

Welcome to the Coastal Virginia Offshore Wind Project Roundtable

Please reference the following prior to participation in the meeting:

- Everyone except the presenter should mute their lines
- Use the “chat” function (bottom right of WebEx window) to ask questions during the presentation. A Dominion Energy representative will address any questions during the Q&A session at the end of the meeting.
- Use the “hand raise” function during the presentation to ask a question, at which point you will be unmuted.
- At the bottom right of the WebEx window, you can click “participants” to see a list of participants and to access the hand raise function
- If you are accessing via phone only, we will specifically ask for comments from participants on the phone.
- Copies of the presentation will be sent to participants following the meeting.



**Coastal Virginia Offshore Wind
Commercial Project
Fisheries Roundtable
September 30th, 2020**



**Dominion
Energy®**

Agenda

- ☐ Coastal Virginia Offshore Wind Pilot Project Updates
- ☐ Coastal Virginia Offshore Wind Commercial Project Updates
 - ☐ Surveys & Studies
 - ☐ Detailed Schedule Overview
 - ☐ Regulatory Involvement
- ☐ Offshore Wind Legislation Signing
- ☐ Fisheries Information
- ☐ Q&A

Overview



Coastal Virginia Offshore Wind Pilot

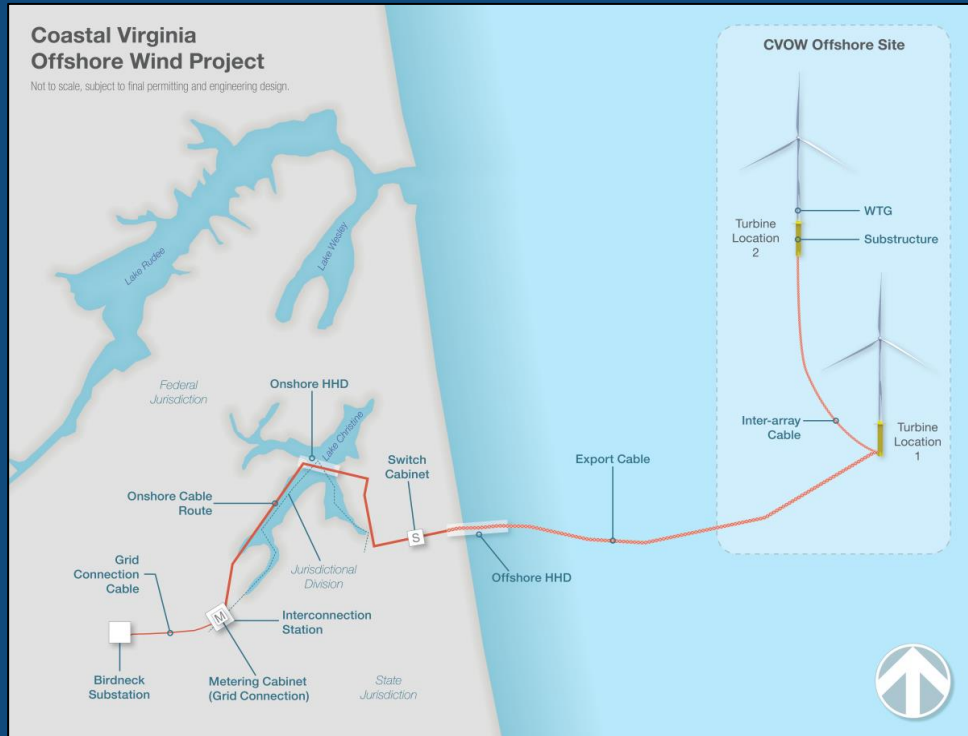
First turbines in federal waters

Pilot Project Details

- DMME as leaseholder; Only research lease in the United States
- Dominion Energy as operator
- Two 6-MW Wind Turbines
- Located 27 miles off Virginia Beach
- Capital Cost: \$300 million
- Major Participants
 - Ørsted = Offshore Installation
 - L.E. Meyers = Onshore Installation

Pilot Project Benefits

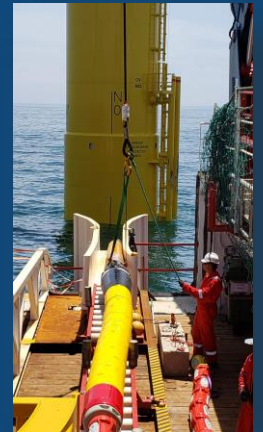
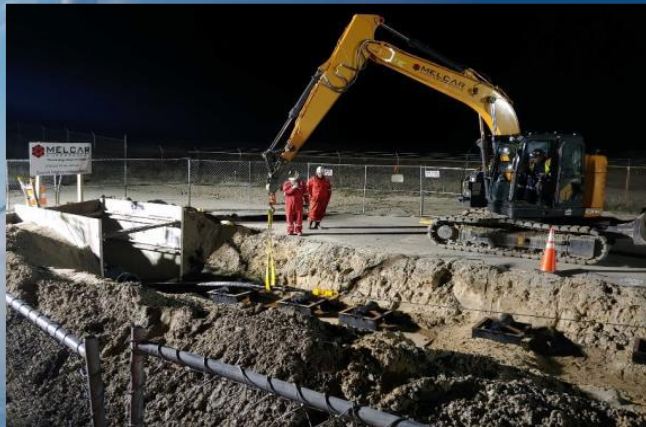
- First Offshore Wind Turbines to be installed in US Federal Waters
- Permit, design, installation & operations experience
- Refine BOEM approval process
- Inform larger commercial wind project



**Wind turbines are installed.
Commissioning activities are ongoing.**

Coastal Virginia Offshore Wind Pilot

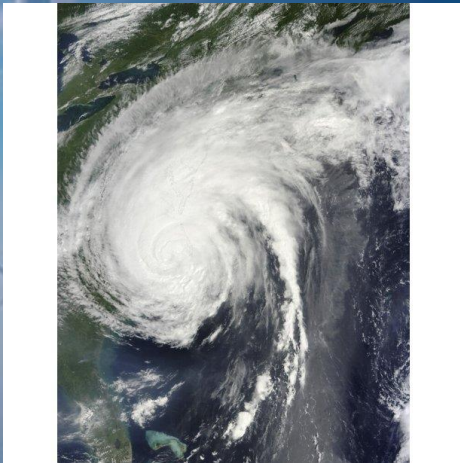
Transportation and Cable Installation



Major components loaded and transported from Europe during global health crisis.
Cable pulled to shore and connected to foundations.

