

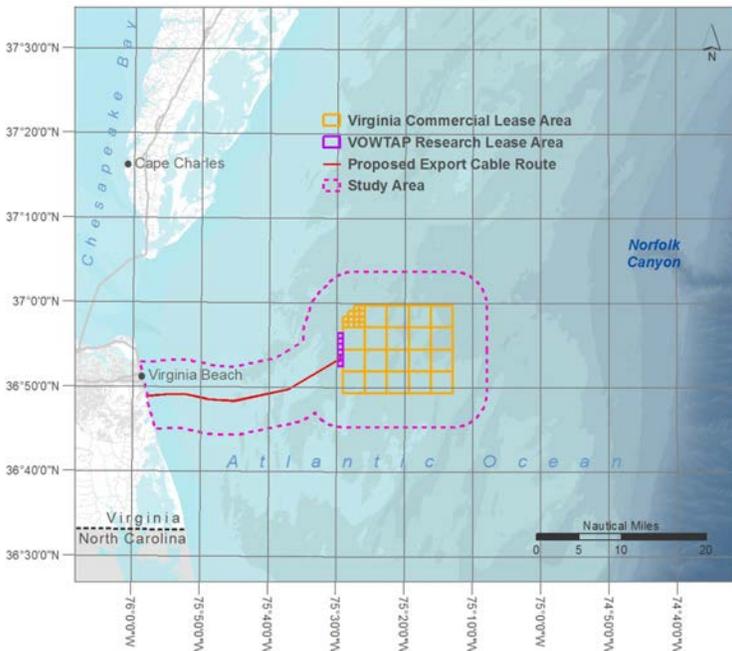
# Collaborative Fisheries Planning for Virginia's Offshore Wind Energy Area

Photo of fishing vessel navigating wind farm in Sweden, Distance between turbines in Virginia would be greater than shown.

To prepare for future development of wind energy facilities off the coast of Virginia, the Bureau of Ocean Energy Management (BOEM), Virginia Department of Mines, Minerals, and Energy (DMME), and Virginia Coastal Zone Management (VA CZM) Program are working with the recreational and commercial fishing communities to share information through a collaborative process. Our objectives include developing fine-scale maps of commercial and recreational fishing areas; identifying recommendations to mitigate use conflicts between fishermen and wind energy development; and developing a plan for communicating with fishermen about wind development activities.

## Value for Participating Fishermen

- Your participation will provide regular communication to let you know what to expect as the wind energy projects progress
- You can inform the project team of the best ways to communicate with all fishermen under various circumstances, such as notifications about temporary closures or other messages that need to be communicated during construction and operation
- Your fishing data and other information can help with decisions about some aspects of design, construction, and operation of the commercial wind energy project infrastructure, and construction timing, to reduce conflict with the fishing community during the development of wind energy facilities



## Virginia's Wind Energy Area

Virginia's designated offshore commercial wind energy area is 24 nautical miles off the coast of Virginia Beach. The Virginia Offshore Wind Technology Advancement Project (VOWTAP) Research Lease Area (purple grid) will include two 6 megawatt ocean scale wind turbines and a buried transmission cable. Commercial and recreational fisheries data in and around the research and commercial (yellow grid) lease area are being sought, collected, and analyzed to minimize use conflicts with offshore wind energy development. This area is approximately 176 square miles.

For more information, please contact:

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For more information visit CZM's Fishing and Virginia Offshore Wind webpage at <http://www.deq.virginia.gov/Programs/CoastalZoneManagement/CZMIssuesInitiatives/OceanPlanning/FishingandVirginiaOffshoreWind.aspx>

CZMIssuesInitiatives/OceanPlanning/FishingandVirginiaOffshoreWind.aspx

## Collaborative Fisheries Project Schedule

### Winter/Spring 2015

- Compile and review available commercial fishing data (e.g., National Marine Fisheries Service's vessel trip reports, vessel monitoring system and logbook data)
- Identify and collect commercial fishermen's data to fill known data gaps (e.g., sea bass potters, conch, red crab and menhaden)
- Compile and analyze recreational fishing spatial data

### Spring 2015

- Review and evaluate all maps with fishermen

### Summer/Fall 2015

- Potentially host a fishermen exchange to discuss experiences with offshore wind energy development in other regions
- Develop recommendations, best management practices, and a fisheries communication plan for the design, construction and operation of wind energy facilities

## Research Lease

The Virginia Offshore Wind Technology Advancement Project (VOWTAP) is located on a research lease area held by VA Department of Mines, Minerals and Energy (DMME) and is approximately 24 nautical miles east of Virginia Beach. The research project, subsidized largely by the U.S. Department of Energy, will construct and operate two 6-megawatt (MW) wind turbine generators and install 27 nautical miles of submarine cable transmission line.

Although the VOWTAP is already designed and funded, it provides an opportunity for DMME and other project members to seek input from the fishing community on the development of the communication plan and best management practices under this Fisheries Collaboration project. Construction and operation of VOWTAP will inform development within the commercial lease.

### Tentative Timeline for VOWTAP

**2014-2016:** Site assessment activities

**2017:** Construction and installation of wind turbine generators and transmission cables.

## Commercial Lease

From 2009 to 2012, BOEM convened the Virginia Renewable Energy Task Force, which includes federal, state, local, and tribal government representatives. It identified an area on the outer continental shelf for large scale development. BOEM solicited stakeholder input about existing uses of the location prior to the notice of the lease auction. In consultation with the Task Force, BOEM selected the final lease area to protect ecologically sensitive areas and minimize space use conflicts while maximizing the area



*Beneath the surface: This graphic illustrates the proposed foundations for the two VOWTAP turbines. Specific foundation types for the commercial project have not yet been identified.*

available for offshore wind development. In 2013, Dominion Virginia Power won the bid for the lease area of approximately 112,799 acres, located 24 to 36 nautical miles offshore from Virginia Beach.

