Working in Offshore Wind in the USA: Update from Virginia Beach









Housekeeping

There are no planned fire drills during this event. If you hear a fire alarm, please make your way to your nearest exit in a calm and orderly manner.



City of Virginia Beach

Offshore Wind Opportunities and Local Support

Paige Fox Virginia Beach Economic Development Business Development Manager





VT NH NY 31 CA PA **PROPOSED** LEASED **FINANCIAL** MECHANISM SECURED **OPERATING**

BUSINESS NETWORK for OFFSHORE WIND

- 1 Maine Agua Ventus I (New England Aqua Ventus) [TI MW]
- 2 Revolution Wind (Ørsted / Eversource) [704 MW]
- 3 Block Island Wind Farm (Ørsted) 130 MW1
- South Fork Wind Farm (Ørsted / Eversource) [132 MW]
- 5 Sunrise Wind (Ørsted / Eversource) [880 MW]
- 6 Bay State Wind (Ørsted)
- Vineyard Wind / Park City W. / Commonwealth W. (CIP / Avangrid) [800/804/1,232 MW]
- 8 Beacon Wind (Equinor / bp) [1,230 MW]
- Southcoast Wind (Shell / Ocean Winds) [1,204 MW]
- 10 Liberty Wind (CIP)
- 11 Empire Wind 1 & 2 (Equinor / bp) [816/T260 MW]

- Excelsior Wind (Vinevard Mid-Atlantic)
- **B** Bluepoint Wind (Ocean Winds / GIP)
- (A) Attentive Energy One (TotalEnergies Renewables)
- (B) Community Offshore Wind (RWE / National Grid)
- 16 OCS-A 0541 (Atlantic Shores)
- Leading Light Wind (Invenergy)
- Atlantic Shores Offshore Wind (EDF / Shell) [1510 MW]
- Ocean Wind 1 & 2 (Ørsted) [1,100/1,148 MW]
- 20 Skipjack I / II Wind Farm (Ørsted) [120/846 MW]
- 2 MarWin / Momentum Wind (US Wind) [270/808.5 MW]
- Central Atlantic WEAs

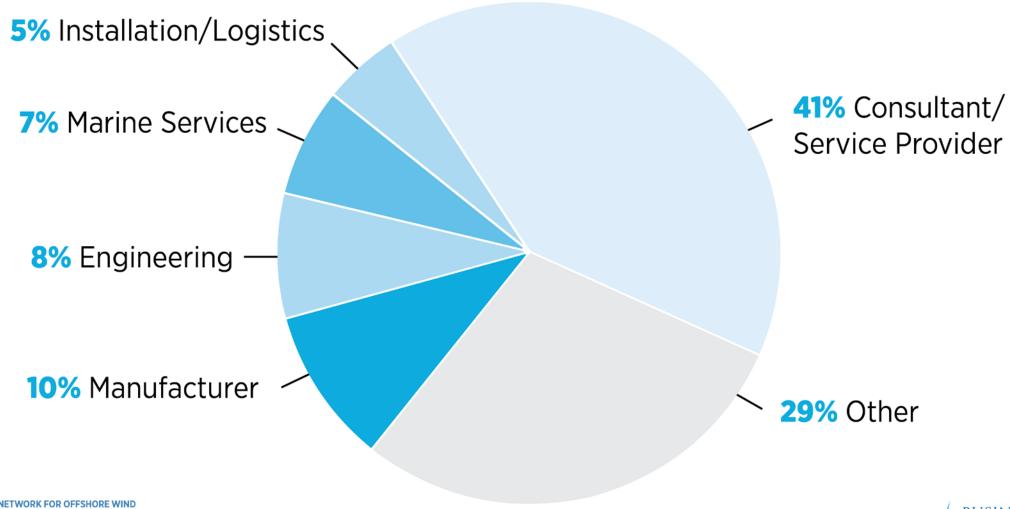
- Coastal Virginia OSW Commercial (Dominion Energy) [2,640 MW]
- Coastal Virginia OSW Pilot (Dominion Energy) [12 MW]
- 25 Kitty Hawk Offshore Wind (Avangrid)
- 26 OCS-A 0545 (TotalEnergies Renewables)
- 27 OCS-A 0546 (Duke Energy Renewables Wind)
- **28** Oregon WEAs
- 29 OCS-P 0561 (RWE)
- **30** OCS-P 0562 (CIP)
- 31 OCS-P 0563 (Equinor)
- Golden State Wind (Ocean Winds / CPPIB)
- 33 OCS-P 0565 (Invenergy)
- **Gulf of Mexico WEAs**