Coastal Virginia Offshore Wind Pilot

Foundation and Wind Turbine Installation



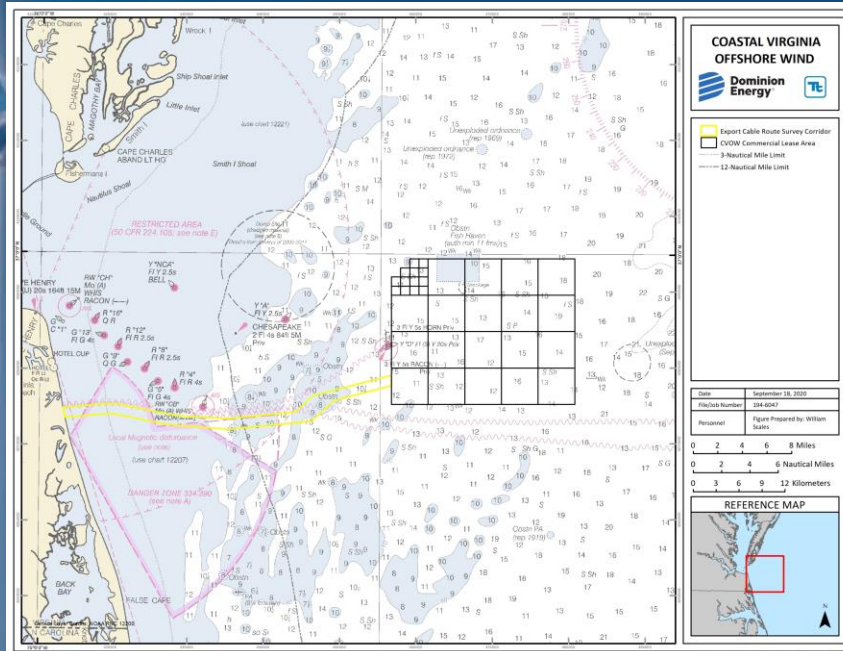
First steel in the water – May 21

First wind turbine mechanically complete – June 20

Second wind turbine mechanically complete – June 26

Coastal Virginia Offshore Wind Commercial

Project Summary



Commercial Offshore Wind Lease Area

- 112,800 acre lease area 27 miles off Virginia Beach
- Interconnect filed for 2,640 MWs
- Selected Siemens Gamesa as Preferred Turbine Supplier
- Selected Ramboll as Owners Engineer

Executed Lease with BOEM

2013

Site Assessment Plan
Approved by BOEM

2016

Governor issues Executive Order
Dominion Energy commits to \$8B
Project

2019

Legislation passed supporting Project
Submit COP to BOEM

2020

Execute Major Contracts

2021

Virginia SCC review & approval

2022

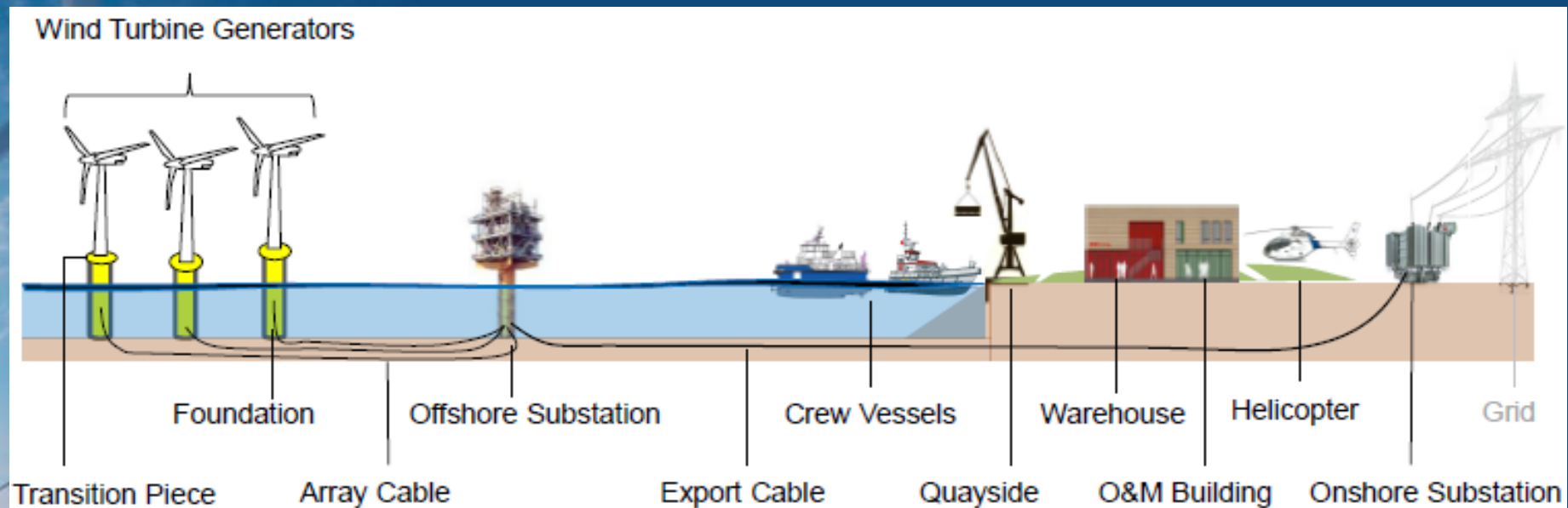
BOEM COP approval
Begin major equipment manufacturing

