

VIRGINIA OFFSHORE WIND
DEVELOPMENT AUTHORITY



Annual Report

November 1, 2021

Virginia Offshore Wind Development Authority
c/o Virginia Department of Energy
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Richmond, Virginia 23219
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VIRGINIA OFFSHORE WIND DEVELOPMENT AUTHORITY

November 1, 2021

Dear Governor Northam and Members of the Virginia House of Delegates and Senate:

It is my pleasure to transmit the enclosed annual report from the Chair and members of the Virginia Offshore Wind Development Authority (VOWDA or Authority) with the report of our 2021 activities and recommendations for future and ongoing work.

To summarize, VOWDA has continued to be instrumental in helping the Commonwealth meet its goals for implementing the Clean Economy Act in particular the goal that proclaims 5200 MW of offshore wind to “be in the public interest.” We are certainly on our way to meeting this goal.


Although the restrictions of the COVID-19 pandemic have made it difficult if not impossible to meet in person, nonetheless VOWDA has continued to promote the values and benefits of offshore wind as a source of clean energy to reduce pollution in our air and bring about thousands of well-paying clean energy jobs.

We have conducted our work in close coordination with the Department of Energy; Dominion Energy Virginia, the offshore wind leaseholder; the Hampton Roads Task Force; the Members of the Assembly and Senate who have supported offshore wind with the passage of the Clean Economy Act; the Port of Virginia which has become a critical staging port for offshore wind; and the excellent university and college community of the Commonwealth of Virginia whose students will soon become the workers of the future on offshore wind both here and along the Atlantic Coast.

We continue to endorse the Coastal Virginia Offshore Wind (CVOW) project with its proposed 2.6GW of offshore wind which puts the Commonwealth of Virginia on the path to meet its clean energy goals. The year 2021 was a critical time for the CVOW project. The two-turbine CVOW research project became operational, and the Construction and Operations Plan for the commercial CVOW project was submitted to the Department of the Interior for its review and approval. We anticipate commercial operation by 2026. Until that time, VOWDA will continue to play its part in addressing and resolving use conflicts and touting the benefits of offshore wind to all Virginians.

Thank you for your continued support of VOWDA which has played and will continue to play a critical role in bringing about a clean energy economy for the Commonwealth of Virginia.

Sincerely,



Joan Bondareff, Chair

Enclosure

cc: Jennifer Palestrant, Virginia Energy Chief Deputy



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EXECUTIVE SUMMARY

The Authority continues to work with and support the efforts by the Virginia Department of Energy (Virginia Energy), the Federal Bureau of Ocean Energy Management (BOEM), Dominion Energy, Avangrid Renewables and other stakeholders to help accelerate offshore wind development projects in Virginia, address environmental and financial issues, and create port and supply chain economic opportunities.

The past year has brought a number of significant milestones to enhance Virginia's potential as the location of choice for investment in this burgeoning industry:

- ❖ The General Assembly passed and the Governor signed the Virginia Clean Economy Act (VCEA) and offshore wind legislation in 2020. VCEA, the first omnibus renewable energy bill in the South, calls for 100% clean energy generation by 2050 that includes 5.2 GW of offshore wind.
- ❖ Legislation also created the Virginia Energy Division of Offshore Wind, the first of its kind in the nation. This Division will serve as a clearinghouse for all offshore wind activities, training, research and economic development. The Commonwealth of Virginia budget also included investments of up to \$40 million to upgrade the Portsmouth Marine Terminal to secure new investments in the offshore wind supply chain.
- ❖ In the spring of 2020, Dominion Energy and Ørsted installed the first two offshore wind turbines in Federal waters, located 26 nautical miles off the coast of Virginia Beach. These turbines are used to research new technologies aimed at lowering the cost of energy production.
- ❖ In October 2020, the Governors of Maryland, Virginia and North Carolina, announced a three-state collaboration to advance offshore wind projects in the region and to promote the Southeast and Mid-Atlantic United States as a hub for offshore wind energy and industry. The creation of the Southeast and Mid-Atlantic Regional Transformative Partnership for Offshore Wind Energy Resources (SMART-POWER) provides a framework for the three states to cooperatively promote, develop, and expand offshore wind energy and the accompanying industry supply chain and workforce.
- ❖ Governor Ralph Northam announced in October 2020 the creation of the Mid-Atlantic Wind Training Alliance to build wind energy workforce in Virginia. The Alliance of New College Institute, Centura College and Mid-Atlantic Maritime Academy joined forces to offer Global Wind Organization Training in Virginia for onshore and offshore wind technicians.

