2020 Update

Wisconsin Clean Energy Business Supply Chain:

Good for Manufacturing Jobs, Good for Economic Growth, and Good for Our Environment

ENVIRONMENTAL LAW & POLICY CENTER

Wisconsin's Clean Energy Supply Chain

Report Findings At A Glance:

The Environmental Law & Policy Center identified 354 companies in Wisconsin's clean energy industry supply chain. Many companies serve both the wind and solar industries, and some perform multiple roles supporting the growing clean energy economy. The numbers below incorporate that overlap of services.

224 Wisconsin companies are engaged in the solar energy industry supply chain

208 Wisconsin companies are engaged in the wind energy industry supply chain

Wisconsin clean energy businesses play a wide range of roles in the supply chain, including:

131 Manufacturers that build or assemble clean energy equipment or key components for solar energy, wind power, and/or energy storage.

129 Contractors/Installers that install, maintain, or repair clean energy equipment and physical systems.

152 Professional Services/Other that provide essential professional services to support clean energy deployment, including design, finance, legal, insurance, tax, communications, and marketing; also includes alternative retail electric suppliers.

Smart policies, technological innovations, and declining costs are accelerating Wisconsin's renewable energy economy. To ensure continued growth in the clean energy sector, Wisconsin should:

1. Pass legislation and adopt regulatory standards to support distributed solar projects, including rooftop and community solar installations, through fair compensation and other incentives.
2. Update key policies, like the Renewable Portfolio Standard, to build upon modern technological advances and expand Wisconsin's clean energy resources.
3. Adopt standards to support renewable energy projects that suit community needs and broad public benefit, including community solar, low-income solar, and integration with other land uses like agricultural, pollinator plants, and water quality buffers.

Front cover photo credits: Sunvest, Platteville (top). Convergence, Lake Geneva (bottom left). HellermannTyton, Milwaukee (bottom right).

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Wisconsin Supply Chain Market

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Wisconsin's Clean Energy Economy

Clean energy business growth makes Wisconsin's economy more sustainable. This report highlights 354 local companies that are accelerating solar energy and wind power in Wisconsin.

GrowSolar, Custer

The growing clean energy economy encompasses companies and communities of many types across Wisconsin. In this report, we focus on wind and solar power in particular. We recognize that Wisconsin's clean energy economy also includes jobs in geothermal energy, hydroelectric power, energy efficiency, and many other related industries and services. Many companies perform multiple roles in both wind and solar industries, and many companies perform multiple roles as part of the interconnected clean energy economy.

Wind power and solar energy businesses are located in all 8 U.S. Congressional House districts, in 93 of the 99 State Assembly districts, and in all 33 State Senate districts. These new clean energy technologies and services provide growth opportunities to Wisconsin companies. The local economy has already benefitted from clean energy progress across the nation due to business opportunities realized mostly by the manufacturing base. However, Governor Tony Evers has announced an ambitious new goal to reach all carbon-free electricity by 2050, which will boost the existing supply chain by supporting in-state renewable energy generation.

Renewable energy supports jobs in numerous industries while helping to reduce pollution. Communities in rural, suburban, and urban areas all benefit when local businesses supply growing clean energy markets, and we all benefit from improvements to environmental quality and public health. According to Clean Jobs Midwest, wind and solar businesses employ nearly 5,500 Wisconsin workers.

Clean energy supply chain businesses include:

- **Manufacturers:** Companies that build or assemble clean energy equipment or key components for solar power and wind energy.
- **Developers/Designers/Contractors/Installers:** Companies that initiate, design, or coordinate clean energy projects, including architectural and engineering design and technical consultants. They install, maintain, or repair clean energy equipment and physical systems.
- **Professional Services/Other:** Provide essential professional services to support clean energy deployment, including design, finance, legal, insurance, tax, communications, and marketing.

The American Wind Energy Association (AWEA) notes that "Wisconsin is a national leader in wind-related manufacturing." At the same time, Wisconsin's in-state wind energy project growth remains modest compared to many states. As of June 2019, Wisconsin ranks 24th among the states for installed wind capacity, with 452 wind turbines providing a capacity of 737 megawatts (MW). Wind power grew at one-third the national rate from 2009 to 2018, amid a policy environment less favorable to renewable energy. The strong wind manufacturing base in Wisconsin provides a solid

foundation for wind growth in the future, more so if the state implements strong and coherent policies.

Solar power has also seen slow growth, though change is on the horizon. Wisconsin ranks only 41st among the states for installed solar capacity, growing solar power generation at one half the national rate between 2009 to 2018. Fortunately, the Public Service Commission of Wisconsin (PSCW) has approved several large solar projects recently, totaling nearly 500 MW of new solar. Several other large projects are also in the planning stages. These large projects will be a significant benefit to the state, but Wisconsinites should be able to get into the solar market at any scale. The state still lacks polices to support the growth of small-scale solar owned by small businesses or residents. Again, updated policies could truly launch Wisconsin into a leadership position for the Midwest clean energy market.

The nation is quickly shifting away from fossil fuels. A high carbon footprint is becoming an economic liability, as companies respond to growing consumer demands to reduce global warming pollution. Major companies across Wisconsin, like Kohler Co., Tyco International, and Johnson Controls, have adopted strong goals to slash carbon pollution from their operations. By embracing sustainability, these companies can both provide a safer environment and meet growing market demand for products with a low carbon footprint.

With legislative leadership, a carbon-lean economy is possible statewide. Wisconsin does not have its own fossil fuel resources, so burning coal or natural gas requires sending money out of state to import coal and gas. Growing in-state renewable energy makes Wisconsin more energy independent and economically resilient.

Wisconsin has done well by the wind and solar supply chain. The good news is that Wisconsin can do even better and enjoy even more jobs and business by adopting better, proven policies. A robust and stable policy framework will accelerate solar power, energy storage, and wind power resources.

Gearbox Express Remanufacturing Facility, Mukwonago

Clean Energy Policy Landscape

Strong supportive federal and state policies are vital to encouraging investment in clean energy industries, thereby creating jobs, economic growth, and environmental benefits.

Wisconsin's Renewable Energy History

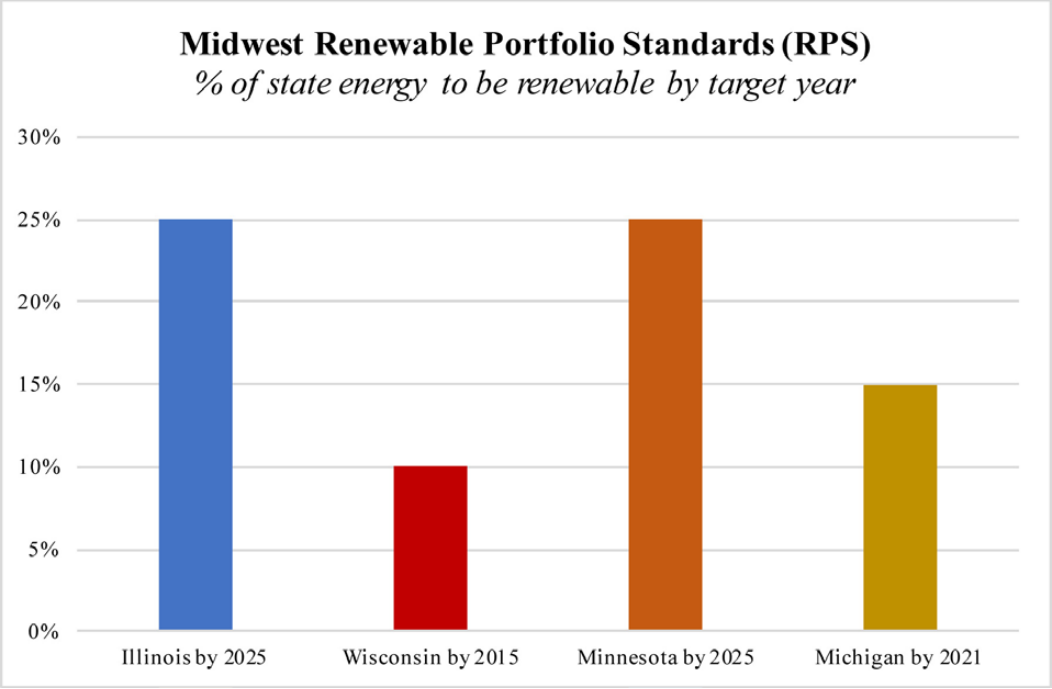
Wisconsin has a long history of innovation, helping to drive the region's economic growth through manufacturing and invention in the 19th and 20th centuries. One of the world's first hydroelectric power plants began operation in 1882 on the Fox River in Appleton. Over the past few decades, wind and solar power have grown rapidly. The state's first Renewable Portfolio Standard (RPS) passed in 1999, setting the first requirement for utilities to obtain a percentage of electricity from renewable energy sources. The state's first energy efficiency and energy assistance programs also began in 1999, becoming the Focus on Energy program in 2001. Today, solar energy generation is rapidly accelerating after a long lull during Governor Walker's administration. Just this summer, Governor Evers announced the goal of powering Wisconsin by 100% carbon-free energy by 2050, launching a new era for renewable energy momentum in the state.

Wisconsin Current Policies & Programs

Modern renewable energy policies should reflect technological innovation and help remove regulatory barriers to accelerating renewable energy development.

Renewable Portfolio Standard

In 1999, The Wisconsin legislature enacted the state's first Renewable Portfolio Standard (RPS), also known as the Renewable Electricity Standard. The RPS set minimum standards for the generation of renewable electricity by utilities at about 10% statewide by 2015. Wisconsin met the RPS requirement two years early, in 2013, and some utilities have even built more renewable energy capacity as costs have fallen. The legislature has not updated the RPS to keep up with this progress. Thus, Wisconsin's RPS is now effectively inactive and Wisconsin's renewable power generation has fallen behind neighboring states.



Sunvest, Platteville

Interconnection Standards

Wisconsin's interconnection standards, while on the cutting edge when adopted in 2004, are now dated in a rapidly changing field. In 2005, the Federal Energy Regulatory Commission (FERC) adopted model interconnection rules for states called Small Generator Interconnection Procedures (SGIP) to increase transparency of the interconnection process, ensure safety, reduce risks, and reduce wasteful delays. Since then, Illinois, Iowa, Minnesota, and many other states have updated their interconnection standards to include these best practices and enhance consistency across states.

It's now been 16 years since Wisconsin updated interconnection rules, which puts Wisconsin at a competitive disadvantage for attracting solar, wind, and other clean energy jobs. Wisconsin's existing rules lack several important features, most notably a "fast-track" process to identify systems that can be interconnected quickly, safely, and reliably without the need for expensive utility studies.

Community Solar

Wisconsin has a number of community solar projects implemented by cooperatives and utilities, including Dairyland Power Cooperative, Xcel Energy, and Madison Gas & Electric. Community solar, also known as "shared solar," allows multiple electric consumers to own or subscribe to a share of a solar project and receive credit for the output. It helps many customers gain access to solar who might live in an apartment, have limited sun, or have some other reason that prohibits solar installation on their own property.

However, development of community solar in Wisconsin is stymied by lack of supportive policy and open markets. Minnesota instituted a community solar program that required Xcel Energy to allow customers to subscribe to non-utility community solar projects and receive a bill credit for production, which led to dramatic growth in distributed solar projects. Many other states have similar policies that Wisconsin might emulate.

