



ENERGY, POWER AND CONTROLS IN WISCONSIN



NEARLY
5,000
ENGINEERING DEGREES AND
CERTIFICATES AWARDED IN 2019

In Wisconsin, we offer unparalleled advantages that are uniquely suited to the energy, power and controls sector.

Workforce. We deliver the second-highest concentration of experienced manufacturing workers in the U.S., often three to four times higher in critical industry sectors than competing states.

Central location. From the center of the U.S., we offer quick access to markets throughout North America. Chicago and its O'Hare Airport are less than an hour from our border. And our well-developed logistics sector moves your goods to market efficiently via rail, road, air or water.

Academic excellence. We push the boundaries of theoretical and applied science—and prepare talent for the future. At more than \$1 billion annually, our flagship University of Wisconsin-Madison ranks #8 in the U.S. for research spending; the University of Wisconsin System awards more than 36,000 degrees annually.

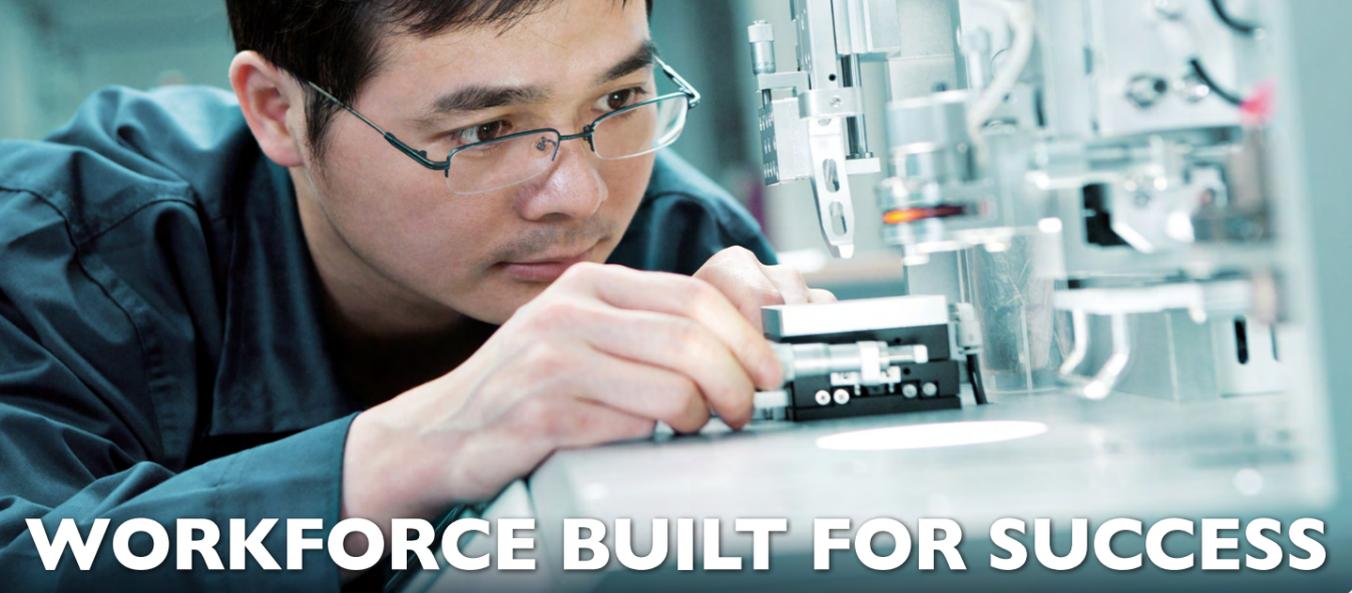
Low risk of natural disaster. We offer remarkably low risk for every imaginable type of disaster, from earthquakes and wildfires to climate threats like heat waves, tornadoes and hurricanes.

Fiscal responsibility. From our fully funded state pension system—one of only two in the U.S.—to our extraordinary credit rating, we offer a politically stable, low-tax, low-regulation, business-welcoming environment.