- ❖ In October 2020, GO Virginia awarded a \$529,788 grant to the Hampton Roads Alliance (HRA) to attract a supply chain for the offshore wind industry to the region. HRA will lead a team in the project, including the Port of Virginia, Virginia Energy, Virginia Economic Development Partnership, Old Dominion University, the Virginia Maritime Association and the Hampton Roads Workforce Development Council.
- ❖ The Hampton Roads Alliance unveiled the Offshore Wind Supply Chain Development Initiative in July that will develop a comprehensive supply chain to serve the East Coast offshore wind industry. This initiative will position Hampton Roads as the premier destination for offshore wind companies to invest, while also creating new economic prospects for existing businesses, attracting new investments to the region and sparking new permanent job creation.
- ❖ In June of 2021, the CVOW Project was among the first in the nation to use a new federal permitting process designed to accelerate offshore wind development. The initiative that was developed in partnership with Old Dominion University and the Virginia Department of Energy will be critical to ensuring new offshore wind leases are approved in a timely manner. The agreement allows the U.S. Army Corps of Engineers to assist the Bureau of Ocean Energy Management (BOEM) with the scientific and technical review of proposed wind projects. This additional capacity will allow BOEM to focus on a broader range of challenges, including the development of additional offshore wind leases. While the agreement covers all renewable energy activities along the Atlantic Coast, the initial focus will be on the review of CVOW and Kitty Hawk offshore wind projects.
- ❖ On October 25, 2021, Governor Northam announced an agreement with Siemens Gamesa for a blade finishing facility built on 80 acres in Portsmouth, Virginia at the Portsmouth Marine Terminal, part of the Port of Virginia. It is an investment of almost \$200 million dollars and an estimated 310 employees. This will be the first major component facility built in the United States and is the first major step in the creation of the offshore wind supply chain for the United States.

Because of activities and accomplishments in 2020-2021, the Authority makes the following recommendations for 2022 to further advance offshore wind development and related supply chain activities in Virginia. The recommendations are ranked in order of priority.

RECOMMENDATIONS

- RECOMMENDATION 1:** Continue to support the CVOW Commercial and Kitty Hawk projects through public meetings, comments on BOEM documents and reports, facilitate resolution of potential use

conflicts with all stakeholders, and work towards meeting the offshore wind goals of the Clean Economy Act.

RECOMMENDATION 2: Continue to work with all stakeholders to create a local supply chain for CVOW and Kitty Hawk and future offshore wind projects. Collaborate with stakeholders, including Dominion Energy, Ørsted, Avangrid Renewables, Siemens Gamesa, Virginia Economic Development Partnership, universities, the Port of Virginia, the maritime industry, Virginia and European manufacturers, and others to promote Virginia companies as part of the supply chain for offshore wind.

RECOMMENDATION 3: 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.

RECOMMENDATION 4: Work to identify possible power off takers in the Commonwealth and elsewhere, such as large data companies with clean energy commitments and Amazon's Eastern Headquarters². This will help facilitate approval by the State Corporation Commission (SCC) of the commercial site by defraying its costs to the ratepayers either partly or fully.

RECOMMENDATION 5: To recognize and continue to support the tri-state SMART-POWER MOU between VA, NC and MD in order to create more jobs in the mid-Atlantic region, bring clean energy to the tri-state grid and bring positive benefits to disadvantaged coastal communities.

RECOMMENDATION 6: Promote identification of other potential Wind Energy Areas off the coast of Virginia in consultation with the Department of the Interior and all interested Virginia stakeholders including the Virginia Coastal Zone Management Program which is in the process of developing a Virginia Ocean Plan to identify areas for

offshore wind and engage stakeholders in order to minimize use conflicts.

As required by § 45.2-1808 of the Code of Virginia, the Authority submits this tenth annual report to the Governor and the Chairpersons of the House Appropriations Committee, the Senate Finance Committee and the House and Senate Commerce and Labor Committees.

MISSION AND OBJECTIVES

The Virginia General Assembly created the Virginia Offshore Wind Development Authority (VOWDA or the Authority) in 2010 for the purposes of facilitating, coordinating, and supporting the development of the offshore wind energy industry, offshore wind energy projects, and related supply chain opportunities. The Code of Virginia § 45.2-1804 tasks the Authority to support Virginia offshore job creation and supply chain development, in cooperation with relevant local, state and federal agencies. A copy of the Authority's Mission Statement and Objectives can be found in *Appendix A*.