Net Metering

Under net metering policies, customers who produce their own renewable electricity can sell excess power to the grid in exchange for a credit to reduce their utility bill. Wisconsin has a patchwork of widely

varying net metering policies by utility and lacks a single, focused policy. The statewide law only affects generators of 20 kilowatts (kW) or less, a low cap, while some utilities allow larger systems of 100-300kW to qualify.

Third-Party Power Purchase Agreement

Solar energy infrastructure has an up-front cost, but it often saves people money in the long run. Third-party power purchase agreements are commonly used to finance solar developments nationwide by stretching out these costs. The developer provides accessible financing, reducing the barrier to entry so residents, small businesses, municipalities, and nonprofits can more easily invest in solar and generate their own power. Wisconsin court decisions make clear that third-party arrangements are legal, but utilities have tried to sow confusion to retain a monopoly over renewable energy growth in the state.

For example, Milwaukee recently took the initiative to install solar panels on city buildings to reduce their use of fossil fuels and save taxpayers money. The city contracted with Eagle Point Solar to build the arrays and help finance the installation. However, the local utility, We Energies, would not connect the new system to the grid. We Energies claims that Eagle Point should be treated as a "utility" due to their partial ownership of the solar infrastructure. ELPC supports Eagle Point's position that the company is not selling energy to the public and is not a "utility" under Wisconsin law. Seeing Milwaukee and Eagle Point go through such struggles deters others from investing in solar, hindering statewide growth. The state legislature or the PSCW should clarify that such third-party financing tools are legal, to reduce unnecessary hurdles and allow Wisconsin to move forward.

Energy Efficiency

Wisconsin has a long tradition of energy efficiency, driven by consumers as well as state policy. Energy efficiency allows us to cut energy waste to get the same work or services from electric devices and

Dairyland Power Cooperative, La Crosse

appliances at a lower cost. Wisconsin's incentive-based Focus on Energy program was established in 2001 and has been successful in reducing energy waste and costs as well as increasing use of renewable energy. While Governor Scott Walker made significant cuts in 2016, these have been mostly restored since 2018.

Property Assessed Clean Energy

Property Assessed Clean Energy financing (PACE) allows local governments to establish programs that provide financing for the upfront costs of energy efficiency and renewable energy projects. The costs are then repaid through an assessment on the property tax bill for the property where the improvement has been made. Wisconsin law allows for PACE only for commercial properties.

Sales Tax Incentives

Wisconsin allows the value of certain energy systems to be deducted from valuation for the purposes of property or personal tax assessments. Qualified energy systems include those based on solar energy, wind energy, biogas, or synthetic gas.

Federal Tax Credits

In December 2016, Congress passed multi-year extensions of three renewable energy tax credits that provide predictability for developers and are important to progress in Wisconsin. Advocates are pursuing routes to extend these tax credits to ensure supply chain growth does not falter.

Production Tax Credit (PTC). Prior to 2017, the PTC provided a credit of 2.3 cents per kilowatt-hour for wind power projects. The funds are paid over time as the wind project produces electricity. PTC funds are ramping down between 2017 and 2020, so this option will no longer be available to developers soon, but it provided critical foundational funding for the now-booming wind industry.

Investment Tax Credit (ITC). In lieu of the PTC, the ITC offers an immediate tax credit equal to 30% of the expenditures for commercial solar energy and small wind energy projects. This tax credit is received as soon as the solar project starts operation. The credit ramps down to 26% in 2020 and 22% in 2021. Thereafter, the credit will decrease to 10%.

Residential Renewable Energy Tax Credit. Homeowners can receive a personal income tax credit for up to 30% of the cost of a solar thermal or photovoltaic system (100kW or less) installed on their residence. This credit decreases to 26% in 2020, 22% in 2021, and then expires.

Rural Energy for America Program

The Rural Energy for America Program (REAP) is a program in the federal Farm Bill that drives renewable energy and energy efficiency investments for agricultural producers and rural small businesses in Wisconsin and nationally. REAP provides competitive grants and loan guarantees to cost-share purchase of renewable energy systems and to make energy efficiency improvements. It also funds an energy audit and technical assistance. REAP received strong bipartisan support in the 2018 Federal Farm Bill. To date, Wisconsin farmers and rural small businesses have received over $21 million in REAP grants and about $12 million worth of loan guarantees, leveraging nearly $120 million in private investment.

Recommendations & Next Steps

This report shows that Wisconsin businesses and workers have already benefited from clean energy growth. Strong targeted policy actions will help accelerate Wisconsin's progress into a clean energy future. The following policy recommendations provide a strategic approach for Wisconsin to promote cleaner, forward-looking technologies.

Open Clean Energy Markets

Historically, utility monopoly power has wielded a lot of influence in shaping the Wisconsin clean energy market. The legislature can help clean energy development to benefit more citizens by loosening utility and policy constraints on non-utility generation owned by residents and small businesses. Experience has shown that opening up markets sparks entrepreneurship and business growth.

- **Clarify that Third-Party Ownership is Legal in Wisconsin.** Wisconsin case law makes clear that third-party ownership is legal and does not make an energy service provider a "utility." It's simply a financing tool used to help families, businesses, and municipalities to install solar infrastructure by spreading out the costs of investment over time. Utilities have sown confusion to slow solar growth and retain a monopoly on energy generation. The Public Service Commission of Wisconsin (PSCW) or the legislature should clarify and reject utility maneuverings. See Policy Landscape section, p. 5, for Eagle Point Solar and City of Milwaukee example.

- **Ensure Fair Compensation for Distributed Energy Resources (DER)**. Rooftop solar, batteries, electric vehicles, and other customer-owned "distributed energy resources" have a great deal of value in a modern electricity system. Unfortunately, utilities often treat their own facilities more favorably than customer-owned facilities, not paying customers fairly for the energy they generate. Wisconsin should develop a policy framework that builds on existing utility net metering practices to ensure fair compensation and optimization of these resources to reduce costs and maximize benefits for all.

- **Update Interconnection Standards**. Wisconsin's standards for connecting distributed solar energy and wind power generation to the grid are outdated, leading to unnecessary costs and delays for project developers. The PSCW should initiate a rulemaking to reflect advances in DER technology and incorporate best practices from neighboring states like Iowa and Minnesota. Importantly, the PSCW's rules should prohibit utilities from denying grid interconnection based on a customer's choice of financing for their on-site generation.

Grow Wisconsin's Clean Energy

Due to relatively slow growth in the last 10 years, Wisconsin has great unrealized potential to develop more in-state renewable energy capacity to prepare the state to compete in a sustainable economy. Growing Wisconsin's infrastructure to capture solar and wind energy, and building battery storage infrastructure can help make Wisconsin energy independent and resilient.

- **Update Wisconsin's Renewable Portfolio Standard.** In 1999, Wisconsin created its first Renewable Electricity Standard, or Renewable Portfolio Standard (RPS), with the goal of powering the state by 10% renewable energy by 2015. The state reached that goal early in 2013. Since then, the modest RPS has ceased to be a driver for new renewable power. In the meantime, technology has leapt forward, costs have fallen, and the urgency for clean energy development has soared, as surrounding states have continually updated their RPS goals. Wisconsin should update its goal to be powered by at least 25% renewable electricity by 2025 to spur more growth.

- **Recognize the Value of Solar**. The PSCW should investigate the full value of solar to all stakeholders. This should reflect benefits such as avoided spending for more transmission and distribution. The commission should then require utilities to compensate owners of distributed solar facilities for the value they provide to the grid and society.

Renewable Energy for All

After a long chill, recent years have brought good news in renewable energy development in Wisconsin. Tumbling prices have led to many new projects, great and small. However, Wisconsin policy has favored large projects while discouraging distributed generation.

- **100% Carbon-Free Electricity by 2050**. Governor Tony Evers has announced an ambitious new goal to reach all carbon-free electricity by 2050, but the state needs strong policies to get there. Reaching this goal requires allowing and supporting numerous approaches to clean energy such as community (shared) renewable energy, programs for low income access, innovative financing like third-party ownership, and more.

- **Support Rural and Agricultural Clean Energy Benefits**. Wisconsin farmers can add harvesting clean energy to their farming operations both for energy self-reliance and to help power society. They need innovative development programs and adequate compensation for their clean energy products.

- **Encourage Low-Impact and Farm-Friendly Renewable Energy Development.** With proper design, solar farms can provide habitat for threatened pollinators, increase water infiltration, reduce runoff, build soils, and benefit agriculture. Farmers can harvest energy alongside crops to supplement food market fluctuations.

- **Provide Science-Based Standards for "Pollinator-Friendly Solar."** Consumers want to know the label reflects reality on the ground. Several other states have established science-based standards, so claims of "Pollinator-Friendly" clearly match expectations. Wisconsin can do so as well.

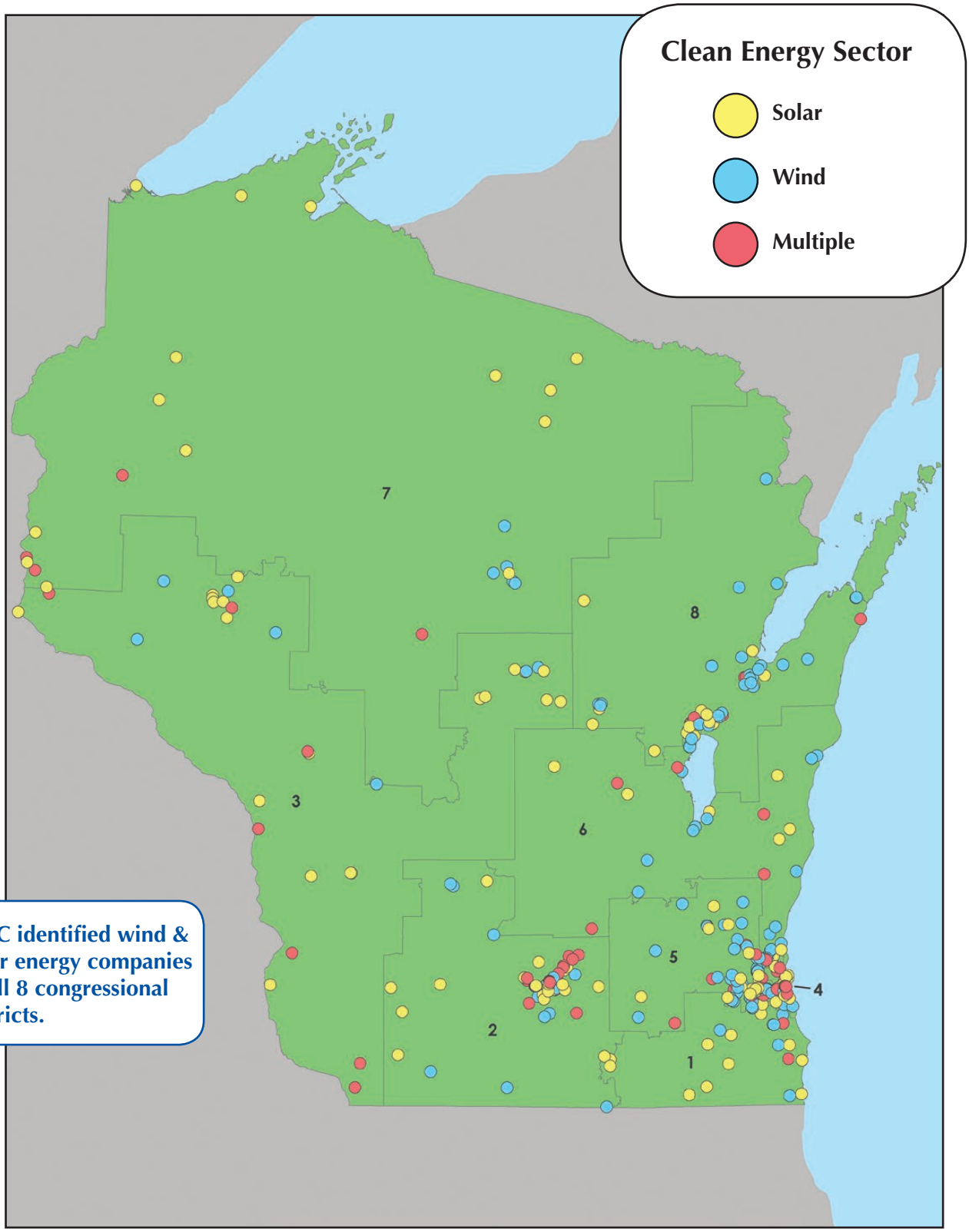
- **Support Access to Solar and Wind Power for Low-Income People and Populations.** Renewable energy provides stable and predictable energy costs, without being susceptible to the same variations of international markets that affect imported fossil fuel costs. Low-income populations tend to bear more health burdens from fossil fuel energy pollution; they should have the opportunity to be part of the solution. Wisconsin's Focus on Energy and other programs can help people overcome up-front costs.

