

2021 Update



Iowa Clean Energy Supply Chain Businesses:
Good for Jobs, Good for Economic Growth,
and Good for Our Environment



**ENVIRONMENTAL LAW
& POLICY CENTER**



Iowa's Clean Energy Supply Chain

Report Findings At A Glance:

The Environmental Law & Policy Center identified 113 companies in Iowa'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.



85 Iowa companies are engaged in the **solar** energy industry supply chain



53 Iowa companies are engaged in the **wind** energy industry supply chain

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



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



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



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

Top-Line Recommendations:

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

1. **Support community solar installations** that expand equitable solar access to all Iowans, including those living in lower-income and environmental justice communities.
2. **Require Integrated Resource Planning** and Integrated Distribution Planning in order to optimize the use of renewable energy.
3. **Update key policies**, like the state Renewable Portfolio Standard, to ensure a balanced renewable energy marketplace of residential, commercial, industrial, and utility-scale projects, along with energy storage systems.
4. **Integrate wind and solar projects with other land uses** like agriculture, pollinator plants, and water quality buffers.
5. **Decouple the Iowa solar income tax credit** from the federal credit and increase available funds.

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Iowa's Clean Energy Economy

Clean energy business growth makes Iowa's economy more sustainable. This report highlights 113 local companies that are accelerating solar energy and wind power in Iowa.

The growing clean energy economy encompasses companies and communities of many types across Iowa. In this report, we focus on wind power and solar energy in particular. We recognize that Iowa's clean energy economy also includes jobs in geothermal energy, hydroelectric power, energy efficiency, and 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.

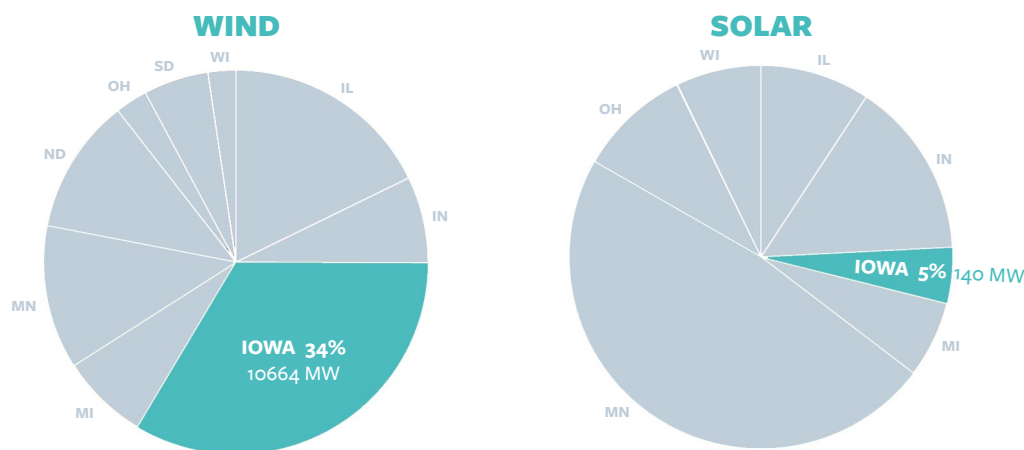
Wind power and solar energy businesses are located in all 4 of Iowa's U.S. congressional districts, in 56 of the 100 State House districts, and in 38 of the 50 State Senate districts. Iowa has been a leader in renewable fuel and energy deployment since the mid 1980's. Iowa became the first state to generate 40% of its electricity from wind power in 2019.

Renewable energy supports jobs in multiple industries while helping to reduce pollution. Communities in rural, suburban, and urban areas all benefit when local businesses supply the growing clean energy markets, and we all benefit from

improvements to environmental quality and public health. According to the American Wind Energy Association, wind businesses employed over 9,000 Iowa workers as of 2019, and according to the Solar Energy Industries Association, solar companies employed over 800 workers. According to Clean Jobs Midwest, almost 11% of Iowa's clean energy workers are veterans, almost double the 6% in the general job market, and small businesses are very engaged as 78% of Iowa clean energy businesses have less than 20 employees.

This year, the COVID-19 pandemic and resultant economic crisis have been damaging for many Iowa businesses, including renewable energy companies. Strong state and federal support are necessary to revive these jobs, so Iowa does not lose momentum on the path to a clean energy future.

“Iowa became the first state to generate 40% of its electricity from wind power in 2019.”



Iowa compared to rest of Midwest

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.

Our nation is quickly shifting away from fossil fuels. A high carbon footprint is becoming an economic liability, as companies respond to growing consumer demand to reduce pollutants that cause global warming. Major companies with significant Iowa operations have adopted strong goals to

slash carbon pollution from their operations, including Microsoft, Google, and Quaker Oats. By embracing sustainability, these companies can both provide a safer environment and meet growing market demand for products with a low carbon footprint.

Over the years, Iowans have built a strong coalition of solar energy advocates and lawmakers. This coalition has been crucial to protect solar-friendly policies and give electric rate payers a choice for generating their own electricity. With legislative leadership, a carbon-lean economy is possible statewide. Growing more in-state renewable energy makes Iowa more energy independent and economically resilient.

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



Iowa's Renewable Energy Landscape

Iowa entrepreneurs and businesses have been developing renewable energy projects for over 30 years, using our wind and solar resources for electricity, supported by both Republican and Democratic policymakers.

Utility wind generation: 8,422 MW

Iowa passed the nation's first Renewable Portfolio Standard (RPS) in 1983, only eight years after the development of commercial wind turbines. Iowa's RPS established a goal to supply 105 megawatts (MW) of state energy from renewable sources, which was an innovative and aggressive goal at the time. The wind energy supply chain ramped up when the federal wind production tax credits (PTC) passed Congress in 1992. In the early 2000s, Iowa passed its advanced ratemaking statute that provided a path for more certainty for regulated utility investments in renewable energy.

These groundbreaking policies were the key drivers for wind manufacturers to build the blades, towers, and turbine nacelles in Iowa, creating over 9,000 jobs today. In 2019, Iowa became the first state to reach 40% of its total electric generation by wind energy, and future growth is anticipated.

Distributed solar generation: 143 MW

The Iowa legislature enacted a solar income tax credit in 2012 that was designed to piggyback on the federal Solar Investment Tax Credit (ITC). Because of these incentives, the solar industry has been able to establish a steady growth of distributed generation. "Distributed" generation refers to technologies that generate or optimize electricity at or near the site where it will be used, such as in residential, commercial, or municipal settings. Iowa's state solar ITC has provided \$31.6 million for over 5,100 projects, leveraging a total investment of \$249 million. Approximately 850 jobs are supported by the solar industry in Iowa today.

The growth of solar energy in the agricultural sector also prompted multiple agricultural associations to

pass organizational policies to protect distributed generation. The state and federal solar tax credits and net metering policies allow producers to cut fixed costs in their farming operations. In the last few years, these agricultural associations and environmental groups joined together to fight back against anti-solar policy and regulations. In 2019, legislation was introduced at utilities' behest that would lessen the value of distributed generation and disrupt the solar industry. The agricultural-environmental solar coalition mounted a robust defense that stopped the bill. In the 2020 legislative session, a consensus was reached with the solar coalition and utilities to effectively preserve retail net metering until distributed solar penetration reaches 5%, at which time compensation for solar will be based on the value of distributed solar generation to the grid.

Iowa is also seeing community solar development as part of increasing distributed generation. Rural Electric Cooperatives are leading the way with 42 community solar projects at 21 cooperatives with 12.6 MW of energy generation. Municipalities have 4 community solar projects with 6.2 MW of energy generation.

Utility-Scale Solar Generation: 958.5 MW, including projects under development

Utility-scale solar energy is relatively new in Iowa, but it is already exhibiting significant potential to complement Iowa's wind resources. The two investor-owned utilities, MidAmerican Energy Company and Interstate Power and Light Company (IPL), have initiated small projects. IPL has a 4 MW project that is operational in Dubuque. MidAmerican has been actively looking for sites for small utility scale projects (a few MW of capacity)

and has a project under development near Waterloo. More significantly, IPL recently announced that it will be adding 400 MW of solar as part of its Energy Blueprint resource planning process.

