

### **§ 45.2-1804. Virginia Offshore Wind Development Authority 'Charter'**

The mission of the Authority is to facilitate, coordinate and support development of the offshore wind energy industry, offshore wind energy projects and supply chain vendors by:

- Collecting metocean and environmental data;
- Identifying regulatory and administrative barriers;
- Working with local, state, and federal government agencies to upgrade port and logistic facilities and sites;
- Ensuring development is compatible with other ocean uses and avian/marine wildlife;
- Recommending ways to encourage and expedite offshore wind industry development.

**OBJECTIVE A:** VA Offshore Industry Data: Facilitate the definition, collection, dissemination of relevant metocean data, environmental data, and other information needed by VA offshore wind stakeholders, utilizing existing, planned, or projected sources of data collection or activities.



**ACTION:** Actively solicit research and development opportunities and activities to reduce the cost and risk of developing wind resources and the supply chain, including leveraging the CVOW project and other uses of the Virginia Energy Research Lease in conformance with existing agreements. Work with Virginia colleges and research universities and create a platform to promote the benefits of using other areas adjacent to the Research Lease for important wind research, e.g., impacts of hurricanes, marine life, and commercial fishing.

**EW:**  
**How does Research equate to Cost Reduction? The best way to reduce costs is to manufacture parts in the U.S.A..**



The U.S. Department of Energy's (DOE's) Wind Energy Technologies Office (WETO) leads the nation's efforts to improve the performance, lower the costs, and accelerate the deployment of wind power technologies.

[Offshore Wind](#): Funding research to develop and demonstrate effective turbine technologies and overcome key barriers to deployment along U.S. coastlines.

[Testing and Certification](#): Developing and using testing facilities to support research and certification of wind turbine technologies at the component, turbine, and wind plant levels.

[Wind Manufacturing and Supply Chain](#): Collaborating with wind technology suppliers to increase reliability while lowering production costs, and to promote an industry that can meet all domestic demands while competing in the global market.

[Wind Turbine Sustainability](#): Working to extend the life cycle, reduce waste, and enhance the recycling of wind turbine materials to promote sustainability and reduce the environmental impact of wind energy systems.



Office of Energy  
Efficiency &  
Renewable Energy



## STRENGTHS

- Approved Research Lease Area
- Current Approved and Funded Research Projects
- Future Approved Research Projects
- VA Coastal Energy Consortium
- VOWDA Charter
- Membership in NOWRDC

## WEAKNESSES

- Constraints in Lease Agreement(s) for collecting Research Fees
- Lack of Published Research Project/Funding Opportunities
- Lack of Centralized Location for Research Requests/Solicitations/Opportunities
- Lack of State Funding Opportunities for Research Projects
- Constraints on Use of Turbines for Research Projects
- Unachieved Research Deliverables from DMME/ODU MOU
- Unrealized Benefits from Membership in NOWRDC
- No strategy to acquire new lease areas for VA

## OPPORTUNITIES

- Membership in NOWRDC
- Federal Funding Programs for Offshore Wind
- DMME/ODU MOU
- Benefits of Memberships to Offshore Wind Research Organizations
- Existing and Under-Development Collaborative Public Access Platforms
- State Offshore Wind Research Funding Support
- Collaboration with other Research organizations
- National Policy involvement
- New Atlantic Coast Lease Areas

## THREATS

- NOWRDC
- Massachusetts Clean Energy Center and POWER US
- New York-NYSERDA
- New Jersey-Research and Monitoring Initiative
- Maryland-MEA Offshore Wind Grant Programs
- Maine- Offshore Wind Research Advisory Board
- Third Party Developers bidding on New Lease Areas off VA coast

## LM: Why are other States' initiatives listed as Threats and not Opportunities to collaborate?

### THREATS

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[The MassCEC](#) is dedicated to the success of clean energy technologies, companies, and projects **in Massachusetts**, along with creating great jobs and economic growth for the state.

The goal of the Research and Monitoring Initiative is ensure that as New Jersey moves towards a clean energy economy, we also adhere to our mandate to protect and responsibly manage **New Jersey's coastal & marine resources**.

The Maryland Energy Administration has funding opportunities available to businesses, including minority owned emerging businesses, non-profits, academic institutions, labor unions, and state, local, and municipal governments to help **establish an offshore wind supply chain and experienced workforce**.