2023

Construction and Commissioning

2024 to
2026

Anatomy of an Offshore Wind Energy Project



BOEM – Renewable Energy Process

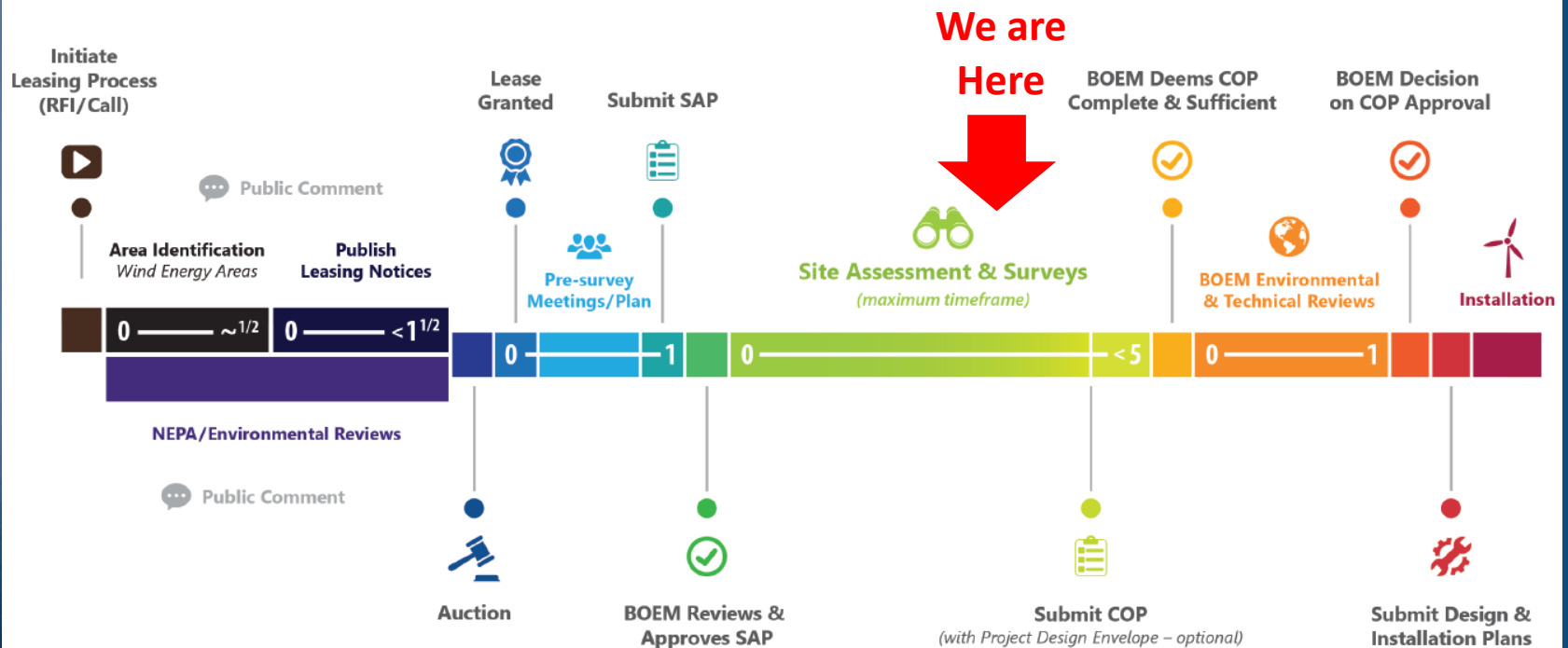


BOEM Bureau of Ocean Energy Management

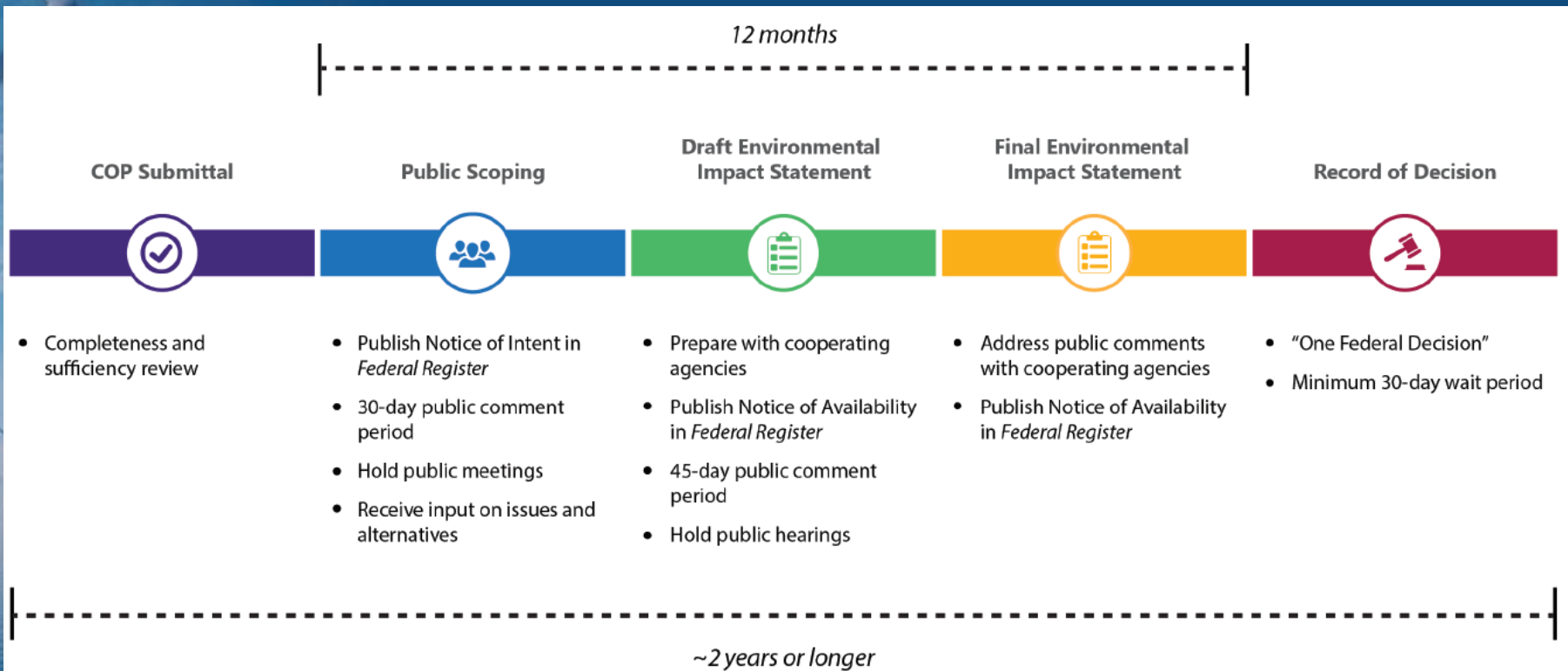
BOEM.gov



The Renewable Energy Process: Leasing to Operations



Environmental Impact Statement



Commercial Project Updates

- ❑ In April 2020, vessels began various studies in the 112,800-acre project lease area off the coast of Virginia Beach
- ❑ Surveys will provide geological, biological, and oceanographic data needed to support planning and construction in a manner that facilitates coexistence between the natural marine ecosystem and clean energy development
- ❑ Data will support preparation of the project's Construction and Operations Plan



Surveys and Studies

- ☐ Acoustics
- ☐ Air Emissions
- ☐ Avian and Bat
- ☐ Aviation Impacts
- ☐ Electric and Magnetic Fields
- ☐ Fisheries
- ☐ Geophysical, Geotechnical, and Benthic
- ☐ Historic Architecture
- ☐ Marine and Terrestrial Archaeology
- ☐ Marine Mammals and Sea Turtles
- ☐ Navigational Safety Risk
- ☐ Sediment Transport
- ☐ Terrestrial Biological Resources (i.e., wetlands and threatened and endangered species)
- ☐ Visual Impacts



Detailed Schedule Overview

Task	Approximate Timeframe
COP Surveys	Q2 2020-Q4 2021
Submit Final COP to BOEM	Q4 2020
UXO Investigation and Identification Surveys	Q3 2021 – Q4 2022
Federal/State Permits	Q2 2021 – Q4 2023
SCC Approval	Q3 2022
Construction Start	Q2 2024
First Power Delivery	Q3 2025
Construction Complete	Q4 2026

Regulatory Involvement

☐ Federal

- ☐ Bureau of Ocean and Energy Management (BOEM)
- ☐ NOAA Fisheries (NMFS)
- ☐ Marine Mammal Commission (MMC)
- ☐ US Fish and Wildlife Service (USFW)
- ☐ US Army Corp. of Engineers (USACE)
- ☐ US Coast Guard (USCG)
- ☐ US Fleet Forces (USFF)
- ☐ Magnuson-Stevens Fisheries Conservation & Management Act

☐ State

- ☐ Virginia Department of Historic Resources (VDHR) / Tribes
- ☐ Virginia Department of Environmental Quality (VADEQ)
- ☐ Virginia Marine Resources Commission (VMRC)
- ☐ Virginia Department of Wildlife Resources (DWR)
- ☐ Virginia Army National Guard (VAARNG)
- ☐ Virginia Department of Mines, Minerals and Energy (DMME)
- ☐ Virginia State Corporation Commission (SCC)

☐ Local

- ☐ Local Planning Commission
- ☐ Local Wetlands Board

Summary of Permits & Approvals

Federal

Bureau of Ocean Energy Management

Site Assessment Plan (SAP) (Issued – to be amended)

Construction & Operations Plan (COP)

Facility Design Report (FDR) & Facility Installation Report (FIR)

NOAA Fisheries (NMFS)

