

# BUILDING OUR OFFSHORE WIND FUTURE

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## WHY IT MATTERS

The offshore wind (OSW) industry is thriving in Virginia, bringing significant investment, job creation, and clean energy leadership to Hampton Roads.<sup>1</sup> The Coastal Virginia Offshore Wind project, or CVOW, is set to be the largest OSW project in the nation, demonstrating the role OSW can play in our clean energy transition and helping Virginia become a pioneer in the industry.

OSW has environmental, public health, and economic benefits, all while helping meet growing energy demand. Deployment of large-scale wind power is also better for Virginia's coastal communities,<sup>2</sup> which face rising temperatures<sup>3</sup> and more frequent extreme storms<sup>4</sup> due to climate change. Not only will OSW help the Commonwealth confront the climate crisis head-on by reducing carbon pollution from the electricity sector, but it will also provide massive economic development opportunities and create thousands of local, long-term, family-supporting jobs for Virginians – including high school and college graduates, returning citizens, and veterans transitioning to the civilian workforce.<sup>5</sup>

Studies have repeatedly shown that a robust OSW industry will deliver substantial economic returns to the Commonwealth. The buildout and operation of the CVOW project alone is expected to support thousands of jobs and result in hundreds of millions in annual economic output.<sup>6</sup> The full potential economic benefits are enormous, upwards of \$109 billion<sup>7</sup> in revenue from the OSW industry<sup>8</sup> and related supply chains. For example, LS GreenLink invested \$700 million<sup>9</sup> in Chesapeake for an underwater cable manufacturing facility and broke ground on the project in early 2025. OSW also increases domestic energy independence, enhances energy security,<sup>10</sup> and provides a stable and highly efficient means of power. OSW complements solar energy in a clean power grid by generating electricity at night and at greater capacity during winter months.<sup>11</sup>

## CURRENT LANDSCAPE

Virginia remains a pioneer in OSW in the U.S. In 2020, Dominion Energy, one of Virginia's investor-owned utilities, began operating the first offshore wind farm in U.S. federal waters – the 12 megawatt (MW) CVOW pilot project, which is about 27 miles offshore of Virginia Beach. In 2024, Dominion began construction on the nearby commercial-scale CVOW project, which is expected to be completed by 2026. Once finished, it will be the largest OSW project in the country – producing 2,600 MW of electricity, enough clean energy to power over 660,000 homes, and avoid as much as 5 million tons of carbon emissions annually.<sup>12</sup> Dominion is also planning to build another 3,400 MW of OSW energy during the 2030s,<sup>13</sup> exceeding even the requirements of the Virginia Clean Economy Act, which outlines the development of an additional 2,600 MW (for a total of 5,200 MW) during that decade.<sup>14</sup>

As part of the construction and operation of CVOW, Dominion has implemented strong wildlife protection measures including: avoiding construction in migratory corridors and important feeding areas;<sup>15</sup> designing a construction sched-

ule that avoids seasons when at-risk species like whales are most present; forgoing nighttime pile driving; and using Protected Species Observers, bubble curtains,<sup>16</sup> and vessel speed restrictions during construction. Public trust in these protection measures has been bolstered by clear findings from NOAA Fisheries,<sup>17</sup> the Ocean Conservancy,<sup>18</sup> and the Marine Mammal Commission<sup>19</sup> that all confirm no credible evidence links OSW to North Atlantic right whale mortalities. Dominion is also making efforts to minimize the onshore impacts of transmission lines on natural and cultural resources and environmental justice communities.<sup>20</sup> CVOW's turbine foundations will enhance rocky marine habitat and support some local fisheries.<sup>21</sup> OSW can also be developed responsibly, with protections for marine mammals and other wildlife.

## OPPORTUNITIES

Virginia's geographic strengths – strong Atlantic wind resources, deep-water ports, and a skilled maritime workforce – make Virginia the ideal state for OSW development.<sup>22</sup> Studies have shown this will diversify Virginia's energy supplies, strengthen grid resilience amid rising energy demand from data center expansion, and expand manufacturing capabilities.<sup>23</sup>

As evidenced by CVOW, OSW 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 OSW 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.<sup>24</sup> Prioritizing existing energy corridors, co-locating new infrastructure, and engaging communities early will help address visual, noise, and traffic concerns.

To truly unlock the potential of OSW energy in Virginia, action can be taken to promote robust OSW business and supply chains in the Commonwealth. OSW workforce development can be prioritized at the state level, including by establishing training programs and resources to enable participation in those programs, while ensuring that these opportunities are available to workers from historically economically disadvantaged communities.<sup>25</sup> Such programs could be augmented by partnerships with union apprenticeship programs, community colleges, trade schools, and veteran programs to create curricula for worker safety certifications, turbine installation, operations, maintenance, and port logistics. Apprenticeship and pre-apprenticeship programs with wage-progression guarantees and Job Readiness Center alignment would also provide increased opportunities for residents in underserved communities along Hampton Roads and the Eastern Shore. Additionally, tax incentives for turbine component manufacturing and subsea-cable operations at Virginia ports will localize supply chains and catalyze new local businesses.

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## TOP TAKEAWAYS

Virginia is the national leader in the OSW sector, bringing substantial energy, environmental, and economic benefits such as reduced emissions, increased resiliency, and job creation.

The Coastal Virginia Offshore Wind project clearly demonstrates that responsible OSW development can protect wildlife and provide positive impacts to onshore communities.

To fully take advantage of the state's potential, policymakers, industry leaders, and conservation groups can encourage OSW workforce development and plan collaborative frameworks that integrate community and conservation priorities.

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