Discover why global leaders in vital sectors—advanced manufacturing; energy, power and controls; water technology; food and beverage; and biohealth—are choosing Wisconsin as their entry point into North American markets.

1,100+
energy, power and controls companies

116,000+
industry employment

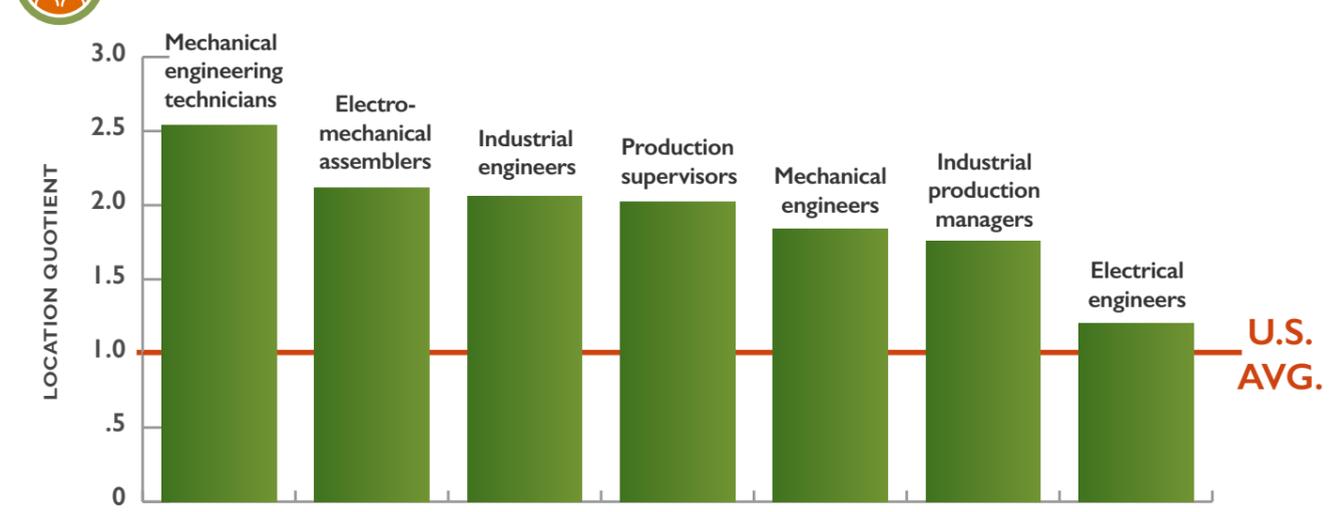


WORKFORCE BUILT FOR SUCCESS

Wisconsin is well known for its industrious, Midwestern work ethic, and its educational system is universally admired. With a high school graduation rate consistently ranked among the top in the nation, Wisconsin offers a steady pipeline of talent to keep our state at the forefront of innovation and economic growth.

The University of Wisconsin System is regularly cited as a leader in terms of quality and reach, with established leadership in research and talent development. Wisconsin's public and private universities and colleges support the partnerships, companies and policymakers throughout the state that are working to develop new, innovative products to fulfill market needs. And as the first state in the nation to develop a technical college system, Wisconsin has more than 100 years' experience training its workforce to fulfill ever-changing industry demands.

ENERGY, POWER AND CONTROLS EMPLOYMENT CONCENTRATION



2nd HIGHEST MANUFACTURING EMPLOYMENT CONCENTRATION IN THE U.S.

ACADEMIC EXCELLENCE

In Wisconsin, our universities lead in research and technology commercialization, supporting partnerships, companies and policymakers to develop new, innovative products that fill market needs. For example:

UW-Madison and **UW-Milwaukee** are both Tier I research universities.

The **UW-Madison College of Engineering** is ranked in the top 10 for research expenditures and near the top of global rankings. Centers of excellence specialize in advanced materials; computer, data and information sciences; and IIoT research.

NEARLY **510,000** POST-SECONDARY STUDENTS

UW-Milwaukee College of Engineering and **Applied Science** is rated among the top 2% of research universities in the U.S.