Incidental Harassment Authorization for survey activities and construction

US Army Corps of Engineers

Individual Permit

Nationwide Permit

State

Virginia Department of Environmental Quality

Construction Stormwater General Permit (VMSP)

VPDES Permit

OCS Air Permit

Virginia Marine Resources Commission

Joint Permit Application for benthic samples

Local

Local Planning Commission

Site Plan/Zoning Approvals

Local Wetlands Board

Wetlands permit for use, alteration or development of wetlands

Coastal Virginia Offshore Wind

Offshore Wind Legislation Signing



- CVOW is subject to competitive procurement or solicitation for services and equipment
- Must demonstrate economic benefits in Virginia, including investment and job creation
- Priority hiring to be given to veterans and workers from local and historically economically disadvantaged communities

- Up to 5.2GW of offshore wind by year-end 2034; supports CVOW in particular
- “In the public interest” language signals strong legislative support to regulator



Governor Northam, VA Legislators & Stakeholder Event – June 29

Fisheries Outreach Since 2009

- In 2009 BOEM established the Virginia Intergovernmental Renewable Task Force
 - ❑ Process of identifying potential area for leasing that minimizes ecologically sensitive areas and potential user conflicts;
 - ❑ Throughout leasing process, which concluded with Dominion Energy award on November 1, 2013, BOEM solicited stakeholder and user inputs;
 - ❑ VA Department of Mines, Minerals, and Energy (DMME) secured a research lease in 2015;
- The DMME and BOEM funded the Virginia Coastal Zone Management (VA CZM) Program to develop a process for working with commercial/recreational fisheries - *Collaborative Fisheries Planning for Virginia's Offshore Wind Energy Area* – final report issued in 2016
 - ❑ Port meetings and outreach conducted from Chincoteague to Virginia Beach;
- Mr. Wolfgang Rain (Sea Risk Solutions) engaged as the Pilot Project Fisheries Liaison in 2018 and Mr. Ron Larsen added to Fisheries Liaison team in 2020 to support the Commercial Project
 - ❑ Port visits were conducted from Ocean City, MD to Beaufort, NC, presentations provided to local fishing organizations and outreach to individual fishermen;
 - ❑ Engage regional fisheries management bodies, conduct fisheries roundtable meetings
 - ❑ Provide regular status updates on Pilot Project construction activities and Commercial Project survey activities;
- Local commercial fishing vessels engaged as scout vessels during survey operations to minimize interaction with commercial fishing activities.