BUSINESS NETWORK FOR OFFSHORE WIND

U.S. OFFSHORE WIND MARKET

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Contracts by Sector





🗅 🛅 Business Network for Offshore Wind

O G @ @offshorewindus



Companies Awarded Contracts



17% International with U.S. locations



65% U.S. locations only

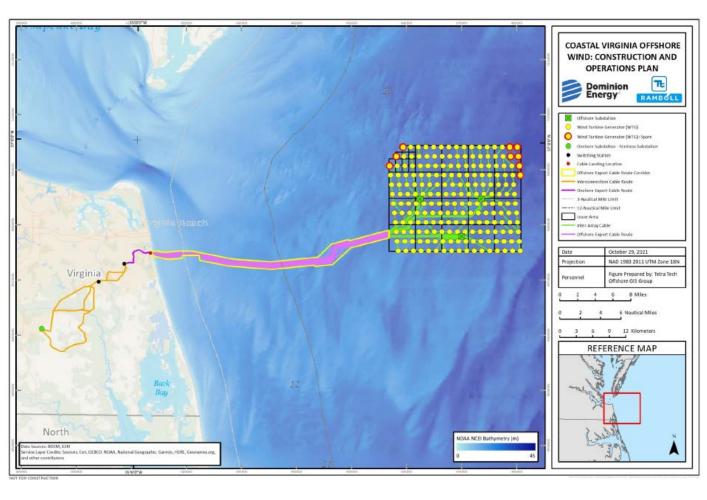
3% International with U.S. headquarters

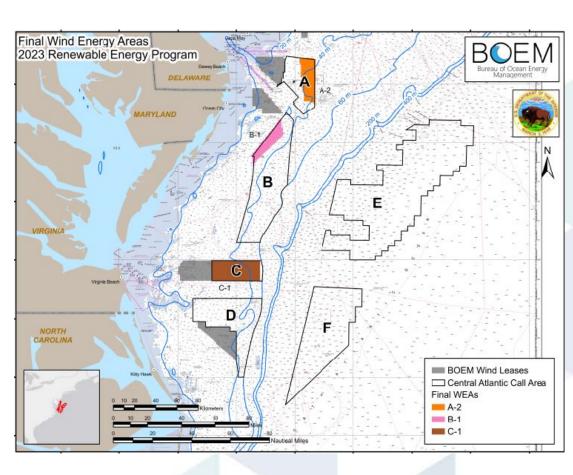
10%

International with no U.S. location

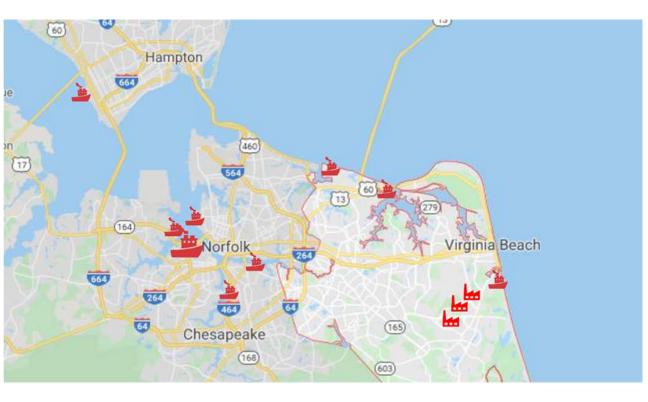


Mid-Atlantic Offshore Wind Hub





Strategic Location





Proximity to Waterfront Industrial

Proximity to **The Port of Virginia**

Availability of Industrial Sites

Mid-Atlantic Success

Stakeholder engagement across multiple levels of Government

Cost of Doing Business is Competitive (Corporate Tax Rate has not increased since 1972)

