

EXECUTIVE SUMMARY



WIND POWERS AMERICA ANNUAL REPORT 2019



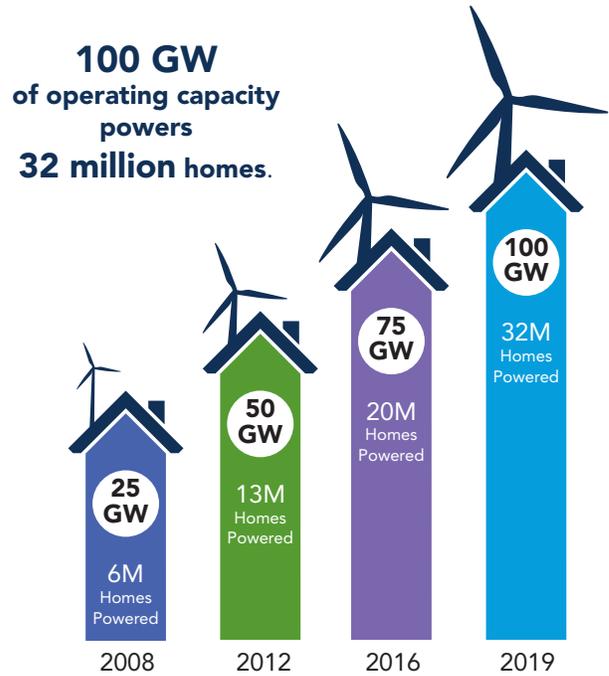
Wind is Powering America

The U.S. wind energy industry success story powered forward to reach new heights in 2019 by becoming America's #1 renewable energy source and topping 100 GW of capacity following the third strongest year for wind power installations on record. The rapid expansion of wind power in America is delivering affordable, reliable and clean energy to consumers, economic enrichment to rural communities, and job growth across the nation.

Today, the U.S. wind energy industry powers more American homes and businesses than ever before and employs a record 120,000 men and women across all 50 states, with the industry at the center of a transformational change in the country's electricity sector.

100 GW of Wind Power

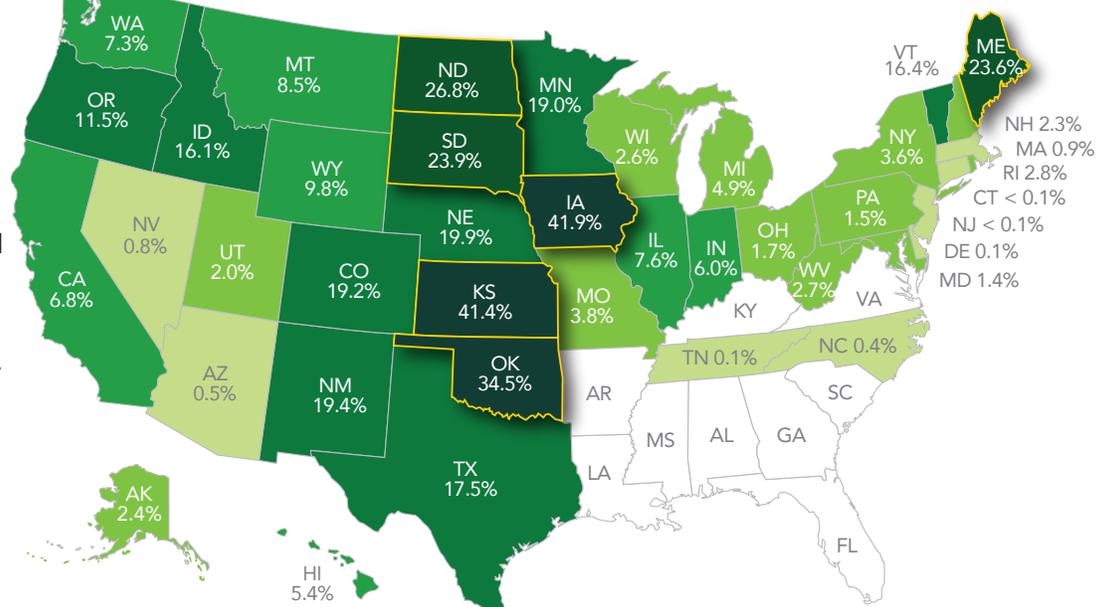
U.S. wind power achieved a major milestone in 2019 as it reached 100 gigawatts (GW) of operating capacity. That's enough wind power to meet the electricity needs of 32 million homes. Wind power capacity has quadrupled since 2008 and today it is the largest source of renewable energy generating capacity in America. Across the country, wind power accounted for 30% of utility-scale power capacity additions over the past 10 years.



