

# WIND ENERGY IN TEXAS



## Texas is the national leader in the U.S. wind energy industry.

Texas ranks first in the country for both installed and under construction wind capacity, while supporting over 25,000 wind-related jobs. In fact, with over 30 gigawatts (GW) of wind in the state, only four countries have more wind power than Texas. The wind energy industry in Texas has provided over \$53 billion in capital investment and has thrived thanks to smart state policy, such as legislation that created Competitive Renewable Energy Zones (CREZ) for wind power transmission. The state is also home to 40 manufacturing facilities, including tower manufacturers Broadwind Towers and GRI Renewable Industries.

## 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: **25,001 to 26,000**
- Capital investment in wind projects through 2019\*: **\$53.1 billion**
- Annual state and local tax payments by wind projects\*\*: **\$285 million**
- Annual land lease payments: **\$192 million**

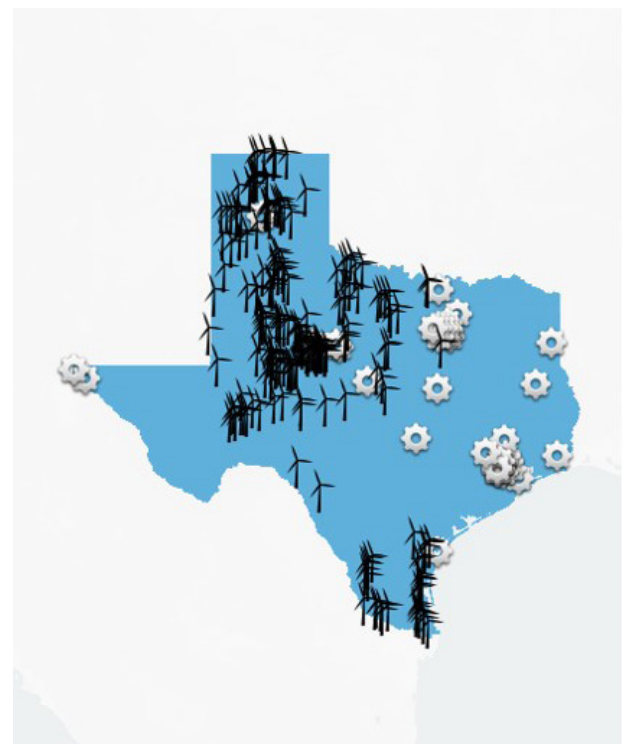
\*Based on state and national averages from LBNL, NREL.

\*\*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: **41**



 Online Wind Project

 Wind-related Manufacturing Facility

## Wind Projects as of Q3 2020

- Installed wind capacity: **30,904 MW**
  - » State rank for installed wind capacity: **1st**
- Number of wind turbines: **15,359**
  - » State rank for number of wind turbines: **1st**
- Wind projects online: **161** (Projects larger than 10 MW: 152)
- Wind capacity under construction: **5,324 MW**
- Wind capacity in advanced development: **1,050 MW**

## Wind Generation

In 2019, wind energy provided **17.50%** of all in-state electricity production.

- State rank for share of electricity: **11th**
- Equivalent number of homes powered by wind in 2019: **7,745,800**

## Wind Energy Potential

- Land-based technical wind potential at 80 m hub height: **1,347,992 MW**  
(Source: AWS Truepower, NREL)
- Offshore net technical wind potential at 100 m hub height: **215,979 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\*: **49 million metric tons**
  - » Equivalent cars' worth of emissions avoided: **10.5 million**
- In-state water consumption savings in 2019\*\*: **24 billion gallons**

\*Estimated using Aurora power sector model.

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

## Market Design

Texas has a competitive electricity market where wind, solar, gas, nuclear and other energy sources compete in real time. Texas established modest renewable energy goals in 1999, and later fast-tracked well-placed transmission lines to resolve congestion and connect windy parts of the state to load centers. This combination of policy and infrastructure allows wind to compete in the market while unlocking economic opportunities for landowners and rural communities.

