

Maryland's Approach to Offshore Wind Lessons Learned

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Maryland Activities



- 2010 – Maryland initiated the Stakeholder Taskforce with BOEM
- 2012 - PSC Order 84692 – Exelon/Constellation Merger
- 2013 - Maryland Offshore Wind Energy Act of 2013
- 2014 - Regulations adopted – Rulemaking 51
- 2016/2017 - Projects reviewed & approved
- 2020/2022 – Projects expected to be in operation

Maryland Offshore Wind Energy Act of 2013



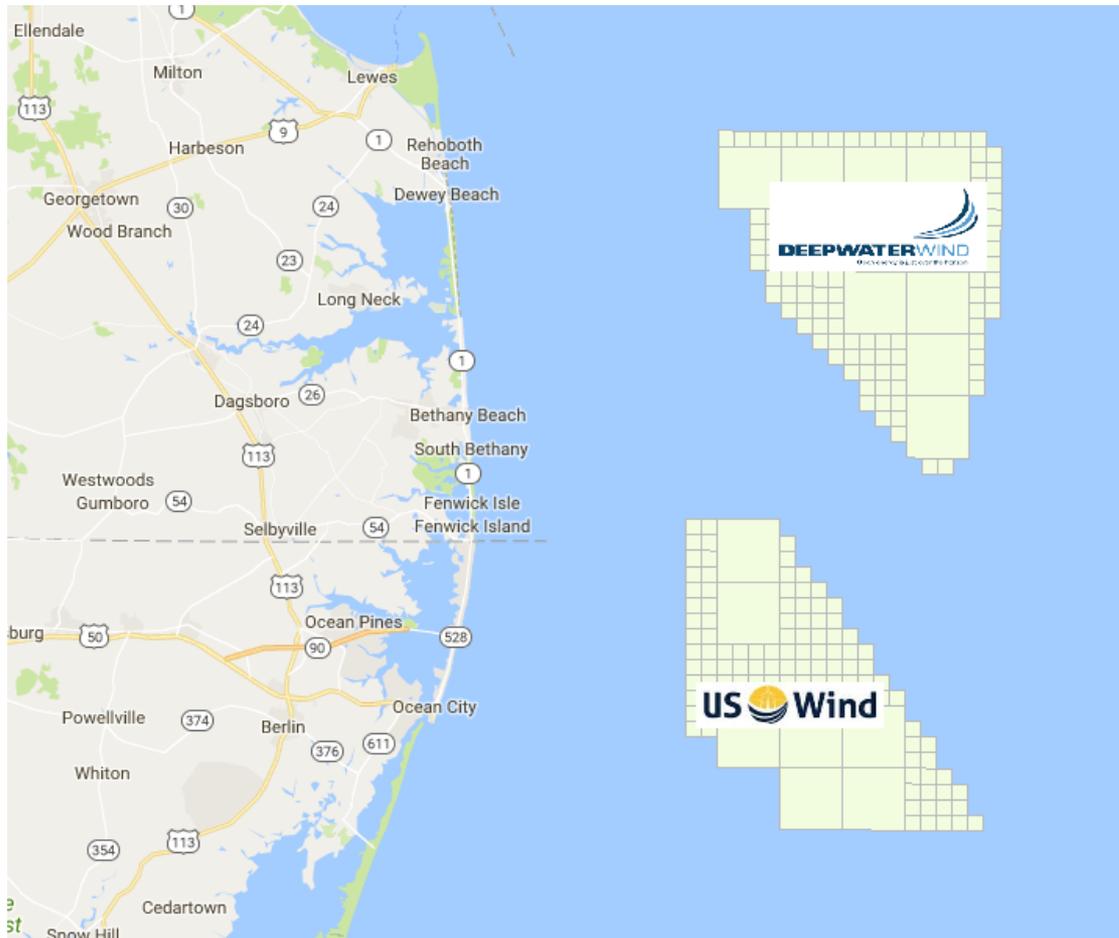
- Current RPS requires 25 percent by 2020
 - 2.5 percent (480 MW) offshore wind carve out
- Created a project application and review process
- ORECs are the State's financial support
- Specifies a max price and rate caps
- Projects must provide a net benefit to Maryland's economy, environment, and public health

What is an OREC?



