Michigan Clean Energy Supply Chain: Good for Manufacturing Jobs, Good for Economic Growth and Good for Our Environment
Michigan Clean Energy Supply Chain

Report Conclusions:

- At least 187 Michigan companies are engaged in the solar industry supply chain
- At least 132 Michigan companies are engaged in the wind industry supply chain
- 19 Michigan companies are engaged in the energy storage industry supply chain
- $2.6 billion in annual economic activity generated
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Michigan is Poised for Growth in Clean Energy Jobs & Economic Development

Clean tech is one of Michigan’s fastest-growing business sectors, with more than $2.9 billion invested in clean energy since 2009. Hundreds of companies are in the wind and/or solar business supply chain, and at least 19 companies are involved in manufacturing and designing batteries and energy storage systems.

Here are some of the primary drivers needed for Michigan to continue growing its strong renewable energy industry and the jobs it supports:

**Renewable Portfolio Standard 2.0**

In 2008, Michigan enacted its first Renewable Portfolio Standard (RPS) requiring that 10 percent of the utilities’ electricity supply come from renewable energy sources by 2015. Michigan successfully met that RPS goal, resulting in more than 1,500 MW of renewable energy — mostly wind power — and generating $2.9 billion of clean energy investments in the state. Going forward, a new, higher RPS goal should be set to continue growing Michigan’s clean wind power and solar energy — and all the resulting jobs and economic growth.

**Skilled High-Tech Workforce**

Michigan has a trained high-tech workforce for manufacturing, and many of the skills are consistent with those needed for increased demand from the renewable energy and energy storage industries.

**Leading Research and Development Spending**

Michigan businesses spend more than $15 billion a year on R&D spending. Michigan developed a strategic partnership with Oak Ridge National Laboratory to give companies access to its alternative energy and materials research.

**Strong University Base for Clean-Tech Expertise**

Michigan is among the top states for awarding engineering degrees, with thousands of engineering graduates each year. Over a dozen Michigan universities and colleges have clean tech research programs and active renewable energy projects.

Michigan is well-positioned to increase jobs and economic development for both wind power and solar energy industries — but strong state policies are essential.
Wind, Solar & Energy Storage Industries’ Supply Chain Businesses in each Michigan Congressional District

More detailed maps to follow.
Federal and state policies are key to encouraging investments that can grow the wind power and solar energy industries, thereby creating more jobs and economic growth.

**Michigan Programs & Policies**

**Renewable Portfolio Standard (RPS):** An RPS policy requires that a minimum percentage of the utilities’ energy supply is provided by clean, renewable sources like wind and solar. Michigan already met its original RPS goal of 10 percent by 2015, and it’s now time to set a new, higher goal. Governor Rick Snyder stated that Michigan can get 40 percent of its energy needs from in-state renewable energy and energy efficiency progress by 2025. The Environmental Law & Policy Center and colleagues are pushing for a plan to achieve those results.

Michigan’s initial RPS with the 10 percent goal resulted in:

- 1,500 MW of wind power
- 27 MW of solar energy
- $2.6 billion in annual economic activity
- $2.9 billion invested since 2009

The RPS has also been very successful in helping promote competition in Michigan and driving down the installed costs of both wind power and solar energy.

What’s more, when Michigan uses in-state energy resources, Michigan consumers waste less money on out-of-state coal. In 2014, Michigan spent $1.48 billion importing coal from other states.

If Michigan doesn’t improve the RPS, the state risks being left behind in attracting jobs and reducing energy costs. Michigan policymakers should extend the RPS and increase the percentage goal moving forward.
**Net Metering:** Michigan’s net metering standards enable small (<20 kW) solar system owners to earn credits at the retail electric rate for excess power sent to the grid. The program has helped support the small residential PV market, but the 20 kW system size cap has constrained participation for medium and large commercial customers. Extending retail-rate net metering to medium and large businesses of up to 2 MW would improve market diversification and growth for solar systems in Michigan.