# Summary

**BLUF: The key result of this Action is to reduce the cost and risk of developing wind resources and the supply chain. Since the acquisition of the research lease area was completed there has been no activity regarding this action primarily due to the lack of funding available to carry out the scope of the DMME-ODU MOU which charges ODU with developing and managing the activities listed in the Action.**

This section of the VOWDA Charter was established in 2010 with the intent to reduce the cost of developing Offshore Wind by offsetting the cost of the research/surveys required for the BOEM permit(s) with third party research sponsors that would perform these research/survey projects with grants and other funding. Early on, DMME awarded several million dollars over about three years to ocean geological and geophysical studies, metocean data collection, ocean floor borings, ocean bottom samples, LIDAR hub height wind data acquisition, and more. "Perhaps the single largest contribution to lower the costs and risks of development was the agency's acquisition of the first offshore renewable energy research lease awarded by BOEM." In 2019, DMME and ODU executed an MOU establishing a scope of work that, in part, included carrying out this objective (see below). The funding included in the Initial contract awarded under the MOU was insufficient to complete the entire scope of work and additional funding was not received. Therefore, this Action has been dormant and Dominion Energy, as the developer, self-funded the research and surveys required for the BOEM Permit(s). Currently, Dominion processes and manages all unsolicited third-party research proposals independently.

## MOU Scope of Work

**1.1 Serve as Principal Investigator or take lead role in responding to OSW research proposal solicitations. ODU is to coordinate response to the National OSW R&D Consortium and pursue Virginia's share of approximately \$32M that the Consortium will award through competitive solicitations over the next four years. ODU also will coordinate response to other solicitations such as the Federal Funding Opportunity from the Department of Defense Office of Economic Assistance on renewable energy siting around military installations and in training ranges. Finally, ODU will identify opportunities to expand Virginia's participation in the "Blue-Green Economy" including other forms of marine renewable energy and sustainable ocean enterprises.**



## Summary

- The Permit(s) for the Research Area contain **terms required by BOEM** which directly effect any agreement terms/scope of research projects. A thorough review of the Permit(s) would provide more insight into these constraints.
- The Dominion Energy's 'Test 'Turbines were recently converted to 'Operational', which adds additional **restrictions/regulations to any research project** opportunities directly associated with the Turbines. A thorough review of the regulations would provide more insight into those restrictions.
- Established in 2018, **NOWRDC** is a national organization in a private/public partnership with the DOE for the purpose of grant funding for Offshore Wind research projects. Virginia was one of the first members of NOWRDC and committed \$1mil to the organization which also entitled Virginia to a seat on the Board. \$600k has been paid in to-date. There has not been a study performed (cost/benefit, ROI, etc...) since the organization began, so it is unclear what benefit Virginia is receiving for its investment. Each member states' 'fact sheets'' can be found on the NOWRDC website. However, many of the projects shown overlap or are a part of another project claimed by other state(s) and the amount of project funding per state appears to be disproportionate. For example, New York research projects received \$16mil compared to the overall \$31mil that has been awarded to all member states to date. More involvement would be beneficial in determining the value of Virginia's membership in NOWRDC as well as how to leverage the membership for better grant award outcomes for Virginia.