Frequently Asked Questions (FAQs) – Fisheries (1)

- How and why was this location chosen?
 - ❑ Bureau of Ocean Energy Management (BOEM) has a multi-step process to identify areas of the Outer Continental Shelf (OCS) that appear most suitable for commercial wind energy activities, while presenting the fewest apparent environmental and user conflicts, including fisheries.
- Will fishermen be able to continue fishing within the lease area?
 - ❑ Dominion Energy has no intention to restrict fishing within the lease area and is committed to working with fishermen to ensure any restrictions on fishing in or around the turbines will be temporary and limited in area or during certain work activities.
- How is Dominion Energy addressing navigational safety?
 - ❑ Navigational safety is very important to us. We are working closely with the U.S. Coast Guard and engaging the local/regional fishing community to ensure the CVOW turbines do not adversely impact navigational safety and/or Search and Rescue (SAR) operations. A Navigation Safety Risk Assessment (NSRA) will be conducted as part of the Construction and Operations Plan for the Project. A USCG training exercise around the Pilot Project turbines is planned for October 2020

Frequently Asked Questions (FAQs) – Fisheries (2)

- Will the cables within the wind farm and connecting to shore be buried?
 - ❑ Cables are planned to be buried below stable seabed elevation based on existing sediment conditions. A Cable Burial Risk Assessment (CBRA) is being conducted to determine appropriate cable burial depths.
- Will there be any fisheries resource studies conducted in the area ahead of construction?
 - ❑ Dominion Energy is actively considering opportunities for fisheries resource studies that could be conducted in advance, during and after construction. Suggestions for potential studies are welcomed.
- Are there any Electromagnetic Field (EMF) impacts to the environment associated with the turbines and cables?
 - ❑ Results from recent field and laboratory studies have shown measurable effects and responses to EMF on a small number of individual marine species *but not at the low EMF intensities associated with Marine Renewable Energy.* The potential for EMF impact on bottom dwelling fishes and benthic invertebrates continues to be the subject of ongoing studies.

Jones Act

➤ Pilot Project Construction

- ❑ Specialized foreign construction vessels were required for installation, operations were Jones Act compliant.
- ❑ Support vessels, including safety vessels and crew transfer vessels (CTVs), were Jones Act compliant
- ❑ Jones Act compliant CTV constructed for the CVOW project and is currently operational in support of the Pilot Project;