CIPCO, a rural electric generation cooperative, has completed a 5.5 MW project and is working on a 100 MW project, which will be the largest solar facility in Iowa when completed. But, not for long. Invenenergy has proposed and received generating certificates from the Iowa Utilities Board (IUB) on three projects totaling 749 MW. EDF Renewables has proposed a 100 MW solar project, and the generating certificate docket is currently pending before the IUB.



Powerfilm Solar, Ames

Clean Energy Policy in Iowa

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

- **Renewable Portfolio Standard (RPS)** – Also known as a Renewable Electricity Standard, an RPS sets a goal for renewable energy. Iowa’s 105 MW goal was surpassed in 1999 and is long overdue for an update.
- **Interconnection Standards** – When distributed energy resources like solar panels and batteries are connected to the energy grid, utilities require various steps to ensure a safe and reliable grid. While investor-owned utilities have uniform interconnection standards regulated by the Iowa Utilities Board, rural electric coops and municipal utilities regulate their own interconnection policy, which is cumbersome in some jurisdictions. A streamlined process can make interconnection easier, while difficult bureaucratic paperwork makes it more expensive and difficult to complete renewable energy installations.
- **Net Metering** – Electricity is valuable, especially if it is clean, renewable power from a solar panel on your rooftop. In fact, local energy resources can help the whole neighborhood, supplementing large central power generators on hot summer days when energy usage is high and reducing utility expenses and ratepayer costs. Most states compensate for local energy generation through “net metering” calculations, distributed generation tariffs, or “value of solar” rates. In March 2020, Governor Reynolds signed SF 583 into law, creating a transition from Iowa’s current net metering approach to a value of solar methodology once distributed solar energy generation reaches 5% penetration.
- **Community Solar** – Community solar projects allow multiple electric customers to own or subscribe to a shared solar project and receive credit for the renewable energy it produces.



Farmers Electric Cooperative

For a customer who lives in an apartment, has limited sun, or has other reasons that limit solar panel installations on their own property, they can still access solar energy with a shared installation and hedge against future electricity rate increases. Rural electric cooperative utilities are leading the way, deploying 42 community solar projects with a total of 12.6 MW of solar power. Cedar Falls Utilities, a municipal utility in eastern Iowa, has the state's largest community solar project, covering 8 acres and generating 1.5 MW.

- **Third-Party Power Purchase Agreements** – Solar energy infrastructure has an up-front cost, but it saves people money in the long run. Third-party power purchase agreements (PPAs) are commonly used nationwide to finance solar developments by stretching out these costs, as one might finance a car or a house and pay it off over time. The developer provides accessible financing, which reduces the barriers to entry, so residents, small businesses, municipalities, and nonprofits can more easily invest in solar and generate their own power. The Iowa Supreme Court's key decision in 2014 affirmed the appropriate use of PPAs, which give people another financing option for solar energy development.
- **Energy Efficiency** – Iowa can power local energy needs, while cutting waste and saving customers money on their bills, through smart energy efficiency improvements. Energy efficiency is the least expensive energy resource, and a

boon to local jobs. According to Clean Jobs Midwest, over 21,000 Iowans are employed in energy efficiency businesses. Unfortunately, a legislative policy change enacted in 2018 allowed utilities to roll back sensible energy efficiency programs and rebates in Iowa.

- **Clean Energy Districts** – A new model to deliver energy efficiency and renewable energy services and programming to residential, farm, and commercial ratepayers has been growing county by county. Winneshiek County was the first to organize a clean energy district (CED). By spearheading energy efficiency programs for all county residents with the goal to keep local energy dollars local, CEDs create local prosperity. CEDs can organize at the county level without any state authorization, and there are now a dozen CEDs in Iowa and more coming in Wisconsin and Illinois.
- **Iowa Solar Energy System Tax Credit** – The popularity and growth of rooftop solar panels has created a waiting list for state solar energy system tax credits. Iowa's tax credit system was created in 2012 and appropriates \$5 million dollars annually, by offsetting up to 15% of the cost of a solar project, with caps of \$5,000 (residential) and \$20,000 (business). Combined with the federal investment tax credit, the two credits can offset up to 45% of the cost of a solar system. The federal ITC is set to phase out, beginning in 2020 and ending for residential projects in 2022. A smaller tax credit will continue for businesses beyond 2022.

Federal Policies

Federal policies also provide important support for clean energy growth in Iowa. The imminent ramp-down and expiration of federal renewable energy tax credits could slow development. Extended renewable energy tax credits and strong complimentary policies would greatly benefit the economy in Iowa and the Midwest.

Federal Tax Credits

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 would be paid over time as the wind project produces electricity. PTC funds have been ramping down since then, and are due to expire this year, so this option will no longer be available to developers in 2021 unless federal policy changes. The PTC has provided critical foundation funding for the now-booming wind industry.

Investment Tax Credit (ITC) – 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 project starts operation. The credit ramps down to 26% in 2020 and 22% in 2021. Thereafter, the credit is expected to decrease to 10%. Under a Biden Administration, there will likely be proposals to extend the federal ITC.

Residential Renewable Energy Tax Credit – Originally, homeowners could receive a personal income tax credit for up to 30% of the cost of solar thermal or photovoltaic systems (100kw or less) installed on their residence. This credit decreased to 26% in 2020, and it is expected to decrease to 22% in 2021 and then expire.

Rural Energy for America Program – The Rural Energy for America Program (REAP) is part of the federal Farm Bill that drives renewable energy and energy efficiency investments for agricultural producers and rural small businesses in Iowa 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 energy audits and technical assistance. REAP received strong bipartisan support in the 2018 federal Farm Bill. To date, Iowa farmers and rural small businesses have received over \$50 million in REAP grants and about \$84 million worth of loan guarantees, thereby leveraging nearly \$380 million in private investment

since REAP was created. Iowa farmers and rural small businesses have been leaders in using REAP for clean energy and energy savings.



EcoWise Power, Des Moines

Recommendations & Next Steps

This report shows that Iowa businesses, workers, and the overall public have already benefited from renewable energy growth. State policies have supported Iowa's strong clean energy economy, contributing to both large and small businesses. Iowa should continue to fast-track a 100% clean energy future while, at the same time, pushing to retire electric generating plants powered by fossil fuels. The following policy recommendations provide a strategic approach for Iowa to embrace forward-looking clean energy technologies.

Create opportunities for distributed renewable energy growth:

1. **Extend the state and federal solar tax credits:** Iowa has a successful solar energy system tax credit that has been in place since 2012. It consistently runs up against its \$5 million annual cap and has a wait list. Iowa's solar tax credit is tied to the federal Investment Tax Credit (ITC). In a Biden Administration, we expect to see a proposal to extend the federal Investment Tax Credit. If such a proposal passes, it will reduce the urgency of efforts to decouple the Iowa state tax credit from the federal tax credit and make it even more important to increase available funds to relieve the current backlog. According to the Solar Energy Industries Association (SEIA), since the ITC was enacted in 2006, the U.S. solar industry has grown by more than 10,000%. The federal ITC for residential customers is set to expire at the end of 2021. With an extension, solar deployment is expected to add 82 gigawatts of rooftop solar. To ensure robust state solar growth, Iowa should increase the cap on the state tax credit to accommodate greater demand and decouple its solar tax credit from the federal ITC for continued long-term market stability and growth.
2. **Ensure an accurate value of solar methodology:** The recently enacted SF 583 will move distributed solar energy compensation to a value of solar methodology once distributed solar generation reaches 5% penetration. This methodology must accurately reflect the true value of solar energy generation resources. Regulatory engagement and oversight will be needed to push back utilities' proposed barriers, along with consistent data collection to inform a fair regulatory process.
3. **Enact a distributed generation bill of rights:** The interconnection process with utilities must be timely, transparent, and subject to reasonable safety requirements and fees. Utilities must provide fair credit for distributed renewable energy supplied to the grid. Utilities must not apply discriminatory rates or charges because of a customers' use of distributed solar energy generation.