**U.S. EPA’s Clean Power Plan**

The U.S. Environmental Protection Agency’s landmark Clean Power Plan calls on the electric power sector to reduce its carbon pollution by 32 percent over 2005 levels. Michigan has flexibility to reduce carbon pollution in several ways, including by increasing the state’s RPS goals. **Michigan can be an economic winner under the Clean Power Plan because:**

- **Energy Efficiency Saves Consumers Money** — The average Michigan household uses 38 percent more energy than the national average household, which means there are huge opportunities for energy efficiency to make a difference not just in the state’s energy portfolio but also in businesses’ bottom lines and residential consumers’ pocketbooks.

- **In-State Renewables Reduce Out-of-State Coal Costs** — Approximately 50 percent of Michigan’s energy comes from coal, which is imported from other states and cost Michigan $1.48 billion in 2014. Replacing out-of-state coal with in-state wind and solar energy will boost jobs and economic growth in Michigan.

- **Renewable Energy Costs Less** — The Michigan Public Service Commission concluded that renewable energy helps bring down costs for consumers. What’s more, many renewable energy projects set a fixed electricity price for 20-25 years, thus avoiding volatility.

By raising its RPS goals, Michigan can comply with the Clean Power Plan and create new economic opportunities, a cleaner environment and greater energy independence.

**Other Federal Policies**

**Investment Tax Credit (ITC) for Solar Energy:** The ITC provides a 30 percent tax credit for solar energy systems that are up and running on residential or commercial properties by Dec. 31, 2016. After 2016, the ITC will ramp down to 10 percent for commercial properties and end completely for residential properties. Congress should extend the ITC for 5 more years, with ramp-downs. Nationwide, this ITC extension can result in an additional 69 GW of additional solar deployment between 2016 and 2022.

**Production Tax Credit (PTC) for Wind Energy.** The PTC provides a credit of 2.3 cents per kilowatt hour for wind projects that began construction before January 1, 2015. Congress chose not to renew this tax credit, but advocates are working to persuade Congress to renew the PTC because, like other domestic energy sources, wind power flourishes with predictable, stable, pro-growth tax policy. Historically, the PTC has been extended in mostly one- or two-year intervals and has been allowed to expire on a number of occasions. This unpredictability has made it difficult for the industry to plan for stable market growth.

**Residential Renewable Energy Tax Credit:** Homeowners can receive a personal income tax credit for up to 30 percent of the cost of a solar thermal, photovoltaic or small-wind system (100 kilowatts or less) installed on their residence. This credit expires at the end of 2016, and it should be extended.

**USDA Rural Energy for America Program (REAP) Grants:** REAP is a competitive grant and loan guarantee program to promote renewable energy and energy efficiency for agricultural producers and rural small businesses. REAP grants range from $2,500 to $500,000 and cover up to 25 percent of eligible project costs. In 2014, Congress reauthorized mandatory funding for REAP — $694 million over 5 years. Michigan received $11.4 million in grants and $1.6 million in loan guarantees under the program between 2003 and 2015. Those federal investments, in turn, leveraged more than $41.8 million in total investments in Michigan. The REAP should be fully funded and expanded.
ELPC identified 132 Michigan companies that currently supply the wind power industry — or have in the past and could again if state policies supported additional industry growth. The industry is diverse, with turbine assemblers, component manufacturers, process engineering consultants, composite manufacturers and small wind developers. Following these representative business profiles is a company listing with maps.

Amphenol Sine Systems — Clinton Township: Amphenol Sine Systems, a subsidiary of the Amphenol Corporation, is headquartered in Clinton Township, with global manufacturing, engineering, sales and service operations. The company designs, manufactures and supplies high-performance interconnect systems for a broad range of industrial applications. Its "Wind|Mate" product line specifically provides high-power connectors, rugged data cables and fiber optics that are designed to withstand a wind turbine's long outdoor lifespan.