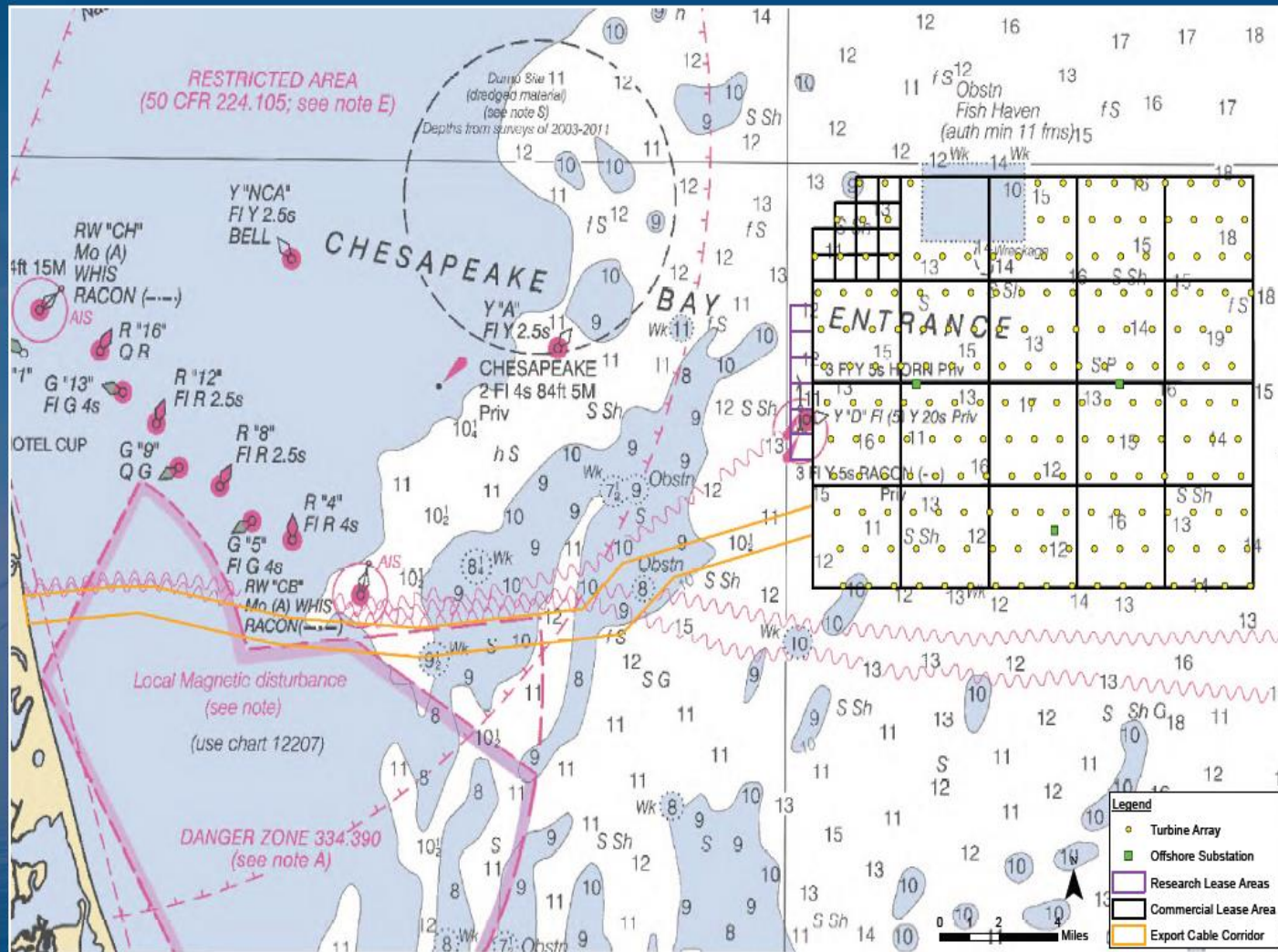


➤ Commercial Project Survey

- Dominion Energy has prioritized the use of United States flagged vessels where possible during the 2020 Geophysical and Geotechnical (G&G) survey campaign.
- Of the total 640 survey vessel days through 30-SEP-2020, 395 days (~62%) have been conducted using four (4) different US Flagged vessels. Specialty drilling vessels, that were not US flagged, were required for 194 days (~30%)

Coastal Virginia Offshore Wind Commercial Project

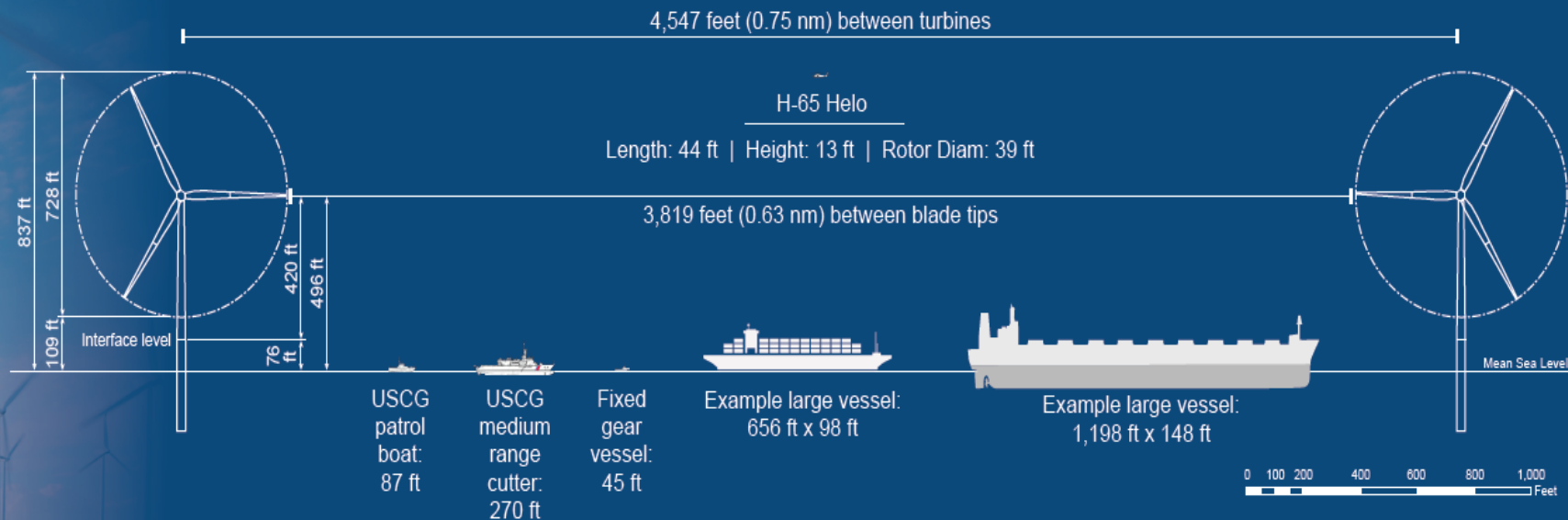
Project Location



The Offshore Project Area, including the Lease Area and the Export Cable Corridor. The proposed wind farm layout contains turbines spaced 0.7 nm by 0.9 nm.