The Governor appoints the nine non-legislative citizen members. The Director of Virginia Energy serves as the Director of the Authority, and Virginia Energy serves as staff to the Authority. The list of VOWDA Members is included as *Appendix B*.

The legislation requires the Authority to provide an annual summary of the activities of the Authority and policy recommendations to the Governor, the Chairpersons of the House and Senate Commerce and Labor Committees and the Chairs of the House Appropriations and Senate Finance Committees. Copies of all VOWDA reports are available on its website, <https://www.vaoffshorewind.org/authority/about/>.

OFFSHORE WIND DEVELOPMENTS AND ACTIVITIES

Virginia Offshore Wind Development Authority

To accomplish its goals and objectives, the Authority regularly updates and works to implement a comprehensive work plan. To improve communications and coordination regarding VOWDA's work tasks and other state activities to facilitate development of the offshore wind resource and supply chain, Virginia Department of Energy staff held monthly calls with Dominion Energy.

In 2020-2021, VOWDA focused on five objectives. Members developed tasks to achieve these objectives, completing several activities this year that support offshore wind power development.

1. Accelerate the drive for resources and policies to ensure that the first phase of the commercial wind energy buildout will support initial generation of energy by 2024 and that additional phases will come online in 2025 and 2026 to fully develop up to 2,600MW of wind energy off Virginia's shore in six years.
2. Develop a coordinated policy, economic development and workforce development strategy to incentivize and thereby ensure offshore wind supply chain opportunities for Virginia. Collaborate with stakeholders, including Dominion Energy, Ørsted, Avangrid Renewables, Virginia Economic Development Partnership, universities, the Port of Virginia and the maritime industry, Virginia and European manufacturers, and others to promote Virginia companies as part of the supply chain for offshore wind.
3. Actively solicit research and development opportunities and activities to reduce the cost and risk of developing the wind resource and supply chain, including leveraging the CVOW project and other uses of the Virginia Department of Energy's Research Lease in conformance with existing agreements.
4. To identify possible power off takers in the Commonwealth and elsewhere, such as large data companies with clean energy commitments and Amazon's Eastern Headquarters2 scheduled to be constructed in Northern Virginia at National Landing, for offshore wind energy from CVOW and the commercial Wind Energy Area. This will help obviate the need for SCC approval of the commercial site by defraying its costs to the ratepayers either partly or fully
5. Work towards a multi-state regional supply chain cluster in Mid- and South Atlantic coastal states, offering the industry a larger pipeline of projects and a wide network of the best of what each state has to offer.

VOWDA heard presentations from various stakeholders and experts. Available presentations can be viewed on the Authority's website, <https://www.vaoffshorewind.org/authority/about/>.

❖ Avangrid Renewables:

Avangrid discussed progress on the Kitty Hawk Offshore Wind Project in North Carolina and potential collaborative efforts with Virginia to ensure the success of that project. The project, which will come ashore in Virginia and use Virginia ports as staging areas, is expected to have a \$2 billion impact in Virginia and North Carolina over the next decade, including the creation of 800 jobs and \$100 million in tax revenues.

❖ Department of Environmental Quality (DEQ):

The DEQ shared information on the *Virginia Coastal Zone Management Program's Coastal Needs Assessment & Strategy Development* process for the upcoming October 2021 – September 2026 period. VOWDA members confirmed their continued interest in CZM issues and signaled support for inclusion of offshore renewable wind energy as a priority in the five-year planning strategy to support establishing an additional lease area off the Virginia coast. DEQ also presented on the Mid-Atlantic Regional Council on the Ocean (MARCO) Data Portal's role in providing over 6,000 map layers of ocean resources and uses that can be used in the new lease area identification process.

❖ Dominion Energy :

Dominion shared key milestones and status of the pilot and commercial development of the Coastal Virginia Offshore Wind projects, and its construction of the first Jones Act qualified installation vessel that will be ready in 2023 to support the U.S. offshore wind industry including installation of the CVOW turbines.

❖ Hampton Roads Alliance (HRA):

HRA has a Supply Chain Initiative to build a regional offshore wind hub. New staff positions have been dedicated to attracting business to the area, and committees formed to work on supply chain analyses, offshore wind landing issues, and supply chain development.

❖ National Offshore Wind Research and Development Consortium (NOWRDC):

NOWRDC presented on its national work and how it benefits Virginia. Virginia participates on NOWRDC's leadership team and project advisory boards. Semi-Sub Offshore Wind Turbine project, jointly funded by Virginia, will soon be under contract.

