



Distributed wind systems provide electricity for individuals, businesses, and communities in all 50 states, Puerto Rico, Guam, and the U.S. Virgin Islands. Distributed wind systems are primarily used to reduce energy costs, or to electrify remote locations not connected to a centralized grid. These two Bergey Excel 10 wind turbines operate at the Brock Environmental Center in Virginia.

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2017 Distributed Wind Market Report

The annual Distributed Wind Market Report provides market research, data, and analysis to help interested parties, policymakers, and industry understand the issues unique to distributed wind in the United States.

Distributed Wind Installed Capacity Surpasses 1 GW

Driven by large-scale turbines installed to power a variety of distributed generation needs in 2017, cumulative U.S. distributed wind installed capacity is now 1,076 megawatts (MW). In California, large-scale wind turbines were installed to power a county prison and a vineyard. New distributed wind in Iowa was strategically sited to provide power for ethanol and biodiesel facilities on the local distribution grid. More small towns in Iowa, Nebraska, and Maryland are now using distributed wind to serve their residents and municipal facilities. Lastly, the Seneca Nation in New York installed a 1.5-MW wind turbine under New York's aggregate net metering policy to stabilize electricity rates for its tribal members.

Distributed Wind Customers Come Back for More

In 2015, One Energy Enterprises LLC installed 3 MW of behind-the-meter wind capacity to power a Whirlpool Corporation manufacturing facility in Ohio. In 2017, the company installed an additional 6 MW for Whirlpool. In 2016, Buffalo Renewables installed a 100-kilowatt (kW) turbine for Triad Recycling & Energy in New York to power its waste-management operations. In 2017, the same company installed a second 100-kW turbine for the recycler. Finally, in 2017, the County of Hawaii Department of Water Supply replaced old wind turbines used to power its water wells with five 660-kW refurbished Vestas V47 wind turbines at its Lalamilo site.

Investment Tax Credit Extended for Small Wind

The Bipartisan Budget Act of 2018 reinstated the Residential Renewable Energy Tax Credit for small wind turbines placed in service 2017 through 2021 and extended the Business Energy Investment Tax Credit for wind projects placed in service by 2023. These extensions, both with credit value phase-down schedules, provide near parity to solar PV's tax credit status, which was passed into law at the end of 2015. The number of small wind sales in the United States has been in a decline since 2012; however, these tax credit extensions could bolster the market in the near term.

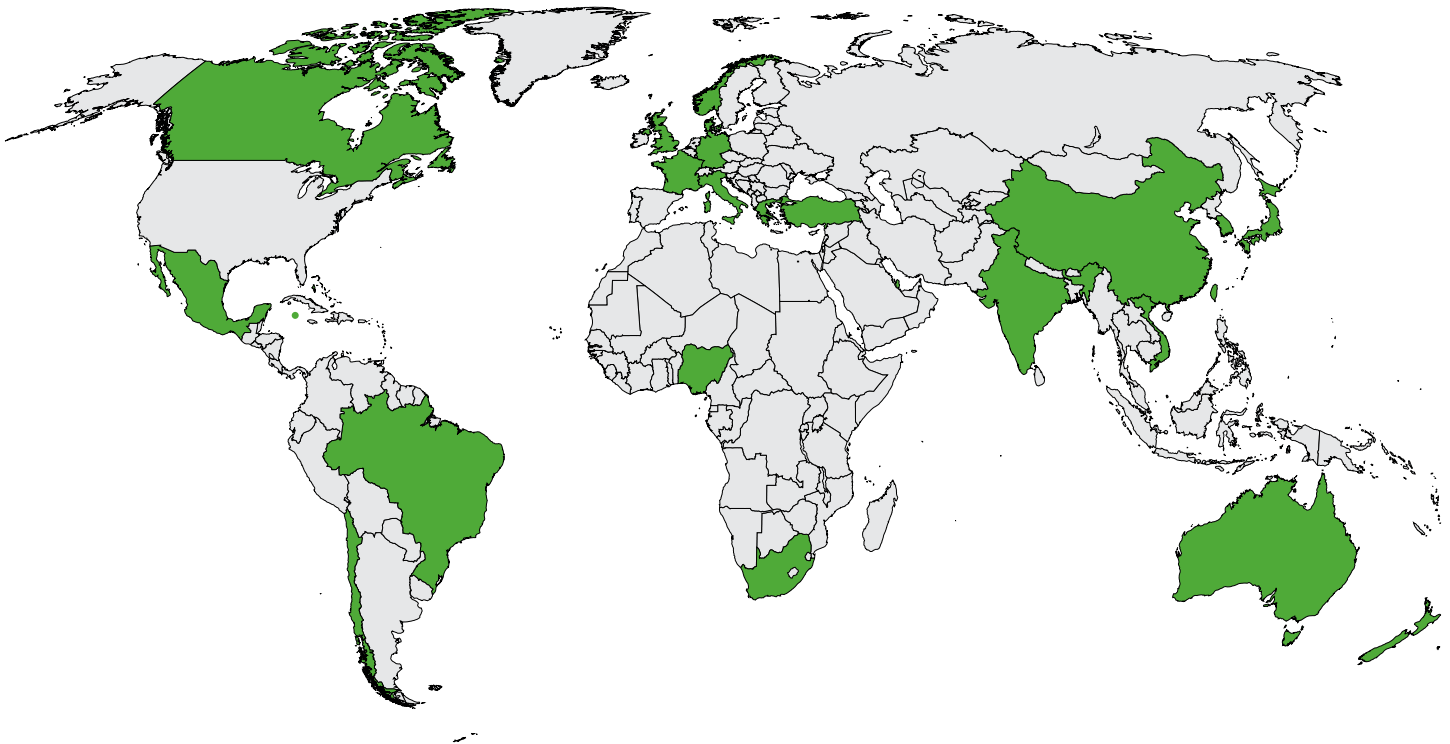
U.S. Small Wind Manufacturers Export to the World

U.S. small wind (up through 100 kW) manufacturers dominate domestic small wind sales and also export to international markets. Since 2012 (the first year of the Distributed Wind Market Report), at least 70 MW of U.S. small wind turbines have been exported to at least 25 different countries.

The primary markets over the years have been the United Kingdom and Italy. However, with policy changes in those countries, U.S. small wind manufacturers have turned their attention to other markets, namely Japan, in recent years.

In 2017, four U.S. small wind manufacturers reported 5.5 MW of exports at a value of \$42 million. This is down from both the 10.3 MW of exports valued at \$62 million in 2016 and the 2015 peak of 21.5 MW valued at \$122 million.

U.S.-made small wind turbines, sold in the United States or abroad, support a variety of U.S. manufacturing and supply chain jobs. Small wind manufacturers and their supply chain vendors occupy at least 27 states and provide mechanical, electrical, tower, and blade components for small wind turbines.



U.S. Small Wind Exports Map for 2012 through 2017

U.S. small wind manufacturers have provided turbines to customers in the following countries:

Australia, Bahamas, Brazil, Canada, Cayman Islands, Chile, China, Denmark, France, Germany, Greece, India, Italy, Japan, Mexico, New Zealand, Nigeria, Norway, Qatar, South Africa, South Korea, Taiwan, Turkey, United Kingdom, and Vietnam.

The 2017 Distributed Wind Market Report is being prepared by Pacific Northwest National Laboratory with funding from DOE's Wind Energy Technologies Office. The full report will be available at energy.gov/windreport in summer 2018.



For more information, visit:
energy.gov/eere/wind