Coastal Virginia Offshore Wind Commercial Project

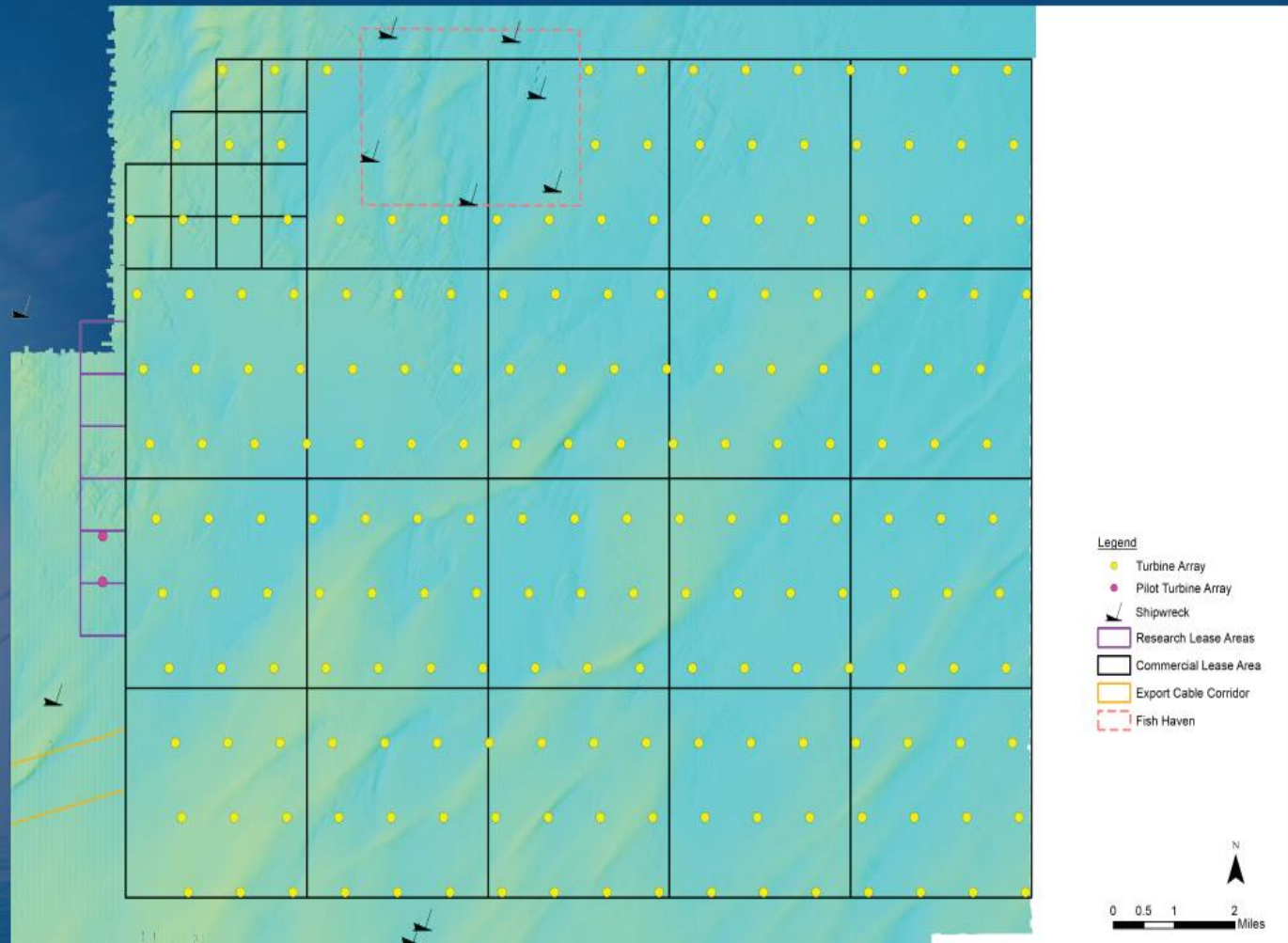
Vessel and Aircraft Clearance



Depiction of different types and sizes of vessels and aircraft between two wind turbines, spaced 0.7 nm by 0.9 nm. These vessel and aircraft graphics have been drawn to scale to more accurately demonstrate transportation navigation and clearance between turbines.

Coastal Virginia Offshore Wind Commercial Project

Lease Area and Fish Haven



The benthic characterization, presence of shipwrecks, and location of the fish haven area within the Lease Area.

Coastal Virginia Offshore Wind Commercial Project

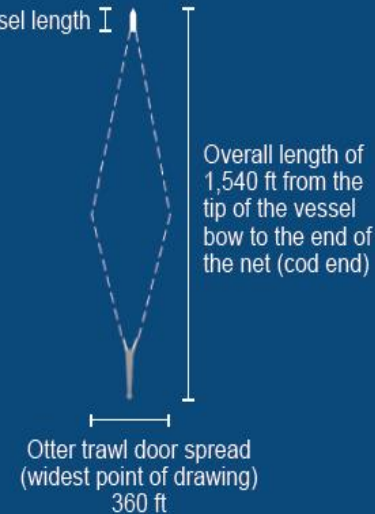
Fishing Equipment



45 ft vessel length
(fixed gear vessel)

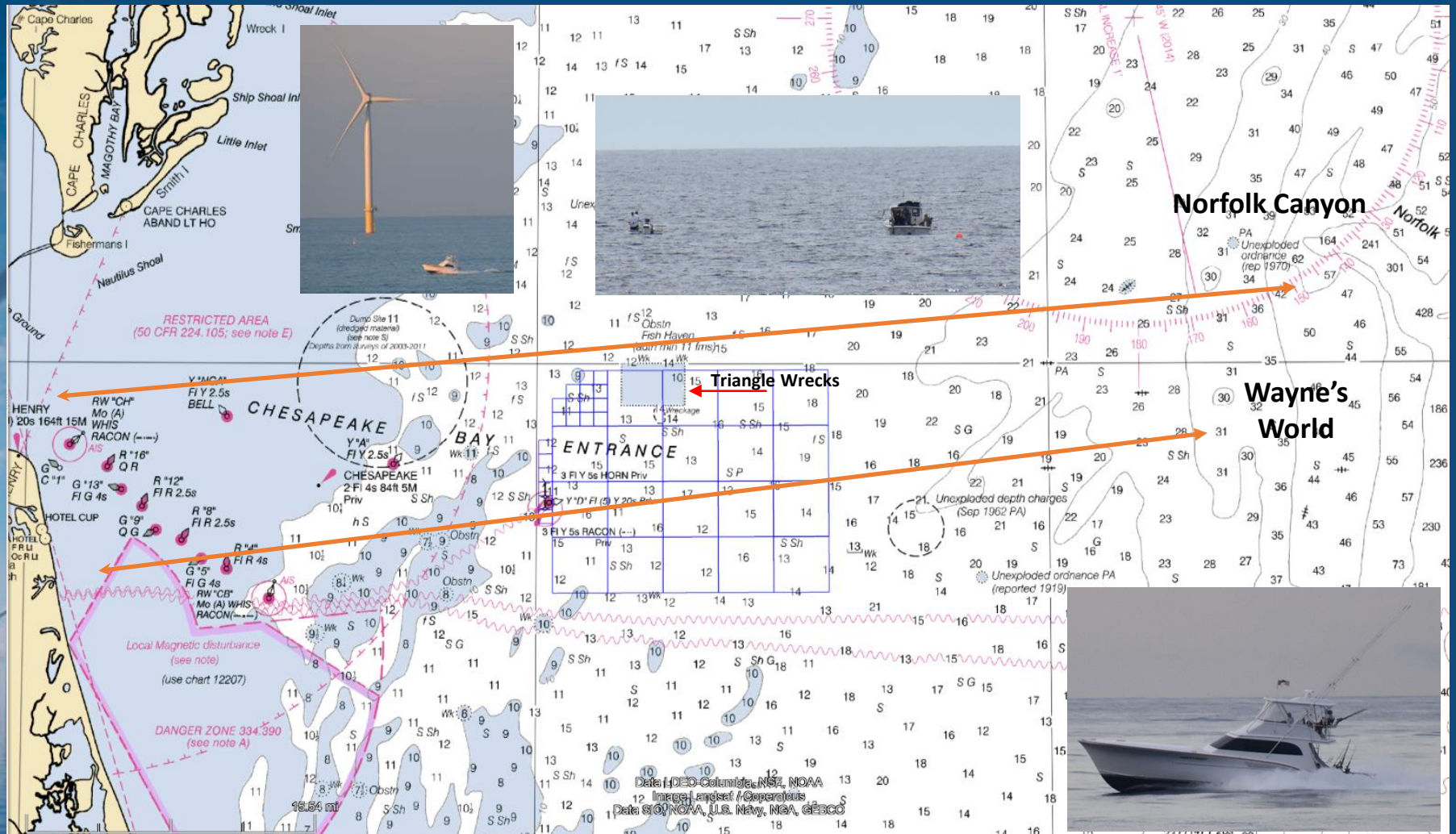
Strings of fixed
gear (pot/
traps/gillnets):
estimated at about
1,200 ft long