Wind is the #1 Source of Renewable Energy

Wind energy became the largest source of renewable electricity in the country, supplying **7.2%** of America's electricity in 2019. Wind energy provides over 20% of the electricity produced in 6 states - Iowa, Kansas, Maine, North Dakota, Oklahoma, and South Dakota. Impressively, **Iowa and Kansas now generate more electricity from wind turbines than any other technology.**

Wind Energy's Share of Electricity Generation in 2019

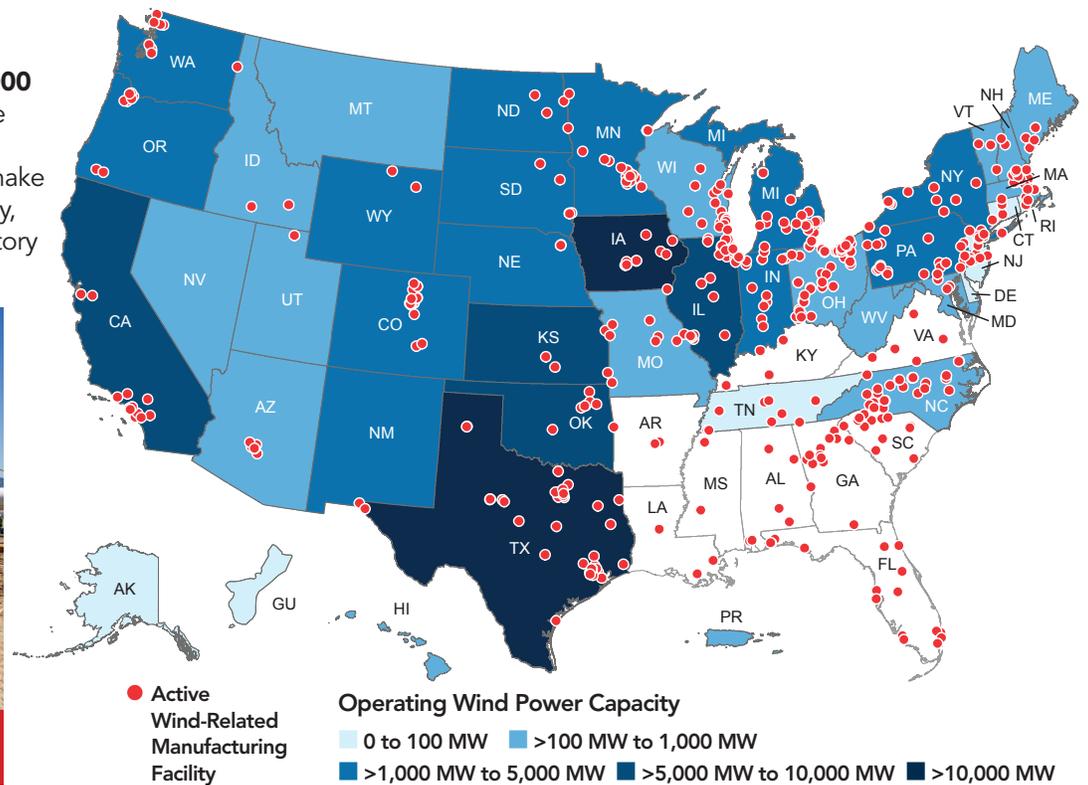


Legend for Wind Energy's Share of Electricity Generation in 2019:

- >0% to <1%
- 1% to <5%
- 5% to <10%
- 10% to <20%
- 20% to <30%
- 30% and higher