Promote utility-scale solar energy and wind power:

1. **Update the state renewable portfolio standard to include battery storage with a distributed energy carve-out:** Iowa's modest renewable portfolio standard of 105 MW is antiquated and has been exceeded many times over. Policymakers should modernize and update the state's standard. The Iowa Economic Development Authority has authorized an economic analysis of storage systems to be completed in 2020. This study will give policymakers an economic rationale to accelerate the market for storage technology paired

with renewable generation facilities and include a carve out for commercial and industrial, agricultural, and residential distributed renewable energy generation.

2. **Develop fair siting standards for utility scale wind/solar projects including native vegetation:** Instead of using gravel or turf grass under and around solar arrays, prairie solar establishes ground cover with a diverse array of long-lasting native and perennial plants. This approach is also known as “pollinator-friendly solar” and makes a big difference as solar projects grow. Prairie solar also creates a permeable ground surface, allowing for more water infiltration and reducing nutrient load to our streams and rivers.
3. **Require Integrated Resource Planning and Integrated Distribution Planning:** As the price of renewable energy generation continues to decline, it is increasingly competitive as an energy resource. The cost of building new renewable generation can often be less than the cost of operating and maintaining old, expensive fossil-fuel generation. After advocates fought for a cost comparison using up to date assumptions in IPL’s resource planning process, the utility announced it would be retiring coal plants and replacing them with new solar energy projects.

Improve access to renewable energy for environmental justice communities:

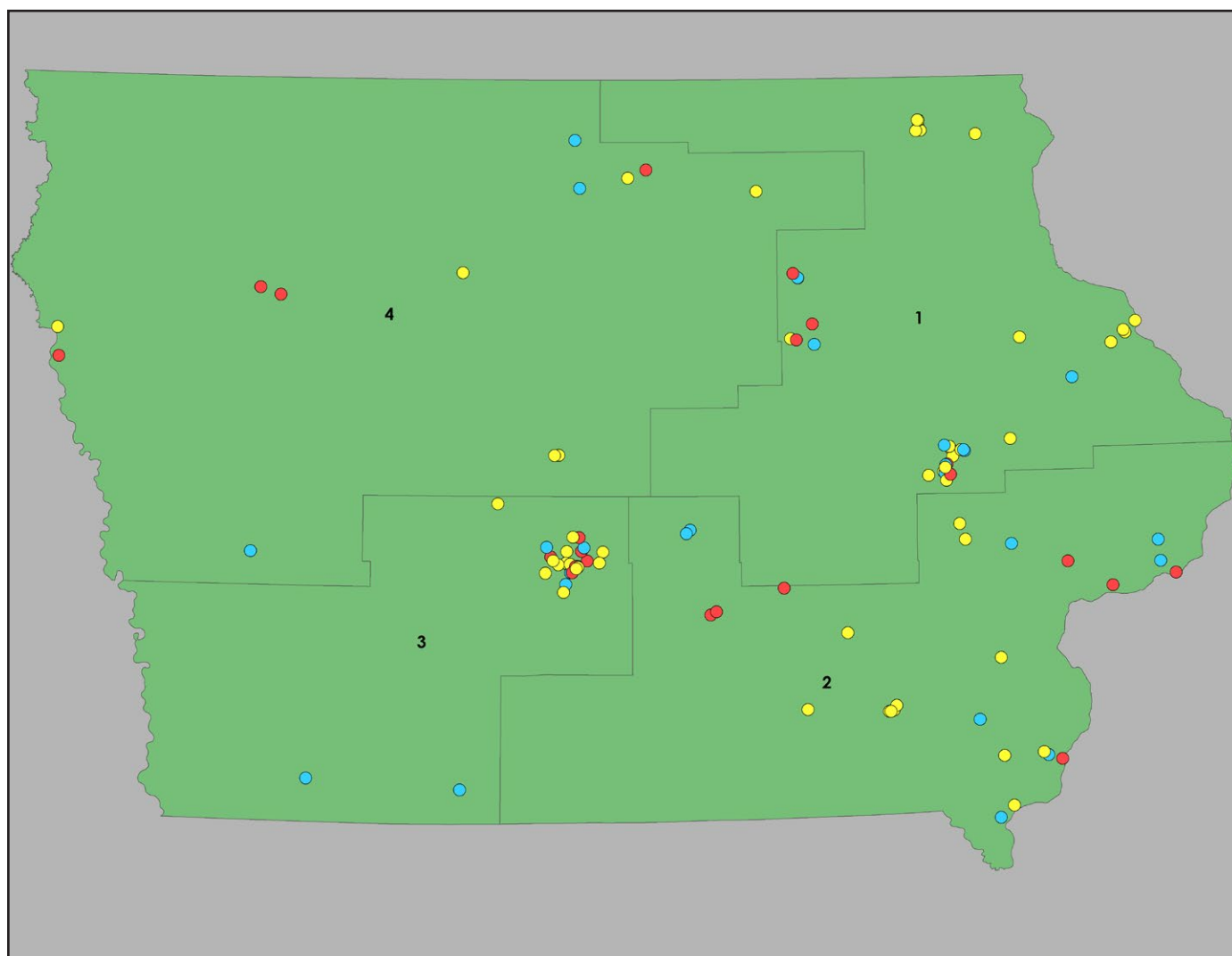
1. **Expand access to community solar projects:** As a matter of equity, community options are important to expand access to solar power for those who choose not to or are unable to install a rooftop solar system. These shared solar installations offer energy options for renters, homeowners with shaded roofs, and those with a variety of other financial and logistical barriers. Low- and moderate-income communities will benefit from lower energy bills if community solar projects are structured so that all customers can access them, and they provide immediate and tangible benefits for participating.
2. **Promote the clean energy district model:** A clean energy district (CED) is a locally organized non-profit that operates at the county level. The CED can lead, implement, and accelerate the locally-owned clean energy transition by offering technical assistance to show homeowners that installing energy efficiency improvements and utilizing solar energy will lower energy bills. CEDs keep energy dollars in the community, which enhances local economic prosperity.



Pixabay

Iowa Wind & Solar Energy Companies

(U.S. Congressional Districts)