87 ft vessel length



Depiction of different types of fishing equipment (fixed gear and trawl) between two wind turbines, spaced 0.7 nm by 0.9 nm. These fishing equipment graphics have been drawn to scale to more accurately demonstrate fishing equipment navigation between turbines.

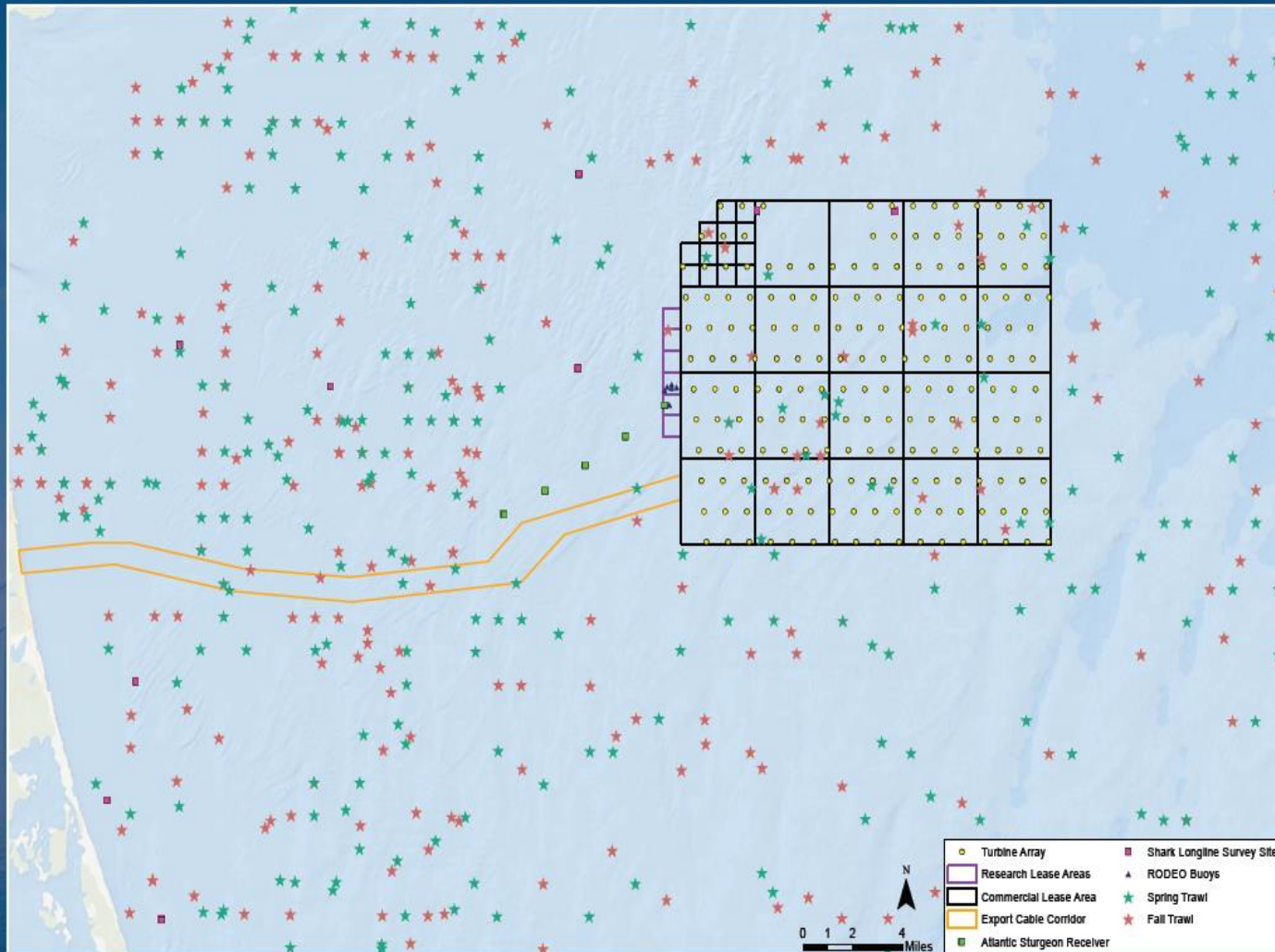
Recreational Fisheries



- Triangle Wrecks and other seabed obstructions targeted by recreational fishermen
- Transits to offshore Highly Migratory Fisheries grounds ~27 nm east of lease area
- Recreational SCUBA and free divers have been observed near new turbines

Coastal Virginia Offshore Wind Commercial Project

Science and Research



Science and research activities being conducted around the Offshore Project Area, including the collection of Shark Logline, Atlantic Sturgeon, Spring and Fall Trawl, and Acoustic Monitoring Data.

A photograph of an offshore wind farm in a blue sea under a clear sky. Several wind turbines are visible, with one in the foreground on the left and others further out. A small white boat is in the lower right. The text "Questions & Additional Discussion" is overlaid in white.

Questions & Additional Discussion