

RESPONSIBLE OFFSHORE WIND DEVELOPMENT

Grayson Holmes // Southern Environmental Law Center // gholmes@selc.org
Dylan Mason // Lynnhaven River NOW // dylan@lrnow.org

WHY IT MATTERS

Offshore wind is no longer a far-off clean energy proposal for Virginia; it is delivering power at the exact moment coastal communities need clean, more reliably priced power. The World Meteorological Organization reported that 2015–2025 were the 11 warmest years on record, that 2025 was roughly 1.43°C above the pre-industrial average, and that ocean heat and global sea level remained at or near record levels.¹ Increasingly extreme weather, driven by increased carbon pollution, has been identified as one of climate change's most harmful impacts on human health and well-being.^{2,3} Virginia has not been spared from these trends; the **Virginia Climate Assessment** identifies rising temperatures, rising tides, and rising rainfall as major hazards, with the lower Chesapeake Bay among the most impacted areas on the U.S. East Coast.^{4,5} Offshore wind helps meet this moment by producing large-scale electricity without fossil fuel combustion, reducing carbon pollution while supplying a dependable resource to Virginia's energy mix.⁶

The fully operational **Coastal Virginia Offshore Wind project (CVOW)** will generate 2.6 gigawatts of power from 176 turbines - enough renewable energy to power up to 660,000 homes.⁷ Its benefits are not limited to reduced emissions. Studies suggest that CVOW could support 900 Virginia jobs and \$143 million in annual economic output during construction, and 1,100 Hampton Roads jobs and nearly \$210 million in annual output during operation.⁸ Dominion has also projected approximately \$5 billion in savings for customers from avoided costs of gas over CVOW's first 10 years of operation.⁹

CURRENT LANDSCAPE

Virginia remains the national leader for utility-scale offshore wind development. Dominion Energy's two-turbine CVOW pilot project began operating in 2020, and its commercial-scale CVOW project is under construction off Virginia Beach. In March 2026, CVOW began delivering its first power to the grid, constituting a major milestone for the largest offshore wind project in the United States.¹⁰ Dominion currently predicts the project will be fully online by mid-2027.¹¹ Dominion also plans to build another 3,400 MW of OSW energy during the 2030s.^{12,13} All of this energy is also more affordable; CVOW's **levelized cost of energy** is projected to be lower than most fossil fuel resources.¹⁴

The **Virginia Clean Economy Act** directs Dominion Energy to seek approval for up to 5,200 MW of offshore wind capacity by 2035 as part of Virginia's clean energy transition. In 2026, Virginia enacted offshore

wind workforce legislation directing Virginia Energy to identify and develop training resources for offshore wind careers, including manufacturing trades, maritime workers, providers of offshore wind products and services, and other skilled trades.¹⁵ The law gives veterans, local workers, and workers from historically economically disadvantaged communities priority to training resources, and calls for consultation with higher education, vocational-technical institutions, apprenticeship programs, and historically Black colleges and universities. Complementary workforce legislation gives local workforce boards additional flexibility to use federal workforce funds where workforce training needs are greatest.¹⁶

Public support remains strong. A March 2026 poll found that 79% of Virginia voters favor offshore wind construction off the state's coast.¹⁷ Yale's 2025 Climate Opinion Maps also found that, in every state and congressional district, more people support renewable energy on public land than drilling or mining for fossil fuels.¹⁸

OPPORTUNITIES

Virginia can build on this progress by focusing on implementation, public education, and long-term supply-chain certainty. First, the Commonwealth has an opportunity to ensure the new offshore wind workforce program moves quickly from statutory authority to usable training pathways. Continued funding, agency coordination, and clear implementation timelines would help Virginia Energy, community colleges, apprenticeship programs, HBCUs, workforce boards, veterans programs, and employers align curriculum with real project needs, including safety certifications, maritime operations, port logistics, turbine installation, operations and maintenance, and advanced manufacturing. All of this will help position Hampton Roads as an offshore wind supply chain hub, which could support thousands more manufacturing jobs over the next two decades.^{19,20,21}

Second, Virginia can use its existing science and policy institutions to communicate more clearly about offshore wind's benefits and safeguards. A state-level resolution recognizing the environmental, reliability, workforce, and economic importance of responsibly developed offshore wind could help reinforce a fact-based public record as CVOW moves toward full operation. Such a resolution could highlight that offshore wind reduces carbon pollution, supports energy security, and can be developed with wildlife protections, such as seasonal construction windows, protected species observers, vessel speed

RESPONSIBLE OFFSHORE WIND DEVELOPMENT

Grayson Holmes // Southern Environmental Law Center // gholmes@selc.org
Dylan Mason // Lynnhaven River NOW // dylan@lrnow.org

restrictions, and noise-reduction measures.^{22,23,24,25,26,27}

Finally, Virginia should continue to ensure that offshore wind projects are developed responsibly. As evidenced by CVOW, offshore wind can be done in a way that protects wildlife and minimizes impacts from onshore and offshore development. State agencies can continue to ensure the responsible development of future offshore wind infrastructure by using **least-conflict siting** and the best available science to avoid, minimize, and mitigate impacts on ocean and onshore wildlife and habitats, cultural resources, and communities.^{29,30,31,32}