Right to Work State &

Education Partnerships

14,000 active-duty militarypersonnel annually exit themilitary in Hampton Roads –V3 Program



Skilled **Maritime** and **Maufactuirng** industries supporting supply chain development

Resources

Virginia Beach Economic Development

- Local EDO, working with the Regional EDO (Hampton Roads Alliance) and State EDO (Virginia Economic Development Partnership)
- Offices in Ipswich, Madrid, and Munich
- Attracting key industries such as offshore wind, advanced manufacturing, and information technology
- Marketing Missions and International Trade Shows: Wind Energy Hamburg, EEEGR Wind Week, Wind Europe Bilbao
- Host prospective companies and international delegations: Pre-IPF,
 ANMPOYC, PIMEC and Spanish Embassy
- 12 Partnerships/ MOUs with trade organizations









Services Provided Through VBED

Refining the "white glove" service for companies

- Site and Building Selection
- Permitting and Plan Review Assistance
- Workforce Development Support
- Relocation Needs
- International Advisory Committee
- Incubators
- Incentive Process
- Business Parks





Soft Landing Spots

Three new facilities and partnerships to help businesses get established in Virginia Beach

- International Incubator with Orbis Energy as a partner
 - Temporary office for international companies
- Industrial Incubator
 - Temporary light industrial location for international companies and startups
 - 3-5 incubator spaces
 - Manufacturing and warehouse space
- The Hive
 - Business resource center
 - Programming around establishing a business



WRAP-UP

Thank You



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Virginia Beach Department of Economic Development

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Seajacks USA timeline

- In the early part of the 2010's it became obvious that a US wind industry would develop.
- In 2014 Seajacks started to investigate how to support and develop the US offshore wind industry working with partners like the Business Network for Offshore Wind
- In December 2018 Dominion Energy came in as the US partner
- In August 2020 a contract for New Build Supervision and O&M services were signed for a Jones Act compliant WTIV.
- In July 2021 Seajacks US opened their office in Town Center, Virginia Beach.





Charybdis

- Blue Ocean Energy Marine, a Dominion Energy Company aims to deliver and operate a Jones Act Compliant Wind Turbine Installation Vessel (WTIV).
- The vessel is currently under construction in Seatrium/Keppel AmFELS yard, Brownsville, Texas.
- Delivery expected Q4 2024

Designed for

- Next generation multi-megawatt WTGs
- Monopiles, Transition Pieces & Jackets
- Offshore Transformer Modules
- Major Component replacement
- Currently contracted for WTG installation at Orsted's Sunrise Wind and Dominion's Coastal Virginia Offshore Wind (CVOW) projects.





Charybdis - Overview

Type: GustoMSC NG 16,000X-SJ

Class: ABS A1 – Self-elevating Unit + AMS + ACCU + DP2 Self-propelled + CRC + Wind IMR

Flag: US – Portsmouth Marine Terminal, VA

Regulatory: US Jones Act compliant, USCG, Zero Pollution compliant

Length 144m

Breadth 56m

Leg length 109m

Water depth: Up to 65m

Speed: 10 knots

Cranes: Main crane is wrap-around the starboard aft leg

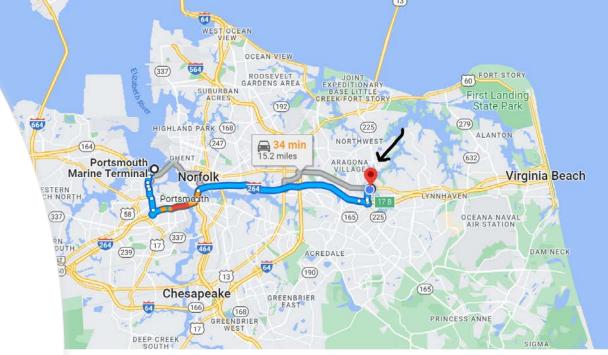
Boom length: 130m

Capacity: Main hoist 2,200T at 29m radius



Where we work in the USA

- Name: The Gather (No it's not a cult)
- Location: Virginia Beach, VA @ 249 Central Park Avenue in Town Centre.
- The Gather is a communal workspace that offers a range of private offices, meeting rooms, individual study booths, communal events, and most importantly happy hour at 4-5.
- A US version of Orbis and where Seajacks originally started, Beacon Park







