Wind Energy and Economic Development in Virginia

Wind is a powerful resource that can be harnessed to provide a source of clean, renewable electricity. Virginia is fortunate to have significant wind resource across the state and along its coast. In addition to providing communities with a low-cost source of electricity, wind projects provide additional revenue to landowners and county tax coffers. With a median household income in Virginia of $66,149, a landowner that hosts only two turbines could increase their income by almost 20% annually (Census Bureau, 2016).

Virginia’s planned offshore wind demonstration project will boost Virginia’s coastal economy, especially around our port infrastructure. The Coastal Virginia Offshore Wind project, a 12 MW demonstration project, will lay the ground work for a much larger project – creating the kind of demand needed for large component manufacturers and specialized ship-builders to locate in Virginia.

Land-Based Wind

Virginia has several land-based wind projects in various stages of development. Several of these projects are being developed by Charlottesville-based Apex Clean Energy.

Rocky Forge Wind

Located in Botetourt County, this 76.6 MW project was the first wind project to complete Virginia’s Permit by Rule permitting process. The project enjoyed unanimous approval at the county level and expects to provide up to 150 FTE jobs during construction. Upon completion, the project will also provide several jobs for wind turbine technicians, a high-paying job that is the fastest growing job in the country. The project also expects to pay out $20-25 million in state and local county taxes over the lifetime of the project. Rocky Forge Wind could create the equivalent of 20,000 average homes worth of electricity each year.

Rocky Forge Wind could create:
- ✔️ 250 FTE jobs during construction
- ✔️ $20-25mil in state & local taxes
- ✔️ 20,000 homes worth of electricity/year

Pinewood Wind

Located in Pulaski County, this approximately 150 MW project is an early stage wind project to be located on Boy Scout property. This partnership with the Boy Scouts will further enable the progression of their values in sustainability and conservation, provide funding for activities in the Blue Ridge Mountains Council, and enable new learning opportunities for the scouts while visiting the reservation. The Pinewood project would inject millions of dollars into southwest Virginia’s economy to support local merchants, contractors, and equipment suppliers, and will provide several jobs for wind turbine technicians and facility management on the property. Pinewood Wind could create the equivalent of 40,000 average homes worth of electricity each year.

The Pinewood project would inject millions of dollars into southwest Virginia’s economy to support local merchants, contractors, and equipment suppliers.
Dominion Energy and Orsted’s Coastal Virginia Offshore Wind project will be the region’s first offshore wind project if it meets its expected completion date by 2020. This demonstration project will provide valuable lessons and lay the groundwork for a much larger project in the area.

A larger project would help pull offshore wind manufacturing to the region and promote economic development — exactly what Orsted’s European projects have done. For example, Orsted has contracts in place for 1200 – 1600 MW of offshore wind in the Humber region in the United Kingdom.

These contracts have helped pull not only new manufacturing facilities to the region, but also skilled jobs such as geotechnicians and welders needed to build these projects.

Unlike Europe, the U.S doesn’t currently have the ships necessary to complete these projects. Currently, these ships are brought in from Europe at a high cost. Large projects would mean new, specialized ships that would need to be built. Virginia’s ports are already well positioned to build and host these ships.

A study conducted by Navigant Consulting found that, with a constant 500 MW of demand per year, Virginia could see 56,084 direct, indirect, and induced jobs by 2044 with a total investment of $12.9 billion.

Supply Chain

Despite few wind projects, the Southeast is home to a robust wind energy supply chain. In Virginia, the Southeastern Wind Coalition has identified 30 companies involved in the wind energy supply chain. More wind projects could mean even more facilities locating in Virginia. In addition to Apex Clean Energy, these companies include:

- **Tetra Tech**
  a leading provider of consulting, engineering, and technical services worldwide.

- **Renewable Engineered Systems**
  specializes in research, design and development of cost effective technologies that harness the natural, replenishing power of the sun, the wind, and other Earth-friendly energy sources.

- **Shenandoah Machine Shop**
  creates precision machined parts and specialized machines for various industries including wind energy.