ENDNOTES

1. *State of the global climate 2025*. (2026). World Meteorological Organization. <https://wmo.int/publication-series/state-of-global-climate/state-of-global-climate-2025>
2. Thomas-Walters, L., Goldberg, M., Scheuch, E., Lee, S., Thaker, J., Lyde, A., Rosenthal, S., & Leiserowitz, A. (2026). Communicating the impact of climate change on extreme weather in India, the United Kingdom, and the United States. *Global Environmental Psychology*, (4), Article e15931. <https://doi.org/10.5964/gep.15931>
3. Peifer, K., & Freedman, A. (2024). *Most of Virginia's major power outages are due to extreme weather*. Axios; Axios Richmond. <https://www.axios.com/local/richmond/2024/06/10/extreme-weather-leads-to-more-outages-virginia>
4. Ruess, P. J., Kinter, J., Ferreira, C. M., Ortiz, L. E., Ellis, A. W., Ermagun, A., Ezer, T., Fox, A., Klinger, B., Maggioni, V., Peterson, T., Allen, M., Burls, N. J., Cash, B., Clower, T. L., Costadone, L., Dollan, I. J., González-Dueñas, C., Henneman, R. F., et al. (2025). *The First Virginia Climate Assessment*. <https://mars.gmu.edu/items/c9f8e03a-6377-4014-82e8-e0120e68d6e7>
5. *Coastal Resilience Master Planning*. (n.d.). Virginia Department of Conservation and Recreation. <https://www.dcr.virginia.gov/crmp/>
6. Muller, S. (2024). *New England's offshore wind resource is a winter powerhouse*. Union of Concerned Scientists. <https://blog.ucs.org/susan-muller/new-englands-offshore-wind-resource-is-a-winter-powerhouse/>
7. *Coastal Virginia Offshore Wind*. (n.d.). Dominion Energy. <https://coastalvawind.com/>
8. *Potential Impact of the Development of the Offshore Wind Energy Industry on Hampton Roads and Virginia*. (2020, September 28). Hampton Roads Alliance, & Magnum Economics. <https://hamptonroadsalliance.com/wp-content/uploads/2024/04/Offshore-Wind-Economic-Impact-Report-092820-1.pdf>
9. *Coastal Virginia Offshore Wind*. (n.d.). Dominion Energy. <https://coastalvawind.com/>
10. DiGangi, D. (2026). *Coastal Virginia Offshore Wind begins delivering power*. Utility Dive. <https://www.utilitydive.com/news/coastal-virginia-offshore-wind-begins-delivering-power/815874/>
11. Martucci, B. (2026). *Dominion upbeat on offshore wind as cost estimate eases, sales rise*. Utility Dive. <https://www.utilitydive.com/news/dominion-upbeat-on-offshore-wind-as-cost-estimate-eases-sales-rise/819218/>
12. *Virginia Electric and Power Company's 2025 update to the 2024 integrated resource plan before the Virginia State Corporation Commission and North Carolina Utilities*

TOP TAKEAWAYS

Offshore wind offers direct climate benefits, enhances energy reliability, and drives tangible economic activity.

The Coastal Virginia Offshore Wind project is already delivering power, and the 2026 workforce law creates a new foundation for local jobs.

The next step for offshore wind in Virginia is fast, well-funded implementation paired with science-based public education and supply-chain planning.

- Commission* (Case No. PUR-2025-00184; Docket No. E-100, Sub 214)(2025, October 15). Virginia Electric and Power Company. <https://www.dominionenergy.com/-/media/content/about/our-company/irp/pdfs/2025-integrated-resource-plan-update.pdf>
13. *The Virginia Clean Economy Act (VCEA)*. (n.d.). Virginia Energy. <https://energy.virginia.gov/renewable-energy/documents/VCEASummary.pdf>
 14. Lazard, LCOE: Levelized Cost of Energy. (25, June). Lazard. <https://www.lazard.com/media/5t1bhyla/lazards-lcoeplus-june-2025-vf.pdf>
 15. Offshore wind industry; workforce development, established, report, sunset. H.B. 67, Gen. Assemb., Reg. Sess. (Va. 2026). <https://lis.virginia.gov/bill-details/2026/HB67/text/CHAP0361>
 16. *In Hampton Roads, Governor Spanberger signs bills to strengthen Virginia's offshore wind workforce*. (2026, April 29). Governor of Virginia. <https://www.governor.virginia.gov/newsroom/news-releases/2026/april-releases/name-1116959-en.html>
 17. *Virginia: Offshore wind public opinion brief*. (2026, March). Turn Forward. <https://turnforward.org/wp-content/uploads/2026/04/VA.pdf>
 18. Marlon, J., Goddard, E., Jefferson, M., Rosenthal, S., Carman, J., Richards, E., & Leiserowitz, A. (2026, May 5). *Updated Yale Climate Opinion Maps for 2025*. Yale Program on Climate Change Communication.
 19. DeMichele, N. (2026). *New research shows U.S. offshore wind could drive \$42 billion expansion in domestic steel sector, supporting 186,600 American jobs*. Oceanic Network. <https://oceanic.org/press-releases/new-research-domestic-steel-expansion-and-jobs/>
 20. Mangum Economics. (2020, January 17). *Opportunities for developing the offshore wind industry in Hampton Roads*. Hampton Roads Alliance. <https://hamptonroadsalliance.com/wp-content/uploads/2024/04/Opportunities-for-Developing-the-Industry-Offshore-Wind.pdf>
 21. *The Virginia advantage: The benefits of growing Virginia's offshore wind supply chain*. (2018). BVG Associates. [https://www.energy.virginia.gov/offshore-wind/documents/BVGA-20802-Report-r2-final-20191127%20\(1\).pdf](https://www.energy.virginia.gov/offshore-wind/documents/BVGA-20802-Report-r2-final-20191127%20(1).pdf)
 22. *Offshore wind energy: Assessing impacts to marine life*. (n.d.). National Oceanic and Atmospheric Administration Fisheries. <https://www.fisheries.noaa.gov/topic/offshore-wind-energy/assessing-impacts-to-marine-life>
 23. *Sustainable energy in America 2026 factbook: Tracking market & policy trends*(2026). Business Council for Sustainable Energy. <https://bcse.org/market-trends/>