- **Community Solar Access**. Wisconsin lacks a statewide policy that enables widespread access to community solar projects. Wisconsin should adopt a law similar to Minnesota's community solar garden law that has generated robust growth by allowing customers to receive power from community solar facilities owned by third parties.

Dairyland Power Cooperative, La Crosse

Wisconsin Wind Energy & Solar Energy Companies

(U.S. Congressional Districts)

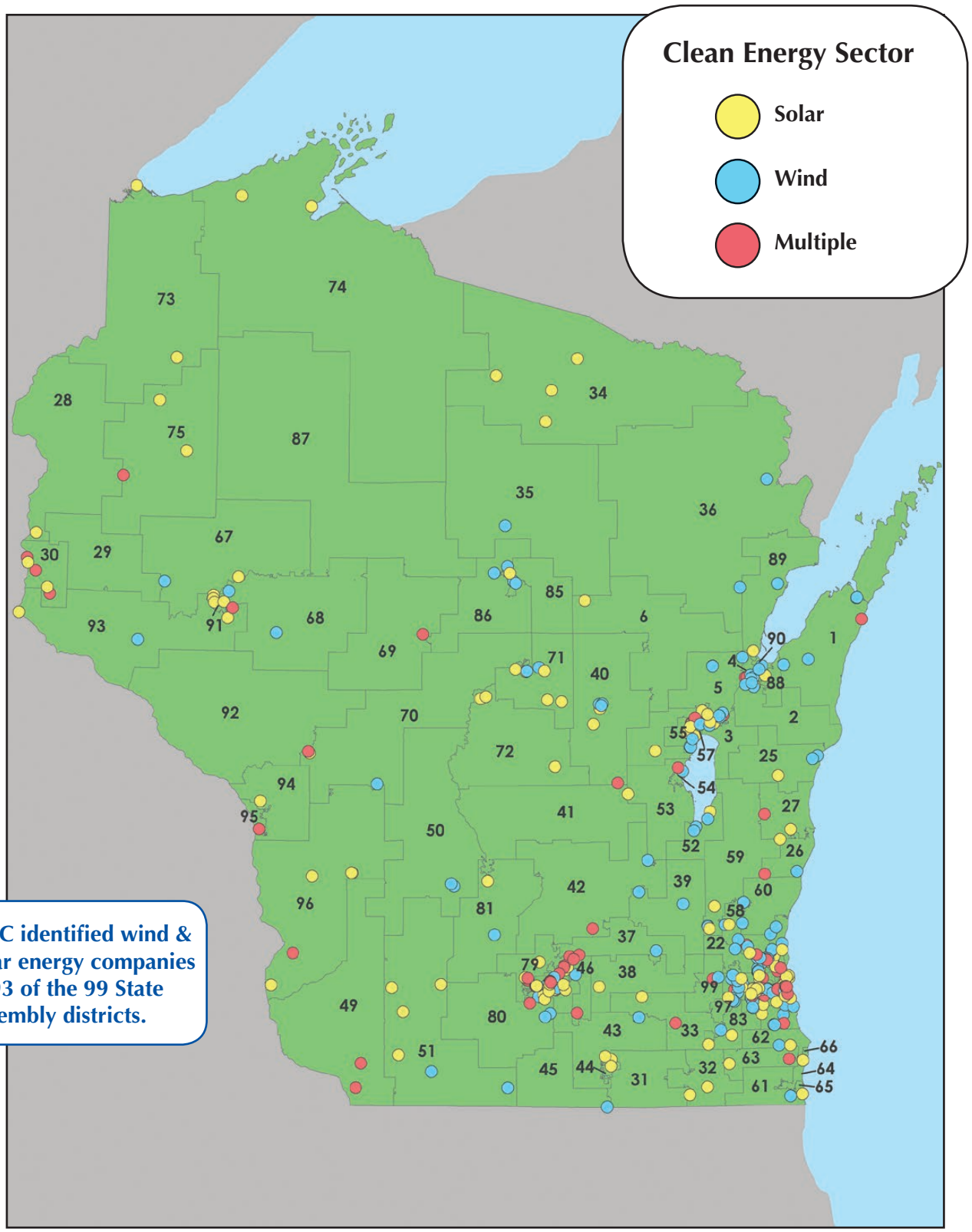


ELPC identified wind & solar energy companies in all 8 congressional districts.

The energy market changes quickly, but this research is as accurate as we could reasonably ascertain as of July 2019.

Wisconsin Wind Energy & Solar Energy Companies

(State Assembly Districts)



ELPC identified wind & solar energy companies in 93 of the 99 State Assembly districts.

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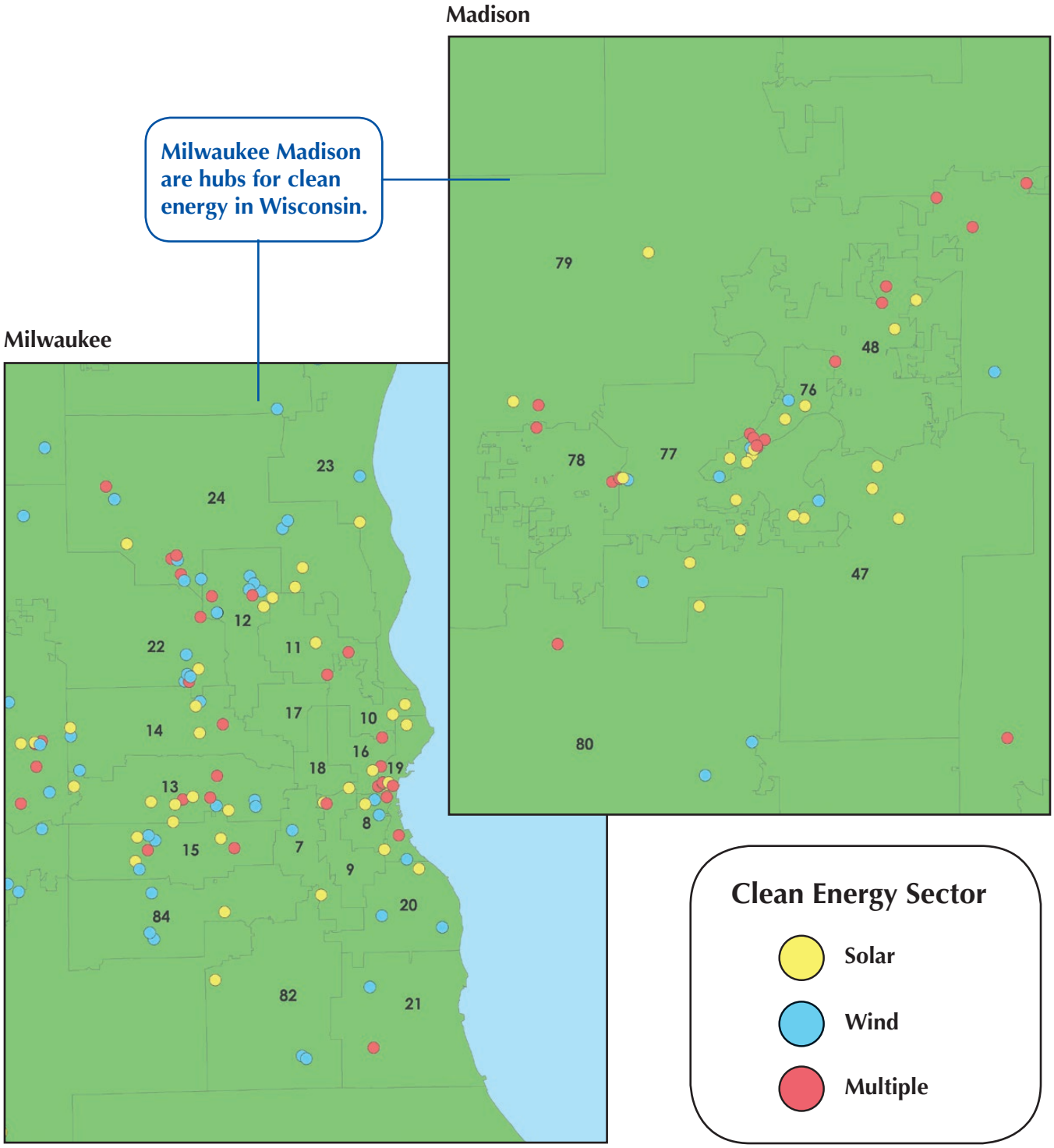
Milwaukee & Madison Wind & Solar Energy Companies

(State Assembly Districts)



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Clean Energy Sector Spotlights: Solar Energy

Solar energy is picking up speed across Wisconsin. The Environmental Law & Policy Center identified 224 businesses that engage in Wisconsin's solar energy supply chain. These companies are engaged in projects of every size, ranging from small residential installations to utility-scale projects. According to Clean Jobs Midwest, the solar industry employs more than 3,800 people in Wisconsin.

Many electrical contractors have added solar power installation to their service offerings, providing new opportunities to existing companies. To help serve growing customer demand, Wisconsin has several training programs to provide education for renewable energy installation and operations. The Midwest Renewable Energy Association, the University of Wisconsin, and several technical colleges provide training. The growing Wisconsin solar energy industry creates jobs.

Innovation in Wisconsin has occurred from several sources. For example, Dairyland Power Cooperative has built nearly 20 dispersed solar power generation facilities in their service territory, employing pollinator-friendly land cover for even more community benefit.

SOLAR ENERGY COMPANY PROFILES

HellermannTyton, Milwaukee

"The right plastics can serve an important role in sustainability. They can make batteries and vehicles more efficient, and they can play a role in keeping solar and wind installations operating efficiently for decades." – *Product Marketing Manager Nick Korth*

HellermannTyton is the market leader for wire management and identification, providing critical products to support solar and wind energy in addition to electric vehicles and other industries. The company has been manufacturing heavy duty plastic fastening, routing, and protection products in Milwaukee for 50 years, but began to focus on renewable energy about 10 years ago after a few electrical contractors expressed interest. Wind and solar installations are often found in some of the harshest environments and are exposed to some of the harshest elements, so they require durable, cost-effective materials. In the early days of the industry, there were no standard industry practices for building solar farms, for example. So, HellermannTyton helped to establish standard products that make renewable installation quicker, safer, and more durable.