Clean Energy Sector

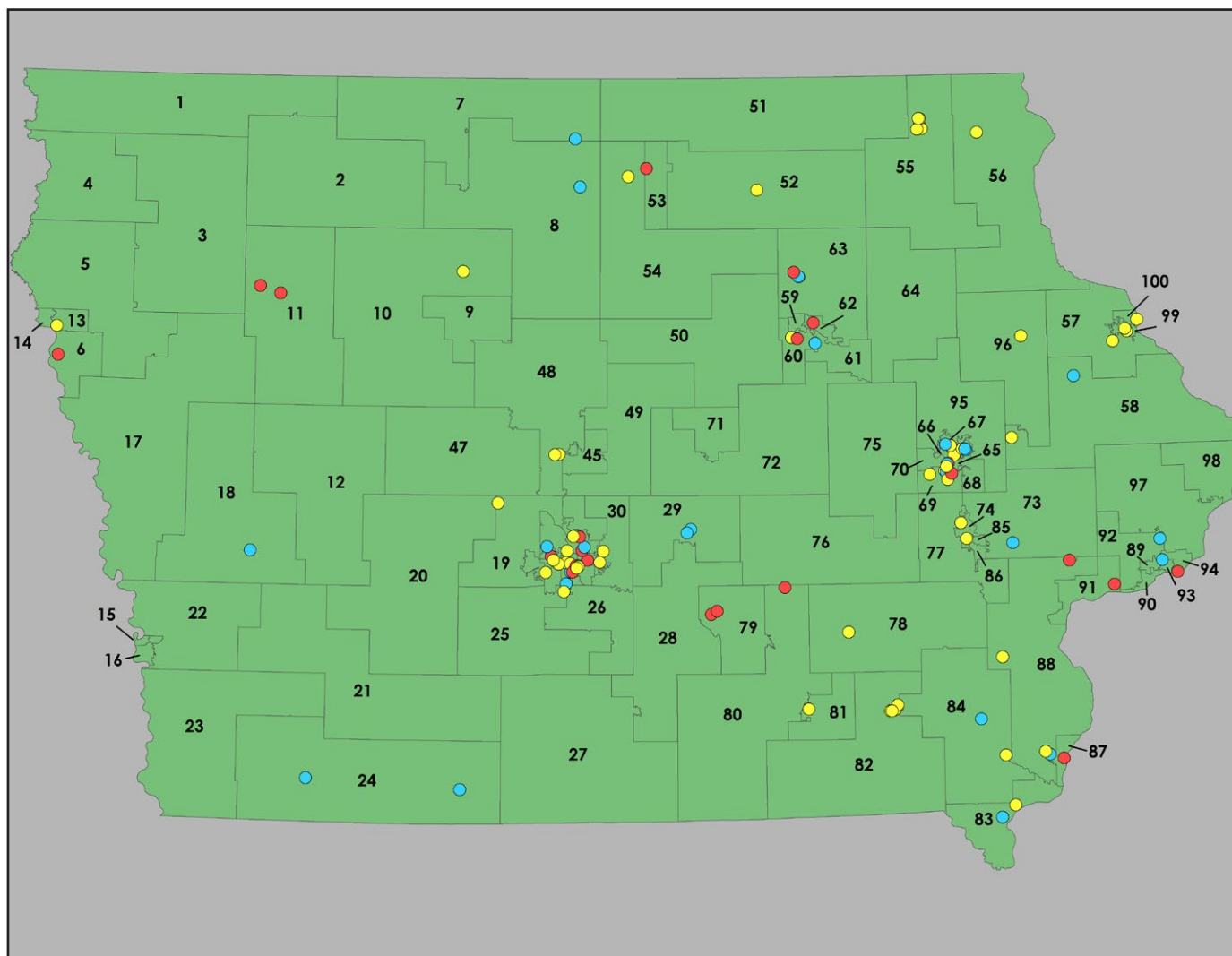


ELPC identified wind & solar energy companies in all 4 congressional districts

The energy market changes quickly, but this research is as accurate as we could reasonably ascertain as of August 2020

Iowa Wind & Solar Energy Companies

(State House Districts)



Clean Energy Sector

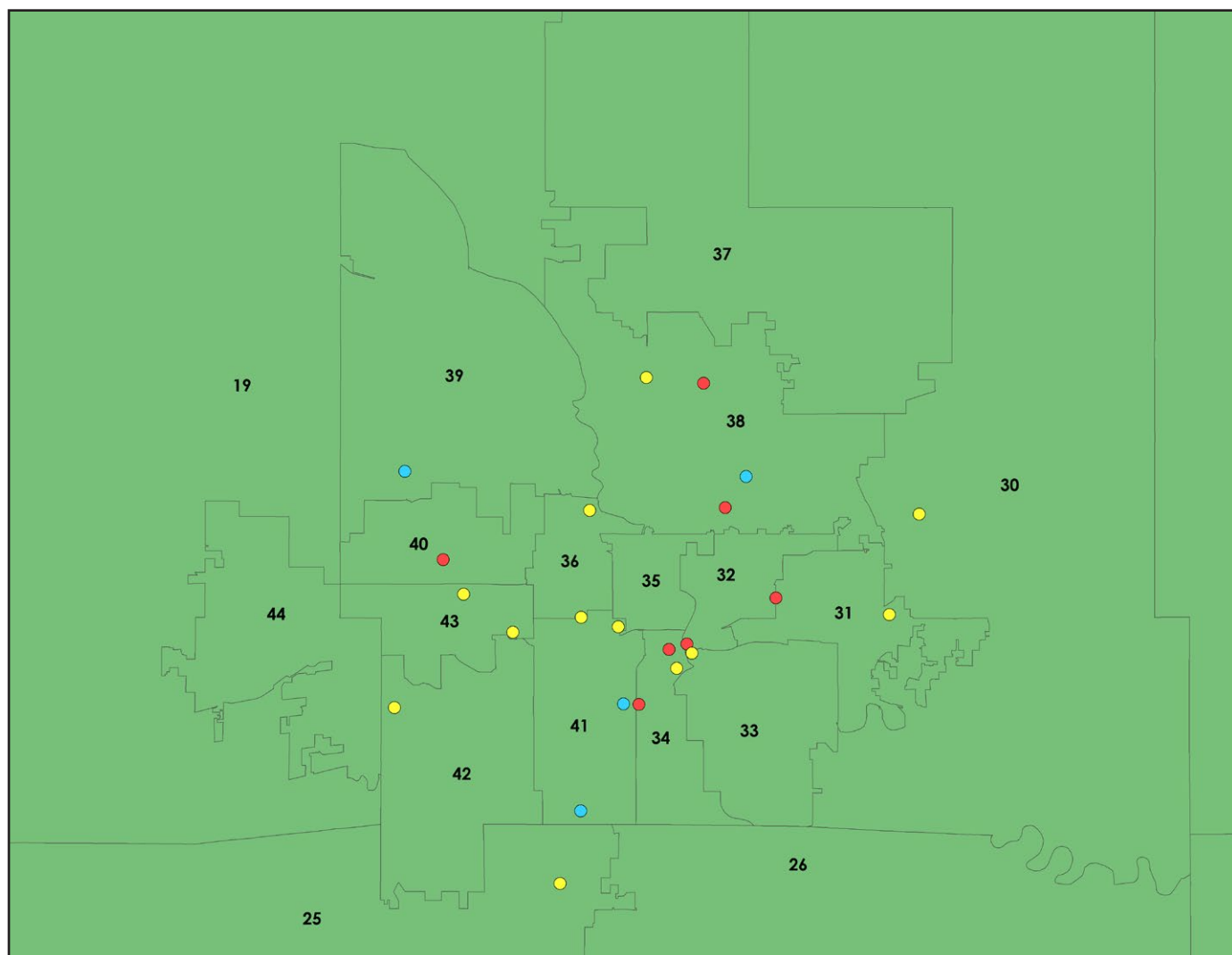


ELPC identified wind & solar energy companies in 56 of the 100 State House districts.

The energy market changes quickly, but this research is as accurate as we could reasonably ascertain as of August 2020

Des Moines Wind & Solar Energy Companies

(State House Districts)



Clean Energy Sector



Des Moines is a hub for renewable energy in Iowa

The energy market changes quickly, but this research is as accurate as we could reasonably ascertain as of August 2020



Clean Energy Sector Spotlights: Solar Energy

Solar energy is accelerating across Iowa. The Environmental Law & Policy Center identified 85 businesses engaged in the solar energy supply chain across the state, as of August 2020. Solar energy projects range from small residential installations to utility-scale projects. According to Clean Jobs Midwest, the solar industry employed more than 800 people in Iowa as of 2019. Many solar energy companies were hit hard in 2020 amid the coronavirus pandemic. Supportive state and federal policies would help to prevent this important industry from losing momentum.

Many electrical and construction companies have added solar power installation to their service offerings, providing new opportunities for existing companies. To help serve growing customer demand, Iowa has several training programs to provide education for renewable energy installation and operations, including programs at Iowa State University, University of Iowa, Wartburg College, and several community colleges. These educational institutions understand that the growing Iowa solar energy industry creates jobs and opportunities for many Iowans.