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## Summary

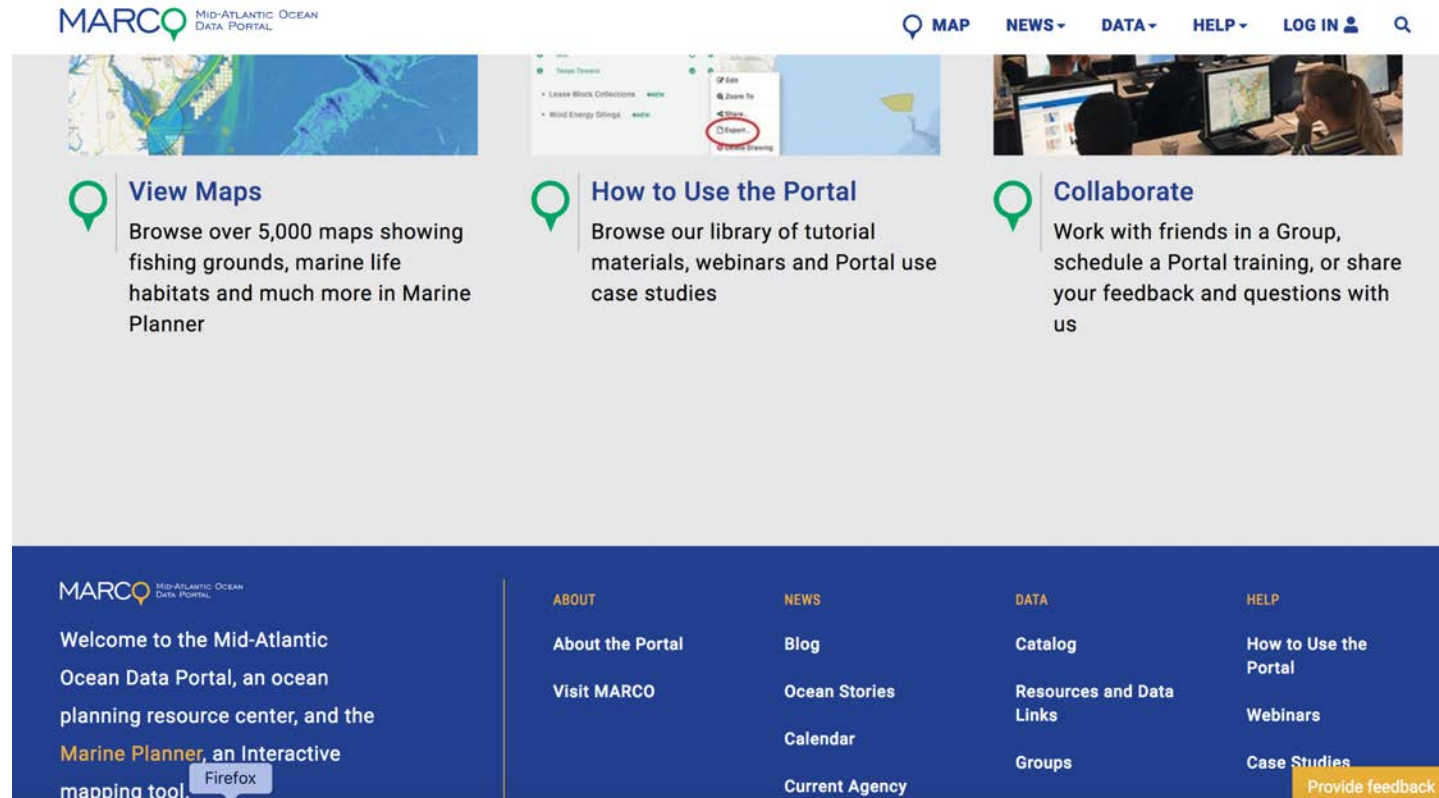
- Although Virginia is far ahead of other Atlantic Coast Offshore Wind projects currently under development, it is somewhat **behind in promoting and providing funding sources for Offshore Wind research projects.** Massachusetts, New York, New Jersey and Maryland all have publicly accessible platforms promoting Offshore Wind research projects, funding sources and State grant programs.
  - Numerous Research Funding Sources Exist (some in odd places). Examples:
    - Offshore Wind Jobs and Opportunity Act
    - America Water Infrastructure Act
    - ACE Innovative Port Study
- There are existing and under-development **collaborative platforms and organizations** that could be used for achieving this Objective action (without having to reinvent the wheel):
  - **Open Seas** is an existing platform primary functioning as a Technology Innovation Hub. It is a partnership led by ODU and funded in part by the US Economic Development Administration i6 Challenge Fund. The site has an existing Offshore Wind program tab featuring a recent grant award for development of an Offshore Wind Site Selection Tool. (check for partnership/funding conflict of interest)
  - **ARIEL** is a platform under-development with the goal of being 'An Industry-Driven, Multi-Asset Testbed for Developing, Testing, and Certifying Offshore Wind and Other Marine Energy Technologies'.
  - **RWSC**- Organization to collaboratively and effectively conduct and coordinate relevant, credible, and efficient regional monitoring and research of wildlife and marine ecosystems that supports the advancement of environmentally responsible and cost-efficient offshore wind power development activities in U.S. Atlantic waters.



# Summary

LM:

The well-developed Mid-Atlantic Ocean Data Portal operated (since 2010) by the Mid-Atlantic Regional Council on the Ocean (MARCO) should be recognized.



The screenshot shows the MARCO Mid-Atlantic Ocean Data Portal homepage. At the top, the MARCO logo and navigation links for MAP, NEWS, DATA, HELP, and LOG IN are visible. The main content area features three highlighted sections: 'View Maps' (Browse over 5,000 maps showing fishing grounds, marine life habitats and much more in Marine Planner), 'How to Use the Portal' (Browse our library of tutorial materials, webinars and Portal use case studies), and 'Collaborate' (Work with friends in a Group, schedule a Portal training, or share your feedback and questions with us). The footer contains a welcome message, a navigation menu with links for ABOUT, NEWS, DATA, and HELP, and a 'Provide feedback' button.

