

WIND ENERGY IN MICHIGAN



Michigan has been successful in attracting investment for wind energy manufacturing and large wind energy projects.

Michigan has over 2,400 MW of installed wind power and ranks 13th in the nation for installed capacity. The state has also attracted significant investment into the wind energy supply chain. There are 26 manufacturing facilities producing components for the wind industry, including Ventower Industries, a wind tower manufacturing facility sited on a former brownfield site in Monroe. State utilities have proactively invested in wind projects to help the state reach its RPS target, with DTE Electric Company ranking 6th in the nation for utility ownership of wind power capacity.

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 2019: **4,001 to 5,000**
- Capital investment in wind projects through 2019*: **\$4.2 billion**
- Annual state and local tax payments by wind projects**: **\$31 million**
- Annual land lease payments: **\$16 million**

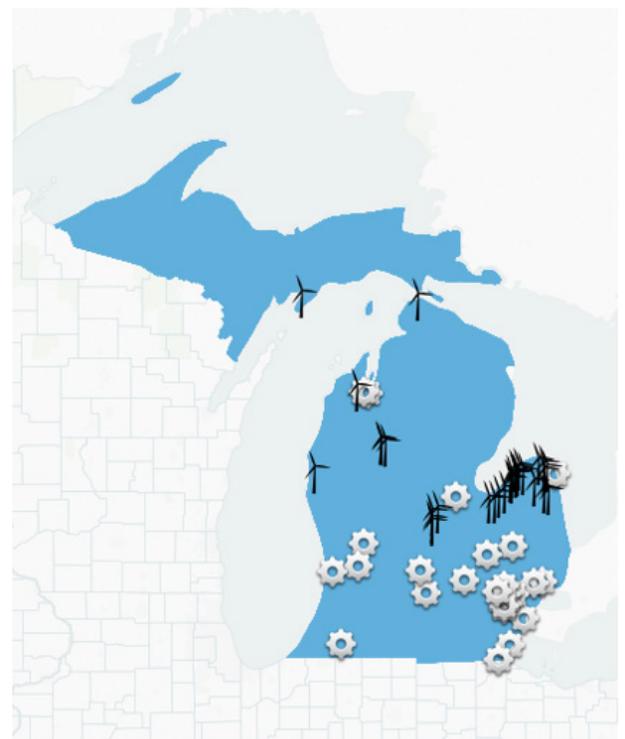
*Based on state and national averages from LBNL, NREL.

**Based on member data. Includes PILOT payments.

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: **26**



 Online Wind Project

 Wind-related Manufacturing Facility

Wind Projects as of Q3 2020

- Installed wind capacity: **2,459 MW**
 - » State rank for installed wind capacity: **13th**
- Number of wind turbines: **1,273**
 - » State rank for number of wind turbines: **13th**
- Wind projects online: **28** (Projects larger than 10 MW: 26)
- Wind capacity under construction: **772 MW**
- Wind capacity in advanced development: **0 MW**

Wind Generation

In 2019, wind energy provided **5.00%** of all in-state electricity production.

- State rank for share of electricity: **22nd**
- Equivalent number of homes powered by wind in 2019: **533,300**

Wind Energy Potential

- Land-based technical wind potential at 80 m hub height: **81,311 MW**
(Source: AWS Truepower, NREL)
- Offshore net technical wind potential at 100 m hub height: **57,331 MW** (Source: NREL)

Environmental Benefits

Wind energy reduces emissions and water consumption by avoiding generation from fossil-fuel power plants.

- In-state carbon dioxide emissions avoided in 2019*: **4.4 million metric tons**
 - » Equivalent cars' worth of emissions avoided: **930,000**
- In-state water consumption savings in 2019**: **2.4 billion gallons**

*Estimated using Aurora power sector model.

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

Renewable Portfolio Standard

Michigan first enacted a Renewable Portfolio Standard (RPS) in 2008 requiring 10% renewable energy by 2015. After achieving the target in 2015, the state expanded the standard in 2016, requiring state electricity providers to generate 15% of their sales from renewable energy sources by 2021.

