

# WIND ENERGY IN WISCONSIN



## Wisconsin is a national leader in wind-related manufacturing.

Wisconsin has been successful in attracting investment for wind energy manufacturing, with at least 28 manufacturing facilities in the state producing components for the wind industry and providing high quality jobs, including major tower manufacturer Broadwind Energy. Wisconsin currently has 17 wind projects online, representing \$1.6 billion in private investment. Expanding wind energy in the state will create even more opportunities for manufacturers and service suppliers 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.

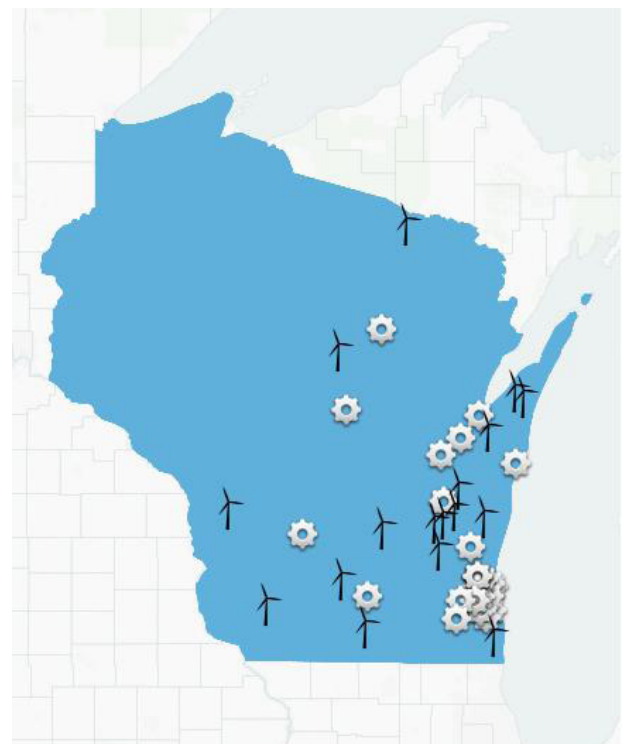
- Direct wind industry jobs in 2018: **1,001 to 2,000**
- Capital investment in wind projects through 2018\*: **\$1.6 billion**
- Annual state and local tax payments by wind projects: **<\$1 million**
- Annual land lease payments\*: **\$1 - \$5 million**

\*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: **28**



 Online Wind Project       Wind-related Manufacturing Facility

## Wind Projects as of 4Q 2018

- Installed wind capacity: **737 MW**
  - » State rank for installed wind capacity: **24th**
- Number of wind turbines: **452**
  - » State rank for number of wind turbines: **23rd**
- Wind projects online: **17** (Projects larger than 10 MW: 9)
- Wind capacity under construction: **0 MW**
- Wind capacity in advanced development: **0 MW**

## Wind Generation

In 2018, wind energy provided 2.9% of all in-state electricity production.

- State rank for share of electricity: 25th
- Equivalent number of homes powered by wind in 2018: 188,400

## Wind Energy Potential

- Land-based technical wind potential at 80 m hub height: 114,314 MW  
(Source: AWS Truepower, NREL)
- Offshore net technical wind potential at 100 m hub height: 14,260 MW (Source: NREL)

## Environmental Benefits

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

- 2018 annual state water consumption savings\*: 3.4 billion gallons
- 2018 equivalent number of water bottles saved: 25 billion
- 2018 annual state carbon dioxide (CO<sub>2</sub>) emissions avoided: 6.6 million metric tons
- 2018 equivalent cars' worth of emissions avoided: 1.4 million

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

## Renewable Portfolio Standard

Wisconsin enacted a renewable portfolio standard (RPS) in 1999 and increased its requirement in 2006. The RPS requires utilities to generate 10 percent of their 2015 sales from renewable resources. Wisconsin fulfilled its RPS target in 2015.

