

Michigan Clean Energy & Transportation Jobs Are Growing

Michigan's clean energy and clean transportation jobs grew nearly 5 percent in 2022 and the industry is poised for continued growth thanks to federal climate investments passed last year.

QUICK FACTS

123,983

Clean energy jobs

+14.4%

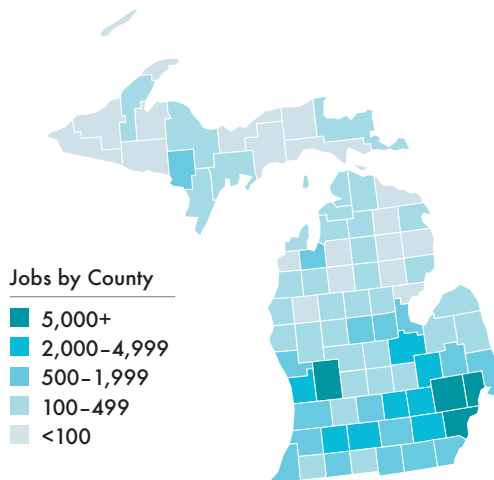
Growth of jobs in the clean transportation sector, the state's fastest-growing sector in 2022

+4.6%

Growth in clean energy jobs in 2022

Michigan leads the Midwest state in clean energy jobs with nearly 124,000 Michiganders employed by clean energy companies at the end of 2022. The industry grew by nearly 5 percent over the past year, adding more than 5,000 jobs. Clean energy is a significant part of Michigan's economy, with more than 6 times as many Michiganders working in clean energy than the number of lawyers, web developers, and real estate agents combined. In 2022, clean energy jobs grew almost twice as fast as the overall economy, and this growth is expected to continue as federal clean energy and vehicle incentives lead to new clean energy projects, a resurgence of domestic manufacturing, and lower upfront costs for homeowners to make energy efficiency improvements.

Clean Energy Jobs* in Michigan



*Visualization based on 2021 data

The biggest sector in Michigan's clean energy industry is energy efficiency, comprising over 60 percent of the state's clean energy workforce. The 75,085 energy efficiency workers in Michigan manufacture ENERGY STAR-rated appliances, install efficient lighting, ventilation, and air conditioning (HVAC) systems, and install advanced building materials in homes and commercial buildings.

As more automakers and their suppliers continued to shift to electric vehicles, the clean transportation sector saw an increase in employment of over 14 percent in Michigan. The sector added over 4,000 new jobs for a total of 32,271 workers. Electric vehicle-related jobs accounted for most of the sector's growth.

Renewable energy jobs in solar (7% growth) and wind (2% growth) continue to see gains throughout the state while smaller, emerging subsectors like battery storage technologies (6% growth) and grid modernization (14% growth) are also continuing to grow.

Clean energy jobs are found in every corner of the state. While big cities like Detroit (66,586), Grand Rapids (14,590), and Lansing (4,306) are the largest hubs for clean energy jobs, nearly 16,000 jobs are in rural areas.

75.3%

Small businesses drive Michigan's clean energy sector — in 2022, 75.3 percent of the state's clean energy businesses employed fewer than 20 individuals

10.6%

More than 10 percent of Michigan's clean energy workers were veterans in 2022

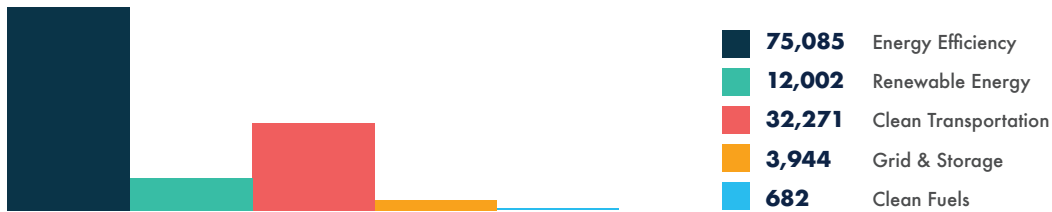


POLICIES MATTER

While recent federal policies, including investments and tax credits for energy efficiency upgrades, EV and solar purchases and new clean energy projects create strong tailwinds, there is still more to do. To meet the nation’s climate goals of reducing climate emissions by 50 percent by 2030, improve equity in the clean energy economy and grow clean energy jobs, lawmakers and policymakers should:

- **Defend against attempts to roll back federal clean energy and vehicle investments:** Just one year after the passage of the Inflation Reduction Act, companies are investing over \$86 billion in large scale clean energy projects that will lead to the creation of over 74,000 jobs, thanks to the federal investments and incentives in the new law. Of the 210 projects announced, almost a quarter are in Midwestern states. Attempts to rollback provisions of the federal clean energy incentives threaten future clean energy job growth and economic opportunity.
- **Develop and fund federal and state workforce development programs.** One of the largest barriers to clean energy job growth is the challenge to fill open positions. Workforce training will be critical to the continued growth of the industry, as over 88 percent of employers in Michigan report at least some difficulty hiring workers.
- **Expand transmission to increase access for clean energy projects.** Federal and state governments must work with the Midwest regional transmission organizations to build more transmission. Without more transmission, many wind and solar projects will not be built.
- **Advance state-level clean energy policies.** Michigan must enact state policies to implement the MI Healthy Climate Plan, leverage federal investment, and help create thousands of new clean energy jobs. This includes generating 60 percent of the state’s electricity from renewable resources, adopting a statewide energy storage target, and enabling greater adoption of distributed generation like rooftop solar and community solar. Also, reducing home and business heating emissions by 17 percent and building infrastructure to support 2 million electric vehicles on Michigan roads by 2030.

JOBS BY SECTOR

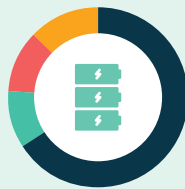


2022 SUBSECTOR DETAILS



Energy Efficiency

- 13,955 Energy STAR & Efficient Lighting
- 3,059 Traditional HVAC
- 6,190 High Efficiency HVAC & Renewable H&C
- 40,047 Advanced Materials
- 11,833 Other



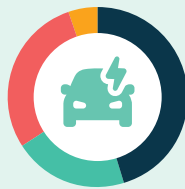
Grid & Storage

- 2,599 Clean Storage
- 412 Smart Grid
- 437 Micro Grid
- 497 Other Grid Modernization



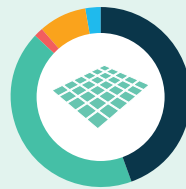
Clean Fuels

- 151 Other Ethanol/Non-Woody Biomass
- 531 Other Biofuels



Clean Transportation

- 14,625 Hybrid Electric Vehicles
- 6,704 Plug-In Hybrid Vehicles
- 9,253 Electric Vehicles
- 1,688 Hydrogen and Fuel-Cell Vehicles



Renewable Energy Generation

- 5,345 Solar
- 5,113 Wind
- 199 Geothermal
- 1,040 Bioenergy/CHP
- 306 Low-Impact Hydroelectric

Unless otherwise stated, the data and analyses presented in this report by Evergreen Climate Innovations and Environmental Entrepreneurs (E2) are based on data collected for the 2023 U.S. Energy Employment Report (2023 USEER), produced by the United States Department of Energy (DOE) and collected and analyzed by BW Research Partnership (BWRP).