WIND ENERGY IN PENNSYLVANIA

Pennsylvania is a national leader in wind-related manufacturing.

Pennsylvania is a manufacturing leader for the wind energy industry, with at least 29 wind-related manufacturing facilities in the state. Many of the skills Pennsylvania workers possess easily transfer to wind energy manufacturing, providing thousands of new jobs and spurring billions in investment. Many Pennsylvania companies have already begun supplying to the wind energy industry, such as SKF USA Inc. in Hanover. Expanding wind power will create even more opportunities for manufacturers and service suppliers down the supply chain.

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.

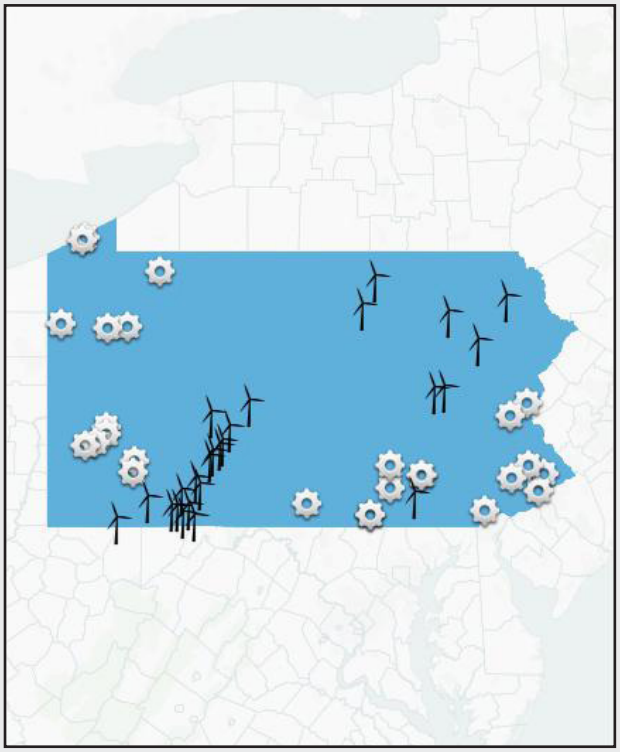
- 2017 direct and indirect jobs supported: **1,001 to 2,000**
- Total capital investment through 2017*: **$2.8 billion**
- Annual land lease payments*: **$1 - $5 million**

*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: **29**



Online Wind Project Manufacturing Facility

POWERED BY WindIQ AWEA

STATE WIND FACTS

Wind Projects as of 4Q 2018

- Installed wind capacity: **1,369 MW**
  - » State rank for installed wind capacity: **18th**
- Number of wind turbines: **726**
  - » State rank for number of wind turbines: **18th**
- Wind projects online: **24 (Projects above 10 MW: 22)**
- Wind capacity under construction: **90 MW**
- Wind capacity in advanced development: **68 MW**

Wind Generation

During 2017, wind energy provided **1.7%** of all in-state electricity production.

- State rank for share of electricity: **31st**
- Equivalent number of homes powered by wind in 2017: **314,000**

Wind Energy Potential

- Land-based technical wind potential at 80 m hub height: **108,946 MW**
  (Source: AWS Truepower, NREL)
- Offshore net technical wind potential at 100 m hub height: **3,578 MW** (Source: NREL)

Environmental Benefits

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

- 2017 annual state water consumption savings*: **2.0 billion gallons**
- 2017 equivalent number of water bottles saved: **15 billion**
- 2017 annual state carbon dioxide (CO_2) emissions avoided: **3.7 million metric tons**
- 2017 equivalent cars' worth of emissions avoided: **784,000**

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

POLICY

Renewable Portfolio Standard

Pennsylvania passed an Alternative Energy Portfolio Standard (AEPS) in 2004, requiring electricity suppliers to supply 18 percent of their sales from alternative energy sources by 2021. Wind energy has historically been the renewable resource chosen to meet renewable standards requirements, fulfilling 61% of Pennsylvania's requirement in 2014.

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