HellermannTyton is a global company with 39 international locations. The company's North American manufacturing plant in Milwaukee produces over 5 billion products each year, by a staff of over 1,400. Since 2012, the Milwaukee manufacturing facility has doubled in size to nearly 200,000 square feet. The nearby headquarters has been completely renovated this year.

Speed Solar, Deerfield

"We believe we're in a crisis. And we believe that solar is a big part of the solution. That's why we started a solar business...because we have grandchildren and we hope to have some planet left for them to survive in after we're passed on." – *Founder Al Waller*

Speed Solar is a manufacturer and wholesale distributor for solar components headquartered in Deerfield. Founded in 2017 by Cal Couillard, Al Waller, and Amer Arafat, the company has customers in Wisconsin, Iowa, Illinois, Indiana, North Carolina, Texas, and New Jersey. Couillard says the solar business is an opportunity to respond quickly to urgent environmental concerns and to support innovation in local green energy.

Speed Solar's associated Couillard Solar Foundation partners with local nonprofits to promote renewable energy. Their two programs, Solar for Good and Schools for Solar, provide panels for non-profit organizations and schools, respectively. Al Waller says, "these are places where people generally don't have the funding, but if everyone sees that solar panels are good, and how it saves them energy and money and helps reduce the CO_2 in the atmosphere, then it's a win-win-win." This fall, Speed Solar introduced their new Light Speed installation system which allows more light to reach the back of a bifacial module, maximizing efficiency.

SunVest Solar, Pewaukee

"It's a big decision for a business owner to make when they decide to buy a system, so we help them through that process and help make sure it's going to be a good investment for them." – *President Kirk Kindred*

SunVest Solar develops, designs, and installs solar electric systems for customers across the U.S. Founded in 2009, SunVest serves a wide variety of customers including businesses, manufacturing plants, non-profits, and municipalities. SunVest Solar has 23 employees and over 850 customers. Their current installed capacity generates over 25 million kilowatt-hours of solar energy per year, estimated to save customers over $1.5 million annually. SunVest was recently named the largest solar developer in Wisconsin by Solar Power World Magazine. President Kirk Kindred says SunVest has the ability to offer competitive pricing through bulk module purchasing and operational efficiency.

Carlson Electric, Hayward

"In the Sawyer County housing project we installed 52 (solar) units for subsidized housing. That was important because we could provide solar for everyone without class boundaries." – *President Dave Carlson*

Carlson Electric is a full-service electric company with a focus on solar installation. Founded in 1977, the company has 10 employees and services the nearby northwest Wisconsin area. The company installs about 100 solar projects per year, with each installation averaging about 7.5kW. President Dave Carlson says his company cares about solar energy because "it's the future – it's a renewable energy source that requires little maintenance." Carlson Electric focuses

on serving commercial and residential customers who are looking to reduce their electric bills through renewable energy. Carlson also plans to install solar panels on the civic center of nearby Spooner.

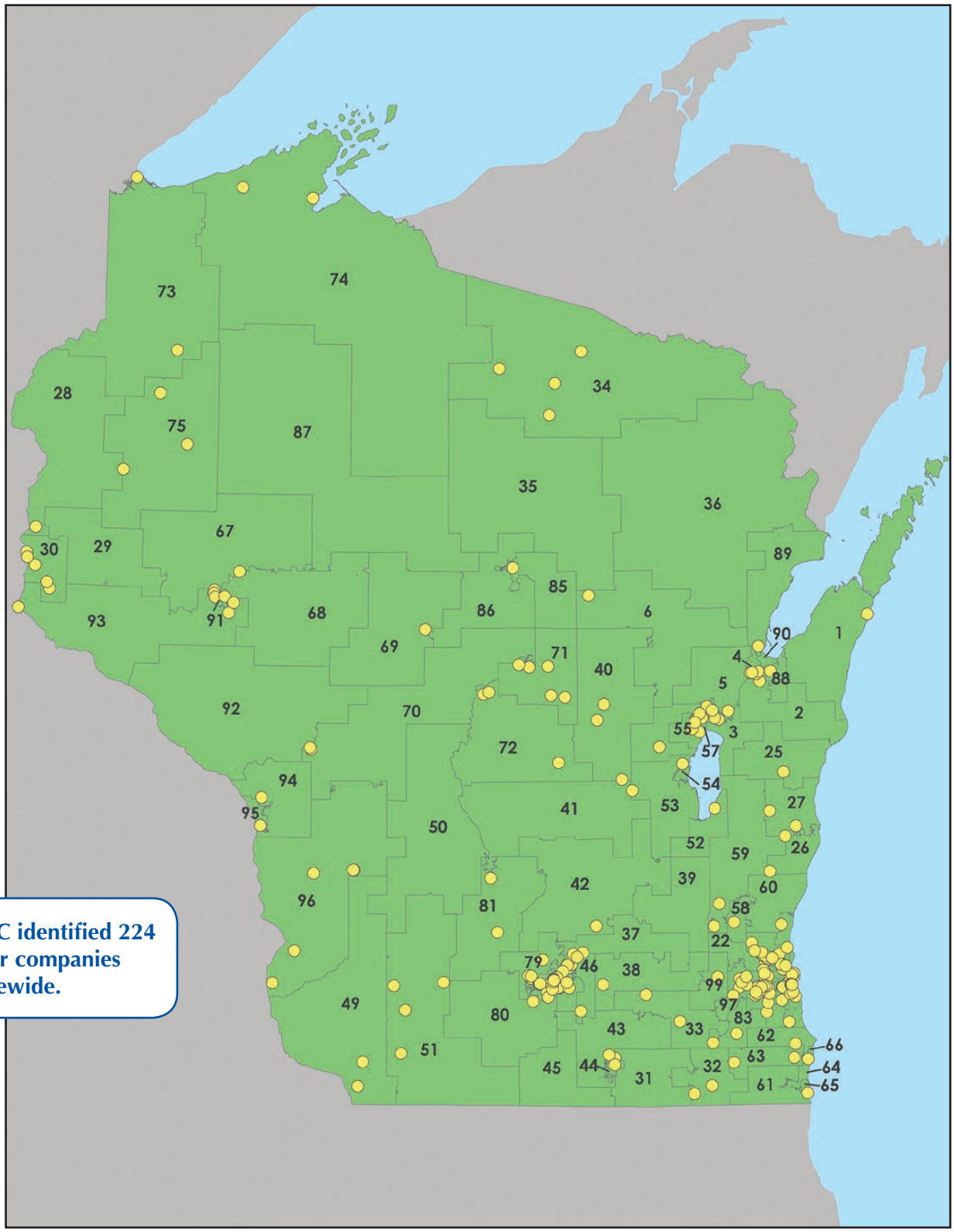
North Wind Renewable Energy, Stevens Point

"In our jobs we wanted to go above and beyond for society, and not just make a paycheck." – *Sales Consultant Doug Stingle*

North Wind Renewable Energy provides solar electric installation services to central Wisconsin. The company completes about 75-100 solar installations each year. Founded in 2008, the company became an employee-owned cooperative in 2017. North Wind now has 12 employee owners. The staff noticed that solar companies with single owners often struggle after the owner leaves, but by creating a more democratic workplace they also hope to provide longevity for the company. North Wind recently completed installation work for Aspirus hospital facilities, with plans to do another installation on their headquarters in Wausau. North Wind also serves a growing demand for energy storage systems. With recent storms causing power outages in Wisconsin, Stingle says consumers have become more interested in energy resilience.

Wisconsin Solar Energy Companies

(State Assembly Districts)



ELPC identified 224 solar companies statewide.

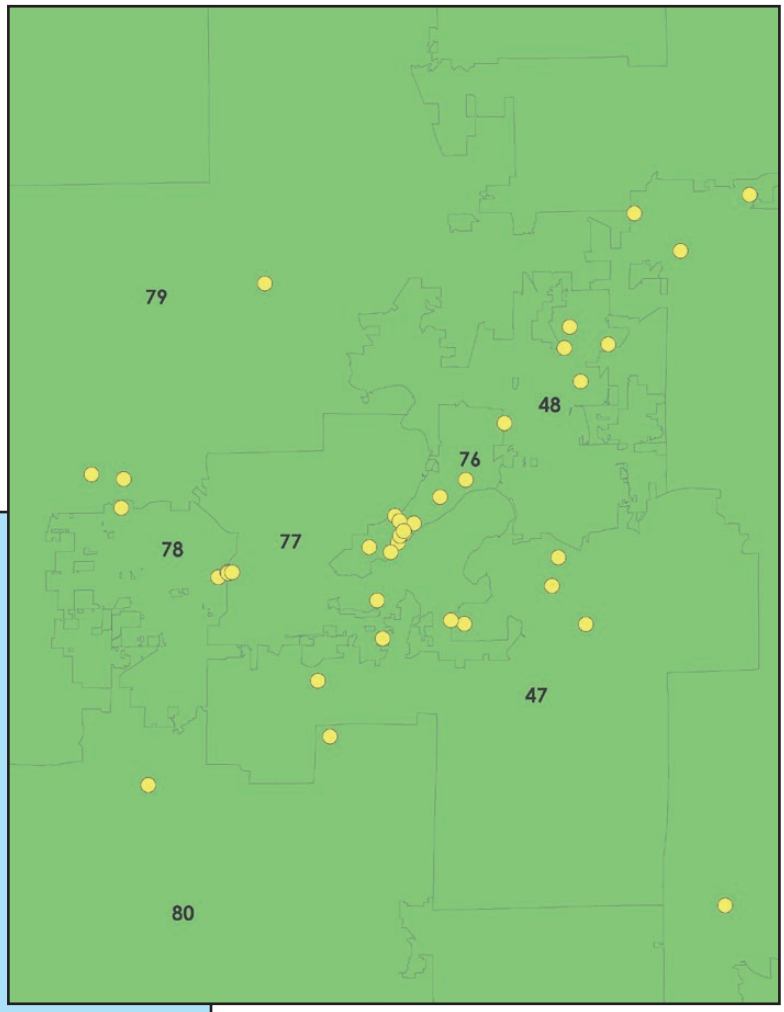
The energy market changes quickly, but this research is as accurate as we could reasonably ascertain as of July 2019.