- An OREC is equal to 1 MWh of electricity produced by offshore wind and its generation attributes
- ORECs are bundled with energy, capacity, ancillary services, and environmental attributes
- OREC Cap - \$190/MWh
- Rate Increase Cap –
 - \$1.50/month for residential
 - 1.5%/year for non-residential

Delmarva Lease Areas



Maryland Projects

Skipjack (Deepwater Wind)

- 120 MW
- Fifteen 8 MW turbines
- 19 miles from MD
- \$720 million cost estimate
- Connects to Ocean City, MD
- Scheduled for November 2022 completion
- \$0.43/month (Res) & 0.43% (C&I)

US Wind

- 248 MW
- Forty-one 6 MW turbines or Sixty-two 4 MW turbines
- 17 miles from MD*
- \$1.4 Billion cost estimate
- Connects to Indian River, DE
- Scheduled for January 2020 completion
- \$0.97/month (Res) & 0.96% (C&I)

Approval Conditions

Skipjack (Deepwater Wind)

- Must spend 34% of total costs in Maryland
- \$25 million for steel fabrication facility
- \$13.2 million for port infrastructure upgrades
- \$6 million to the OSWBDF
- 913 dev/construction FTE jobs
- 484 O&M FTE jobs
- Minority participation (% TBD)

US Wind

- Must spend 19% of total costs in Maryland
- \$51 million for steel fabrication facility
- \$26.4 million for port infrastructure upgrades
- \$6 million to the OSWBDF
- 1,298 dev/const FTE jobs
- 2,282 O&M FTE jobs
- Minority participation (% TBD)

OSW Challenges



- In Maryland's experience
 - Siting Lease Areas
 - Preparing the Local Supply Chain
 - Port Infrastructure
 - Local Businesses
 - Workforce Development