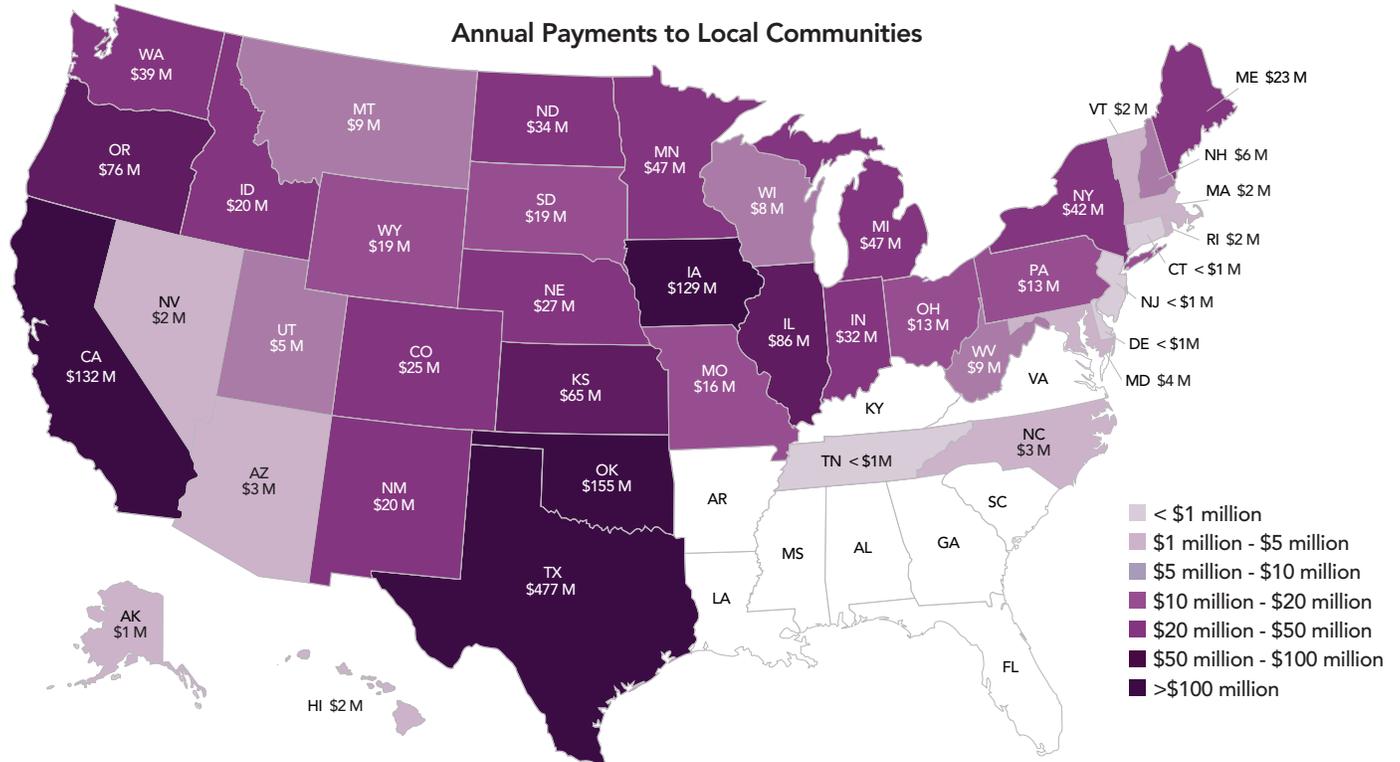
Wind Benefits Every State

All 50 states are home to either a wind project or a wind-related manufacturing facility, and **120,000** Americans have direct jobs in the wind industry. Over **530** wind-related manufacturing facilities make components for the wind industry, supporting over **26,000** U.S. factory jobs.



Wind Supports Local Communities

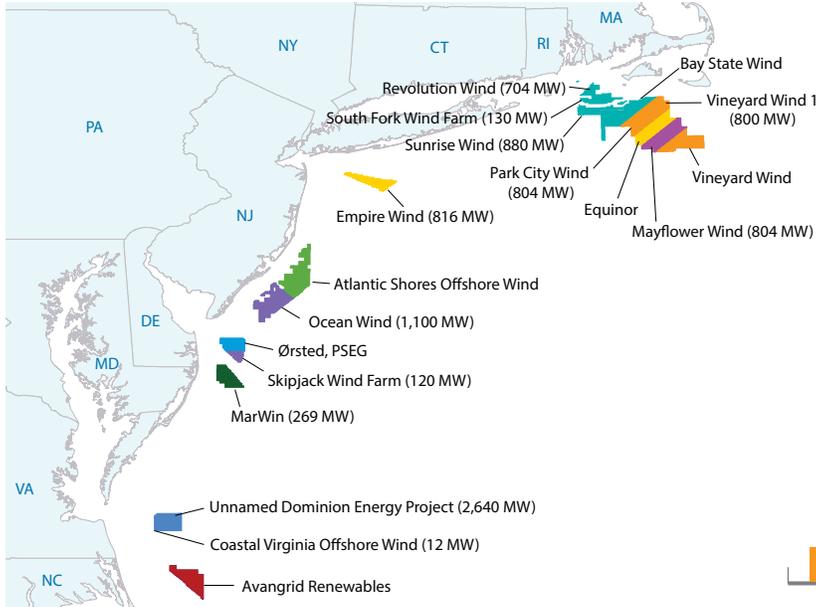
The U.S. wind industry is a major economic development driver, especially in rural areas. The industry invested **\$14 billion** in new wind projects in 2019. Every year, wind projects pay over **\$1.6 billion** to state and local governments and private landowners, including **\$912 million** in state and local tax payments and **\$706 million** in landowner lease payments.