Burke E. Porter — Grand Rapids: Burke E. Porter Machinery Company (BEP) was founded in 1953 in Grand Rapids, producing machinery for the woodworking industry. The company expanded all over the world, with facilities in South America and Asia, but its headquarters and largest manufacturing facility are still located in Grand Rapids. The company is known primarily for its auto industry testing equipment, but representatives say that the company's blend of expertise in machine manufacturing, software and product testing made it easy to cross over from automotive testing to wind turbine and gear box testing in 2004. BEP's main wind power product is a turbine and gear box "dynamometer" — an instrument that measures the power output of an engine.

CMS North America, Inc. — Caledonia: CMS provides computer-controlled machining for wind turbine components. CMS manufactures molds and models used for the production of components made in composite materials — blades, hubs, nacelle covers and cones. CMS also provides products for space shuttles, military and civil aircraft, Formula 1 cars, road vehicles, and America's Cup yachts.
**Dokka Fasteners — Auburn Hills:** This 100-year-old, Norway- and Denmark-based company has been supplying the wind power industry for more than 30 years. Dokka products used by the wind industry include a variety of bolts, fasteners and rods, which are used throughout the entire wind turbine, including bases, towers, blades, gear cases and generators. The Auburn Hills facility hosts "state-of-the-art hot forming fastener manufacturing," which produces high-quality bolts, studs and rods.

**Mackinaw Power — Marquette:** Mackinaw Power founder Rich Vander Veen has been described as "the godfather of Michigan wind power" and is the developer behind both the state's first commercial wind farm (2 turbines in Mackinac City) and the state's largest commercial wind farm (133 turbines in Gratiot County). The company was founded in 2003 and currently works on various wind projects throughout Michigan and the Upper Midwest. Mackinaw Power prides itself on working closely with community members through public meetings, individual meetings, tours and educational programs and has received several national awards for community engagement. Its philosophy is to achieve "triple bottom line" benefits related to social, ecological and financial capital.

**Ventower Industries — Monroe:** Ventower is a full-service supplier of wind turbine towers for both utility- and distributed-scale manufacturers. Ventower operates a 115,000-square-foot facility in Monroe, with direct dock access to Lake Erie. In 2013, Ventower doubled its workforce due to high demand for its product. The extension of the federal wind power production tax credit (PTC) and demand from regional Renewable Portfolio Standards meant that 2014 was an equally strong year for the company. With turbine OEMs developing new technologies that allow higher hubs and taller towers, many wind sites in the Great Lakes region are more economically competitive. Many of Ventower’s towers go to projects in Michigan, Indiana and Ohio.

**Windemuller — Traverse City:** Windemuller was established in 1954 as an electrical contractor, but has since expanded to provide technical design services for the wind and solar industries. The company takes commercial- and utility-scale wind and solar projects from their initial conception through construction, and into operation; it even provides maintenance services for wind farms over time. The company began in the renewable energy industry in 2000 and has since been involved in building wind farms up to 100 MW and solar arrays up to 5 MW. Windemuller has seven office locations in Michigan, including its headquarters in Grand Rapids, but most of its renewable energy work is done out of the Traverse City location.
Wind Industry Supply Chain Companies in Michigan

At least 132 companies in Michigan engage in the wind industry. Please see the following company listings (alphabetical by city) and city-specific maps.

