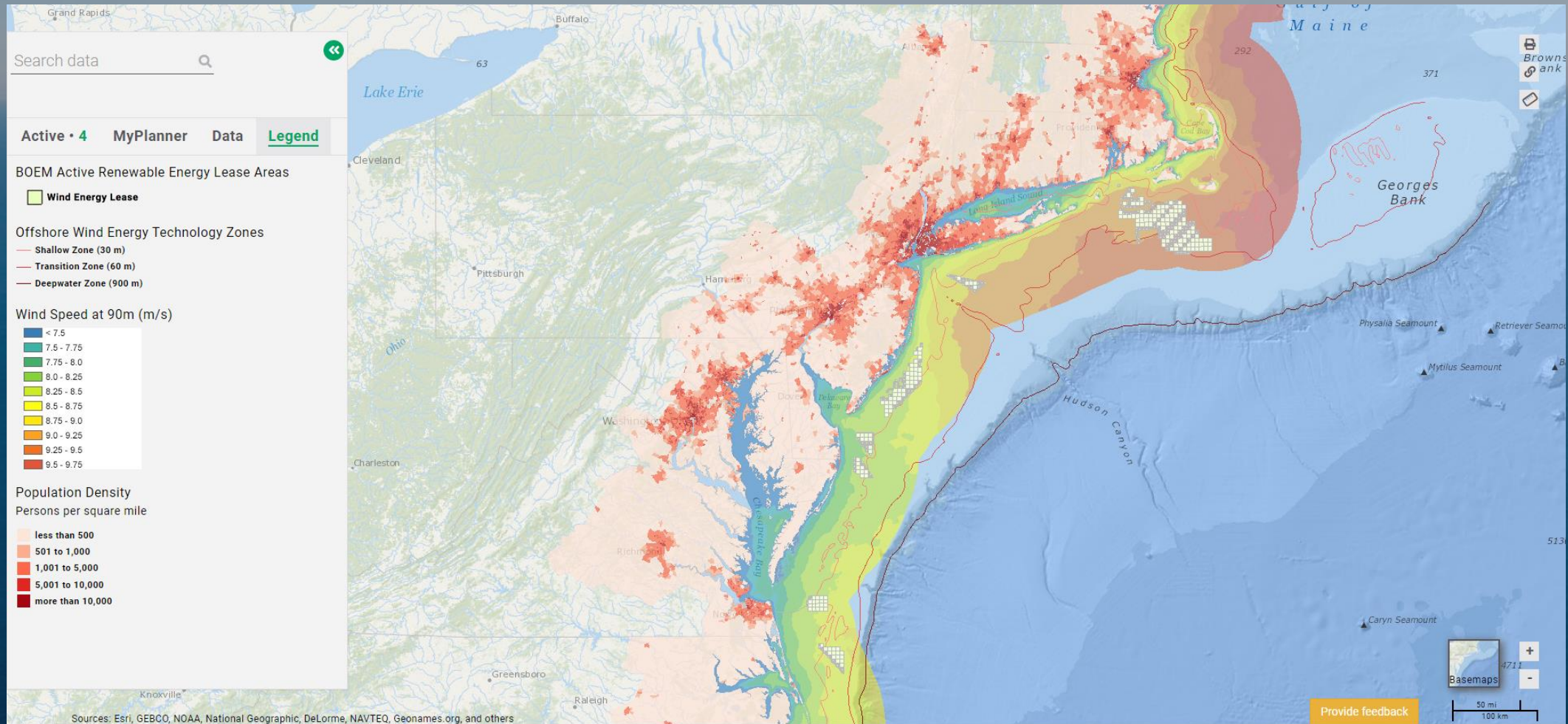


Sources: Esri, GEBCO, NOAA, National Geographic, DeLorme, NAVTEQ, Geonames.org, and others

# Electrical Demand



# Offshore Wind in the Atlantic



Sources: Esri, GEBCO, NOAA, National Geographic, DeLorme, NAVTEQ, Geonames.org, and others