❖ Old Dominion University (ODU) Office of Research:

ODU discussed activities of the Commonwealth Offshore Wind Task Force Executive Committee and subgroups. Several VOWDA members serve as chairs and/or members on these groups. Priorities include expediting BOEM review of permits and COPs and development of new leases. \$2 million has been allocated for research, and five proposals were received in 2021 for funding.

❖ Port of Virginia:

The Port shared information on Hampton Road Harbor and offshore wind opportunities. The Newport News Marine Terminal is being used for offshore wind work, housing

Dominion Research/Survey vessels. The Portsmouth Marine Terminal is being prepared and marketed as the offshore wind hub site. \$40 million in the Governor's 2020-2022 budget for improvements to the Portsmouth Marine Terminal and infrastructure to support offshore wind activities, and the \$200 million earmarked in President Biden's proposed infrastructure bill for Port improvements.

❖ Renewable Resources International (RRI):

RRI focused on supply chain activities being undertaken to ensure that partnerships are happening between states and to focus on the impact of multiple states forming industrial clusters to advance offshore wind development. The Virginia Offshore Wind Supply Chain Partnering Resource Directory converted from a spreadsheet to a database that is an independent subset of the Business Network for Offshore Wind's national supply chain registry.

❖ Sierra Club Virginia Chapter:

Sierra Club went over activities undertaken that support Virginia's offshore wind work. They discussed the passage of the Virginia Clean Economy Act and increasing offshore wind generation capacity by 2026, community outreach in Hampton Roads, and establishing grassroots teams to encourage offshore wind development to create jobs and to launch an advertising campaign on offshore wind opportunities targeted to younger citizens. They are conducting community outreach and coordination efforts in Hampton.

❖ Virginia Department of Energy:

Virginia Energy shared updates on the Governor's Executive Order 43 and highlights on recent offshore wind initiatives in Virginia. They also briefed members on the next steps in Virginia's November 2020 official request to BOEM for additional offshore wind lease areas.

❖ Virginia Maritime Association:

The Association focused on its work to provide routing areas and shipping lanes for commercial traffic that avoid the wind lease area and the Dam Neck military ordinance areas and to help create favorable growing conditions to foster the development of offshore wind in Virginia's busy Port with Department of Defense and commercial maritime activity.



APPENDIX A

MISSION STATEMENT AND OBJECTIVES

Virginia Offshore Wind Development Authority

Objectives

Mission Statement

The Virginia Offshore Wind Development Authority (the "**Authority**") is created as a political subdivision of the Commonwealth for the purpose of facilitating, coordinating, and supporting the development (either by the Authority or by other qualified entities) of the offshore wind energy industry, offshore wind energy projects, and supply chain vendors by:

- A. Collecting relevant met-ocean and environmental data;
- B. Identifying existing state and regulatory or administrative barriers to the development of the offshore wind energy industry;
- C. Working in cooperation with relevant local, state, and federal agencies to upgrade port and other logistical facilities and sites to accommodate the manufacturing and assembly of offshore wind energy project components and vessels; and
- D. Ensuring that the development of such wind projects is compatible with other ocean uses and avian and marine resources, including both the possible interference with and positive effects on naval facilities and operations, NASA-Wallops Flight Facility operations, shipping lanes, recreational and commercial fisheries, and avian and marine species and habitats.

The Authority shall, in cooperation with the relevant state and federal agencies as necessary, recommend ways to encourage and expedite the development of the offshore wind energy industry.

The Authority shall also consult with research institutions, businesses, nonprofit organizations, and stakeholders, as the Authority deems appropriate.

The Authority shall consider seeking grant and/or loan guarantees and/or entering into public-private partnerships to assist in the development of offshore wind.

The Authority shall provide two reports: 1) by May 31, 2011, a report on its recommendations on what is needed to facilitate the transmission of the offshore wind-generated power after review of the transmission study prepared by the investor-owned utility, Dominion Virginia Power; and 2) by October 15 each year, an annual summary of the activities of the Authority and policy recommendations to the Governor, the Chairs of the House and Senate Commerce and Labor Committees and the Chairs of the House Appropriations and Senate Finance Committees (the "Annual Report"). The Annual Report shall include specific policy recommendations that shall be

Virginia Offshore Wind Development Authority

Objectives

derived from and supported by the actions, results, and deliberations of the Authority in carrying out its objectives listed below.