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Ada........................ Primrose Alloys...................... 1
Alma........................ Merrill Fabricators.............. 2
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Ann Arbor........ Preissner Engineering & Consulting... 5
Ann Arbor........ SUR Energy................................. 6
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Auburn Hills........ Dokka Fastners Inc................ 8
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Berrien Center....... Turtle Island Wind and Solar..... 13
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Brighton............... Nikon Metrology............... 17
Burton............... Adaptive Manufacturing Solutions... 18
Byron Center ....... Fabory.................................. 19
Byron Center ........ Great Lakes Heavy Haul............ 20
Caledonia........ CMS North America.................. 21
Caledonia........ Non-Destructive Testing Group...... 22
Cassopolis........ K&M Machine-Fabricating.......... 23
Clinton Township ... Amphenol Industrial............. 24
Commerce .......... Michigan Solar Solutions.......... 25
Commerce .......... packIQ...................................... 26
Commerce .......... Three M Tool......................... 27
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Detroit .................... Walker Miller Energy Services .... 33
Eaton Rapids ............. Axson North America .......... 34
Eaton Rapids ............. Dowding Industries .............. 35
Eaton Rapids ............. RLS Energy ....................... 36
Erie ......................... Heidtman Steel Products ..... 37
Erie ......................... Ort Tool and Die Corporation 38
Farmington Hills ...... Akebono Corporation .......... 39
Farmington Hills ...... EMAG .................................. 40
Farmington Hills ...... Mahle Industries ................... 41
Farmington Hills ...... NTN Bearings ..................... 42
Fenton ....................... Atlas Technologies .......... 43
Fenton ....................... Creative Foam Corporation .... 44
Frankenmuth .......... Seeger-Orbis ......................... 45
Grand Ledge ............. ETM Enterprises .................. 46
Grand Rapids .......... Betz Industries .................... 47
Grand Rapids .......... Burke E. Porter ..................... 48
Grand Rapids .......... Carter Products Company ....... 49
Grand Rapids .......... Cascade Engineering .............. 50
Grand Rapids .......... Cascade Renewable Energy ...... 51
Grand Rapids .......... Eaton Corporation .................. 52
Grand Rapids .......... Lach Diamond ...................... 53
Grand Rapids .......... Proos Manufacturing .............. 54
Grand Rapids .......... Robinson Cartage .................. 55
Grandville ............... Harlo Products Corporation .. 56
Harbor Springs .......... Lake Effect Energy Corporation 57
Hastings .................. Basic Solar and Renewables .... 58
Hastings .................. Solar Wind Energy ............... 59
Holland .................... Genzink Steel .................... 60
Jackson .................... Alro Steel Corporation ........ 61
Jackson .................... Harvest Energy .................... 62
Jackson .................... Miller Tool & Die Company ... 63
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Lansing .................. TG Renewable Technologies ...... 69
Lapeer ..................... Lapeer Industries ................. 70
Livonia ..................... American Ring & Tool Co ....... 71
Livonia ..................... Aristeo ................................. 72
Livonia ..................... Ideal Fabricators ................. 73
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Manistee .................. Dr. Shrink ......................... 77
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Midland ................... Dow Chemical ..................... 80
Midland ................... Dow Corning Corporation ...... 81
Monroe .................... Best Electrical/Ind. Energy ...... 82
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Muskegon ................ Kaydon Bearing Division ........ 86
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Negaunee ............... U. P. Fabricating Company, Inc. 88
Novi ....................... Citation Corporation .............. 89
Novi ....................... Desoutter Tools - North America 90
Novi ....................... IMC DataWorks ................. 91
Oak Park .................. Barton Malow Yard .............. 92
Orion ...................... Sensor Developments .......... 93
Ottawa Lake .......... Dynamic Testing & Equipment .... 94
Plymouth ............... Durr Systems ..................... 95
Plymouth ............... Great Lakes Gear Technologies .... 96
Plymouth ............... Honeywell International ......... 97
Wind Industry Supply Chain
Companies in Michigan

