

# Wind Energy and Economic Development in Tennessee



Tennessee has been a pioneer for wind energy in the Southeast, hosting the region's first utility-scale wind farm, the 29 MW Buffalo Mountain Wind Farm, since 2004. Our state has the opportunity to continue reaping the clean energy and economic benefits wind brings by installing additional wind capacity, including the 71 MW Crab Orchard Wind Farm in Cumberland County.

Wind is a powerful resource that can be harnessed to provide a source of clean and renewable electricity, while at the same time providing income to rural landowners in Tennessee. With the median household income in Tennessee of \$44,621, a landowner that hosts only two turbines would increase their income by over 20% annually (2014 Census).

Energy providers are typically some of the largest taxpayers in rural counties with hundreds of thousands of dollars in tax revenue going to local governments. Tennessee benefits from over \$250,000 in property tax revenues annually from the Buffalo Mountain Wind Farm. These tax payments can fund local schools, hospitals, police, and fire departments. Tennessee's neighbor, North Carolina, will soon be home to a 208MW wind farm where it will provide over \$600K to county tax revenues annually.

The Crab Orchard Wind farm, an Apex Clean Energy project under development in Cumberland County, is expected to produce \$27.3 million in economic output and create roughly 118 jobs over the lifetime of the project. This \$1.4 million in annual economic output for local economies requires almost no investment in infrastructure from the county.

Current Department of Energy estimates predict that hundreds of operations and management and construction jobs will be created in our state thanks to wind farms. These high paying jobs provide a boost to local economies.

## 2016 Economic Benefits of Tennessee Wind Energy

\$100,000

in land lease payments to land owners

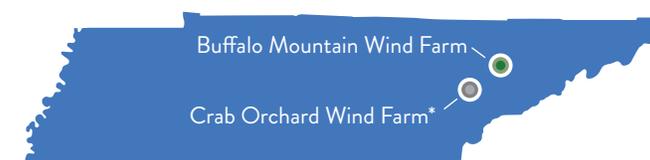
\$250,000

annual county property tax revenue from wind farms

"In 2016 alone, landowners are scheduled to receive almost \$100,000 in land lease payments in the state of Tennessee."

- DOE Wind Vision, 2016

## Wind Energy in Tennessee



\*Crab Orchard Wind Farm future site

### CRAB ORCHARD WIND FARM COULD PRODUCE\*

\$362,000

potential annual increase to Cumberland County tax revenue

\$1.4 million

annually to local economies

\$27.3 million

projected economic output from this one wind farm

Wind technicians are the fastest growing job sector in the country and provide a median salary of \$51,050

- Bureau of Labor Statistics, 2016

\*study by the University of Tennessee's Howard H. Baker Jr. Center for Public Policy

# Wind Supply Chain in Tennessee

There are currently 21 companies with 27 facilities in Tennessee supplying the wind industry. Companies supplying the wind industry in Tennessee cover nearly all aspects of the manufacturing process with electrical components, machining, steel fabrication, resins, engineering, research, and much more.



AOC is a major global supplier of resins, gel coats, colorants and synergistic systems for composites and cast polymers with three facilities in TN contributing to the Nacelle and Blade/Rotor sectors.



Lectrus is a leading electrical systems integrator and custom metal enclosure designer and manufacturer with three facilities in TN.

## Wind Turbines and Land Use

**The physical requirements for turbines do not impose serious restrictions for land owners.**

### Minimal Disruption

Landowners are able to continue using the majority of their land during construction. For example, farmers are able to continue farming up to the turbine base immediately after the turbines and related infrastructure are installed.

### Limited Land Use

Including the access road to the turbine and the foundation itself, a wind turbine removes only about  $\frac{1}{4}$  -  $\frac{1}{2}$  acre from other uses.

### Infrastructure Improvements

Wind farms can receive upgrades to existing roads at no cost to the landowner or county.

### Low Impact

A wind turbine's foundation measures only 18 feet across with a 10-foot gravel apron, allowing continued land use right up to the base of the turbine platform.

