Workforce for the 21st Century

NCSL Task Force on Energy Supply

U.S. Wind Energy Industry

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AWEA’s diverse membership (1000 member companies) includes global development, turbine & component manufacturing, including wind towers.

There are a number of different types of jobs in the wind industry:

- Manufacturing and supply chain
- Construction stage—requires skilled workers to install the turbines,
- Development - site selection, permitting, resource assessment, engineers
- Operations and maintenance jobs over the life of the turbine
  - Field managers, control room operators, service providers, and the like
  - Turbine techs – 2nd fastest growing job. Long-term, well paying
    top of the turbine to perform maintenance (Tower Climbing Green
- Other jobs include project finance, insurance, and legal professionals

AWEA is committed to the development of wind workers across all levels.

Development also includes placing wind industry professionals in the right companies with employees that are in line with their needs. This investment
U.S. Wind Industry Employs record 114,000 Americans

2018 Wind Jobs by State
AWEA facilitates investments in the wind industry.

- Investing in programs to cultivate skills in the industry;
- Establishing programs to administer projects;
- Developing continuing education opportunities for workers and;
- Implementing wind energy education initiatives for students of all ages.
Wind Power Capacity in 41 States, Guam, and Puerto Rico

- CA: 5,842
- TX: 25,629
- CA: 3,706
- WA: 3,076
- OR: 3,213
- CO: 1,488
- WY: 1,488
- WA: 800
- MT: 973
- ID: 973
- NV: 152
- UT: 391
- AZ: 268
- UT: 391
- NM: 1,732
- OK: 8,072
- IL: 4,887
- IN: 2,317
- WI: 737
- MI: 2,065
- OH: 729
- KY: 686
- NC: 208
- SC: 208
- FL: 149
- VT: 149
- HI: 206
- GU: 64
- AK: 64
- HI: 206
- GU: 64
- AK: 64

See map for more details.
The wind industry is global, with local suppliers.

Domestic manufacturing content is strong for wind.

Domestic manufacturing content is highest for major components: towers (70–90%), and blades and hubs (50–70%).

Wind Technologies Market Report

Each of the three major OEMs that serve the U.S.—GE, Vestas, and SGRE—had one or more operating facilities in the country at the end of 2017. In contrast, 13 years earlier, only two of the three had facilities in the U.S. (GE and Vestas).
Over 500 Wind-Related Manufacturing Facilities
Wind powers opportunity for American veterans

Many veterans have experience operating in the field under tough conditions – exactly what is needed to keep wind turbines reliably producing electricity for homes and businesses. This offers veterans a way to continue their important role in national energy security while providing a bright future for their families.
Veterans in Wind Energy - AWEA Website: https://www.awea.org/policy-and

Justin - Senior Operations Manager: Justin’s path into operations was similar to the Army in a lot of aspects. Whether it was equipment, maintenance or personnel, he was used to being ready with the proper tools; just like he was now.

Brad - EHS Regional Manager: The wind energy industry began in 2009, just a few years after the military. He has always been interested in being a part of something new and impactful, so the wind energy industry was a perfect fit.
Veterans are a good fit for wind-powered industries, as they find jobs in wind at a rate 67% higher than the national average.

AWEA’s outreach program for transitioning military members and veterans provides guidance on how to translate skills acquired in the wind industry and how to translate those skills to the wind industry.
41,801 MW Under Construction or in Advanced Development

Capacity Under Construction

- WY: 3,753
- NM: 1,447
- TX: 7,619
U.S. Offshore Wind Activity Picks Up

- First U.S. offshore wind project completed
- 30 MW Block Island Wind Farm
- States are driving demand for offshore wind goals for over 21 GW of offshore wind by 2035
Additional Economic Benefits

Cumulative Wind Project Investment

- AK: $130 million
- OR: $6.6 billion
- WA: $6.1 billion
- MT: $1.4 billion
- ID: $2.1 billion
- ND: $5.8 billion
- MN: $7.1 billion
- WI: $1.5 billion
- IA: $14.2 billion
- IL: $8.9 billion
- MN: $1.5 billion
- MI: $3.5 billion
- OH: $1.2 billion
- WV: $1.4 billion
- PA: $2.3 billion
- NJ: $5 million
- NY: $3.7 billion
- CT: $5 million
- DE: $5 million
- MD: $400 million
- VA: $100 million
- SC: $100 million
- GA: $100 million
- AL: $100 million
- MS: $100 million
- LA: $100 million
- AR: $100 million
- TX: $42.0 billion
- OK: $13.7 billion
- NM: $2.9 billion
- CO: $6.0 billion
- UT: $850 million
- WY: $3.1 billion
- AZ: $570 million
- NV: $310 million
- HI: $410 million
- CA: $12.6 billion
The wind industry is bringing investment, and clean energy to the country. Learn the top wind projects about each state by clicking over the map. Updated July 2023.
Policy ideas for the Wind Workforce:

- Veterans incentives – ESGR: https://www.esgr.mil/About-ESGR/Pages/#/
- Community College Wind/Solar programs
- Skilled trades/Apprenticeships training
- K-12 STEM – awareness and care (https://kansasenergyprogram.org/)
AWEA Workforce Development Committee

- Collecting Data – Compensation and Benefits, Attrition, and Transition and Training Program
- Setting workforce training and education standards
- Career pathways

AWEA will work with state lawmakers to craft workforce policies. There is no “one-best-way” or “one-size-fits all” approach that works and building on successful workforce programs already in your area.

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