Modus Engineering, Des Moines

Solar Energy Company Profiles



“I just hope that our federal government continues to support renewable energy... the tax incentives can really make or break the bottom line of any one solar project, large or small.” –*Brian Fleming, Business Development Director*

Precision Energy Services, West Burlington

Precision Energy Services is a solar installation company that opened in 2012, when founder John Fruehling realized that coal was becoming a thing of the past. Today, the growing business’s eight employees have no shortage of work. They complete roughly 40-60 projects a year, mostly in agriculture, but they also provide installations for schools and churches with the help of Power Purchasing Agreements. After Precision installed 836 solar panels at Notre Dame High School in Burlington, the school has been able to invest their energy savings into books, teacher salaries, and computers.

Blue Sky Solar, Dubuque

“We want to leave the environment better than we found it, one project at a time.” –*Raki Giannakouros, Chief Operating Officer*

Blue Sky Solar is a solar energy installation company located in Dubuque, Iowa and Omaha, Nebraska. The staff of five facilitates the completion of 50 projects each year across the country. Their work ranges from residential to utility installations between 1 MW and 4 MW. Blue Sky Solar provides

economic development through renewable energy. Recently they joined forces with Camp Courageous, a nonprofit based in Monticello, Iowa, to install a multi-rooftop solar array with a 30 kW capacity.



“We started in solar because it was a way for the company to grow, and it did.”–*John Nielsen, General Manager*

Perry Novak Electric, Decorah

Perry Novak Electric jumped into the renewables sector in 2013 after 33 years of electrical work, seeing it as an opportunity for expansion. The company has 30 staff who design and install, on average, 55 solar projects each year. With their expertise “ranging from ten panels on a house to a megawatt,” Perry Novak works extensively in northeastern Iowa with homeowners, chambers of commerce, conservation boards, schools, and anyone in between. Recent projects include a 1 MW shipping container-sized battery to offset the load demand of Luther College, a plan to install a series of 12 arrays to power the whole town of West Union, and three site installations to power Fayette County’s landfills and recycling center.



“Renewable energy is important to us not only because it’s a cleaner power source that has a less adverse effect on the environment, but also because it enables power in some very remote areas where traditional fossil fuel power sources don’t make logistical or economic sense.” -Seth Hansen, Marketing and Communications Manager

PowerFilm, Inc., Ames

PowerFilm, Inc is a solar-focused manufacturer based out of Ames. Founded in 1988, the company of 45 has extensive experience designing, engineering, manufacturing, distributing, and supporting solar technology with solutions ranging from uW to kW, from mV to 30V, from panels an inch square to many yards square. PowerFilm’s reach extends well beyond Iowa, serving government, industrial, commercial, and consumer markets, primarily on a business-to-business basis. The company offers more than 50 product options, and custom manufacturing as well. PowerFilm has recently adapted their facilities to manufacture and distribute over 50,000 face shields to protect Iowans from COVID-19.

Modus Engineering, Des Moines

“As a forward-thinking company, MODUS has always aspired to lead the change within our industry. It’s our aim to improve society by the design of safe, sustainable, and innovative buildings.” -Jared Heidemann, Marketing Director

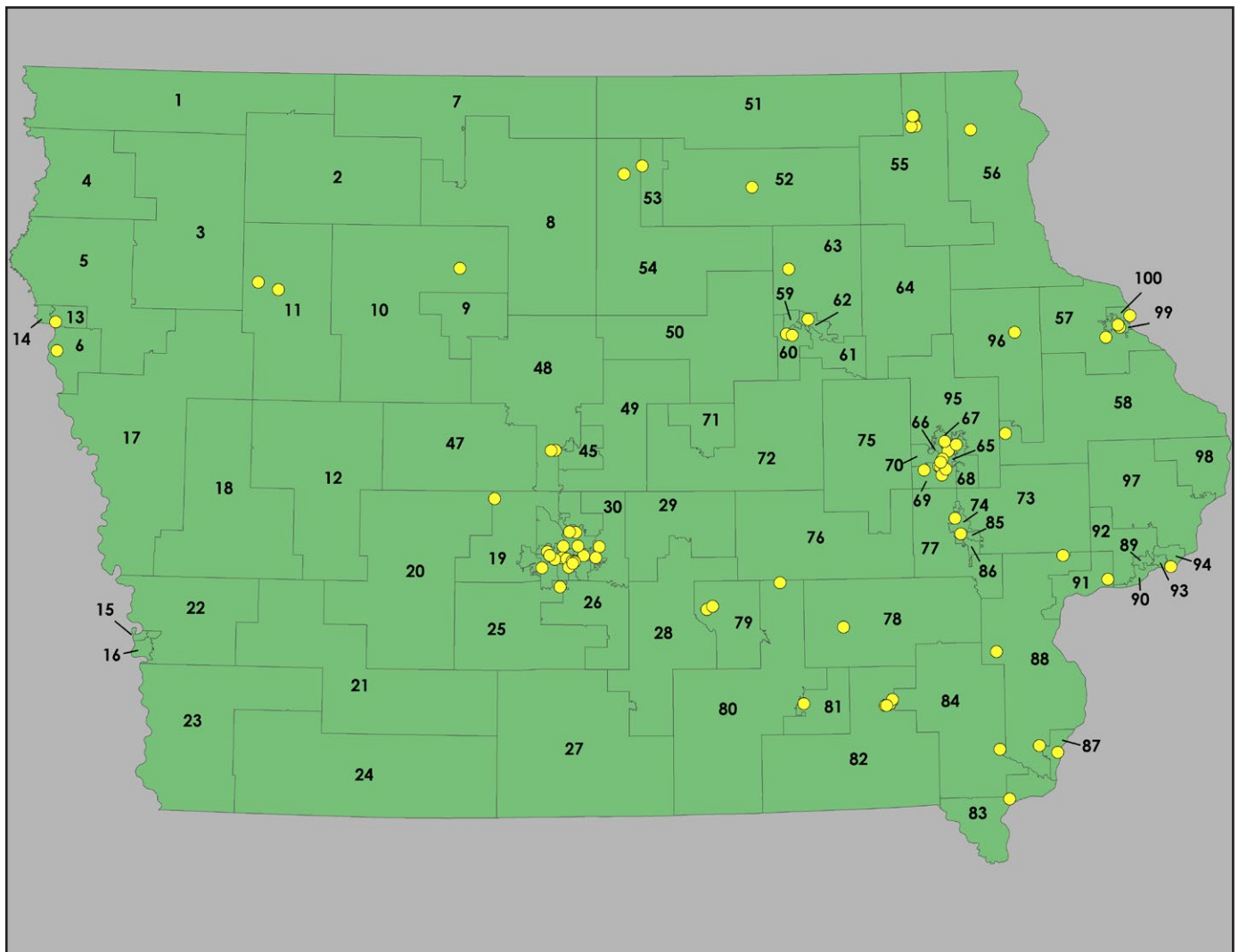


MODUS is a Des Moines-based sustainable engineering firm of more than 55 employees, the largest such firm in the state. Founded 57 years ago as Gilmer + Doyle, MODUS has expanded into Iowa City, Waterloo, and more than 20 states. The company won the ASHRAE International Technology Award for the design of their Des Moines office, Market One. This LEED Platinum certified building has a 19 kW solar

panel parking canopy, a rooftop solar structure adding an additional 31 kW, and a geothermal well field composed of fifteen 200-foot wells. A recent MODUS development under construction is the North Iowa Area Community College Solar PV Field and Rooftop Installations Project in Mason City. The final design size is 2.5 MW and will offset ~50% of the NIACC’s energy usage.