The Port Of Virginia

Portsmouth Marine Terminal: PMT

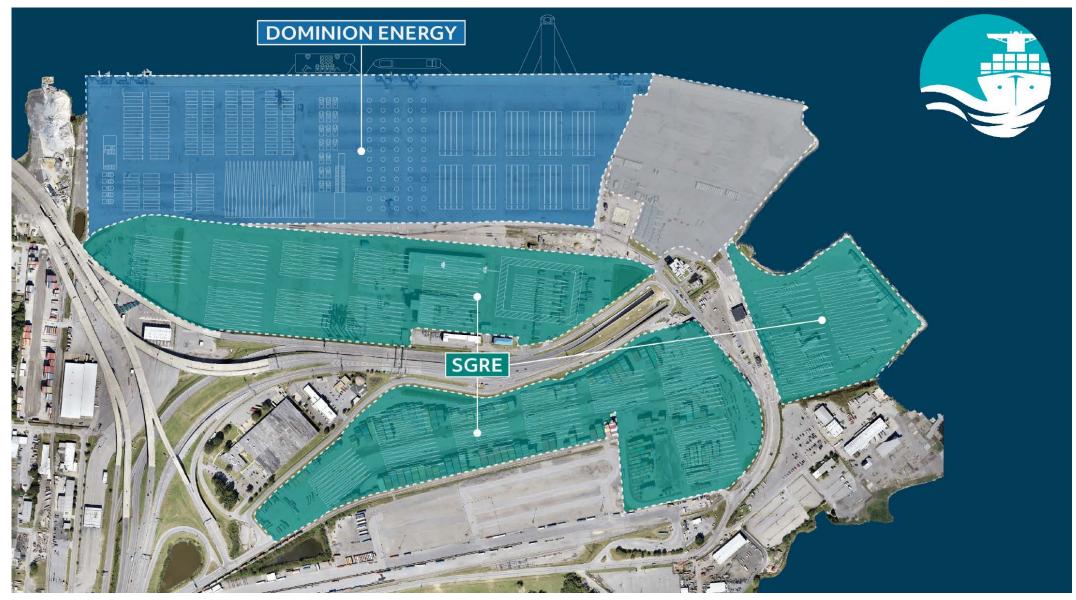


- The Port of Virginia has become the offshore wind hub of the east coast.
- PMT is supporting CVOW (Coastal Virginia Offshore Wind) a Dominion Energy project.
- Has enough water depth for WITV operations with no overhead restrictions (bridges).
- PMT is the second largest of four marine facilities in Virginia with a land area of 219 acres.
- With the strong historical military presence in the area, the Virginia Beach area has the established engineering and logistic support needed for major offshore wind projects.

Parameter	US units	Metric units	Notes
Property size	287 acres	116 ha	The property is located on the Elizabeth River in an industrial and shipbuilding section of Portsmouth.
Wharf/quayside	3,540ft	1,078m	A concrete platform on piles bulkhead exists along the quayside of the facility.
Additional quayside	1,000ft	300m	An extension of the main quay allows for additional berthing.
Berth depth at quayside	38-40ft MLLW	6–7.3m MLLW	Multiple large berths exist end-to-end adjacent to the long main pier area.
Main channel depth to site	40-50ft	12-15m	Pinner Point to Town Point Reach.
Buildings	various	various	Approx. 10 buildings onsite (~65,000 total sqft/6,040sqm). Buildings range from brick building multistory office and shop to large steel high-bay storage and warehouse buildings.
Load bearing capacity*	1,000-3,000psf (estimated)	4,880- 14,640kgpsm	Load bearing capacity at the quayside is not well understood and at present is difficult to determine. Ground bearing in the parking lots site are expected to be at the low end of the range.