Grand Rapids
CITY .................... COMPANY .......................MAP 

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Plymouth ..................... Techman Sales........................... 99
Pontiac ..................... Lee Wind Energy ......................... 100
Powers ..................... U. P. Machine & Engineering......... 101
Rapid River .................. Creative Composites............... 102
Rochester Hills .......... ADCO Circuits .......................... 103
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Troy ........................ EOS Technologies ...................... 120
Troy ..................... Etxe-Tar USA Corporation ........... 121
Troy ........................ LMS North America ............... 122
Wallace ..................... Custom Truck & Equipment Inc... 123
Warren ..................... Alt. Energy Solutions Integrated .. 124
Warren ..................... Hotz Development ..................... 125
Warren ..................... Industrial Control Repair .......... 126
Waterford ................ Oak Electric ............................... 127
Waterford ................ Wieland Electric ......................... 128
Whitmore Lake ........ Phoenix Environmental .............. 129
Willis ..................... National Pole and Structure ........ 130
Wyandotte ................ BASF Corporation .................... 131
Zeeland ..................... Wolverine Power Systems ....... 132
ELPC identified 187 companies that currently supply the solar energy industry — or have in the past and could again if state policies supported additional industry growth. Michigan is home to a diverse solar industry, with sealant manufacturers and robotics suppliers, as well as the world’s largest manufacturer of polycrystalline silicon. Following these representative business profiles is a company listing with maps.

**GreenLancer — Detroit:** Green Lancer’s mission is to accelerate the solar industry by helping installers reduce soft costs, which it says represent over 60% of overall solar system costs. The company achieves this by offering an online platform with “plug-n-play” feasibility studies, concept designs, permit drawings, and permitting services. Its standardized templates and workflows have been vetted through a network of freelancers — or “greenlancers” — specializing in green design and engineering.

**The Green Panel — Brighton:** Green Panel is a Michigan-based solar energy company providing engineering, furnishing and installation of PV and solar thermal systems. The company has 20 employees and is one of the largest solar suppliers in Michigan, with close to 1 megawatt of installed capacity. One example of The Green Panel’s work: a 216-panel solar array at Western Michigan University. “Solar development in Michigan does create jobs and has done so for us. Solar is home-grown Michigan energy. If we can locally source the billions of dollars in energy Michigan currently imports, more Michigan jobs can be created. With an aggressive renewable energy plan, we could expand renewable generation and employ more Michiganders in this industry,” commented Mark Cryderman, Director of Education and Business Development for The Green Panel.

**Hemlock Semiconductor Group — Hemlock:** Hemlock sells solar-grade polycrystalline silicon, which is a critical raw material for the photovoltaic industry. Hemlock’s corporate headquarters and manufacturing facility are in Hemlock, and the company employs more than 1,000 direct and contract employees globally. The company is comprised of several joint venture companies owned in majority by Dow Corning.
K-Space Associates — Dexter: K-Space manufactures metrology tools for the photovoltaic industry. These tools are used for monitoring important properties — temperature, thickness, stress, curvature, reflectivity, surface roughness — of PV advanced thin film technology. The tools focus on real-time data acquisition, processing and analysis, regardless of the property being measured. K-Space’s world headquarters are located in Dexter, with additional offices in Europe, Japan, Korea, China and India.

Michigan Solar Solutions — Commerce: This company bills itself as “A Michigan solar company installing Michigan-made products using Michigan labor.” Michigan Solar Solutions is a turnkey solar installer that also provides free monitoring of each of their installations’ solar energy production after launch. The company works with residential, commercial and municipal systems all over the state.

Patriot Solar Group — Albion: Patriot Solar Group manufactures and installs mounting systems for solar panels. Its product include both “fixed” (stationary) and “tracking” (moves with the sun) mounts, as well as off-grid systems for mobile energy supply. The company has installed solar projects throughout the country, but calls itself “a proud Michigan company” and has installed solar projects at well-known state institutions, including Western Michigan University and Dark Horse Brewery.

Rauhorn Electric Inc. — Macomb: This family-owned and -operated electrical contracting firm was incorporated in 1980 and has extensive experience in traffic signals and street lighting. More recently, the company began working in a variety of renewable energy sectors, including solar, wind and hybrid charging stations. Its Macomb facility includes a 34,000-square-foot office and shop area, with 10 acres of outdoor staging and storage.