Iowa Solar Energy Companies

(State House Districts)

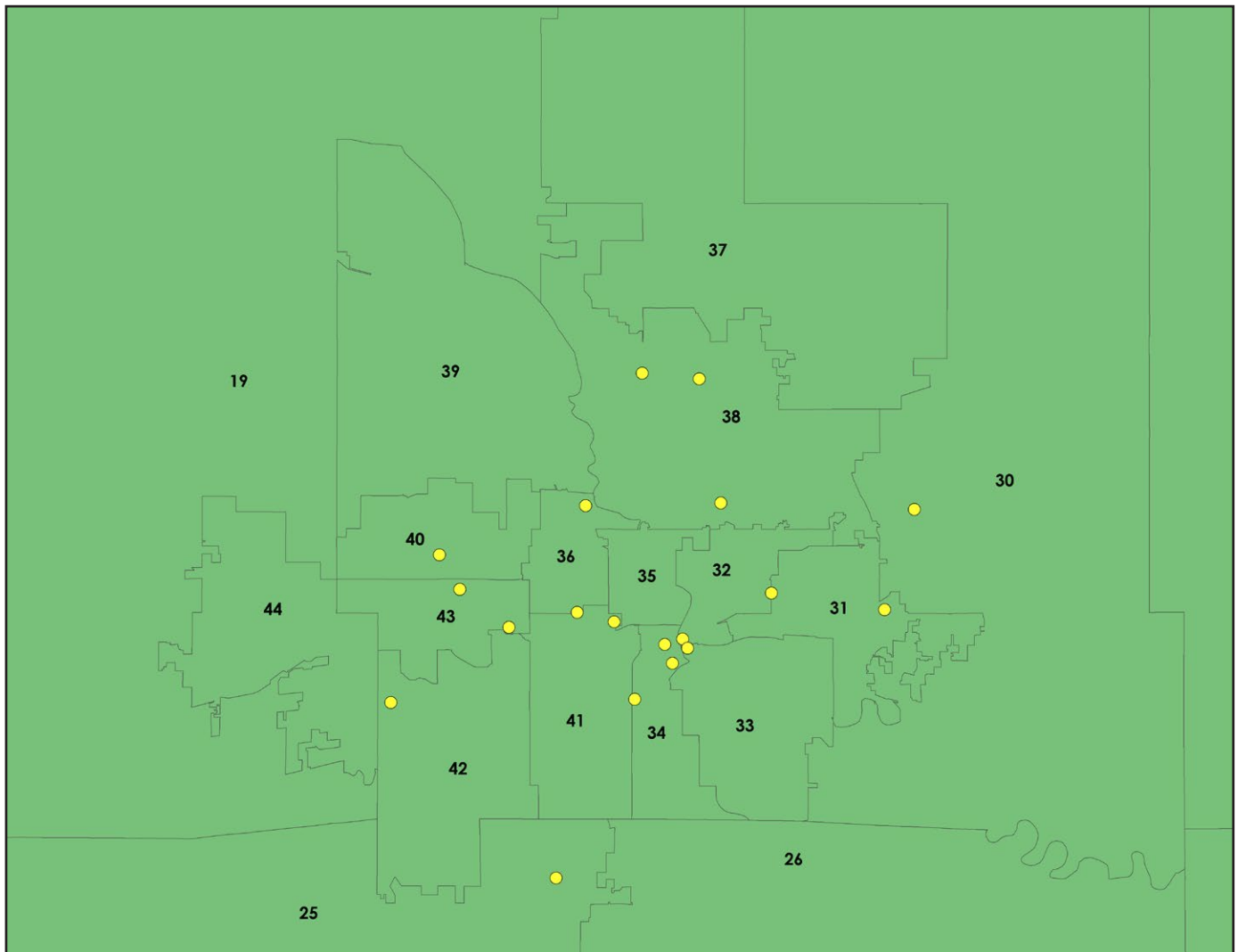


ELPC identified 85 solar companies statewide.

The energy market changes quickly, but this research is as accurate as we could reasonably ascertain as of August 2020

Des Moines Solar Energy Companies

(State House Districts)



Solar companies employ over 800 workers in Iowa in both small towns and larger cities.



Clean Energy Sector Spotlights: Wind Energy

The Environmental Law & Policy Center identified 53 businesses engaged in the wind energy industry in Iowa. According to Clean Jobs Midwest, businesses in wind energy employed more than 9,000 workers in Iowa as of 2019. Many renewable energy companies were hit hard in 2020 amid the coronavirus pandemic. Supportive state and federal policies would help prevent this important industry from losing momentum.

These companies span a wide range of business activities and functions and serve projects in Iowa, 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, often helping 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.

Wind power supplies 42% of Iowa's energy mix today. From small businesses and everyday residents to rural electric cooperatives and the state's largest utilities, Iowans recognize that wind is a cost-effective source of energy.



Pixabay

Wind Energy Company Profiles

Trusted Energy, Storm Lake



“We go pretty much anywhere. If we can develop a project, we’ll do it.”

—Rob Hach, President and CEO

Trusted Energy, a Storm Lake-based company with 23 employees, specializes in solar development, installation, and wind maintenance services through their Teams—Trusted Energy Maintenance and Service—division. From their Midwest roots, Trusted Energy has an expansive reach, riding the wind into Texas, Oklahoma, Kansas, and taking solar to Wyoming. The company has tapped into international markets as well with projects in Chile and Haiti.

Trusted Energy’s installations span the power spectrum from residential to utility, their largest thus far being a 4.1 MW project for Grinnell College, just finished. That said, their developments continue to grow in scope with a 15 MW project in Iowa and 30 MW project in Minnesota currently in the works.

GreenPenny, Decorah

“In these financial times, we know it is more important than ever to provide renewable energy support. People deserve to know where their money is going and to feel empowered by their decisions.”

—Katrina Brickley, Digital Communications Director

GreenPenny is a bank specializing in sustainability and renewable energy. It is a digital branch of Decorah Bank & Trust, a small-town bank founded in the 1930s that employs 100 employee-owners to support the financial needs of northeast Iowa. Decorah Bank has adopted environmental practices for years, including carbon-neutral locations, and GreenPenny offers new banking opportunities for customers nationwide.

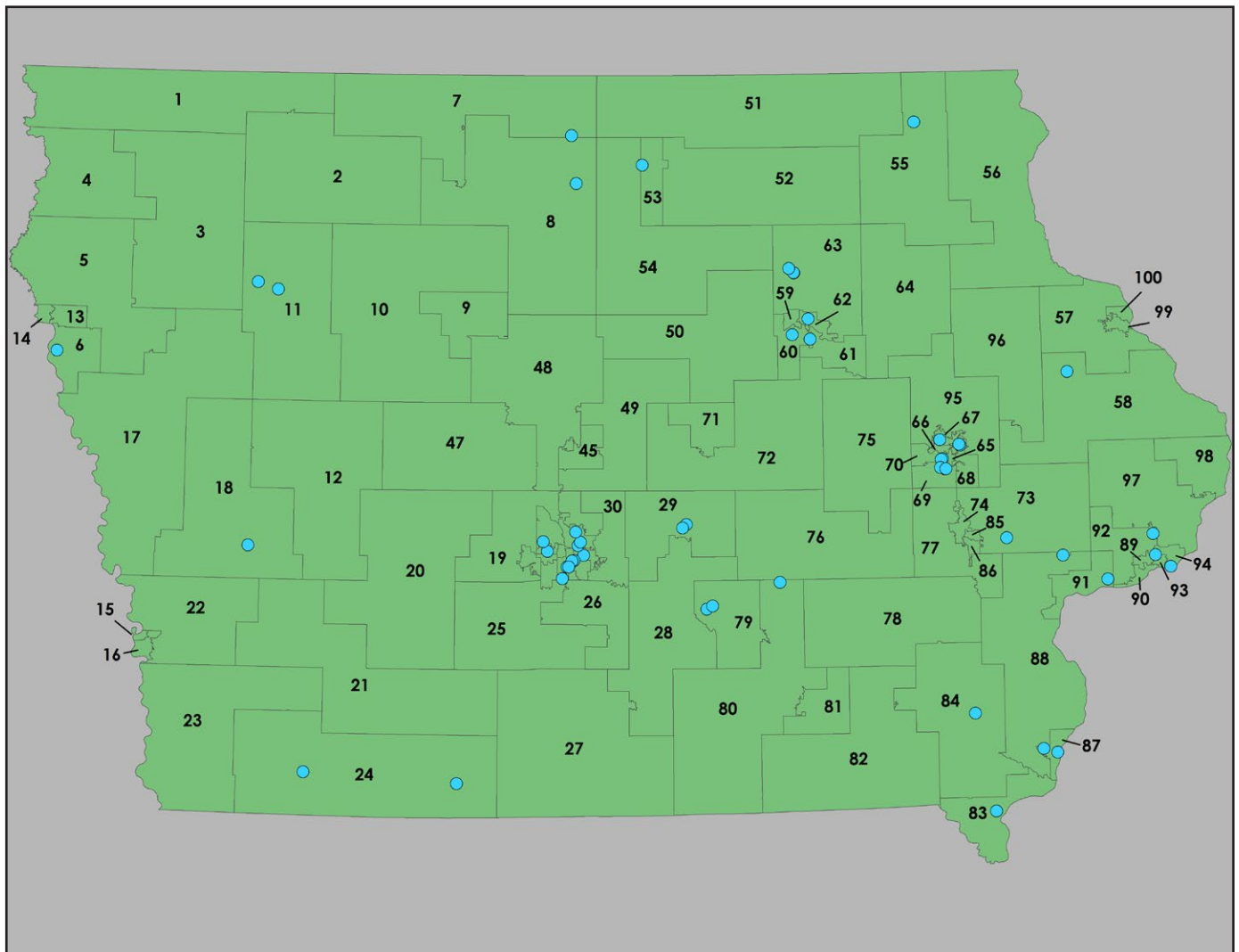
GreenPenny officially launched in June 2020, providing traditional products like checking and savings accounts, with a commitment to support