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

1. Direct and provide support to the Virginia Department of Energy (formerly the Department of Mines, Minerals and Energy) to gather, reconcile and disseminate information and data required for the development of the offshore wind industry and offshore wind facilities. Specifically, develop a strategy and action plan to:
 - a. Inventory the available information (e.g. wind data, environmental data, oceanographic data, sea current data, electricity transmission data, port and shipping data, DOD/Navy Coast Guard requirements, integration of the Chesapeake Light Tower, offshore LIDAR buoy data, wind turbine construction and operating cost data, etc.);
 - b. Gather stakeholder input regarding what information is required to support the offshore wind industry;
 - c. Reduce gaps in information required versus information collected¹;
 - d. Collect, process and disseminate this information to stakeholders; and
2. Collect, monitor, and provide information regarding the delivered cost, rate impact, economic impact, and environmental benefits of electricity generated from offshore wind projects that considers existing studies, legislative and regulatory actions by the Commonwealth, federal government and other states, and information provided by stakeholders and interested parties;
3. Review, support/endorse and possibly participate in federal grant applications and state efforts that support projects that will improve the offshore wind value chain to shorten completion times, reduce the delivered cost of power, and create job opportunities.

¹ Note that the Department of the Interior plans to make available to lessees available federal data at the time of the lease sale for offshore wind.

Virginia Offshore Wind Development Authority

Objectives

B. Offshore Leasing, Permitting, Financing, and Regulation: Identify existing federal and state barriers to the development of the offshore wind industry in VA.

1. Define, identify and provide information regarding:
 - a. Virginia's renewable energy goals with respect to offshore wind as well as state and federal incentives for renewable energy development;
 - b. The current federal and state regulatory framework for the development, transmission, generation and purchasing power for offshore wind in Virginia;
2. Develop a process to gather and validate stakeholder input regarding perceived and/or real federal and state regulatory and administrative barriers to the development of the offshore wind industry in VA and work with stakeholders to create action plans or strategies to remove or reduce those barriers.
3. Incorporate results of these findings into the Annual Report.

C. VA Offshore Job Creation & Supply Chain Development: Work in cooperation with relevant local, state, and federal agencies to accommodate the manufacturing, assembly, and maintenance of offshore wind energy project components and vessels.

1. Support the Virginia Economic Development Partnership (VEDP) to:
 - a. Assess the competitiveness of VA for the location of manufacturing, assembly, portage, and service centers to support the offshore wind industry;
 - b. Define and implement strategies to attract industry to locate facilities in VA that will support the manufacturing, assembly, service and transport resources required by the industry participants; and
 - c. Address the training and human resource requirements and the mechanism to provide the necessary human resources.
2. Consider incentives and/or policy initiatives needed to attract offshore-related business to Virginia so as to create employment opportunities and balance the delivered cost of offshore wind and incorporate any recommendations regarding those incentives/policy initiatives into the Annual Report.

Virginia Offshore Wind Development Authority

Objectives

D. Offshore Wind Project Siting and Development: Communicate and coordinate with stakeholders, including the Bureau of Ocean Energy Management, Regulation, and Enforcement (BOEMRE) Task Force to ensure that the development of offshore wind projects is compatible with other ocean uses and avian and marine resources, including both the possible interference with and positive effects on naval facilities and operations, NASA-Wallops Flight Facility operations, shipping lanes, recreational and commercial fisheries, and avian and marine species and habitats.

1. Provide input and support to the Virginia BOEMRE Task Force in their ongoing communication with local, state, tribal, and federal stakeholders concerning the compatibility of offshore wind projects with other ocean uses.
2. Encourage the development of a strategic plan regarding the development and use of the offshore waters of Virginia for wind generation and other uses (recreation, defense, oil and gas exploration, shipping, etc.), using the principles of coastal and marine spatial planning.



APPENDIX B

VOWDA MEMBERS

BOARD MEMBERS

Joan Bondareff, Chair

Attorney
Blank Rome LLP

Hayes Framme

Government Relations and Communication Manager Southeast
Ørsted

Phillip S. Green, Vice Chair

President
Green Powered Technology

Chris Gullickson

Director, Economic Development
Virginia Port Authority

James McArthur, Jr.

Virginia Commercial Space Flight Authority Representative
Vice Admiral
U.S. Navy (Retired)

Laura McKay

Manager
Virginia Coastal Zone Management Program

Mark D. Mitchell

Vice President – Generation Construction
Dominion Energy

Arthur W. Moyer, Jr.

Director of External Affairs
Virginia Maritime Association