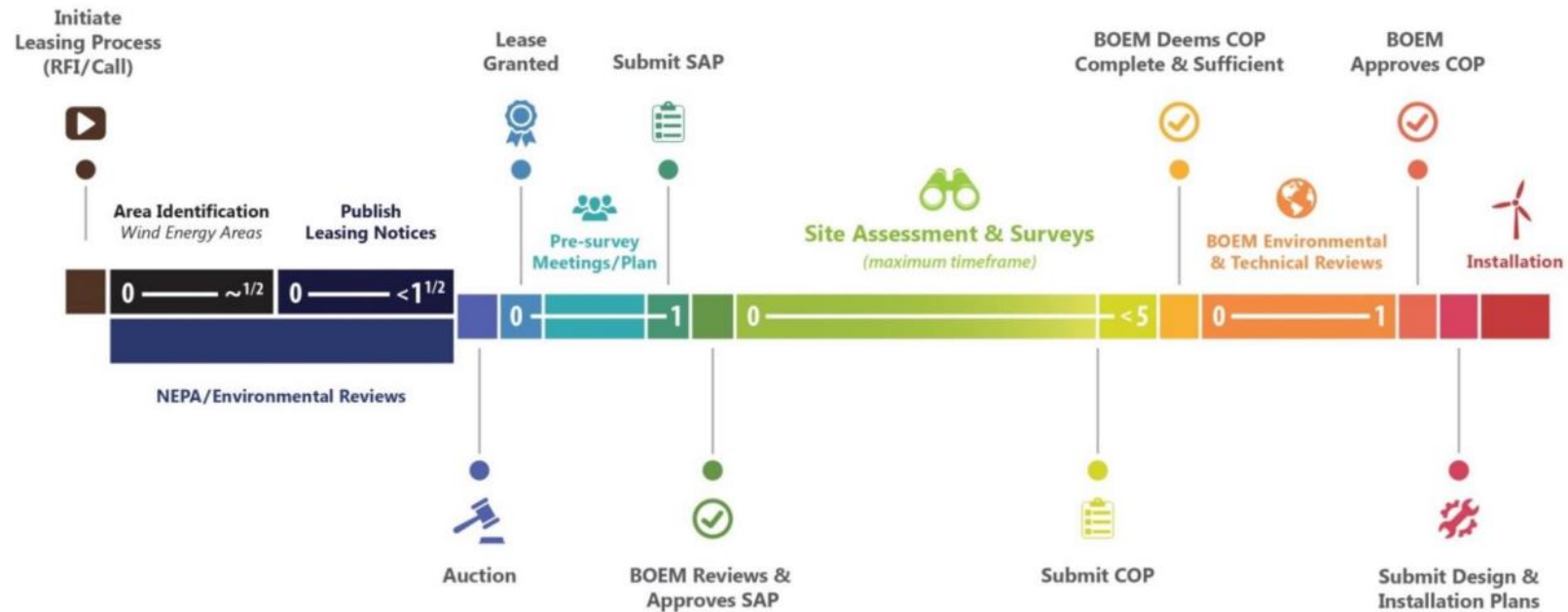
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Source: Mid-Atlantic Regional Council on the Ocean (MARCO) Data Portal – Accessed 9/24/2019

# BOEM Leasing Process

## Renewable Energy Process: Leasing to Operations



# Maryland Offshore Wind Energy Act of 2013

Created a “carve-out” for offshore wind within Maryland’s Renewable Portfolio Standard (RPS) that is equal to 2.5 percent of all electricity sales within Maryland.

Created a financial support mechanism for “Qualified Offshore Wind Projects” via Offshore Wind Renewable Energy Credits (ORECs).

Established an OREC approval process for proposed offshore wind projects that is conducted by the Maryland Public Service Commission (PSC).

Capped the OREC price to \$190/MWh (2012\$) and rate impacts for residential (\$1.50/mo) and non-residential (1.5% yearly) electric customers.



# Approved Projects

On May 11, 2017 the Maryland PSC issued Order No. 88192 which conditionally approved two offshore wind projects.

- Skipjack Wind Farm (120 MW) under development by Ørsted US Offshore Wind will generate 445,482 ORECs annually and power 37,000 Maryland homes.
- Maryland Offshore Wind Farm (268.8 MW) under development by US Wind, Inc. will generate 913,845 ORECs annually and power 76,000 Maryland homes.
- Both projects were approved to generate ORECs at a price of \$131.93/MWh (2012\$) which will have an estimated net cost to Maryland ratepayers of \$70.18/MWh (2012\$).

# Clean Energy Jobs Act (of 2019)

- Increased Maryland's RPS to 50 percent by 2030.
- Increases the "carve-out" for offshore wind within Maryland's RPS that is equal to 10 percent of all electricity sales within Maryland. Requires an additional minimum of 1,200 MW by 2030.
- Updates the "Minimum Threshold Requirements" for project eligibility and creates new definitions for "Round 1" and "Round 2" Qualified Offshore Wind Projects.
- Round 2 projects are capped to an OREC price of \$190/MWh and rate impacts for residential (\$0.88/mo) and non-residential (0.9% yearly) electric customers.

# Project Eligibility

- “Qualified Offshore Wind Project” Means a Wind Turbine Electricity Generation Facility, Including the Associated Transmission–Related Interconnection Facilities and Equipment, that:
  - Is located on the Outer Continental Shelf (OCS) of the Atlantic Ocean in an area that the United States Department of the Interior (DOI) designates for leasing after coordination and consultation with the State in accordance with § 388(A) of the Energy Policy Act of 2005; and,
  - Interconnects to the PJM Interconnection grid at a point located on the Delmarva Peninsula; and

*Source: Article – Public Utilities 7-701 (K)*

# Project Eligibility Cont.

**“Round 1 offshore wind project”** means a qualified offshore wind project that:

- is between 10 and 30 miles off the coast of the State; and,
- the Commission approved under § 7–704.1 of this subtitle before July 1, 2017.