Milwaukee & Madison Solar Energy Companies

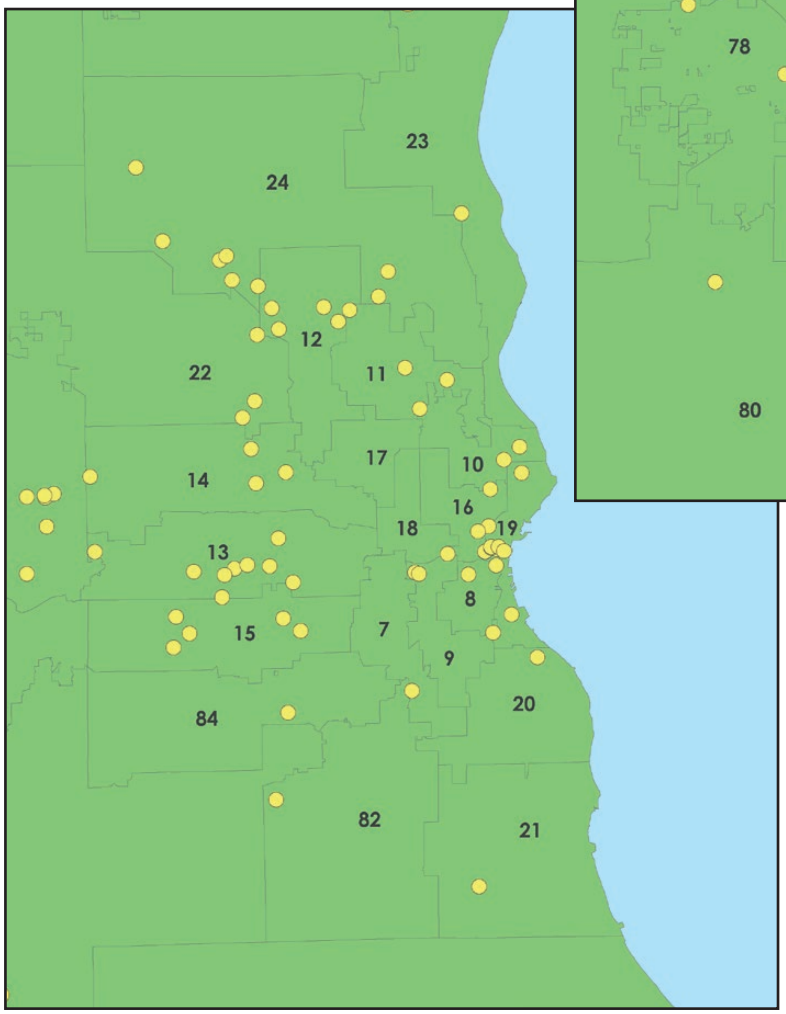
(State Assembly Districts)

SOLAR

Madison



Milwaukee



Solar energy companies employ over 3,800 workers in Wisconsin, from small towns to big cities.

The energy market changes quickly, but this research is as accurate as we could reasonably ascertain as of July 2019.

Clean Energy Sector Spotlights: Wind Energy

The Environmental Law & Policy Center identified 208 businesses engaged in the wind energy industry in Wisconsin. According to Clean Jobs Midwest, businesses in wind energy employ more than 1,500 workers in Wisconsin.

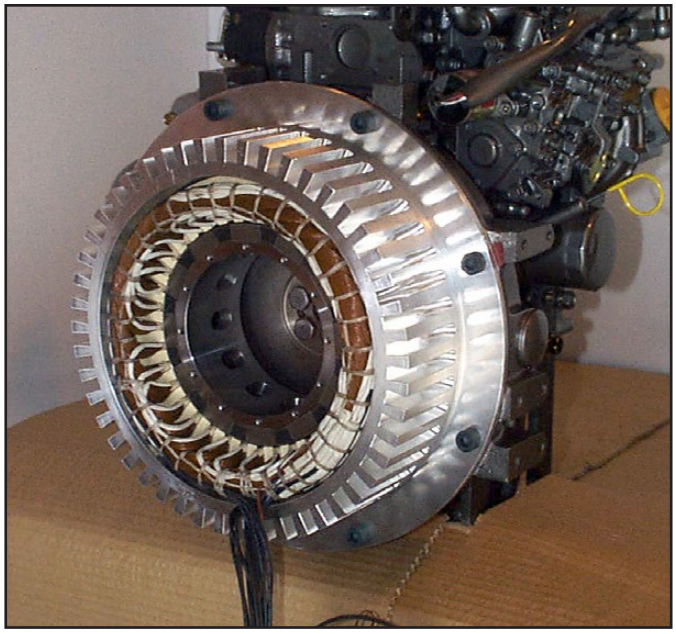
These companies span a wide range of business activities and functions and serve projects in Wisconsin, other states, and abroad. Project developers identify viable site locations and coordinate project design and business structure for utility-scale and smaller wind installations. Engineering firms work on site investigation, design tower installations and other infrastructure, and often help to plan logistics and oversee construction progress. Manufacturing companies produce everything from turbines and towers to adhesives and mechanical gears, all supporting the growing wind industry.

Wisconsin businesses produce many of the 5,000 parts that go into assembling a wind turbine, building upon Wisconsin's longstanding manufacturing expertise. Construction contractors transfer the skills used serving other markets to build the wind farms in Wisconsin and other states. Repair and remanufacturing to keep Midwestern wind farms in peak condition over time provide other business opportunities.

EDP Renewables, Darlington

WIND ENERGY COMPANY PROFILES

Synchrotek, Green Bay



"We feel our company and the permanent magnet generators we develop help communities and individuals....to provide greater access to some power generation methods that previously have not been available." – *Project Leader Russell Williams*

Synchrotek was founded in 1988 as a research and development company, specializing in power generation equipment for military applications. The company has served customers across the United States and Mexico, including the US Departments of Defense and Energy. In 2009, the company shifted focus to renewable energy. Today the company has grown to about 30 employees, headquartered in Green Bay.

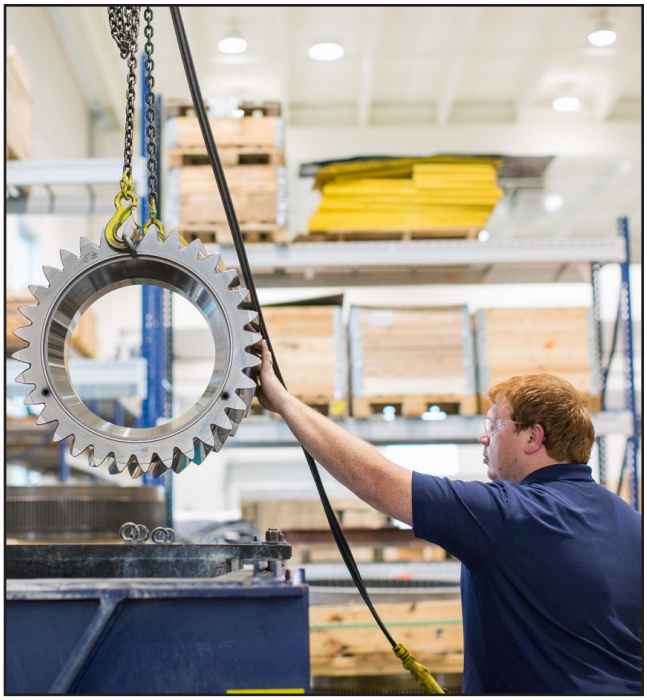
Synchrotek's electric generators are compatible with several types of renewables including wind, hydroelectric power, and energy recovery. Synchrotek's specialized generators are able to accommodate the needs of both large-scale utility customers and smaller community wind systems. Variable Speed Constant Frequency technology allows the generators to produce the optimal amount of energy even at low wind speeds. The company uses permanent magnets with rare earth metals in their generators, which allows them to be smaller and lighter than traditional generators. Synchrotek custom designs generators for individual wind turbines as well.

Gearbox Express, Mukwonago

"We have been fundamental in reducing overall cost and time in the Wind Energy Gearbox Supply Chain... Gearbox Express has raised the bar for service in the Wind Industry!" – *CEO Bruce Neumiller*

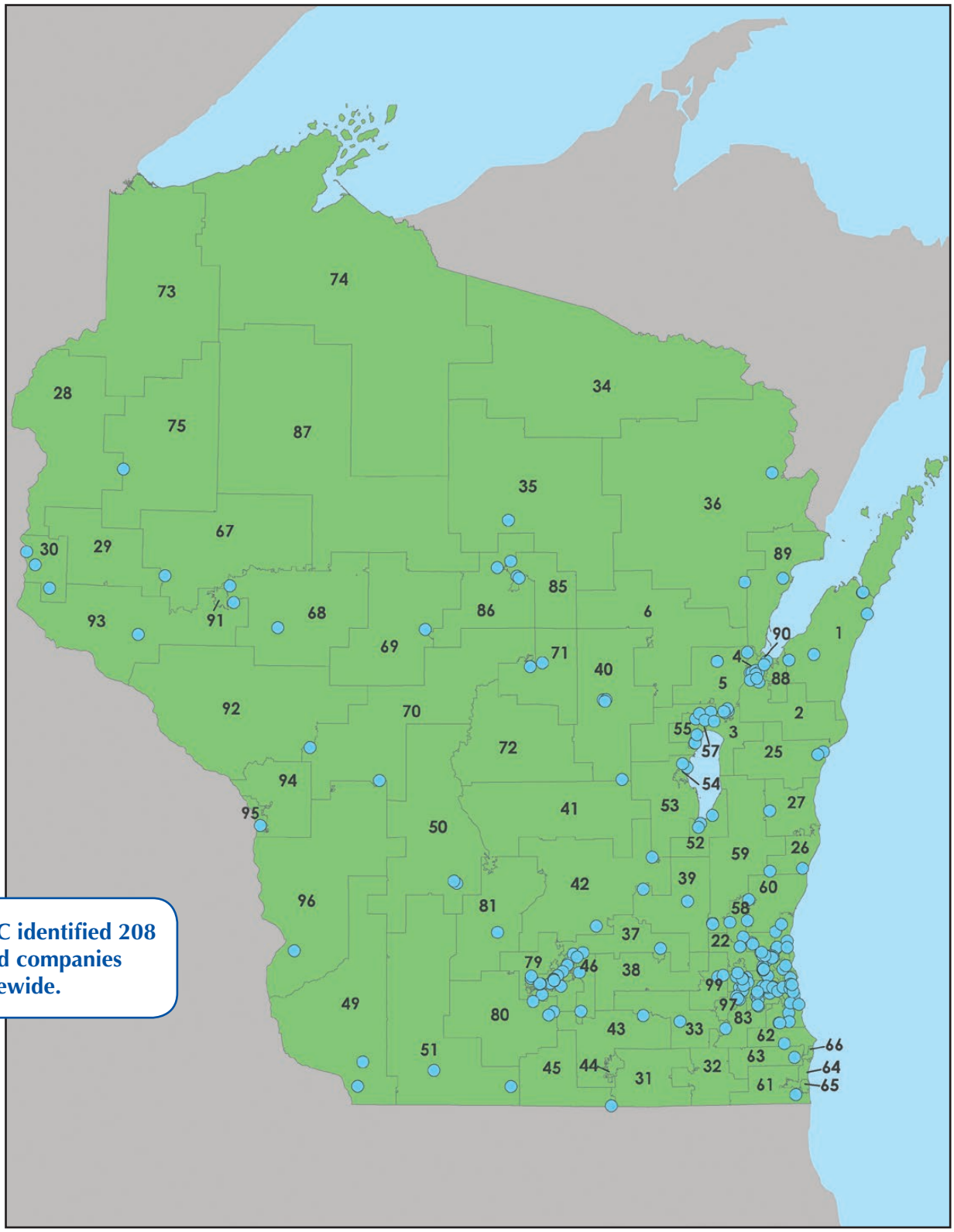
Gearbox Express was founded in 2011 as a company solely dedicated to gearbox remanufacturing solutions. A gearbox is an important part of wind turbine motors and serves as the machine's transmission. While many companies that repair gearboxes only address the part of the machine that failed, Gearbox Express focuses on remanufacturing, which fixes the entire system.

With a staff of 35 people, Gearbox Express serves customers throughout North America. The company supports local trade schools and internships, offering a two-day practical training course on wind turbine motors to better prepare individuals for careers in wind energy.



Wisconsin Wind Energy Companies

(State Assembly Districts)



ELPC identified 208 wind companies statewide.

