

WIND ENERGY IN COLORADO



Colorado is a national leader in the wind energy industry.

Colorado ranks eighth in the country for installed wind capacity and generates over 17% of its electricity from wind power. There are also 17 manufacturing facilities in the state creating high quality jobs and producing components for the wind industry, including global companies such as wind turbine manufacturer Vestas and steel producer O'Neal Steel. Thanks to companies like these, Colorado ranks third in the nation for wind industry employment. Xcel Energy recently completed the 600 MW Rush Creek Wind Project, injecting \$1 billion into the economy.

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.

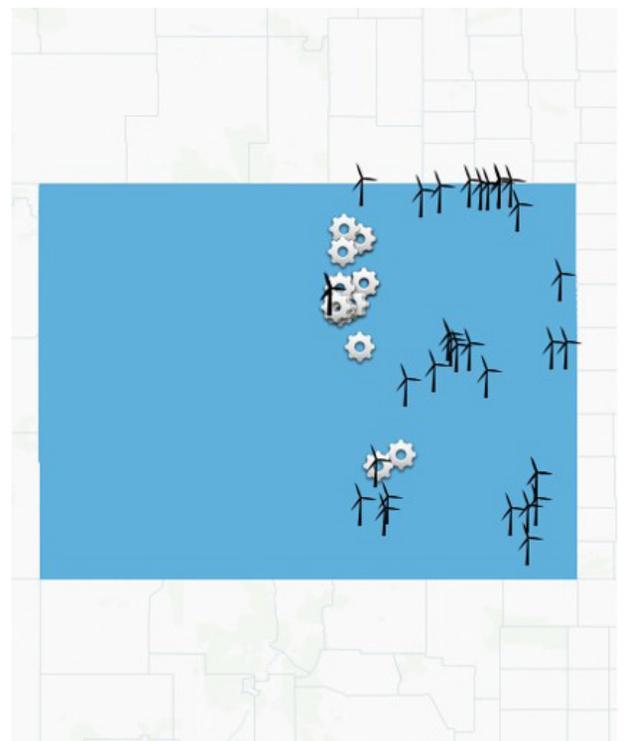
- Direct wind industry jobs in 2018: **7,001 to 8,000**
- Capital investment in wind projects through 2018*: **\$7 billion**
- Annual state and local tax payments by wind projects: **\$10.5 million**
- Annual land lease payments*: **\$10 - \$15 million**

*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: **17**



 Online Wind Project  Wind-related Manufacturing Facility

Wind Projects as of 4Q 2018

- Installed wind capacity: **3,703 MW**
 - » State rank for installed wind capacity: **8th**
- Number of wind turbines: **2,248**
 - » State rank for number of wind turbines: **8th**
- Wind projects online: **26** (Projects larger than 10 MW: 19)
- Wind capacity under construction: **0 MW**
- Wind capacity in advanced development: **560 MW**

Wind Generation

In 2018, wind energy provided 17.3% of all in-state electricity production.

- State rank for share of electricity: 9th
- Equivalent number of homes powered by wind in 2018: 944,100

Wind Energy Potential

- Land-based technical wind potential at 80 m hub height: 395,378 MW
(Source: AWS Truepower, NREL)
- Offshore net technical wind potential at 100 m hub height: NA MW (Source: NREL)

Environmental Benefits

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

- 2018 annual state water consumption savings*: 3.8 billion gallons
- 2018 equivalent number of water bottles saved: 29 billion
- 2018 annual state carbon dioxide (CO₂) emissions avoided: 7.4 million metric tons
- 2018 equivalent cars' worth of emissions avoided: 1.6 million

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

Renewable Portfolio Standard

The Colorado Renewable Portfolio Standard (RPS) requires investor-owned utilities to provide 30% of their 2020 electricity through renewable energy, large cooperatives to provide 20%, and small cooperatives and municipalities to provide 10%. Wind energy has historically been the renewable resource of choice to meet RPS requirements in Colorado.