RoMan Manufacturing — Grand Rapids: RoMan Manufacturing is part of a family of companies based in Michigan and Ontario that provide technologies and services for the welding, glass, furnace, heating, plating and solar industries. The company primarily manufactures water-cooled, high-current, low-voltage power sources. Some of RoMan’s solar-related work includes growing crystals used to manufacture solar photovoltaic cells and LEDs; heating the vacuum furnaces for manufacturing the actual photovoltaic cells; and manufacturing the cover glass for solar panels and cells. RoMan also manufactures high-current switch gear, which the company markets to the alternative energy industry.

Seelye Equipment Specialists (SES) — Charlevoix: Seelye is the manufacturer of Flexcharge high-efficiency alternative energy system controllers. It has been in business since 1967 and has designed and manufactured Flexcharge products since about 1990. The company manages its own wholesale distribution to dealers in a worldwide market. Flexcharge controllers are designed to be exceptionally efficient and durable, controlling and helping protect alternative energy systems’ battery banks and loads using PV arrays or permanent magnet type charging sources. Flexcharge systems are used for solar arrays and wind systems in Antarctica, street lighting in Iraq and seismic monitoring sites all over North America. SES is active in the commercial, industrial and research markets, as well as marine and residential systems.

The Solar Specialist — Canton: The Solar Specialist is the new business name adopted by the 30-year-old Mechanical Energy Systems, a 30-year-old company “on a mission to bring renewable energy to homeowners, businesses and the general public.” The Solar Specialist designs, installs and services solar electric (PV) systems for homes and businesses, as well as solar-powered heating systems for buildings, water and pools. The company works in southern Michigan, from Grand Rapids to Detroit, as well as in Ohio, Indiana and Illinois.
Solar Industry Supply Chain
Companies in Michigan

At least 187 companies in Michigan engage in the solar energy industry. Please see the following company listings (alphabetical by city) and city-specific maps.
CITY  COMPANY  MAP #

Adrian  Wacker Chemical Corporation  1
Albion  Patriot Solar Group  2
Ann Arbor  Archiopolis Architects  3
Ann Arbor  Atwell  4
Ann Arbor  BioGreen Technologies  5
Ann Arbor  Green Hedge  6
Ann Arbor  IPR Sohner Plastic  7
Ann Arbor  Jac-Rack  8
Ann Arbor  LNA Solutions  9
Ann Arbor  Renovo Power Systems  10
Ann Arbor  SUR Energy  11
Auburn Hills  ABB Inc.  12
Auburn Hills  Fata Automation  13
Auburn Hills  Guardian Industries Corp  14
Auburn Hills  Legend Hydronics  15
Auburn Hills  Syncreon  16
Bay City  Great Lakes Bay Renewable Energy  17
Bay City  Mersen USA BN Corporation  18
Bay Port  B’s Electric  19
Belding  Stahlin Non-Metallic Enclosures  20
Beulah  J.D. Stratton Electric  21
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Some Michigan companies are applying their expertise across multiple renewable energy technologies. ELPC identified 31 companies that supply both the wind power and solar energy industries.

**ABB Inc. — Auburn Hills:** ABB provides a range of products along the value chain for both wind and solar. Relevant products include solar inverters, wind convertors, low-voltage products, monitoring and control systems, grid connection, stabilization and integration products, and electrical balance of plant solutions. ABB also offers a wide range of support and maintenance services, including remote operations and diagnostics. The company’s main training center is located in its 15,000-square-foot Auburn Hills facility, where ABB Robotics offers more than 50 courses in programming, electrical troubleshooting, mechanical/preventive maintenance, software and processes such as welding and laser cutting.

**Dovetail Solar & Wind — Brighton:** Dovetail has five locations in Ohio and an office in Brighton, MI, to support its clients. The company has more than 20 years of experience designing and installing both solar and wind energy systems for homes, businesses and farms. Dovetail has completed more than 385 system installations across the region, resulting in more than 14.6 MW of solar and wind power.