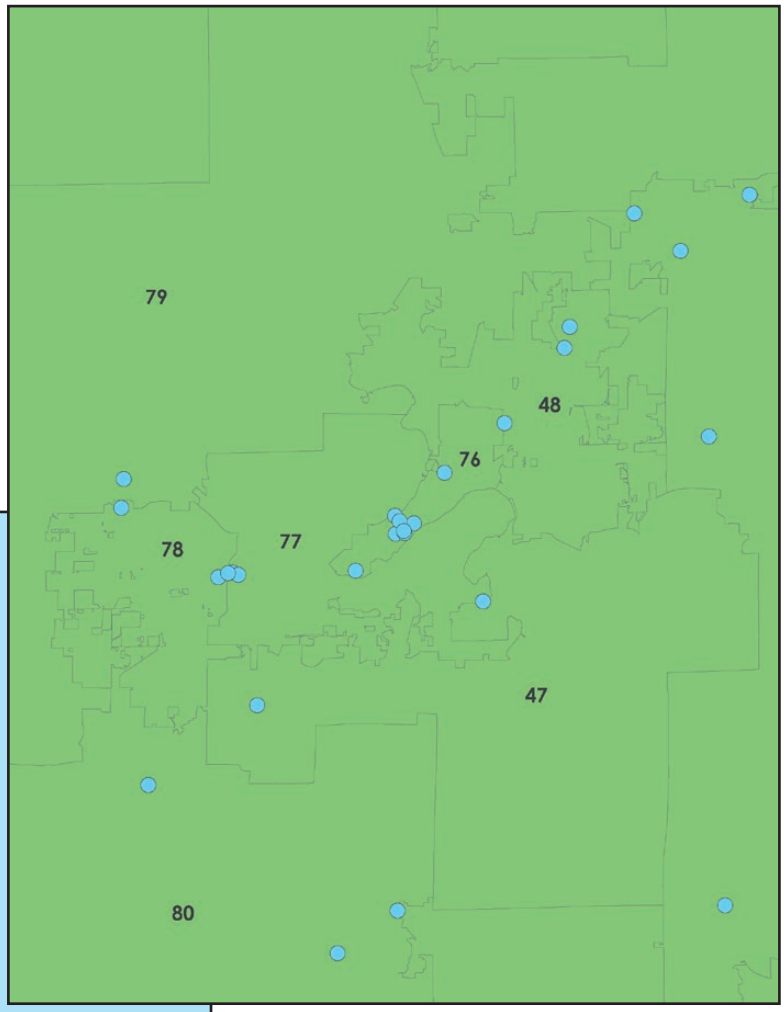
The energy market changes quickly, but this research is as accurate as we could reasonably ascertain as of July 2019.

Milwaukee & Madison Wind Energy Companies

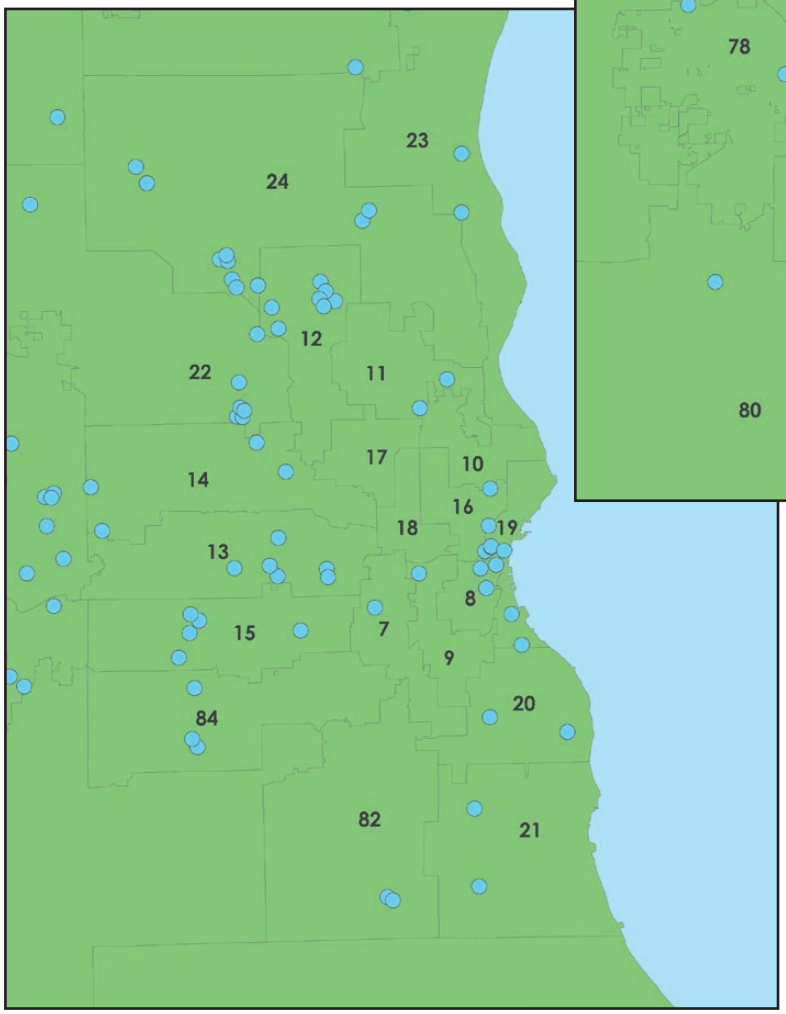
(State Assembly Districts)

WIND

Madison



Milwaukee



Wind energy companies employ over 1,500 workers in Wisconsin, from small towns to big cities.

The energy market changes quickly, but this research is as accurate as we could reasonably ascertain as of July 2019.

Wisconsin Clean Energy Business Directory

CITY	COMPANY NAME	CLEAN ENERGY SECTOR: SOLAR	CLEAN ENERGY SECTOR: WIND	COMPANY FUNCTION: MANUFACTURER	COMPANY FUNCTION: CONTRACTOR/ INSTALLER	COMPANY FUNCTION: PROFESSIONAL SERVICES/OTHER	US CONGRESSIONAL DISTRICT	MI SENATE DISTRICT	MI HOUSE DISTRICT
Allenton	Maysteel	X		X			5	20	59
Altoona	GoliathTech	X	X		X	X	3	23	68
Amherst	Artha Sustainable Living Center	X				X	3	24	71
Amherst	Photovoltaic Systems	X			X	X	3	24	71
Appleton	Alternative Trends LLC	X			X		8	19	56
Appleton	Appleton Solar	X		X	X		8	19	56
Appleton	Baum Machine Inc.		X	X			8	1	3
Appleton	Coalesce Marketing	X	X			X	8	19	55
Appleton	Employment Resources Group, Inc.	X	X			X	8	19	56
Appleton	Independent Solar	X			X		8	1	3
Appleton	Larson Engineering	X				X	8	19	55
Appleton	Short Elliott Hendrickson Inc. (SEH)		X			X	8	19	57
Appleton	Suburban Electrical	X			X		8	19	55
Appleton	The Boldt Company	X	X		X		5	33	98
Appleton	Trane Company	X	X			X	8	19	56
Arkansaw	LoTec Windmill Service		X	X	X	X	3	31	93
Augusta	MRS Machining		X	X			3	23	68
Baraboo	All Sky Energy	X			X		2	27	81
Baraboo	Croell Incorporated		X	X	X		2	17	50
Beaver Dam	Venture Manufacturing Group		X	X			6	13	39
Belmont	Hoeper Green Power	X			X		2	17	51
Beloit	Regal Beloit America, Inc.		X	X		X	2	15	45
Berlin	Generac Mobile Products LLC	X	X			X	6	14	41
Berlin	Solar Heating Services	X			X		6	18	53
Brookfield	Acuren Inspection		X		X		5	5	14
Brookfield	Alpine Plumbing	X			X	X	5	5	13
Brookfield	Components Company, Inc.	X				X	5	5	14
Brookfield	Current Electric	X			X		5	5	14
Brookfield	Evans Transportation Services		X		X		5	5	14
Brookfield	Lemberg Electric Company	X			X		5	5	14
Brookfield	Milwaukee Solar LLC	X			X		5	5	13
Brookfield	Power Engineers Collaborative	X	X			X	5	5	13
Brookfield	Shock Electric, Inc.	X			X		5	5	13
Brookfield	Trace-A-Matic Corporation		X	X			5	5	14
Brown Deer	TAPCO	X		X			4	8	24
Brownsville	Michels Corporation	X	X		X		6	13	39
Burlington	Burlington Fireplace & Solar	X			X		1	21	63
Butler	Dairyland Energy Solutions	X			X		5	8	22
Cedar Grove	Willman Industries		X	X			6	9	26
Cedarburg	Allied Industrial Marketing (Mangoldt Reactor)		X	X			6	20	60
Chippewa Falls	Solar Chippewa Valley	X			X		3	23	67
Columbus	Sunsation Electric	X	X		X		6	14	42
Cudahy	ATI Ladish		X	X			4	7	20
Custer	Grow Solar	X				X	3	24	71
Custer	The Midwest Renewable Energy Association	X				X	3	24	71

CLEAN ENERGY SECTOR COMPANY FUNCTION

		CLEAN ENERGY SECTOR		COMPANY FUNCTION					
CITY	COMPANY NAME	SOLAR	WIND	MANUFACTURER	CONTRACTOR/ INSTALLER	PROFESSIONAL SERVICES/OTHER	US CONGRESSIONAL DISTRICT	MI SENATE DISTRICT	MI HOUSE DISTRICT
Darlington	EDP Renewables		X		X		2	17	51
De Pere	Ayres Associates	X	X		X		8	2	4
De Pere	C.A. Lawton Company		X	X			8	1	2
De Pere	De Pere Foundry		X	X			8	1	2
De Pere	Robinson Metal		X	X			8	1	2
Deerfield	Speed Solar Inc.	X		X			2	13	38
Eagle River	Prolifik Energy	X			X		7	12	34
East Troy	O'Leary Plumbing and Heating Inc.	X			X		1	11	32
Eau Claire	Badger State Plumbing & Heating	X			X		3	31	91
Eau Claire	Ferguson Enterprises	X				X	3	31	91
Eau Claire	Next Step Energy Systems	X			X		3	31	91
Eau Claire	RSTC Enterprises	X		X			3	31	91
Eau Claire	Viking Electric Supply	X				X	8	30	88
Eau Claire	Water Source Heating & Cooling Inc	X			X		3	31	93
Elkhart Lake	EcoManity	X	X			X	6	9	27
Fitchburg	Cardno		X			X	5	33	98
Fitchburg	Realtime Utility Engineers		X		X	X	2	16	47
Fond du Lac	Area Mechanical	X				X	6	18	52
Fond du Lac	Fives Giddings & Lewis, LLC		X	X			6	18	52
Fond du Lac	Winslow Engineering		X	X			6	18	52
Fort Atkinson	Jones Tools & Manufacturing		X	X			5	15	43
Franklin	Castleman & Sons Plumbing Inc	X			X		1	28	82
Franklin	S&C Electric Company		X	X		X	1	28	82
Franklin	Vestas Wind Manufacturing		X	X			1	28	82
Franksville	Fiber-Tech		X	X			1	21	62
Franksville	Quick Cable Corporation	X		X			1	21	62
Germantown	Integrated Building Systems	X				X	5	8	24
Germantown	Marlow Machining		X	X			5	8	24
Germantown	Wago Corporation	X	X	X			5	8	24
Glendale	Johnson Controls	X	X			X	4	4	11
Grafton	American Power & Communications Group		X	X			6	8	23
Green Bay	ABM Facility Services	X			X	X	4	7	19
Green Bay	AECOM	X	X		X	X	4	6	16
Green Bay	American Engineering Testing		X			X	3	23	68
Green Bay	Eland Electric Corporation	X			X		8	2	4
Green Bay	Energis High Voltage	X	X			X	8	2	4
Green Bay	Foth		X			X	8	2	4
Green Bay	Green Bay Drop Forge		X	X			8	30	90
Green Bay	Independent Power Grid LLC	X			X		8	30	89
Green Bay	Lindquist Machine		X	X			8	2	4
Green Bay	New North Inc.	X	X			X	8	30	90
Green Bay	Synchrotek		X	X			8	2	4
Green Bay	Velocity Machine		X	X		X	8	2	4
Green Bay	Wesco Distribution	X				X	8	2	4
Hartford	Busch Precision Inc.		X	X			5	13	39
		CLEAN ENERGY SECTOR		COMPANY FUNCTION					