Between 2016-2018, Dominion will collect biological, geological, and archaeological data to inform their construction and operations plan. BOEM anticipates receiving the plan in late 2018, after which BOEM will conduct environmental analyses under the National

### Tentative Timeline for Commercial Lease

**2016-2018:** Site assessment activities

**Late 2018:** Submission of construction and operations plan

**2019:** BOEM begins environmental review of the plan, including multiple opportunities for public comments

**2021:** Earliest start of construction

Environmental Policy Act (NEPA), Magnuson-Stevens Fishery Conservation and Management Act, and the Endangered Species Act. The environmental review process under NEPA will provide an additional opportunity for the fishing community to be involved in the decision-making process. To complete its NEPA responsibilities, BOEM will ask for your thoughts on potential project alternatives and solicit your comments on whether BOEM has adequately identified social, environmental, and economic impacts.

BOEM's post-lease regulatory process is anticipated to take as few as 18 months. The earliest start for the 2-3 year construction period would be 2021. Dominion has indicated it will take a phased approach with Phase I providing between 400 to 600 megawatts. There may be as many as four phases.

## Importance of Regional Ocean Planning

Ocean planning on a multi-state level is necessary to develop a shared understanding of how the offshore environment is currently used and how it may be used in the future. It provides a transparent framework to organize and map uses, resources, and interactions. Ocean planning helps create a collaborative vision for balancing ecological, economic, and social demands on marine ecosystems. This project will inform and provide data for the Mid-Atlantic Regional Council on the Ocean (MARCO) and the Mid-Atlantic Regional Planning Body (RPB), as well as DMME and Dominion. Both MARCO and the Mid-Atlantic RPB are working on regional ocean planning, including coordination of projects such as the development of offshore renewable energy production.

## Study Area

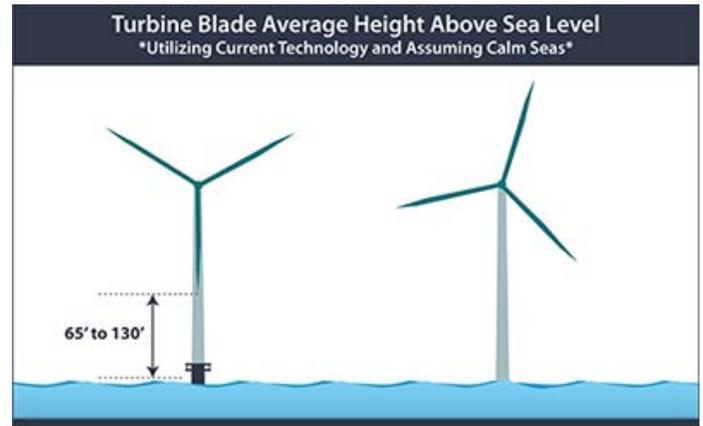
Data will be developed for the waters off of Virginia Beach which have been identified as potential cable transmission routes and a study area of approximately four nautical miles around the research and commercial lease areas.

## New Data to Collect

The project team seeks to capture missing data within the study area (e.g., fishing activity not required to be reported; primary transit routes, etc.) via two methods:

- Download and mapping of voluntarily contributed chart plotter data (grouped and summarized to address confidentiality concerns).
- Participatory Geographic Information System (p-GIS) mapping work with fishermen to map fishing and transit locations directly into a computer.

Any data submitted will be assigned a unique ID and any identifiable information (e.g., vessel or owner



name) will be removed. Unless specifically authorized by you, your data will only be used in a combined data set so that it does not identify your individual fishing patterns. Raw, unaggregated data will not be shared publicly.

## Integrating all Data

In addition to collecting new information, this project also seeks feedback on existing mapping projects, including MARCO's Communities at Sea maps, Virginia CZM's Recreational Use Maps, and BOEM's fishery exposure analysis. Communities at Sea maps integrate National Oceanic and Atmospheric Administration's (NOAA's) Vessel Trip Report (VTR) and vessel permit databases (2011 to 2013) to produce heat maps that link commercial fishing with the ocean places where they spend the most time. Virginia Coastal GEMS identified recreational fishing locations via pGIS workshops in 2012. In 2015, results from BOEM's project with NOAA's Northeast Fisheries Science Center are expected to be available and will provide estimated fishing revenue from wind energy areas (i.e., exposure). Data from these three sources within the study area will be synthesized as a baseline to be enhanced and improved through the new data collection activities undertaken through this project.

*This collaboration is designed to complement and integrate existing data to build a stronger regional spatial understanding of fishing. As such, information on other existing initiatives listed in the table below will also be shared.*

Mapping Tool	Fisheries Data Description	Primary Data Source	For More Information
MARCO's Ocean Data Portal	"Communities at Sea" heat maps showing commercial fishing effort linked to fishermen's home ports	NOAA VTR and NOAA vessel permit database	portal.midatlanticocean.org
Virginia CZM's Coastal GEMS Portal	Locations of general and dominant use for recreational fishing	Participatory mapping (P-GIS) workshops	www.coastalgems.org
NOAA/BOEM fishery exposure analysis	Estimated value of fish commercially harvested from wind energy areas	NOAA VTR, Vessel Monitoring System, and seafood dealer reports	Report expected to be available in summer 2015

Data confidentiality statement: All unaggregated fishing data provided by fishermen to the project team will be treated as confidential business information under Exemption 4 to the Freedom of Information Act and not released to the public. Only aggregated fishing data will be available to the public. Virginia's Freedom of Information Act at Section 2.2-3705.6 excludes "Fisheries data that would permit identification of any person or vessel except when required by court order as specified in Section 28.2-204."

