

WIND ENERGY IN TEXAS



Texas is a national leader in the wind energy industry.

Texas ranks first in the country for both installed and under construction wind capacity, while supporting over 24,000 wind-related jobs. In fact, with over 23 gigawatts (GW) of wind in the state, only five countries have more wind power than Texas. The wind energy industry in Texas has provided over \$42 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 at least 46 manufacturing facilities, including tower manufacturers Broadwind Towers and GRI Renewable Industries.

BENEFITS Jobs & Economic Benefits

An investment in wind power is an investment in jobs, including jobs in operations and maintenance, construction, manufacturing and many support sectors. In addition, wind projects produce lease payments for landowners and increase the tax base of communities.

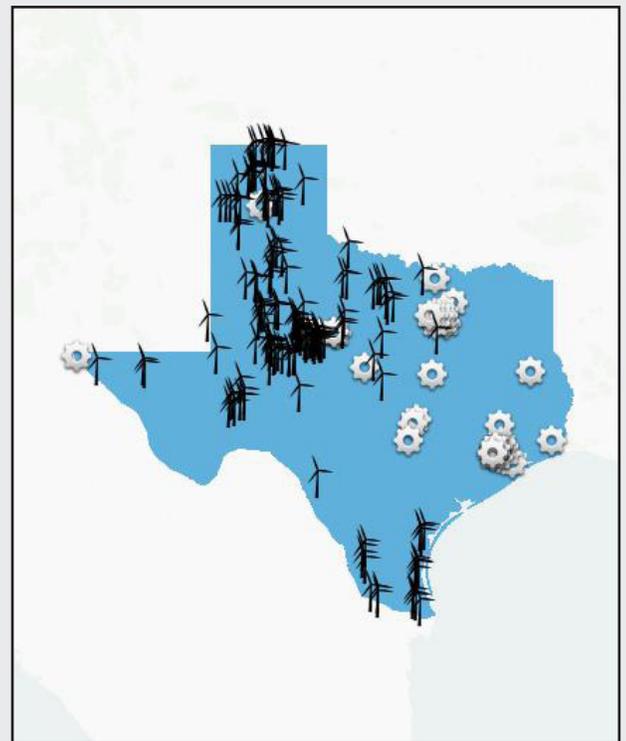
- 2017 direct and indirect jobs supported: **24,001 to 25,000**
- Total capital investment through 2017*: **\$42 billion**
- Annual land lease payments*: **>\$60 million**

*Calculations based on national and state averages.

Wind-Related Manufacturing

The United States has over 500 manufacturing facilities producing products for the wind industry that range from blade, tower and turbine nacelle assembly facilities to raw component suppliers, including fiberglass and steel.

- Number of active manufacturing facilities in the state: **46**



 Online Wind Project  Manufacturing Facility

Wind Projects as of 3Q 2018

- Installed wind capacity: **23,421 MW**
 - » State rank for installed wind capacity: **1st**
- Number of wind turbines: **12,793**
 - » State rank for number of wind turbines: **1st**
- Wind projects online: **137 (Projects above 10 MW: 126)**
- Wind capacity under construction: **6,148 MW**
- Wind capacity in advanced development: **1,804 MW**

Wind Generation

During 2017, wind energy provided **14.8%** of all in-state electricity production.

- State rank for share of electricity: **10th**
- Equivalent number of homes powered by wind in 2017: **6,235,000**

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

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

- 2017 annual state water consumption savings*: **23.4 billion gallons**
- 2017 equivalent number of water bottles saved: **177 billion**
- 2017 annual state carbon dioxide (CO₂) emissions avoided: **48.4 million metric tons**
- 2017 equivalent cars' worth of emissions avoided: **10.3 million**

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



Renewable Portfolio Standard

Texas established a renewable portfolio standard (RPS) in 1999, amending it in 2005. The current RPS requires 5,880 MW of renewable energy by 2015. The state also has a target of reaching 10,000 MW of renewable capacity by 2025, a target that the Texas wind energy industry met in 2010.