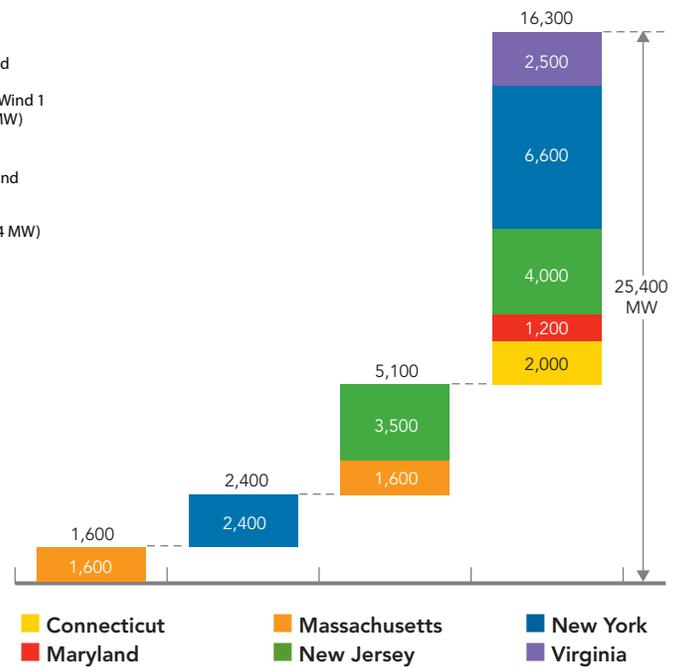
Offshore Wind Energy Development in the U.S.

Offshore wind power continues to build momentum as states target over 25 GW of offshore wind after announcing over **16 GW of new targets in 2019**. Developers now plan to bring 9 GW of offshore wind online by 2026.

East Coast Offshore Wind Projects and Lease Areas



Offshore Wind State Targets

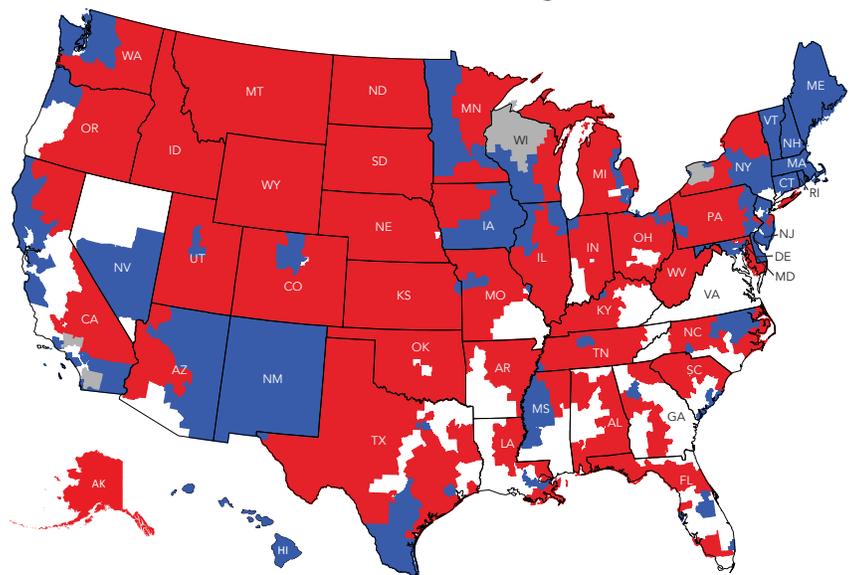


Note: Labels reflect the project name for projects that have secured offtake, otherwise the lease owner is listed.

Wind Power is Red, White, and Blue

Wind projects and wind-related manufacturing facilities are present in **70% of U.S. congressional districts**, including 77% of Republican districts and 62% of Democratic districts. Wind power benefits all Americans through economic investment, homegrown energy, and clean air.