the shift away from fossil fuels. This FDIC-insured digital bank has already financed over 100 clean energy projects, including solar, wind, energy efficiency, and geothermal installations for residential and commercial customers. To GreenPenny, environmental responsibility comes first, and banking comes next. It is part of the Global Alliance for Values in Banking and supports 1% for the Planet.

Iowa Wind Energy Companies

(State House Districts)

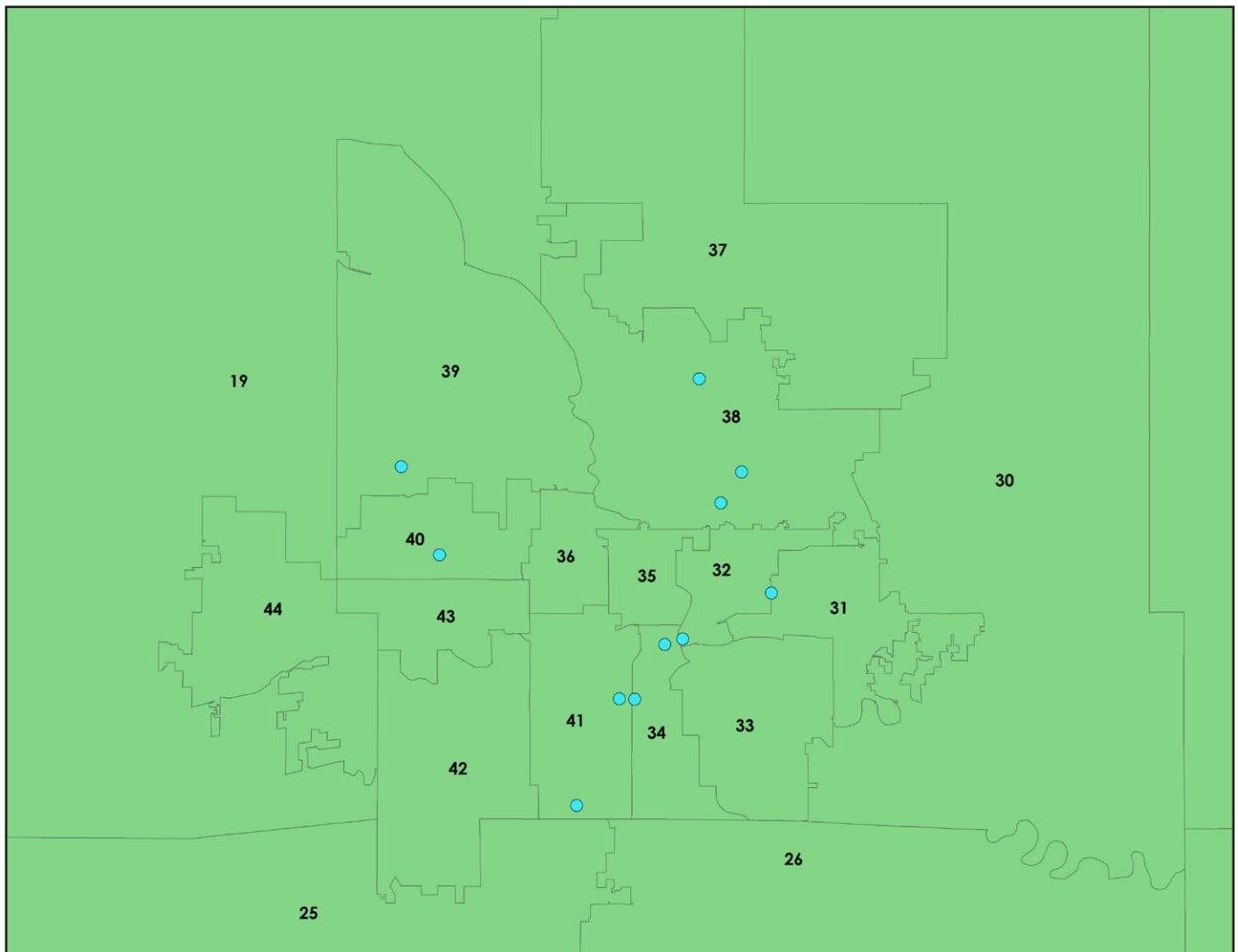


ELPC identified 53 wind companies statewide.

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Des Moines Wind Energy Companies






(State House Districts)



Wind companies employ over 9,000 workers in Iowa from small towns to big cities.

The energy market changes quickly, but this research is as accurate as we could reasonably ascertain as of August 2020

Iowa Clean Energy Business Directory

CITY	COMPANY NAME	CLEAN ENERGY SECTOR		COMPANY FUNCTION			US CONGRESSIONAL DISTRICT	IA SENATE DISTRICT	IA HOUSE DISTRICT
		 SOLAR	 WIND	 MANUFACTURER	 CONTRACTOR/ INSTALLER	 PROFESSIONAL SERVICES/OTHER			
Alta	Anemometry Specialists, Inc.	X	X		X	X	4	6	11
Altoona	GWA Solar	X			X	X	3	15	30
Ames	PowerFilm Solar, Inc.	X		X			4	24	48
Ames	Solar FX	X			X	X	4	24	48
Anamosa	Energy Consultants Group LLC	X			X		1	29	58
Ankeny	1 Source Solar LLC	X			X	X	3	19	38
Ankeny	Snyder & Associates	X	X			X	3	19	38
Barnes City	Iowa Energy Alternatives	X	X		X		2	40	80
Bettendorf	Hawkeye Electric	X			X		2	47	94
Bettendorf	Rogan Incorporated	X	X			X	2	47	94
Blairstown	Rabe Hardware	X			X		1	38	75
Burlington	Frank Millard & Company	X	X		X		2	44	87
Cascade	Webber Metal Products		X	X			1	29	58
Cedar Falls	Baird Mounting Systems	X		X			1	30	60
Cedar Falls	EPo Energy	X			X		2	44	88
Cedar Falls	Iowa Laser Technology (O'Neal Manufacturing Services)	X	X	X	X	X	1	30	60
Cedar Rapids	All Integrated Solutions	X				X	1	35	69
Cedar Rapids	Alliant Energy (IPL)	X	X			X	1	35	69
Cedar Rapids	Allied Electronics and Automation	X				X	1	34	67
Cedar Rapids	Big Dog Solar Energy	X			X		1	34	67
Cedar Rapids	Clipper Windpower		X	X			1	35	69
Cedar Rapids	D.C.Taylor Company	X			X		1	33	66
Cedar Rapids	Kieck's Career Apparel		X			X	1	35	69
Cedar Rapids	Mid-Iowa Tools		X			X	1	35	69
Cedar Rapids	Nelson Electric	X			X	X	1	35	69
Cedar Rapids	Paulson Electric Co.	X				X	1	35	69
Cedar Rapids	Sadler Machine Company	X	X	X			1	35	69
Cedar Rapids	SiteGen Solar	X				X	1	35	69
Cedar Rapids	Van Meter Inc.	X				X	1	35	69
Charles City	D A White Residential Designs	X			X	X	4	26	52
Clarinda	NSK Americas		X	X			3	12	24
Clear Lake	SunRackSolar, LLC	X		X	X		4	27	54
Coralville	Cville Clean Power (Cville Electric)	X			X		2	37	74
Creston	Vestas (Availon)		X			X	3	20	39
Danville	Geode Energy	X			X	X	2	42	84
Davenport	Quad City Safety		X			X	2	47	94
Davenport	Ryan Companies	X	X		X	X	3	16	32
Decorah	Decorah Bank and Trust Company	X	X			X	1	28	55






