

Ohio: We Make Wind Work

Ohio

Wind Works in Ohio

Learn how Ohio's manufacturing excellence has propelled the growth of the wind supply chain.



Department of
Development

John R. Kasich, Governor

James A. Leftwich, Director

www.wind.ohio.gov

■ Ohio, the Perfect Home for Your Wind Energy Business

- **Skilled workforce** – Ohio's total workforce of 5.6 million includes a skilled labor pool of 800,000 manufacturing workers and a dedicated cluster of more than 60,000 specialized advanced energy workers ready to grow your energy business.
- **Attractive business and tax policies** – Ohio lawmakers dramatically revamped the state's tax structure, creating the lowest rates in the Midwest and an extremely profit-friendly business climate for companies that locate here. Ohio provides the tools you need to win in a global economy.
- **Unbeatable location with world-class transportation and logistics system** – Within 600 miles of 60 percent of U.S. and Canadian populations, Ohio is within a day's drive of more than 70 percent of North America's manufacturing capacity. This unbeatable location helps your business move products and materials in and out of Ohio quickly and efficiently.
- **Wind volume** – Ohio's wind potential is among the highest of any state east of the Mississippi with 66,000 Megawatts. The Great Lakes are estimated to provide up to 250 Gigawatts of wind potential – enough to power 75 million households.
- **Strong industrial manufacturing sector** – Ohio has an unparalleled industrial manufacturing sector, boasting one of the world's foremost supply chains.
- **Advanced manufacturing resources** – Ohio's seven Edison Technology Centers facilitate process improvement and operational performance in advanced manufacturing.
- **Research leadership** – Ohio manufacturers benefit from extensive research and commercialization services from 40 universities and research institutions, including 15 graduate universities that are aligned through the University Clean Energy Alliance of Ohio, focused on next-generation innovation in advanced energy.
- **Public-private partnerships** – The State of Ohio is a strong partner with your business as a key stakeholder in an effective public-private partnership between industry and all levels of Ohio government.