Congressional Districts with Wind Projects & Wind-related Manufacturing Facilities



Top Legislative Districts with Wind Power

- TX-19 Rep. Jodey Arrington (R) 8,797
- TX-13 Rep. Mac Thornberry (R) 7,470
- OK-3 Rep. Frank Lucas (R) 7,035
- IA-4 Rep. Steve King (R) 6,033
- TX-11 Rep. Michael Conaway (R) 4,037
- KS-1 Rep. Roger Marshall (R) 3,811
- ND-1 Rep. Kelly Armstrong (R) 3,628
- CA-23 Rep. Kevin McCarthy (R) 3,468
- OR-2 Rep. Greg Walden (R) 3,422
- CO-4 Rep. Ken Buck (R) 3,394

Demand For Wind Power Reaches New Heights

Utilities and corporate customers announced a record **8,726 MW** of power purchase agreements (PPAs) in 2019. Corporate buyers accounted for 40 percent of the new PPAs signed in 2019. In fact, Walmart and AT&T were two of top three wind buyers last year. Meanwhile utilities signed **5,085 MW** of wind contracts last year, the second highest amount on record for this group.



Utilities and businesses bought a record 8.7 GW of wind power in 2019.

Wind Supports Grid Reliability

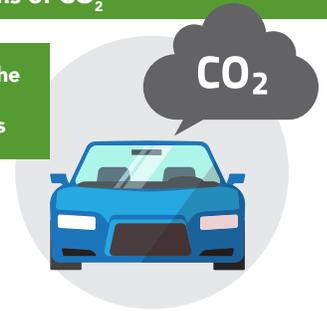
Large amounts of wind power are successfully integrated with the grid, delivering energy and a suite of essential reliability services. In 2019, every electricity market set wind energy production records. On several occasions, SPP—a power market spanning 14 states and 18 million customers—has seen wind meet over **70% of electricity demand**.



Wind Power Saves Water and Reduces Emissions

Wind energy avoided 198 million metric tons of CO₂

Equivalent to the emissions of 42 million cars



Wind energy avoided the consumption of 103 billion gallons of water

Equivalent to 312 gallons per person in the U.S.



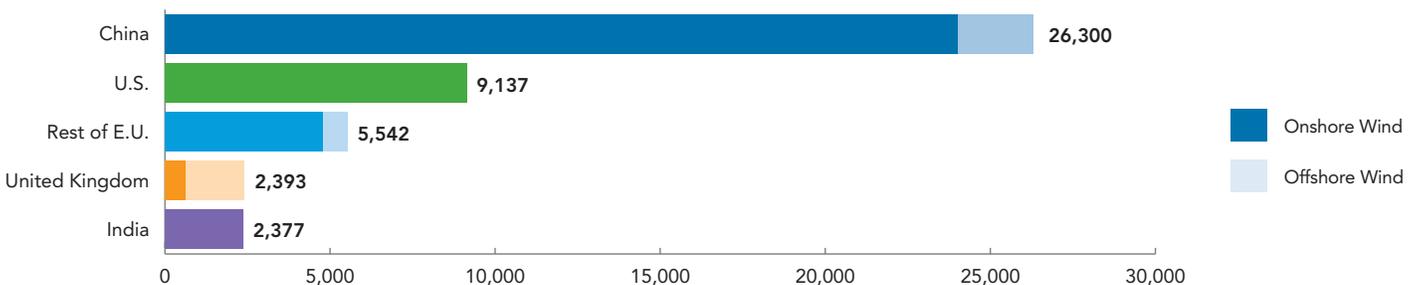
Wind projects avoided 232,000 metric tons of SO₂ and 168,000 metric tons of NO_x



The U.S. is a Global Wind Power Leader

The U.S. is the **second largest** wind power market in the world, hosting **16%** of the global wind fleet. The global wind market is growing quickly, expanding 10% in 2019. Worldwide, there are now 650 GW of wind farms generating electricity.

Top 5 Global Wind Power Markets in 2019





About the American Wind Energy Association

AWEA is the national trade association for the U.S. wind industry, the largest source of renewable energy in the country. We represent 1,000 member companies, 120,000 jobs in the U.S. economy, and a nationwide workforce located across all 50 states, AWEA serves as a powerful voice for how wind works for America. Members include global leaders in wind power and energy development, turbine manufacturing, and component and service suppliers. They gather each year at the Western Hemisphere's largest wind energy event, the AWEA WINDPOWER Conference & Exhibition, next in Indianapolis, June 7-10, 2021. WINDPOWER 2021 will be housed within CLEANPOWER, the new exhibition hub for utility-scale renewable energy, bringing together wind power, solar power, and energy storage industries. Visit AWEA's website to learn more about the enormous economic benefits wind power brings to America and be sure to follow us on Facebook, Twitttter, and LinkedIn.

More information can be found at www.AWEA.org.



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