Portsmouth Marine Terminal latest port infrastructure





Finally, why we chose Virginia Beach.

- Location, Location first and foremost.
- Cost efficient in comparison to other east coast locations.
- Business focused and driven to get the job done.
- Based near to major infrastructure projects.
- Pull up a map of US wind projects and it becomes obvious!





EEEGR presentation

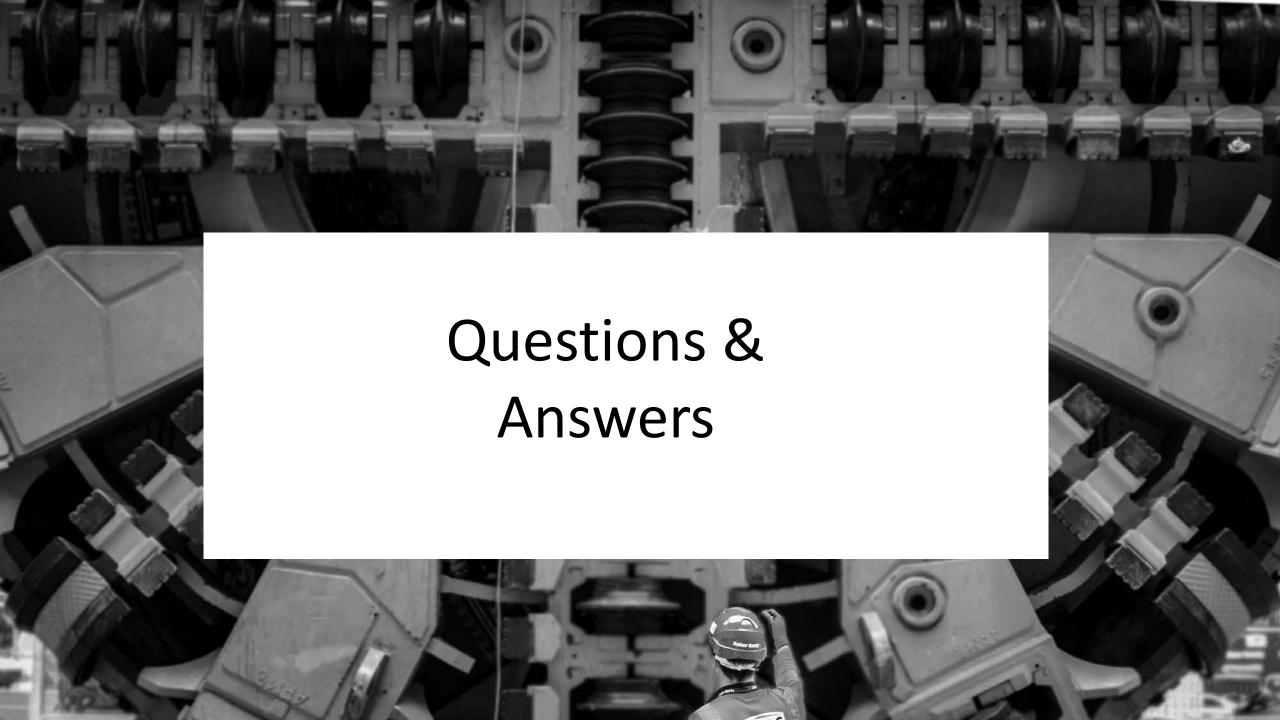
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Recorded by

Richard Allin

Organized by

Richard Allin





Business Relationship Manager, EEEGR



EEEGR Events

5th December: CCS Event supported by NSTA, Dunston Hall

Evening of the 5th December: End of Year Celebration and Awards

13th December, Launch of Onshore Renewable Sector Council. Energy Skills Centre, Lowestoft.

14th December, Marine Science and Technology Sector Council Forum meeting. Dragonfly House, Norwich

24th January, House of Commons Reception. Tickets booked via the EEEGR website

www.eeegr.com/events