Wisconsin Clean Energy Business Directory

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Hartford	CDM Tool & Manufacturing		X	X			5	13	39
Hartford	Renewable Energy Solutions Consultants	X			X		5	20	59
Highland	CSI Sun (Chimney Specialists Inc.)	X			X		2	17	51
Highland	North American Solar Stores	X			X	X	2	17	51
Hobart	Robert E. Lee & Associates, Inc.		X			X	8	2	5
Hubertus	Emerging Energies of Wisconsin		X			X	5	8	22
Hudson	Carr Creek Electric Service	X	X		X		7	10	30
Hudson	Energy Concepts, Inc.	X	X	X	X	X	7	10	30
Hudson	Green Circuit	X			X	X	7	10	30
Hudson	SES/ Solar Energy Solutions (SES), LLC	X				X	7	10	30
Iron Ridge	Wondra Construction Inc.		X			X	5	13	39
Jackson	Engineered Metal Products		X	X			5	20	58
Janesville	American Power Inc	X			X	X	6	8	23
Janesville	Carroll Electric	X			X	X	1	15	44
Janesville	Janesville Home & Solar	X			X		1	15	44
Janesville	Lloyd's Plumbing & Heating Corp.	X			X	X	2	15	43
Jefferson	Ranger Power	X				X	5	11	33
Jefferson	The Solar Biz	X				X	5	11	33
Kaukauna	Bassett Mechanical	X	X	X			8	2	5
Kaukauna	Fox Valley Tool & Die		X	X			8	2	5
Kaukauna	Profile Finishing Systems		X			X	8	2	5
Kenosha	Kreuser Electrical LLC	X			X		1	22	65
Kieler	Acterra Group	X	X		X	X	3	17	49
Kimberly	Luvata Appleton	X		X			8	1	3
La Crosse	Dairyland Power Cooperative	X	X		X	X	3	32	95
La Farge	Albright Electric and Solar	X			X		3	32	96
La Farge	SOUL of WI	X				X	3	32	96
Lake Geneva	Community Green Energy	X				X	1	11	32
Lake Geneva	Convergence Energy	X			X		1	11	32
Little Chute	Atcam LLC		X	X			8	2	5
Luxemburg	D&S Machine Service		X	X			8	1	1
Madison	1901 Inc.	X			X	X	2	26	77
Madison	Accurate-Airtight Exteriors	X			X		8	14	40
Madison	Alliant Energy	X	X			X	2	16	48
Madison	Alpine Power Systems	X		X			2	16	47
Madison	Baker Tilly	X	X			X	2	16	48
Madison	BJ Electric Supply	X		X		X	2	26	77
Madison	Bock Water Heaters	X		X			2	26	76
Madison	Burns & McDonnell	X	X		X		2	26	78
Madison	CAMECA Instruments	X		X			2	27	80
Madison	Crescent Electric Supply Co.	X	X	X		X	2	16	48
Madison	Dave Jones Plumbing & Heating	X			X		2	16	47
Madison	Drews Solar	X			X	X	2	26	76
Madison	Energy Efficient Solutions	X			X		2	16	47
Madison	Everlight Solar	X			X		2	26	76

CLEAN ENERGY SECTOR COMPANY FUNCTION

		CLEAN ENERGY SECTOR		COMPANY FUNCTION					
CITY	COMPANY NAME	SOLAR	WIND	MANUFACTURER	CONTRACTOR/ INSTALLER	PROFESSIONAL SERVICES/OTHER	US CONGRESSIONAL DISTRICT	MI SENATE DISTRICT	MI HOUSE DISTRICT
Madison	Focus on Energy	X	X			X	2	26	78
Madison	Foley & Lardner LLP	X	X			X	2	26	76
Madison	Full Spectrum Solar	X		X	X		2	26	76
Madison	GDS Associates		X	X	X		2	26	77
Madison	H&H Group Holdings	X			X	X	2	26	77
Madison	Henneman Engineering	X	X			X	2	26	78
Madison	Hooper Corporation		X		X		2	26	76
Madison	Isthmus Engineering & Manufacturing	X		X			2	16	47
Madison	Legacy Solar Co-op	X			X	X	2	26	76
Madison	Madison Gas & Electric	X	X		X		2	26	76
Madison	Madison Region Economic Partnership		X			X	2	26	77
Madison	McKinstry Company	X			X	X	2	16	48
Madison	Murphy Desmond S.C.	X	X			X	2	26	76
Madison	Pines Bach		X			X	2	26	76
Madison	Power System Engineering		X			X	2	26	77
Madison	RENEW Wisconsin	X	X			X	2	26	76
Madison	Rundle-Spence	X				X	2	26	77
Madison	Schreiber Government Relations Group	X				X	2	26	76
Madison	Slipstream Inc.	X				X	2	26	78
Madison	Soleras Advanced Coatings	X		X			2	26	76
Madison	SolRayo	X				X	2	16	48
Madison	SunPeak	X				X	2	26	77
Madison	Sunworks United	X			X		2	26	76
Madison	The Waldinger Corporation	X			X		2	16	47
Madison	WES Engineering		X		X		2	26	76
Madison	Xcel Energy	X	X			X	2	26	76
Manitowoc	Broadwind Energy		X	X		X	6	9	25
Manitowoc	Manitowoc Tool & Machining		X	X			6	9	25
Marshfield	Total Electric Service	X	X			X	7	23	69
Menasha	Faith Technologies	X			X		6	19	57
Menomonee	Bushman Equipment	X	X		X		5	8	22
Menomonee	Enerpac		X	X			5	8	24
Menomonee	Mastervolt	X		X			5	8	24
Menomonee Falls	Adron EDM Specialists		X	X			5	8	24
Menomonee Falls	Becker Machine		X		X		5	8	22
Menomonee Falls	Dielectric Manufacturing		X	X			5	8	24
Menomonee Falls	Eaton Corporation	X	X	X			5	8	22
Menomonee Falls	EnSync Energy Systems	X	X	X			5	8	24
Menomonee Falls	Magnetek		X	X			5	8	22
Menomonee Falls	Messer Cutting Systems	X	X	X			5	8	24
Menomonee Falls	Milwaukee Bearing & Machining Inc.		X			X	5	8	22
Menomonee Falls	Q3 Contracting Inc.		X			X	5	8	22
Menomonee Falls	Schunk Carbon Technology	X	X	X			5	8	24
Menomonie	Harris Rebar		X	X			3	10	29
Mequon	EIS Material & Service Solutions		X	X			6	8	23
		CLEAN ENERGY SECTOR		COMPANY FUNCTION					

Wisconsin Clean Energy Business Directory

CITY	COMPANY NAME	CLEAN ENERGY SECTOR: SOLAR	CLEAN ENERGY SECTOR: WIND	COMPANY FUNCTION: MANUFACTURER	COMPANY FUNCTION: CONTRACTOR/ INSTALLER	COMPANY FUNCTION: PROFESSIONAL SERVICES/OTHER	US CONGRESSIONAL DISTRICT	MI SENATE DISTRICT	MI HOUSE DISTRICT
Mequon	Fabrico	X				X	6	8	23
Mequon	GenMet		X	X			6	8	24
Mequon	Stantec		X			X	6	8	23
Mequon	Sullivan Manufacturing		X	X			6	8	24
Merrill	Wisconsin Public Service		X			X	7	12	35
Middleton	E&W Heating and Air Conditioning	X			X		5	5	14
Middleton	IMEG Corp. (formerly KJWW Engineering)	X				X	2	27	79
Middleton	Westwood Professional Services	X	X			X	2	27	79
Milwaukee	All Energy Solar	X			X	X	4	4	12
Milwaukee	A.O. Smith	X			X	X	4	4	12
Milwaukee	Accurate Metal Products		X	X			4	4	12
Milwaukee	Action Heating & Cooling Services	X			X		8	1	2
Milwaukee	Alternative Energy of Wisconsin	X	X			X	4	4	10
Milwaukee	Badger Electric Motor		X			X	4	7	20
Milwaukee	C&D Technologies	X		X			4	4	10
Milwaukee	Caleffi North America	X			X	X	4	3	9
Milwaukee	Dnesco Electric	X			X		5	28	84
Milwaukee	E3 Group	X	X			X	5	33	98
Milwaukee	Godfrey & Kahn	X	X			X	4	7	19
Milwaukee	Graef		X			X	4	5	13
Milwaukee	Grant Thornton LLP		X	X		X	4	7	19
Milwaukee	Gustave A. Larson	X				X	4	6	16
Milwaukee	Heiden Plumbing, Heating & Cooling	X			X		4	3	8
Milwaukee	HellermannTyton	X	X	X		X	4	4	12
Milwaukee	Helwig Carbon Products		X	X			4	4	12
Milwaukee	HGA Architects	X	X			X	4	7	19
Milwaukee	Hot Water Products	X				X	4	4	12
Milwaukee	Illingworth-Kilgust	X				X	5	5	15
Milwaukee	Impreglon Cellramic		X	X			4	4	12
Milwaukee	Ingeteam	X	X	X			4	3	9
Milwaukee	JF Ahern Company	X			X	X	8	19	56
Milwaukee	LEM USA	X	X	X			4	4	12
Milwaukee	Manitowoc Cranes		X			X	4	4	12
Milwaukee	Mared Mechanical	X			X		4	4	11
Milwaukee	Michael Best & Friedrich LLP	X	X			X	4	7	19
Milwaukee	Midwest Energy Research Consortium	X	X			X	4	4	10
Milwaukee	Milwaukee Forge		X	X			4	7	20
Milwaukee	Milwaukee Machine Works		X	X			5	5	13
Milwaukee	Milwaukee Resistor		X	X			4	4	12
Milwaukee	PACE Equity LLC	X				X	4	7	19
Milwaukee	Pieper Power - Pieper Electric	X	X		X	X	4	4	10
Milwaukee	RES Manufacturing	X		X			4	4	11
Milwaukee	Rexnord Industries		X	X			4	3	8
Milwaukee	Rockwell Automation		X			X	4	3	8
Milwaukee	Ryerson		X	X			4	5	13