**JM:**  
**VOWDA should coordinate with  
Dominion  
\*and Industry stakeholders**

**LM:**  
**Having a VA entity to manage this  
would be great**

## Recommendations for VOWDA Consideration

- **Revise Objective Actions by updating language- ex: change ‘reduce cost and risk of developing Offshore Wind’ to ‘reduce the levelized cost of energy of Offshore Wind while maximizing economic and environmental benefits’ ; include ‘innovation’ in research activities**
- **Determine Types/Topics of Research that are pertinent to future Offshore Wind Development**
- **Create/Prioritize Research Project Types/Topics**
- **Establish State Grant/Funding Program for Offshore Wind Research Projects**
- **Identify and Appoint \*Entity to Establish a Central and Publicly Accessible Location to Promote Research Project and Funding Opportunities**
- **Identify and Appoint \*Entity to Accept and Process all Research Project Requests**
- **Identify and Appoint \*Entity to Create Research Project Solicitations**
- **Identify and Appoint \*Entity to Manage Research Projects**

## LM:

Having a VA entity and VA funds to match the large amount of \$ that these organizations (especially RWSC) are receiving from OSW developers would help VA take advantage of those entities and avoid re-inventing the wheel.

- Compile List of BOEM Permit Constraints and Operational Turbine Restrictions for Research Projects
- Identify Fee Structure and Means for Collection of Fees IAW Lease/Permit Terms
- Determine value of future membership in NOWRDC. If maintained-
- Leverage Membership in NOWRDC to achieve better Research Project Funding outcomes for Virginia
- Join and Leverage memberships in Offshore Wind Research Organizations-ex: ROSA, RODA, RWSC. \* [Mid-Atlantic Ocean Data Portal](#)
- Collaborate on research projects and ensure alignment of policies/priorities with VA interests
- Utilize current and future data and research findings to boost acquisition of new Offshore Wind Lease Areas for Virginia
- Create and Issue White Paper by June with Recommended VOWDA Actions, Staff Actions, Budget Items, and Legislative Actions.

# Recommendations for VOWDA Consideration

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**WF, CG,BS,EW:  
Create a Matrix and prioritize Recommendations**

VOWDA Recommendations Matrix								
Number	Item	Urgent	Simple	Requires Staff Input	Requires other Agencies	Requires Funding	Requires Legislation	Requires Additional Staff
1	Revise Objective Actions	X	X					
2	Determine Types/Topics of Research		X	X	X			
3	Create/Prioritize Research Types/Topics		X	X				
4	*Establish State Grant/Funding Program	X		X	X	X	X	
5	Entity to promote research projects/funding			X	X	Maybe		
6	Entity to Accept Research Project Requests			X	X	Maybe		
7	Entity to Create Research Solicitations			X	X	Maybe		
8	Entity to Manage Research Projects			X	X	Maybe		
9	List BOEM Permit Constraints for Research	X	X	X				
10	Identify Fee Structure for Research Projects			X	Maybe			
11	Determine Value of NOWRDC Membership	X	X	X				
12	Leverage NOWRDC Membership	X	X	X				
13	Determine which Research Organizations to Join	X	X	X		Maybe		
14	Investigate Collaboration on Research Projects		X	X				
15	Utilize current data to leverage future OSW Leases			X	Maybe			
16	Create White Paper with recommendations	X	X	X				
	Other Recommendations							
17	Legislative/Budget Matrix Updates		X	X				Maybe
	* Governor Youngkin announces Offshore Wind Manufacturing Grant, approved by GA 2022							

**Research includes Data Collection and other activities**



# Sources

- John Larson- Director Public Policy and Economic Development, Dominion Energy
- Jerry Cronin- Executive Director Open Seas Technology Hub, IIE ODU
- Scott Lawton- environmental Technical Advisor, Dominion Energy Environmental Services
- Al Christopher- Director, State Energy Office, VA Department of Energy
- John Begala- VP for State and Federal Policy, The Business network for Offshore Wind
- Google and extremely talented search skills. : )

**LM:**  
**Add the following sources:**

- Dr. Emily Shumchenia, ED, RWSC
- Dr. Renee Reilly, ED, ROSA
- Nick Napoli, MARCO Ocean Data Portal





**WF:**

**Who is the current NOWRDC Board representative for VA? Were you able to pull any meeting minutes from the last 12 months?**

Agency Director Glenn Davis is the board representative, but past practice has been to delegate that to staff, me currently. Ken is working on a history of VA entities awarded funds by the consortium. The total is more than twice our 600K contribution to the consortium R&D capital pool.

**Is ODU an active player in any Off-Shore wind efforts?**

Less so than in recent years when ODU had nearly \$1 million in grant funds, but still actively pursuing a federal Center of Excellence (in offshore wind) grant award.

**Would any other Universities (JMU, VT, UVA) have an interest in a role similar to the one ODU had in the previous MOU?**

JMU and Hampton U also are engaged as partners in applying for COE awards.