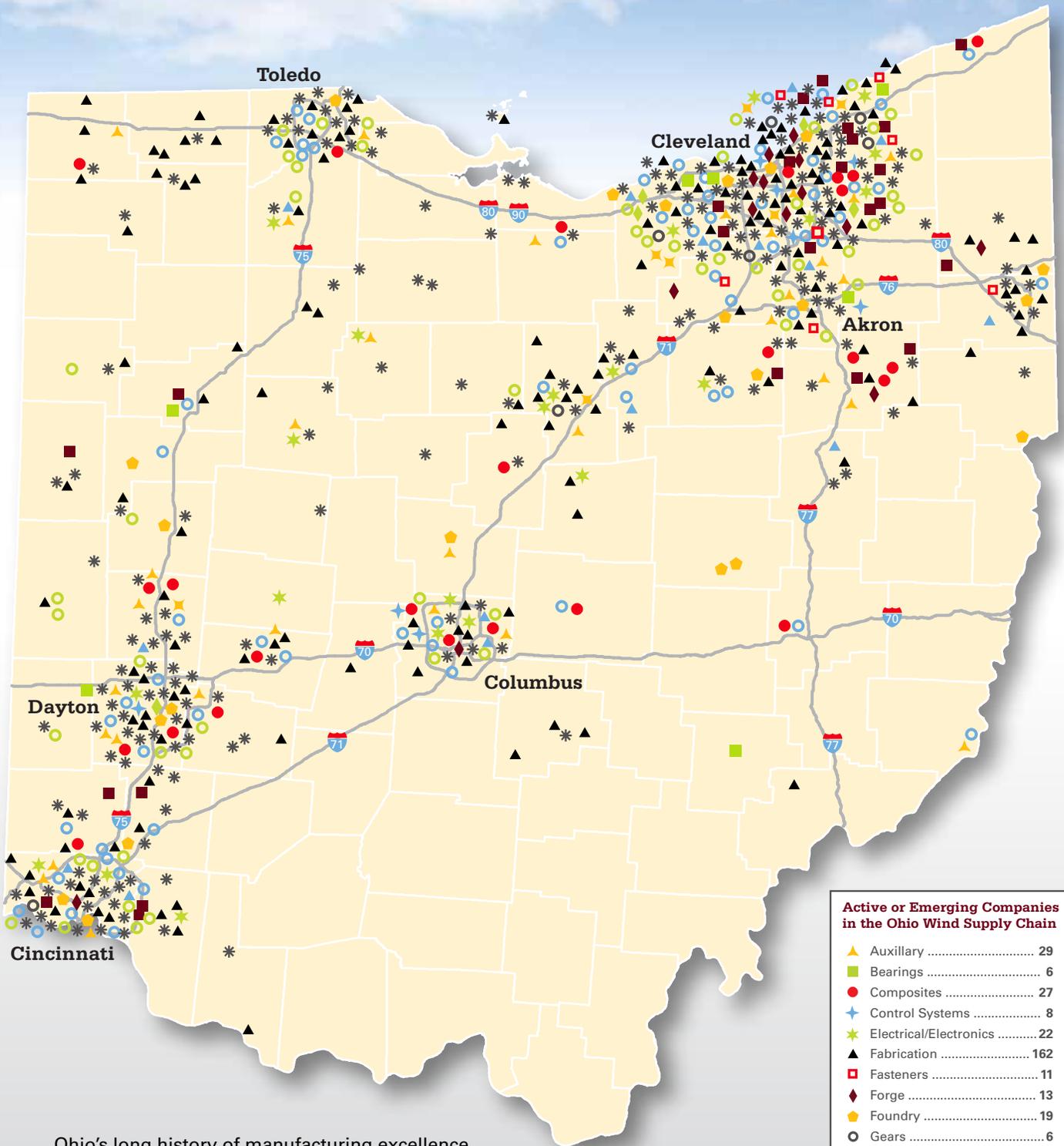


Ohio's Heritage in Manufacturing Innovation



In 1888, Charles Brush, a Cleveland inventor and electric industry pioneer, created the first large windmill used to generate electricity. It operated for 12 years, delivering 12 kilowatts of power to Brush's home on 37th and Euclid Avenue.

Get Connected with Ohio's Extensive Supply Chain



Active or Emerging Companies in the Ohio Wind Supply Chain

▲ Auxillary	29
■ Bearings	6
● Composites	27
★ Control Systems	8
☆ Electrical/Electronics	22
▲ Fabrication	162
□ Fasteners	11
◆ Forge	13
● Foundry	19
○ Gears	6
▲ Hydraulics	16
* Machine Shops	204
■ Metal Coatings	25
★ Power Electronics	6
◆ Sensors	5
○ Support Services for MFG ..	59
○ Other Servies*	47
Total	665