OSW Lease Areas

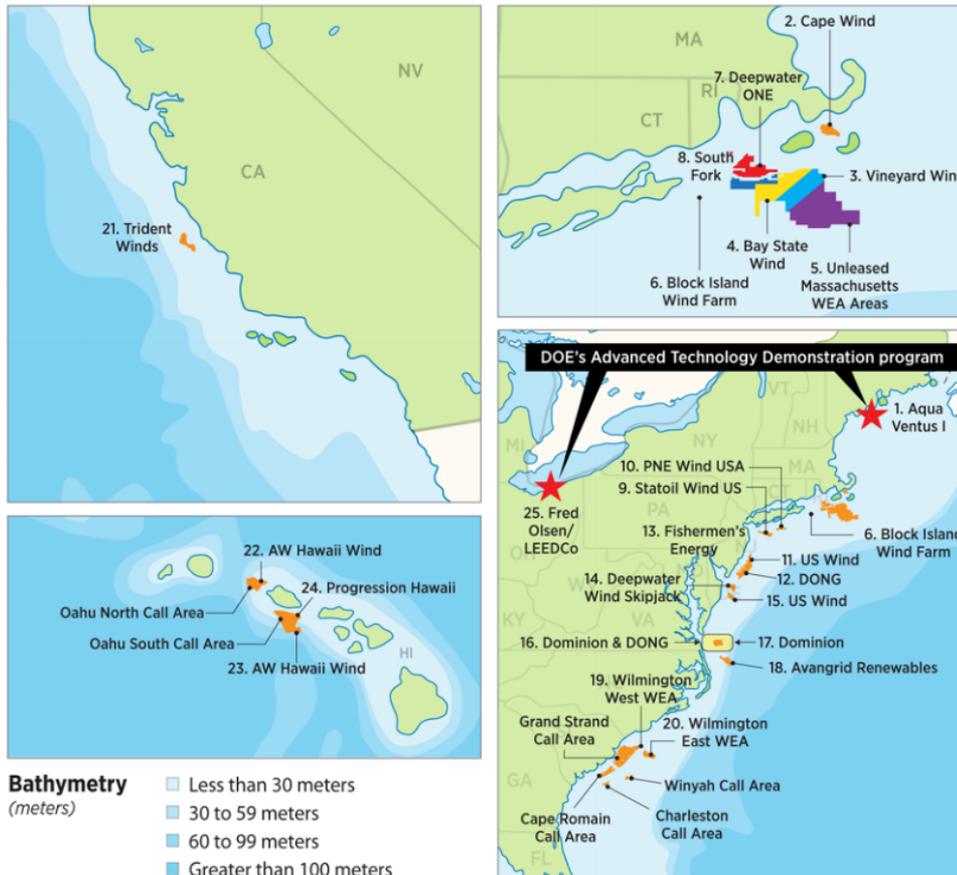


Figure ES-1. U.S. offshore wind projects

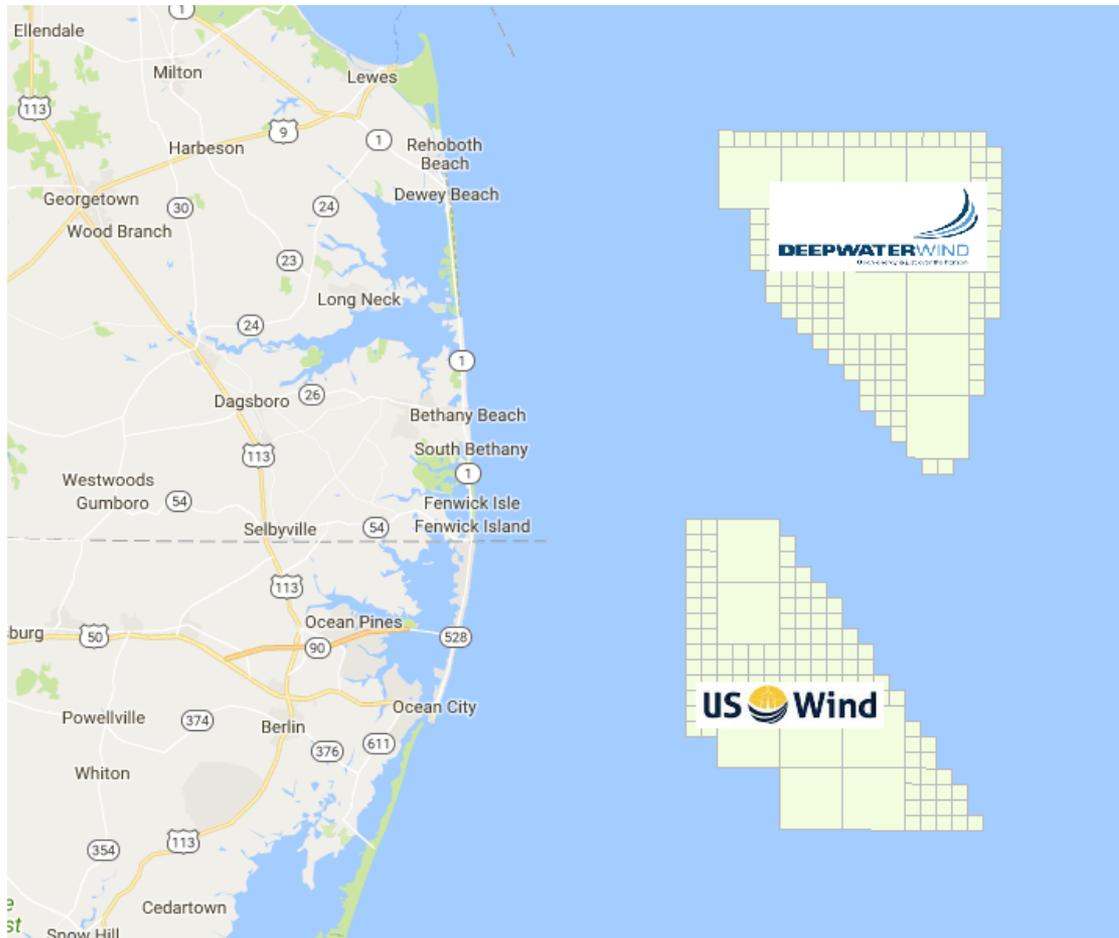
Source: NREL

www.Energy.Maryland.gov



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Delmarva Lease Areas



Impacts to Visibility

Atmospherics

- Humidity
- Sea Spray
- Glare
- Weather Events
- Temperature
- Time of Day
- Haze/Smog
- Lighting

Project Siting

- Wind Farm Distance
- Number of Turbines
- Spacing between Turbines
- Coverage of the Horizon
- How good is your eyesight?

Supply Chain



- Port Infrastructure
 - Who pays for upgrades?
- Local Businesses
 - MEA Offshore Wind Business Development Grant Program
- Workforce Development
 - MEA Offshore Wind Workforce Development Grant Program

Unsolicited Advice



- Do your homework
- Be open, transparent, and inclusive
- Communicate Effectively
- Be patient
- Be consistent

Questions?



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