CLEAN ENERGY SECTOR

COMPANY FUNCTION

Iowa Clean Energy Business Directory

CITY	COMPANY NAME	CLEAN ENERGY SECTOR		COMPANY FUNCTION			US CONGRESSIONAL DISTRICT	IA SENATE DISTRICT	IA HOUSE DISTRICT
		SOLAR	WIND	MANUFACTURER	CONTRACTOR/ INSTALLER	PROFESSIONAL SERVICES/OTHER			
Decorah	Decorah Electric	X			X		1	28	55
Decorah	Perry Novak Electric	X			X		1	28	55
Decorah	Stanley Engineered Fastening	X		X			1	28	55
Decorah	Tom Massman Construction	X			X		1	28	55
Decorah	Winnishiek Energy District	X				X	1	28	55
Des Moines	American Ground Screw	X		X			3	17	34
Des Moines	Berkshire Hathaway Renewables	X	X			X	3	17	34
Des Moines	CB Solar	X			X		3	18	36
Des Moines	EcoWise Power	X			X		3	18	36
Des Moines	Electrical Power Products		X	X			3	21	41
Des Moines	Green Light Renewable Services	X			X	X	3	21	41
Des Moines	Integrated Power Corp	X				X	3	16	32
Des Moines	Iowa Economic Development Authority	X	X			X	3	17	34
Des Moines	Jensen Crane Services (The Rasmussen Group)		X		X	X	3	19	38
Des Moines	Keystone Electrical Manufacturing		X	X			3	21	41
Des Moines	MidAmerican Energy	X	X			X	3	19	38
Des Moines	Modus Engineering	X				X	3	17	33
Des Moines	Optimum Renewables	X	X			X	3	20	40
Des Moines	Rasmussen Group		X		X	X	3	19	38
Des Moines	Supergreen Solutions	X				X	3	22	43
Des Moines	The Energy Group	X	X			X	3	16	31
Des Moines	The Solar Consultants	X			X	X	3	16	31
Dubuque	Blue Sky Solar	X			X	X	1	50	99
Dubuque	Eagle Point Solar	X			X		1	50	100
Dubuque	Solar Planet	X			X		1	50	99
Earlville	EIP Manufacturing	X		X			1	48	96
Eldridge	Mehta Tech		X			X	2	46	92
Fairfax	Novak Electric Inc.	X				X	1	35	69
Fairfield	AGRI-Industrial Plastics Co	X		X			2	41	82
Fairfield	Ideal Energy	X			X	X	2	41	82
Fairfield	Simpleray	X			X	X	2	41	82
Fairfield	Solight Solar Inc.	X		X		X	2	41	82
Forest City	EDF Renewable Energy		X		X	X	4	4	7
Fort Madison	DuPont Photovoltaic Solutions	X		X			2	42	83
Fort Madison	Siemens Gamesa		X	X		X	2	42	83
Garner	NextEra Energy		X			X	4	4	8
Harlan	Conductix-Wampfler		X			X	4	9	18
Hiawatha	D.A.D. Manufacturing		X	X			1	34	67
		CLEAN ENERGY SECTOR		COMPANY FUNCTION					

Iowa Clean Energy Business Directory

CITY	COMPANY NAME	CLEAN ENERGY SECTOR		COMPANY FUNCTION			US CONGRESSIONAL DISTRICT	IA SENATE DISTRICT	IA HOUSE DISTRICT
		 SOLAR	 WIND	 MANUFACTURER	 CONTRACTOR/ INSTALLER	 PROFESSIONAL SERVICES/ OTHER			
Humboldt	North Central Iowa Service, LLC	X			X		4	5	10
Iowa City	Smart Solar	X				X	2	43	86
Marion	Acterra Group		X		X		1	34	68
Marion	Barnes Manufacturing		X	X			1	34	68
Marion	RJ Construction	X			X		1	34	68
Mason City	Spatial Designs Architects	X	X			X	4	27	53
Mason City	Twin Turbines Energy	X	X		X	X	4	27	53
Mount Ayr	Heartland Energy Solutions		X	X			3	12	24
Mt Pleasant	MM Composite		X	X			2	42	84
Muscatine	Landmark Solar	X			X	X	2	46	91
Muscatine	SSAB	X	X	X			2	46	91
Newton	Arcosa Wind Towers		X	X			2	15	29
Newton	TPI Composites		X	X			2	15	29
North Liberty	Moxie Solar	X			X		2	39	77
Norwalk	Jabez Energy LLC	X			X	X	3	13	25
Ottumwa	Solar Dynamics	X		X	X		2	41	81
Pella	Pella Cooperative Electric	X	X			X	2	40	79
Pella	Vermeer Corporation	X	X	X			2	40	79
Peosta	Sunergy Renewable Systems	X			X		1	29	57
Perry	Van Wall Energy	X			X	X	3	10	19
Pleasant Hill	Yellow Blue Eco Tech	X		X		X	3	16	31
Sigourney	Atwood Electric	X			X		2	39	78
Sioux City	Sabre Industries	X	X	X	X		4	3	6
Sioux City	Thompson	X			X	X	4	7	13
Storm Lake	Trusted Energy	X	X		X	X	4	6	11
Waterloo	Iowa Northern Railway		X			X	1	30	60
Waterloo	Power Engineering and Manufacturing	X	X	X			1	31	62
Waukon	Blake Electric	X			X		1	28	56
Waverly	GMT Corporation		X	X			1	32	63
Waverly	United Equipment Accessories		X	X			1	32	63
Waverly	Waverly Utilities	X	X			X	1	32	63
West Branch	Acciona Energy North America		X	X	X		2	37	73
West Burlington	KPI Concepts		X	X			2	44	87
West Burlington	Precision Energy Services	X			X		2	44	88
West Des Moines	Current R/E	X			X	X	3	21	42
Wilton	Gerdau	X	X	X			2	37	73
Windsor Heights	3E Co (Electrical Engineering & Equipment Company)	X			X	X	3	22	43
		CLEAN ENERGY SECTOR		COMPANY FUNCTION					



ENVIRONMENTAL LAW & POLICY CENTER

The Environmental Law & Policy Center is the Midwest's leading environmental legal advocacy organization. We drive transformational policy changes with national impacts. We show that environmental progress and economic development can be achieved together by putting sustainability principles into practice. We advance climate solutions effectively, by accelerating clean renewable energy alternatives to conventional power plants and advancing clean transportation solutions.

We protect the Great Lakes and defend the Midwest's wild and natural places, and we fight for safe, clean water and healthy clean air for all. We combine effective public interest litigation with strategic policy advocacy, sound science, and economic analysis. ELPC produces strong results for the environment in the courtrooms, boardrooms, and legislative hearing rooms across the pivotal Midwest states and in Washington, D.C.

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