LRNow

Restoring Virginia Beach Waters

Report on the Coastal Virginia Offshore Wind (CVOW) Project

June 12, 2025

Executive Summary

This report presents our organization's assessment of Dominion Energy's Coastal Virginia Offshore Wind (CVOW) project, the first utility-scale offshore wind farm in the federally controlled waters of the United States. It highlights the project's technical achievements, economic benefits, environmental and ecological considerations, and community engagement strategies. Drawing on independent analyses and recent studies by BVG Associates, the Hampton Roads Alliance and Magnum Economics, the Conservative Energy Network (CEN), the Audubon Society, Ocean Conservancy, and the Regional Wildlife Science Collaborative (RWSC), the report underscores how responsible development of offshore wind can drive Virginia's clean-energy transition while safeguarding wildlife and supporting coastal economies.

1. Introduction

Climate change represents an urgent threat to coastal and marine ecosystems, including those within the Chesapeake Bay watershed. Offshore wind (OSW) power is a critical tool for reducing greenhouse-gas emissions, diversifying energy supplies, enhancing grid resilience, and fostering economic growth. This report, prepared by Lynnhaven River Now, outlines the science-informed, business-minded approach required to maximize benefits and mitigate potential risks associated with OSW development.

2. Project Overview

2.1 Project Scope and Timeline

- **Pilot Phase: Two 6 MW turbines installed 27 miles off Virginia Beach, now generating 12 MW of clean power.**
- **Full Build-Out: Up to 180 turbines (178 additional) yielding 2.6 GW of capacity; construction began in early 2025 and is slated for completion by December 2026.**

2.2 Technological and Geographic Advantages

BVG Associates highlights how Virginia offers strategic advantages for OSW:

- **Proximity to major load centers and strong Atlantic wind resources**
- **Uncongested navigation channels, deep-water ports, and America's largest shipbuilding industry**
- **Skilled maritime workforce and progressive energy policies supporting renewable infrastructure**

3. Economic Impact

A seven-year cumulative impact analysis by Hampton Roads Alliance and Magnum Economics forecasts:

- **Wages & Benefits: $57 million over build-out timeframe**
- **Economic Output: $143 million over build-out timeframe**
- **State Tax Revenue: $3 million annually during construction; Post-construction, CVOW is expected to sustain approximately 1,110 direct and indirect jobs, generating $81.6 million in annual wages and benefits, $209.8 million in statewide economic activity, and $4.8 million in annual state tax revenue.**

4. Environmental and Ecological Benefits

4.1 Greenhouse-Gas Reductions

Operating at 2.6 GW capacity, CVOW will displace significant amounts of fossil-fuel generation, contributing to Virginia's and the nation's climate targets.

4.2 Marine Habitat Enhancement

The Conservative Energy Network's NEBA-CA analysis identifies OSW foundations as artificial reefs that:

- **Enhance benthic habitat complexity**
- **Support increased secondary fish production**
- **Projected to boost commercial fishing value by 15% and potentially double recreational fishing value**

5. Risk Mitigation Strategies

5.1 Avian Protection

Following the Audubon Society's guidelines, OSW projects may implement:

- **Advanced siting tools to avoid migratory corridors and key feeding areas**

- **Bird-friendly lighting to reduce attraction and collision risk**
- **Real-time radar, acoustic, and thermal monitoring to inform adaptive management**

5.2 Marine Mammal Safeguards

Contrary to misinformation linking OSW to whale mortalities, NOAA Fisheries and the Marine Mammal Commission confirm no credible linkage. CVOW employs:

- **Protected Species Observers on vessels**
- **Seasonal work windows to avoid sensitive life stages**
- **Mandatory vessel speed restrictions near marine mammals**
- **"Bubble Curtains" to minimize the spread of sound from underwater construction**

6. Transparency and Collaboration

Lynnhaven River Now calls for:

- **Publicly accessible monitoring data on avian and marine species**
- **Early engagement with coastal communities, commercial and recreational fishing interests**
- **Continued multi-stakeholder collaboration through initiatives like the Regional Wildlife Science Collaborative (RWSC)**

7. Recommendations

1. **Adopt Best Practices: Require all OSW developers to meet or exceed siting, monitoring, and mitigation protocols outlined by Audubon, CEN, and RWSC.**
2. **Strengthen Data Transparency: Establish an online repository for real-time environmental monitoring datasets.**
3. **Uplift Workforce Development: Incentivize a workforce development pipeline that prepares individuals for careers in wind energy and related industries in order to reinforce the economic and environmental benefits of a clean energy transition.**
4. **Enhance Community Outreach: Fund local liaison offices to ensure meaningful participation of fishers and shoreline communities.**
5. **Support Research & Innovation: Invest in next-generation turbine designs, noise-reduction technologies, and post-construction ecological studies.**

8. Conclusion & Call to Action

Offshore wind offers Virginia a "common-sense" pathway to attain clean, affordable energy, stimulate local economies, protect coastal ecosystems, and securitize energy production. By following rigorous scientific protocols, promoting transparency, and engaging stakeholders early, OSW can deliver on its promise: a thriving natural environment, resilient communities, and a stable climate for future generations. Lynnhaven

River Now stands ready to partner with regulators, developers, and fellow conservation groups to ensure CVOW and subsequent projects realize their full potential for people and nature.

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