



CLEAN ENERGY JOBS GROWTH IN THE UNITED STATES

The clean energy economy in the United States—including wind, solar, and efficiency industries—is putting more and more Americans to work. Solar and wind energy are among the most dynamic industries in the nation, employing hundreds of thousands of Americans. Energy efficiency efforts employ millions, while saving money for both companies and consumers. This fact sheet gathers the latest data on how many Americans are working in clean energy and where the jobs are located.

FACT **The U.S. Department of Energy estimates that about 800,000 Americans were employed in low-carbon-emission generation technologies in early 2016, including renewables, nuclear, and advanced/low-emission natural gas.** By comparison, 160,000 Americans worked in coal in early 2016. (DOE)¹

FACT **Solar jobs are among the fastest growing employment sectors in the nation.** In 2016, the U.S. solar industry created jobs 17 times faster than the overall economy. One out of every 50 new jobs added in the United States in 2016 was created by the solar industry.² The solar workforce grew 25 percent from 2015 to 2016, reaching 374,000. (Solar Foundation)³

FACT **Wind jobs are also a rapidly expanding job sector in the U.S.** Wind employment grew 32 percent between 2015 to 2016, reaching 102,000. The Bureau of Labor Statistics predicts that wind-turbine technicians will be the fastest-growing occupation over the next 10 years. (Dept. of Energy)⁴

FACT **In early 2016, 2.2 million Americans were employed, in whole or in part, in the design, installation, and manufacture of energy efficiency products and services.** Of these, more than half, 1.4 million are in the construction industry. (BLS)⁵

FACT **The share of the auto industry working with alternative fuels and fuel-efficient vehicles is growing.** Of the 2.4 million workers in the industry in early 2016, more than 259,000 work with alternative-fuel vehicles (including natural gas, hybrids, plug-in hybrids, all electric, and fuel cell/hydrogen vehicles) and at least 710,000 jobs are focused on improving fuel economy or transitioning to alternative fuels. (DOE)⁶

CONTACTS

Helen Mountford
Director of Economics
hmountford@wri.org

Joel Jaeger
Specialist, New Climate Economy
joel.jaeger@newclimateeconomy.net

World Resources Institute Fact Sheets bring together data and content from WRI's research as well as other respected organizations to provide a basis for informed discussion and decision making on urgent issues at the nexus of environment, economic growth and human well-being.

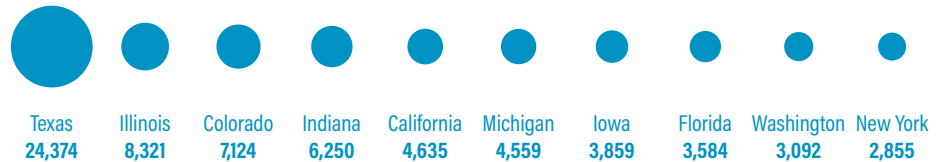
find other fact sheets in this series at:
wri.org/powering-america-forward

FACT **Manufacturing jobs from renewables exist all over the country.** More than 500 factories build wind-related parts and materials in 43 states, making everything from major wind turbine components such as nacelles, blades, towers, and gearboxes to internal components like bearings, slip rings, fasteners, and power converters. They are especially concentrated in the Midwest, the Northeast, and Appalachia.⁷

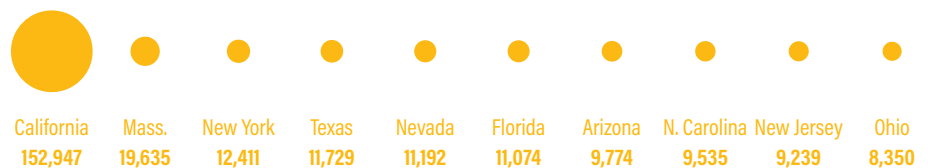
FACT **Texas is the top state for wind jobs and California is the top state for solar and energy efficiency jobs.** Florida, Illinois, Massachusetts, Michigan, New York, North Carolina, and Ohio also rank in the top 10 in multiple categories of clean energy jobs (see figure at right).

WHERE ARE CLEAN ENERGY JOBS LOCATED?

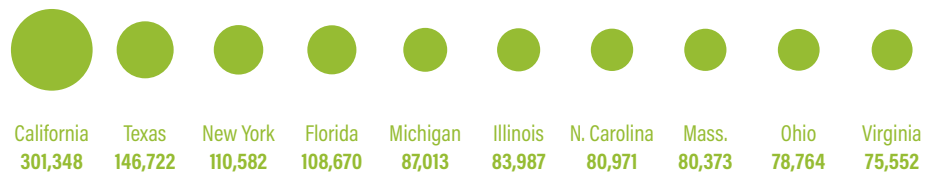
Top Ten States for Wind Jobs



Top Ten States for Solar Jobs



Top Ten States for Energy Efficiency Jobs



Data from the state charts⁸ in the Department of Energy's 2017 National Energy and Employment Report⁹ can be used to provide a ranking of the top 10 U.S. states for wind, solar, and energy efficiency jobs.

NOTES AND REFERENCES

- Department of Energy, National Energy and Employment Report, January 2017, p. 8. https://energy.gov/sites/prod/files/2017/01/f34/2017%20US%20Energy%20and%20Jobs%20Report_0.pdf.
- The 2016 data refer to Q1 (January to March). The 2015 data refer to Q2 (April to June).
- The Solar Foundation, National Solar Jobs Census 2016, <http://www.thesolar-foundation.org/solar-accounts-1-50-new-u-s-jobs-2016/>.
- Department of Energy, National Energy and Employment Report, January 2017. https://www.energy.gov/sites/prod/files/2017/01/f34/2017%20US%20Energy%20and%20Jobs%20Report_0.pdf
- Bureau of Labor Statistics, Fastest Growing Occupations. https://www.bls.gov/emp/ep_table_103.htm.
- Department of Energy, National Energy and Employment Report, January 2017, p. 8. https://energy.gov/sites/prod/files/2017/01/f34/2017%20US%20Energy%20and%20Jobs%20Report_0.pdf.
- The 2016 data refer to Q1 (January to March).
- Department of Energy, National Energy and Employment Report, January 2017, p. 9. https://energy.gov/sites/prod/files/2017/01/f34/2017%20US%20Energy%20and%20Jobs%20Report_0.pdf.
- American Wind Energy Association, U.S. Wind industry 2015 Annual Market update, p. 1. <http://awea.files.cms-plus.com/Annual%20Report%20Manufacturing%202015.pdf>.