CLEAN ENERGY SECTOR COMPANY FUNCTION

		CLEAN ENERGY SECTOR		COMPANY FUNCTION					
CITY	COMPANY NAME	SOLAR	WIND	MANUFACTURER	CONTRACTOR/ INSTALLER	PROFESSIONAL SERVICES/OTHER	US CONGRESSIONAL DISTRICT	MI SENATE DISTRICT	MI HOUSE DISTRICT
Milwaukee	Siemens Building Technologies	X	X	X	X	X	5	3	7
Milwaukee	Sun Badger Solar	X			X	X	4	3	9
Milwaukee	SunSpec	X				X	4	7	20
Milwaukee	Termanl-Andrae, Inc	X			X	X	4	6	18
Milwaukee	We Energies	X	X			X	4	6	16
Milwaukee	WI Sustainable Business Council	X	X			X	4	7	19
Milwaukee	Wisconsin Energy Corporation (WEC Energy Group)	X	X		X	X	4	6	16
Milwaukee	Wrought Washer Mfg.	X	X	X			4	7	19
Minocqua	Solem Energy Solutions	X				X	7	12	34
Monroe	Orchid Monroe		X	X			2	17	51
Montfort	Badger Hollow Solar Farm	X				X	2	17	51
Mukwonago	Gearbox Express		X	X			1	11	33
Muskego	Advanced Green Energy Solutions	X			X		4	8	24
Neenah	Creative Metal Products		X	X			6	19	55
Neenah	Innovative Machining		X	X			6	19	55
Neenah	Miron Construction	X			X		6	19	55
Neenah	Plexus		X	X			6	19	55
Neenah	Sanderfoot Wind & Excavating		X			X	6	19	55
New Berlin	Arteche PQ, Inc.		X			X	5	5	15
New Berlin	Avanti Wind Systems		X			X	5	28	84
New Berlin	Ken Cook Company	X				X	5	5	15
New Berlin	Key2Act	X				X	5	5	15
New Berlin	Kurz Industrial Solutions		X			X	5	5	15
New Berlin	Midland Plastics		X	X			1	28	84
New Berlin	Wenthe-Davidson Engineering Company		X	X			5	5	15
New Berlin	WIS Logistics		X			X	1	28	84
New Franken	New Tech Metals		X	X			8	1	1
Oak Creek	Edgerton Contractors	X	X		X		1	7	21
Oak Creek	Steelwind Industries		X	X			1	7	21
Oconto	Unlimited Services of Wisconsin		X	X			8	30	89
Oconto Falls	Custom Metal Specialists		X	X			8	12	36
Onalaska	Olson Solar Energy	X			X	X	3	32	94
Oregon	Helical Robotics		X			X	2	27	80
Oregon	Trachte USA		X	X			2	27	80
Oshkosh	Muza Metal Products		X	X		X	6	18	53
Oshkosh	Powergrid Solutions - AZZ	X	X	X			6	18	53
Palmyra	Epic Resins	X	X	X	X		5	11	33
Pewaukee	AMSC (American Superconductor)	X	X	X			5	33	98
Pewaukee	International Union of Operating Engineers Local 139		X			X	5	33	98
Pewaukee	Powertrain Engineers		X	X			5	33	99
Pewaukee	Prime Coatings		X	X			5	33	98
Pewaukee	Revere Electric Supply (Formerly BJ Electric)	X	X			X	5	33	99
Platteville	Sunvest Solar Inc.	X			X		5	33	98
Platteville	Timmerman's Talents	X	X		X		3	17	49
Pleasant Prairie	Drivecon		X	X			1	21	61
		CLEAN ENERGY SECTOR		COMPANY FUNCTION					

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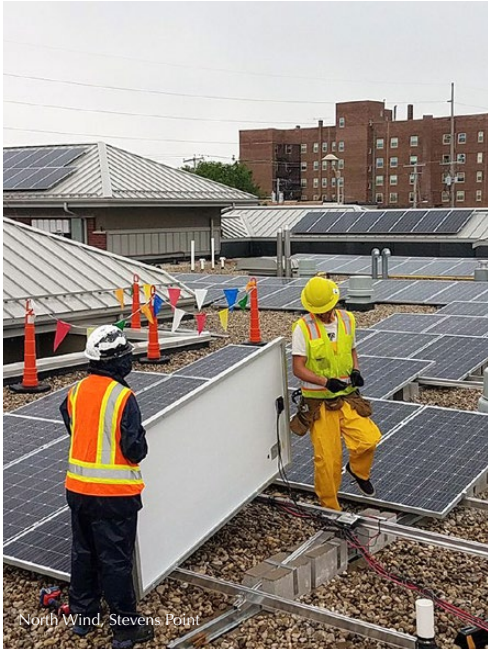
Plymouth	Arch Electric	X			X	X	6	9	26
Port Wing	Great Northern Solar	X			X		7	25	74
Prairie du Chien	DH Solar	X		X			3	32	96
Prairie Du Sac	Tower Technologies LLC		X		X		2	27	81
Prairie Du Sac	Unlimited Renewable Energies	X	X			X	2	27	81
Racine	Keystone Heating & Air Conditioning	X			X	X	1	22	66
Random Lake	Kettle View Renewable	X	X		X		6	9	26
Reedsburg	Windspire Energy, Inc.		X	X			2	17	50
Rhinelander	Sun & Daughters Solar LLC	X			X		7	12	34
Rhinelander	T.J. DeWitt & Company, Inc.	X			X		7	12	34
Rice Lake	Paul's Sheet Metal Inc.	X				X	7	25	75
Richfield	Strohwig Industries		X	X			5	20	58
Ripon	Sunburst Sales	X			X		8	19	57
River Falls	Able Energy Co.	X			X	X	7	10	30
River Falls	Steiner Plumbing, Electric & Heating Inc.	X	X		X		3	10	30
Salem	Toboa Energy Resources	X				X	5	5	13
Schofield	Crystal Finishing Systems Inc.		X	X			7	29	86
Schofield	GPI		X	X			7	29	85
Seymour	Elexco		X			X	8	2	5
Seymour	Innovators Equipment Inc.		X	X			8	2	5
Sheboygan Falls	Quantum Spatial	X				X	6	9	27
Shell Lake	Next Energy Solutions (NES)	X			X		7	25	75
Shorewood	Brighter Concepts Ltd.	X			X		4	4	10
Slinger	DMT Workholding		X			X	5	20	58
Somerset	BAE Batteries USA	X		X			7	10	28
Sparta	Pipkin Electric	X	X		X	X	3	24	70
Sparta	US Solar Mounts	X		X			3	24	70
Spring Green	Driftless Solar	X			X	X	2	17	51
St Nazianz	Reindl Plumbing Inc.	X			X		6	9	25
Steuben	Prairie Solar Power & Light	X	X		X		3	32	96
Stevens Point	Affordable Wind Power		X		X		3	24	71
Stevens Point	Chet's Plumbing & heating	X			X		3	24	71
Stevens Point	Donaldson Company, Inc.		X	X			3	24	71
Stevens Point	North Wind Renewable Energy	X			X		3	24	71
Stoughton	EnergyCraft Synergy Renewable Systems	X	X		X		2	16	46
Strum	Bear Paw Design	X			X	X	4	7	19
Sturgeon Bay	Hi Tec Fabrication		X	X			8	1	1
Sturgeon Bay	Just In Time Corporation		X	X			8	1	1
Sturgeon Bay	Lake Michigan Wind & Sun	X	X		X		8	1	1
Sturtevant	Electrical Systems & Services	X	X		X		1	21	63
Sun Prairie	Continental Mapping Consultants	X	X			X	2	16	46
Sun Prairie	Energy Law Wisconsin	X	X			X	2	16	46
Sun Prairie	JK Hackl Transportation Services		X		X		2	16	46
Sun Prairie	WPPI Energy	X	X		X	X	2	16	46
Tomah	General Stamping & Metalworks		X	X		X	3	24	70

CLEAN ENERGY SECTOR COMPANY FUNCTION

		CLEAN ENERGY SECTOR		COMPANY FUNCTION					
CITY	COMPANY NAME	SOLAR	WIND	MANUFACTURER	CONTRACTOR/ INSTALLER	PROFESSIONAL SERVICES/OTHER	US CONGRESSIONAL DISTRICT	MI SENATE DISTRICT	MI HOUSE DISTRICT
Trego	Strawbale Farms	X			X		7	25	73
Turtle Lake	Sanmina-Sci	X	X	X			7	25	75
Verona	NV5	X	X			X	2	27	80
Viroqua	Ethos Green Power	X			X		3	32	96
Washburn	Let It Shine Energy Services, LLC	X			X		7	25	74
Waterford	The Solar Harvest	X			X		1	28	83
Watertown	Spuncast		X	X			5	13	37
Waukesha	American Transmission Company	X	X			X	5	33	98
Waukesha	Cooper Power Systems	X		X			5	33	97
Waukesha	Dillett Mechanical	X		X		X	5	5	13
Waukesha	Fesco Direct		X		X		5	33	97
Waukesha	Parameters Industries Inc.		X	X			5	33	97
Waukesha	Superior Crane		X			X	5	33	97
Waukesha	Venture Electrical Contractors	X	X		X		5	33	98
Waukesha	Weldall Manufacturing		X	X			5	33	97
Waukesha	Werner Electric Supply	X				X	8	19	55
Waukesha	Zeman Tool		X	X			5	33	98
Waunakee	Safer Better World Solar	X			X		2	27	79
Waupaca	Centerline Machine LLC		X	X			8	14	40
Waupaca	Performance Industrial Products		X	X			8	14	40
Waupaca	Solar One LLC	X				X	8	14	40
Waupaca	Waupaca Foundry		X	X			8	14	40
Waupun	W.W. Electric Motors		X	X			6	14	42
Wausau	Clark Dietz	X				X	7	29	85
Wausau	Northwest Tool & Manufacturing Company		X	X			7	29	86
Wausaukee	Sintex-Wausaukee Composites		X	X			8	12	36
Wausua	Centergy		X			X	7	29	85
Wautoma	Practical Solar	X			X		6	24	72
Wauwatosa	Bostik Inc.	X	X	X			5	5	13
Wauwatosa	Paresources	X	X	X			5	5	13
West Allis	Gerdau Ameristeel	X	X	X			5	5	15
West Allis	Graybar Electric	X				X	5	5	13
West Allis	Unit Drop Forge Co. Inc.		X	X			5	3	7
West Bend	Mantenaer Corporation		X	X			5	20	58
Winneconne	Energize, LLC	X			X		8	19	56
Wisconsin Rapids	Mid-State Technical College	X				X	3	24	72
Wisconsin Rapids	Radtke's Clean Energy	X			X		3	24	72
Wittenberg	IMC Instruments	X		X		X	8	2	6
		CLEAN ENERGY SECTOR		COMPANY FUNCTION					



Environmental Law & Policy Center

The Environmental Law & Policy Center is the Midwest's leading public interest environmental legal advocacy and eco-business innovation organization. We develop and lead successful strategic advocacy campaigns to improve environmental quality and protect our natural resources. We are public interest environmental entrepreneurs who engage in creative business deal making with diverse interests to put into practice our belief that environmental progress and economic development can be achieved together. ELPC's multidisciplinary staff of talented and experienced public interest attorneys, environmental business specialists, public policy advocates and communications specialists brings a strong and effective combination of skills to solve environmental problems.

ELPC's vision embraces both smart, persuasive advocacy and sustainable development principles to win the most important environmental cases and create positive solutions to protect the environment. ELPC's teamwork approach uses legal, economic, scientific and public policy analysis, and communications advocacy tools to produce successes. ELPC's strategic advocacy and business deal making involves proposing solutions when we oppose threats to the Midwest environment. We say "yes" to better solutions; we don't just say "no."

ELPC was founded in 1993 after a year-long strategic planning process sponsored by seven major foundations. We have achieved a strong track record of successes on both national and regional clean energy development and pollution reduction, transportation and land use reform, and natural resources protection issues. ELPC brings a new form of creative public advocacy effectively linking environmental progress and economic development that improves the quality of life in our Midwest communities.

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with soy-based inks

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