California led the world in wind energy development throughout much of the 1980s and 1990s.

Today, California remains a national leader in the wind industry, ranking fifth in the U.S. for wind power installations while boasting at least 13 wind-related manufacturing facilities. The largest wind project in the United States, the 946 MW Alta Wind Project, is located near Tehachapi in Kern County. Wind projects in the state represent $15.2 billion in capital investment and provide $85 million in annual state and local taxes.

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**: **$86 million**
- Annual land lease payments: **$46 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: **13**
Wind Projects as of Q2 2020
- Installed wind capacity: **5,871 MW**
  - State rank for installed wind capacity: **5th**
- Number of wind turbines: **5,761**
  - State rank for number of wind turbines: **2nd**
- Wind projects online: **98** (Projects larger than 10 MW: 60)
- Wind capacity under construction: **208 MW**
- Wind capacity in advanced development: **213 MW**

Wind Generation
In 2019, wind energy provided **6.80%** of all in-state electricity production.
- State rank for share of electricity: **19th**
- Equivalent number of homes powered by wind in 2019: **1,373,400**

Wind Energy Potential
- Land-based technical wind potential at 80 m hub height: **303,376 MW**
  (Source: AWS Truepower, NREL)
- Offshore net technical wind potential at 100 m hub height: **112,455 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*: **5.5 million metric tons**
  - Equivalent cars' worth of emissions avoided: **1.2 million**
- In-state water consumption savings in 2019**: **2.6 billion gallons**

*Estimated using Aurora power sector model.
**Based on national average water consumption factors for coal and gas plants.

Renewable Portfolio Standard
First enacted in 2002, California increased its renewable portfolio standard (RPS) again in 2018, requiring 60% of all utility retail sales to come from renewable resources by 2030. California also established a new goal for the state to obtain 100% of its electricity from clean energy sources by 2045.