**Dow Corning — Midland:** Dow Corning has six operational sites in Michigan and 12,000 employees worldwide. Dow Corning focuses on silicon atom technology and manufactures silicone solar panel...
materials and other applications. Its solar encapsulant is used to make solar cells more efficient and durable. Dow Corning silicone technology is also used on the back end of solar electronic components and as sealants. Dow Corning is investing hundreds of millions of dollars in Michigan to expand into manufacturing monosilanes, a key raw material for thin-film solar applications. The company is a wind supplier as well, providing sealants, lubricants, R&D and materials to make turbines more durable and effective. Dow Corning also produces many products for increasing energy-efficiency in new and retrofitted buildings.

**Event Horizon Solar & Wind — Middleville:**
Event Horizon sells solar panels, wind turbines, inverters, batteries and other related products. The company has designed and installed clean energy systems for homes and businesses throughout the Midwest for 15 years.

**Kaydon — Muskegon:** Kaydon is the leading supplier of wind turbine bearings in North America and has been supplying slewing ring bearings to the renewable energy market for more than 20 years. The company’s four- and eight-point bearings allow turbine blades ranging from 200 kW up to 5 MW to be indexed or positioned to optimize blade angle, depending on wind speed. Kaydon also supplies bearing solutions for solar panel gear boxes and altitude-azimuth mountings, which are used for commercial and industrial building installations, large ground-mounted solar systems and electrical utility projects.
Energy Storage Industry Supply Chain Companies in Michigan

As renewable energy costs come down and installations accelerate, the demand for inexpensive energy storage increases. Michigan, with its high-tech workforce and renewable energy manufacturing supply chain, is emerging as a place for battery manufacturing to call home. ELPC identified 19 companies involved in the manufacture and design of batteries and energy storage systems.

**Energy Power Systems – Troy:** Energy Power Systems is a battery manufacturer founded in 2011. EPS provides energy storage solutions both at the grid level and for the automotive industry. In its early age, EPS is still pre-revenue and mainly produces prototypes. The company employs 65 people in Michigan.

**LG Chem Power, Inc – Troy:** Founded in 2000, LG Chem Power, Inc produces batteries for electric vehicles and for renewable energy storage. The company’s headquarters in Troy has approximately 130 employees, with close to 300 additional employees at a manufacturing location in Holland. LG Chem Power, Inc’s past projects include the manufacturing of 32 MWh of battery storage for a wind farm in Tehachapi, CA, and 9 MWh of battery storage for a wind farm in DeKalb, IL.

**Navitas Systems – Ann Arbor:** Navitas Systems develops, manufactures, tests, assembles and sells advanced, large-format battery systems for industrial customers. In the renewable energy sector, its batteries provide a “shelf life” to the intermittent wind and solar energy streams. These batteries can be used on commercial solar, foldable solar for off-grid power and distributed frequency regulation.

**Sakti3 — Ann Arbor:** Sakti is a spinout of the University of Michigan, where its founding team created laboratories, published more than 100 papers on batteries, and demonstrated its first early prototypes. The company is developing a solid-state battery technology that has the potential to, among other things, significantly bring down the cost of electric cars. The batteries are being developed with scalability in mind — low-cost materials used on simple machinery — for all kinds of applications. The company’s website touts its exposure in the Wall Street Journal, Fortune, Scientific American, Time, New York Times, Washington Post, NPR and other media.
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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 dealmaking 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 and public policy analysis, and communications advocacy tools to produce successes. ELPC’s strategic advocacy and business dealmaking 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 and has achieved a strong track record of successes on national and regional clean energy development and pollution reduction, transportation and land use reform, including high-speed rail development, and natural resources protection issues. ELPC’s creative public advocacy effectively links environmental progress and economic development together and improves the quality of life in our Midwestern communities.