Ranked in the top five nationally for computer and electrical engineering, the **Milwaukee School of Engineering** has always engaged leaders of business and industry.

The **Wisconsin Energy Institute** at UW-Madison is the home of catalytic research, training and technology, with more than 160 faculty scientists working across disciplines to solve large-scale energy challenges.

Across the state, our 65 higher education campuses prepare students to make strong contributions to Wisconsin's economy—and the leaders who hire them.

Industry Strong. Technology Smart. Future Ready.



WISCONSIN'S POPULATION
5.8 MILLION

BACHELOR'S DEGREE OR HIGHER
31% of adults

HIGH SCHOOL DIPLOMA
93% of adults

BUILT FOR INNOVATION

Wisconsin is generating new ideas, advanced applications and energy efficiency technologies to power the world. We are a global center for energy, power and controls—uniquely leveraging market-leading industrial capabilities, advanced academic research and specialized institutions. Electrical machinery and control manufacturing is one of Wisconsin's fastest-growing and most competitive industrial sectors, and companies in this sector are committed to addressing the world's energy challenges by continuously adapting to new market demand and opportunities.

ENERGY — grid modernization, conservation, fossil fuels, nuclear, renewables and storage

POWER — power controls and sensors, transmission, distribution, monitoring, efficiency and quality

CONTROLS — automation and systems intelligence for industrial and building applications, energy management, SMART grid/distributed energy, wind and solar control

Wisconsin's energy, power and controls sector gets connected through the **Mid-west Energy Research Consortium (M-WERC)**, a membership organization that brings together public and private stakeholders to solve the industry's toughest research problems, provide market insights and foster talent development.

Wisconsin's leading energy, power and controls companies:



**We are focused on creating and scaling
the clean and sustainable energy
technologies to power the future.**



435 wind turbines with 735MW of installed power capacity and the equivalent of 172,000 homes powered by wind energy



130MW of installed solar power and the equivalent of 21,000 homes powered by solar energy



Two Creeks, our largest solar farm, was energized in November 2020, doubling the state's solar capacity.



Leader in biofuels, with 34 farm digesters, 42 landfill gas systems and 60 water treatment facility biogas systems



Ranked ninth in the nation in ethanol production capacity in 2019

In Wisconsin, we are defined by our collaborative approach. Companies collaborate with academic partners and one another—as well as public-sector and nonprofit partners—to advance innovation and develop the next generation of talent. By locating in Wisconsin, your company will benefit from:

The **Great Lakes Bioenergy Research Center**, one of four bioenergy research centers of excellence established by the U.S. Department of Energy to research and develop efficient, sustainable biofuels and bioproducts made from dedicated energy products grown on marginal land.

The **Power Systems Engineering Research Center**, a hotbed of electrical transmission and distribution research (with UW-Madison as a founding member)

The **Wisconsin Electric Machines and Power Consortium** at UW-Madison, where with more than 80 corporate sponsors, the consortium's team of professors, graduate students and international scholars works together to research and develop the newest technologies and techniques in electric machines, power electronics, actuators, sensors, drives, motion control and drive applications

The **Energy Advancement Center**, A collaboration between Johnson Controls and UW-Milwaukee that focuses on cutting-edge research for new technologies in energy storage and auto battery technology

The **Center for Sustainable Electrical Energy Systems**, which is developing methods to make electric power systems more sustainable, cost-effective and secure

The **Cyber-physical Energy Systems Lab**, which aims to build valid models capable of reflecting the true interactions between the cyber and physical portions of integrated systems, as applied to the smart grid, microgrid, energy-efficient buildings, water and natural gas distribution networks; intelligent and sustainable transportation; health care systems and smart manufacturing

The National Science Foundation-funded **Grid-connected Advanced Power Electronic Systems (GRAPES) Industry/University Cooperative Research Center**, whose goal is to accelerate the adoption and insertion of power electronics into the grid, making power systems more sustainable, cost-effective and secure

Argonne National Laboratory, a U.S. Department of Energy multidisciplinary science and engineering research center located within easy driving access (just over an hour from Wisconsin's border)

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