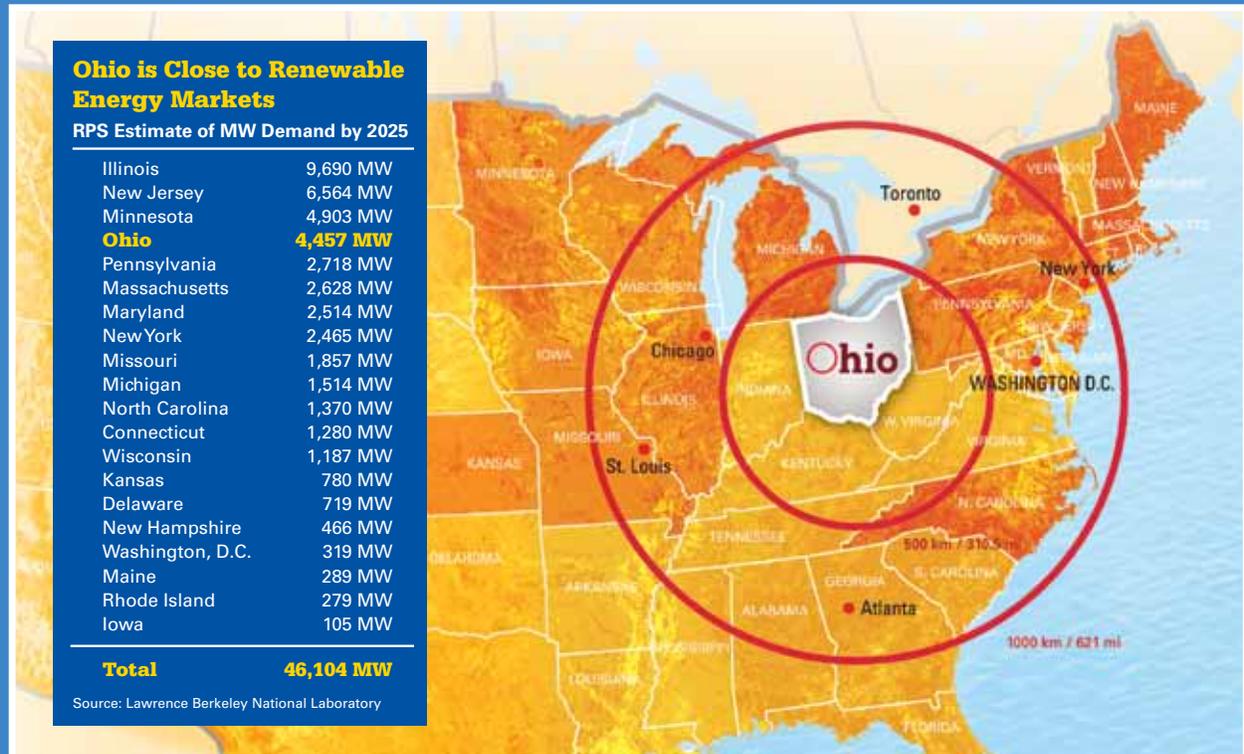
*includes engineering, legal, design, communications, and other support services

Ohio's long history of manufacturing excellence and the continued transformation of its industrial base, make Ohio the ideal location for global leadership in the wind energy industry. With thousands of companies in its advanced energy supply chain, including more than 600 established and emerging companies in the Ohio wind supply chain, Ohio has become a leading U.S. component supplier for wind turbine Original Equipment Manufacturers.

■ Lower the Cost of Moving Your Finished Goods with Ohio's Easy Access to Profitable Markets

The strength of Ohio's world-class transportation and logistics system complements the wind supply chain by facilitating the movement of products and materials in and out of the state quickly and efficiently. Ohio is located within 600 miles of 62 percent of all U.S. and Canadian manufacturing locations and is in close proximity to 46,104 Megawatts of new renewable energy capacity required by Renewable Portfolio Standards in neighboring states.

Ohio's transportation system includes eight interstate highways, five international airports, three major domestic airports and 10 Foreign Trade Zones for importing and exporting goods. The state has the fourth-highest rail freight traffic in the United States and 700 miles of navigable waterways leading to the Gulf of Mexico and the Saint Lawrence Seaway.



Ohio is Close to Renewable Energy Markets

As a manufacturing powerhouse, Ohio is building upon its strong wind supply chain to support Ohio businesses that ship Ohio-made products to serve the renewable energy markets within the Great Lakes region and the East Coast. Many nearby states have implemented Alternative Energy Portfolio Standards that require renewable energy generation, such as wind power as part of their diversified electricity portfolio. With the market for Ohio wind suppliers expanding, Ohio manufacturers are retooling their facilities and workforce to meet the world's growing demand for the emerging renewable energy industry. The opportunities for companies interested in the future of wind power begins by partnering with Ohio's advanced manufacturing leaders.

With the enactment of Senate Bill 221 in 2008, Ohio instituted an energy policy that included the Alternative Energy Portfolio Standard, which requires Ohio's investor-owned electric utilities to supply 25 percent of their retail sales from advanced energy sources with at least 12.5 percent from renewable energy. Annual benchmarks for renewable energy and energy efficiency are included. Ohio's aggressive policy requires more than 4,400 Megawatts of new renewable energy capacity by 2025 and is expected to create more than 30,000 jobs by 2030.



John R. Kasich, Governor

James A. Leftwich, Director

Ohio Energy Resources Division
866 | 728 6749 • www.development.ohio.gov/energy

■ www.wind.ohio.gov