

WIND ENERGY IN OKLAHOMA



Oklahoma is a national leader in the wind energy industry.

Oklahoma ranks third nationwide for installed wind capacity with over 8,000 MW, representing over \$15 billion in capital investment. In 2019 the state generated nearly 35% of its electricity from wind energy, the third highest in the country, and provided enough electricity to power the equivalent of 2.6 million average U.S. homes. Oklahoma's incredible wind resource also provides economic benefits, paying \$107 million annually in state and local taxes and supporting over 6,000 direct jobs in 2019.

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.

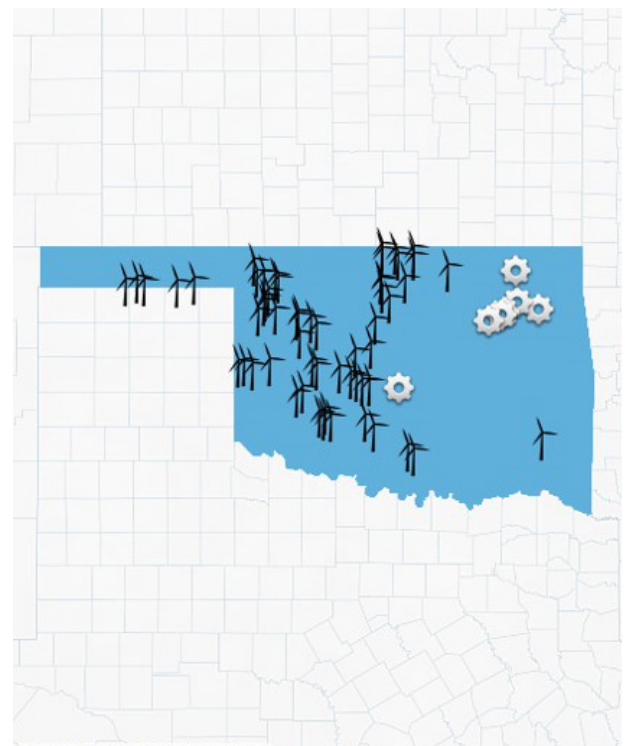
- Direct wind industry jobs in 2019: **6,001 to 7,000**
- Capital investment in wind projects through 2019*: **\$15.2 billion**
- Annual state and local tax payments by wind projects: **\$107 million**
- Annual land lease payments: **\$48 million**

*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: **7**



Online Wind Project



Wind-related Manufacturing Facility

Wind Projects as of Q1 2020

- Installed wind capacity: **8,173 MW**
 - » State rank for installed wind capacity: **3rd**
- Number of wind turbines: **4,013**
 - » State rank for number of wind turbines: **4th**
- Wind projects online: **45** (Projects larger than 10 MW: 44)
- Wind capacity under construction: **1,250 MW**
- Wind capacity in advanced development: **2,235 MW**

Wind Generation

In 2019, wind energy provided **34.60%** of all in-state electricity production.

- State rank for share of electricity: **3rd**
- Equivalent number of homes powered by wind in 2019: **2,649,800**

Wind Energy Potential

- Land-based technical wind potential at 80 m hub height: **359,434 MW**
(Source: AWS Truepower, 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*: **14.7 million metric tons**
 - » Equivalent cars' worth of emissions avoided: **3.1 million**
- In-state water consumption savings in 2019**: **7.1 billion gallons**

*Estimated using Aurora power sector model.

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

Renewable Portfolio Goal

In 2010, Oklahoma set a renewable energy target for 15 percent of total installed generation capacity for operating electric utilities to be renewable sources by 2015. Wind energy has historically been the renewable resource chosen to meet renewable energy targets.

