

MAXIMIZING OFFSHORE WIND GENERATION

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WHY IT MATTERS

The climate crisis demands rapid development of renewable energy resources. Offshore wind has the potential to deliver upwards of 30% of Virginia's 100% clean energy goals,¹ (see page 99). It can increase energy independence, provide a more stable and efficient means of power, and complement solar energy in a carbon-free power grid by generating electricity at night and at greater capacity during winter months. Not only will it help the Commonwealth confront head-on the climate crisis, it also will provide massive economic development opportunities and create thousands of local, long-term, family-supporting jobs for Virginians,² including high school and college graduates, returning citizens, and veterans transitioning to the civilian workforce.

Offshore wind can be developed responsibly, with protections for marine mammals and other wildlife. Responsible siting of onshore infrastructure and transmission lines is equally important and feasible. Companies can work with the affected communities to minimize impacts to neighborhoods, environmentally sensitive areas, and environmental justice communities.

CURRENT LANDSCAPE

The Virginia Clean Economy Act (VCEA) outlines the development of 5,200 megawatts (MW) of offshore wind by 2035. This substantial commitment helps position the Commonwealth to become a hub for the offshore wind industry, which can create thousands of jobs for Virginians, build wealth, and support communities.

Dominion Energy, one of Virginia's investor-owned utilities, has already started construction of the Coastal Virginia Offshore Wind (CVOW) project offshore of Virginia Beach. CVOW is one of the largest offshore wind projects in the country and is expected to be completed by the end of 2026. Once CVOW is operational, it will produce 2.6 gigawatts (GW) of electricity - enough clean energy to power up to 660,000 homes and avoid as much as 5 million tons of carbon emissions annually.³ Dominion Energy is implementing strong protective measures for North American right whales and other endangered species and is also making efforts to minimize the onshore impacts of transmission lines on natural and cultural resources and environmental justice communities to the maximum extent practicable.

Dominion and Avangrid, a renewable energy development company, are both planning projects near Kitty Hawk, North Carolina, which have the poten-

tial to deliver another 3.2 GW of wind power to Virginia's electric grid. Moreover, in 2024, the federal government is leasing an additional area for Virginia offshore wind development, which, if procured and developed, is easily capable of producing at least another 2.6 GW of clean energy and emissions reductions similar to the CVOW project.

These three wind energy areas - which could come online by 2030 - have the potential to deliver over 8.0 GW of clean power to Virginia, power over 2.3 million homes, and avoid approximately 17 million tons of carbon emissions. That emissions reduction is equivalent to removing 4 million gas-powered cars from the road or 45.4 gas plants being shut down.⁴

OPPORTUNITIES

Virginia is a natural fit to become an offshore wind hub, with its deep water ports, world-class shipbuilding and maritime industries, and unrestricted access to open ocean waters with no overhead barriers (i.e., bridges) impeding the shipping of large offshore wind components. The economic benefits could be enormous, potentially upwards of \$109 billion in potential revenue from the offshore wind industry and related supply chains, along with the creation of thousands of jobs for Virginians.^{5,6} For Virginia to secure the economic investment and jobs attached to being a hub for offshore wind, we must have a vision, goals, and policies to establish and promote a strong and steady pipeline of wind projects.

Virginia's current offshore wind goals are much lower than neighboring states. Maryland and North Carolina, for example, are aiming for 8.5 GW and 8.0 GW, respectively.⁷ These higher goals make those states more attractive investment targets for the offshore wind industry, delivering jobs and wealth-building opportunities to those states. Increasing Virginia's offshore wind goals above the current goal of 5.2 GW to 8.0 GW would have clear economic benefits for Virginians, particularly for those in historically disadvantaged communities, and provide jobs and training programs to local community members.

As seen by the protections Dominion has put in place for CVOW, increasing offshore wind in the Commonwealth can be done in a way that protects wildlife and minimizes impacts from onshore development. State and federal agencies can continue to ensure the responsible development of future offshore wind infrastructure using least-conflict siting and the best available science to avoid, minimize, and mitigate impacts to ocean and on-shore wildlife and habitat, cultural resources, and communities.

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TOP TAKEAWAYS

Virginia is well positioned to be a leader in offshore wind and to experience the energy, environmental, and economic benefits from such work, including significant job creation.

Increasing Virginia's offshore wind goal from 5.2 GW to 8 GW by 2035 would continue to position Virginia as a leader on wind.

Offshore wind can continue to be developed responsibly when state agencies and boards ensure that the onshore infrastructure and transmission lines minimize impacts on wildlife, neighborhoods, natural areas, community resources, and environmental justice communities.

| Offshore wind turbines



ENDNOTES

1. "Decarbonizing Virginia's Economy: Pathways to 2050," University of Virginia, (Jan. 2021), <https://www.coopercenter.org/research/decarbonizing-virginias-economy>.
2. "Offshore Wind Economic Development," Mangum Economics for the Hampton Roads Alliance, <https://hamptonroadsalliance.com/wp-content/uploads/2024/04/Future-Workforce-Needs-Offshore-Wind.pdf>.
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4. Ibid.
5. "Supply Chain Contracting Forecast for US Offshore Wind Power," National Offshore Wind Research and Development Consortium, <https://nationaloffshorewind.org/wp-content/uploads/SIOW-supply-chain-report-2021-update-FINAL.pdf>.
6. "Offshore Wind Economic Impact Report," Dominion Energy, https://coastalvawind.com/img/offshore-wind-economic-impact-report.pdf?sa=D&source=docs&ust=1718394008051171&u_sg=AQvVawOGXP-q6TkB_R277jH5ifH.
7. "The Road to 30 Gigawatts: Key Actions To Scale an Offshore Wind Industry in the United States," Center for American Progress, <https://www.americanprogress.org/article/the-road-to-30-gigawatts-key-actions-to-scale-an-offshore-wind-industry-in-the-united-states/>.