**“Round 2 offshore wind project”** means a qualified offshore wind project that:

- is not less than 10 miles off the coast of the State; and,
- the Commission approves under § 7–704.1 of this subtitle on or after July 1, 2017.

*Source: Article – Public Utilities 7-701 (P-1 and P-2)*

# Round 2 Procurement Schedule

The Commission shall provide additional application periods beginning, respectively:

- January 1, 2020, for consideration of Round 2 Offshore Wind Projects to begin creating [400 MW] ORECs not later than 2026;
- January 1, 2021, for consideration of Round 2 Offshore Wind Projects to begin creating [800 MW] ORECs not later than 2028; and,
- January 1, 2022, for consideration of Round 2 Offshore Wind Projects to begin creating [1,200 MW] ORECs not later than 2030.

*Source: Article – Public Utilities 7-704.1 (A)(4)*

# Comparison

	MD OSWEA 2013	MD CEJA 2019
OSW Carve Out	2.5 percent	10 percent
Estimated Generation	1.7 Million MWh/yr	6.8 Million MWh/yr
Capacity	388.8 MW	1,200 MW
Distance	10 – 30 miles	Not less than 10 miles
Location	Atlantic OCS in a BOEM Lease	Atlantic OCS in a BOEM Lease
OREC Price	\$190/MWh (2012\$)	\$190/MWh (2012\$)
Res Rate Impact	\$1.50/month Total (2012\$)	\$0.88/month Total (2018\$)
Non-Res Rate Impact	1.5%/yr Total	0.9%/yr Total

# Wildlife Research

In 2018, MEA provided an additional \$1.4 million to the Maryland Department of Natural Resources (DNR) for three offshore wind wildlife impact studies.

- Marine Mammal Passive Acoustic Monitoring Study (Year 4/5) - Complete
- Influence of Turbine Construction Noise on Black Sea Bass Displacement and Physiological Condition in the MD Wind Energy Area (Year 3) - Ongoing
- Offshore Near Real-Time Passive Acoustic Monitoring of Baleen Whales in the Maryland Wind Energy Area - Ongoing

# National OSW R&D Consortium

The National Offshore Wind Research and Development Consortium consists of public and private members which are committed to collaborative, mutually beneficial research and development focused on addressing offshore wind technology challenges specific to reducing the levelized cost of energy of offshore wind projects in the United States.

- Initiated through a \$20.5 million DOE Grant Opportunity - “Offshore Wind Research and Development Consortium FOA” (Number: DE-FOA-0001767) in late 2017.
- In June, 2018, DOE awarded the grant to NYSERDA which provided an additional \$20.5 million in research funding.
- MEA joined in January, 2019 and provided an additional \$4 million in research funding. Joined simultaneously with Massachusetts and Virginia.





# Workforce Training

Since FY 2018, MEA has offered the Maryland Offshore Wind Workforce Training Program.

- The Program provides grant funding on a competitive basis to ensure Maryland has a ready and able workforce capable of contributing to the construction, installation, and operations & maintenance of an offshore wind energy project.
- FY 2020 Program budget - \$1.2 million
- FY 2020 Application deadline – October 1, 2019 at 11:59 PM EST
- May be utilized in coordination with other grants/incentives from the Maryland Department of Commerce, Department of Labor, and Governor's Office of Small, Minority, and Woman Business Affairs (GOSBA).

# Business Capex Investment

Since FY 2018, MEA has offered the Maryland Offshore Wind Business Capex Program

- The program seeks to jumpstart Maryland's offshore wind supply chain by providing grant funding to help defray capital expenditure costs for Maryland's emerging businesses, including minority owned emerging businesses, entering the offshore wind industry.
- FY 2020 Program budget - \$1.6 million
- FY 2020 Application deadline – October 1, 2019 at 11:59 PM EST
- Grants may be bundled with other grants/incentives from the Maryland Department of Commerce, Department of Labor, and Governor's Office of Small, Minority, and Woman Business Affairs (GOSBA).

# Governor Hogan CARES

On May 29, 2019 Governor Hogan announced his Clean and Renewable Energy Standard (CARES) target of 100 percent clean electricity by 2040. The plan will be presented to the Maryland General Assembly on the first day of the 2020 legislative cycle.

The goals of the CARES plan include:

- Increasing the strategic use of zero- and low-carbon clean and renewable energy sources;
- Recognizing the clean and safe aspects of nuclear energy;
- Supporting hydropower, coupled directly with maintaining environmental stewardship;
- Advancing emerging technology for carbon capture and storage; and
- Utilizing the role of energy-efficient combined heat and power.





# Questions?

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