

Action needed to capitalize on wind energy

BY JAMES K. SPORE



This monthly column reports on initiatives of regional importance involving the work of Reinvent Hampton Roads and its partners.

Ask yourself this question: How often does a region have the opportunity to create a new industry and supportive supply chain that will significantly improve the economy and help the environment?

The answer probably ranges from never to once in a generation. That opportunity is at our doorstep today in Virginia. The problem is the same stunning opportunity to grow the offshore wind industry is simultaneously presenting itself to East Coast states from North Carolina to Massachusetts.

While the environmental benefits from energy generated from offshore wind will accrue to all consumers, economic benefits will not.

Why? Because the location and development of offshore wind energy's advanced manufacturing supply chain is extremely costly and therefore will only take root in a few locations along the East Coast. These few locations will be in regions where mega investments are made and where the associated jobs are created. Those regions will be the economic winners.

How large are these potential economic investments and what could they

mean for our region? Recent estimates indicate an East Coast market for 20 gigawatts of offshore wind energy to be installed by 2030; equaling the total of all European installations over the past 20 years.

The Virginia offshore wind lease area can conservatively accommodate two gigawatts of capacity. The investment of billions of dollars will be required to manufacture and install generating capacity on this scale. Experts predict 10,000 to 14,000 high-paying jobs could be created in Virginia associated with the manufacturing, construction, maintenance and operation of the offshore wind industry.

In addition to these economic benefits, the two gigawatt Virginia output alone would eliminate some 3 million tons of carbon dioxide every year.

How does Hampton Roads and Virginia stand in this unannounced competition to land these investments, high paying jobs and environmental benefits that are the offshore wind industry?

These and other questions were explored at a recent town hall meeting at Old Dominion University and attended by over 300 individuals interested in wind energy. The meeting, “Reinventing Hampton Roads With Offshore Wind,” was jointly sponsored by the Virginia Chapter of the Sierra Club, The Virginia Department of Mines, Minerals and Energy, The Hampton Roads Chamber, Old Dominion University and Reinvent Hampton Roads.

A classic “good news, bad news” story unfolded at that meeting. The good news included the fact the Coastal Virginia Offshore Wind Project is finally under construction. This joint effort between Dominion Energy and Ørsted Energy of Denmark is the first offshore wind project to be permitted and constructed in federal waters.

The \$300 million pilot project calls for installation of two 6 megawatt turbines 27 miles off the Virginia Beach coastline, leading the way for the construction of the adjacent 113,000-acre 2 gigawatt commercial lease area off Virginia. Two gigawatts equals the electrical production of the Hoover Dam and could power 500,000 homes in Virginia.

Speakers outlined Virginia's substantial competitive advantages that, if properly and urgently promoted, could land significant portions of the offshore wind industry here in Hampton Roads, permitting the region to be a major hub for the industry on the East Coast.

These advantages include:

- America's largest concentration of the shipbuilding industry and the associated large and highly skilled workforce
- Pro-business climate
- Unmatched port infrastructure
- Congestion-free harbor navigation
- Zero air draft for oceangoing vessels
- Abundant waterfront land and infrastructure
- Strategic geographic location

On the "bad news" side of the issue, other states to our northeast have much more aggressively promoted, incentivized and even mandated the development of green energy solutions. Offshore wind projects in Massachusetts, Rhode Island, Connecticut, New York, New Jersey and Maryland are moving ahead with significant quantities of capacity and associated investment.

Many of these projects are being awarded with accompanying power purchase agreements that send clear "demand" signals to prospective offshore wind energy investors. In turn, most of these states are imposing local content requirements on energy developers bidding on these large projects.

As project awards are made at scale, private investment decisions are now being made to locate supply chain components, construction and maintenance facilities. As mentioned earlier, the expense of these facilities will restrict their numbers and subsequent location.

Therefore, the early adopter states will potentially realize much of the location and economic benefits of the entire industry, despite our huge port infrastructure and workforce advantages present in Virginia. Once those first mover advantages occur, we risk losing the offshore wind industry economic prize.

The bottom line is we need to urgently pursue a series of actions and adopt policy that will position Virginia and Hampton Roads to win the economic benefits in the development of the offshore wind supply chain.

The Virginia General Assembly took an important first step with the adoption of the Grid Transformation and Security Act of 2018 which established the development of 5 gigawatts of renewable energy in Virginia by 2028 be in the public interest.

What is urgently necessary now is a specific roadmap to achieve that goal. This will require bipartisan actions.

These actions, including power purchase agreements, will trigger the “demand” signal pre-requisite to attract the private investment required to realize the long-term economic surge for the state thru the creation of a major new industrial supply chain in Hampton Roads anchored by offshore wind energy.

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