

WIND ENERGY IN WEST VIRGINIA



Wind energy means economic development for West Virginia.

With the addition of the New Creek Wind project in 2016, West Virginia has 686 megawatts (MW) of installed wind capacity. Project developers have invested \$1.4 billion on wind projects in the state and pay over \$2 million in annual land lease payments to local landowners. In addition, project developers provide property tax payments that are often used toward schools, libraries, and hospitals. Expanding wind power can create even more economic development opportunities in the state.

BENEFITS Jobs & Economic Benefits

The U.S. wind industry is a major economic development driver. In addition to job creation and billions of dollars in project investment, the wind industry invests heavily in local communities, providing significant revenue in the form of property, state, and local taxes.

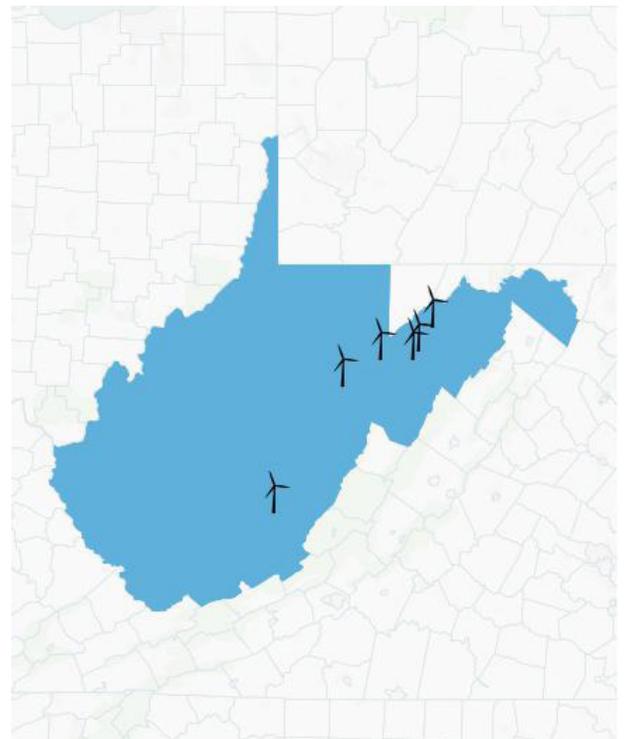
- Direct wind industry jobs in 2018: <500
- Capital investment in wind projects through 2018*: **\$1.4 billion**
- Annual state and local tax payments by wind projects: **\$4 million**
- Annual land lease payments*: **\$1 - \$5 million**

*Source: Based on state and national averages from LBNL, NREL

Wind-Related Manufacturing

Over 500 manufacturing facilities in the U.S. make products for the wind industry, from blades, towers, and turbine nacelles to raw components such as fiberglass and steel.

- Number of active manufacturing facilities in the state: **0**



 Online Wind Project  Wind-related Manufacturing Facility

Wind Projects as of 4Q 2019

- Installed wind capacity: **686 MW**
 - » State rank for installed wind capacity: **26th**
- Number of wind turbines: **376**
 - » State rank for number of wind turbines: **26th**
- Wind projects online: **6** (Projects larger than 10 MW: 6)
- Wind capacity under construction: **0 MW**
- Wind capacity in advanced development: **0 MW**

Wind Generation

In 2018, wind energy provided **2.6%** of all in-state electricity production.

- State rank for share of electricity: **26th**
- Equivalent number of homes powered by wind in 2018: **171,100**

Wind Energy Potential

- Land-based technical wind potential at 80 m hub height: **69,098 MW**
(Source: AWS Truepower, NREL)
- Offshore net technical wind potential at 100 m hub height: **NA MW** (Source: NREL)

Environmental Benefits

Generating wind power creates no emissions and uses virtually no water.

- 2018 annual state water consumption savings*: **1.3 billion gallons**
- 2018 equivalent number of water bottles saved: **9.8 billion**
- 2018 annual state carbon dioxide (CO₂) emissions avoided: **2.2 million metric tons**
- 2018 equivalent cars' worth of emissions avoided: **474,000**

*Based on national average water consumption factors for coal and gas plants.

Renewable Portfolio Standard

West Virginia passed an Alternative and Renewable Energy Portfolio Standard in 2009, requiring certain utilities to derive 25 percent of their sales from alternative and renewable energy resources by 2025. In 2015, West Virginia became the first state to repeal its RPS.

