

## A Return to Rapid Growth, with Clean Vehicle Jobs Driving Ahead

Midwest clean energy and clean transportation jobs grew by over 5 percent in 2021, with electric vehicle manufacturing jobs leading the way

### Quick Facts

**110,272**

Clean energy jobs

**+25%**

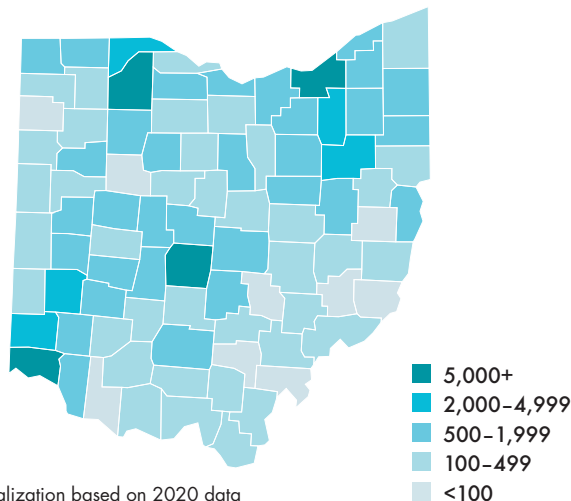
Growth of jobs in the clean transportation sector, the region's fastest-growing sector in 2021

**6.6%**

Growth in clean energy jobs in 2021

Clean energy companies employed more than 110,000 Ohioans at the end of 2021, almost a 7 percent increase from 2020 and a return to growth after an unprecedented decline in 2020. Approximately 62 percent of the clean energy jobs lost during the COVID-19 economic downturn were regained. In 2021, clean energy jobs grew over 2 times faster than the overall economy. More Ohioans worked in clean energy than the number of lawyers, accountants and auditors, web developers, and real estate agents in the state combined.

### Clean Energy Jobs\* in Ohio



\*Visualization based on 2020 data

The biggest sector of the Ohio clean energy industry is energy efficiency, over 68 percent of the state's clean energy workforce. The 74,966 energy efficiency workers in Ohio 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 continue to shift to electric vehicles, the advanced transportation sector saw an increase of 25 percent in Ohio. The sector added 4,093 new jobs for a total of 20,762 workers. Hybrid, plug-in hybrid, and electric-vehicle sector jobs accounted for most of the sector's growth.

Solar energy jobs, another highlight in Ohio, grew by 5.8 percent to 8,091 workers.

Across all clean energy sectors, the majority of clean energy jobs in Ohio were in construction and manufacturing.

**63%**

Small businesses drive Ohio's clean energy sector — in 2021, 63 percent of the state's clean energy businesses employed fewer than 20 individuals

**11%**

Approximately 11 percent of Ohio's clean energy workers were veterans



## Policies Matter

Recent federal policies like the Inflation Reduction Act (IRA), the Infrastructure Investment and Jobs Act (IIJA), and the CHIPS and Science Act make unprecedented investments in the clean energy economy and create promise for strong future growth in clean energy jobs. The CHIPS Act has already helped bring Intel's semiconductor chip manufacturing facility to Ohio – a project that will bring clean energy jobs along with massive economic development, as Intel has a goal of net-zero greenhouse gas emissions in its global operations by 2040.

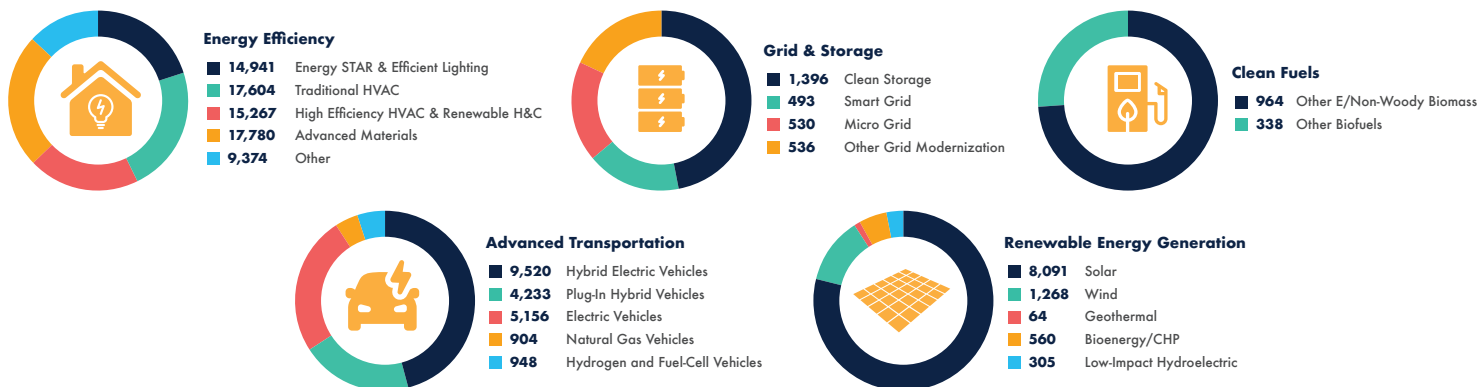
Still, there is more to do to meet the nation's climate goals of reducing climate emissions by 50 percent by 2030, improving equity in the clean energy economy, and growing clean energy jobs:

- **Implement recently passed federal policies to support a rapid and just transition to clean energy.** The IRA, IIJA, and the CHIPS and Science Act include a combined investment of hundreds of billions of dollars in the clean energy economy. Coordination across federal, state, and local agencies will be integral to maximize the effectiveness of this historic level of funding.
- **Develop and fund federal and state workforce development programs.** Workforce training will be critical to the continued growth of the industry, as over 84 percent of employers in the state report at least some difficulty hiring workers.
- **Expand our regional transmission grid and increase ease of access for clean energy projects.** The Midcontinent Independent System Operator (MISO)'s recent announcement of new transmission infrastructure will improve the region's congested grid. More is needed from MISO and the Midwest's other regional transmission organizations, PJM and the Southwest Power Pool, as many wind and solar projects will not be built if the transmission is not there to integrate them.
- **Advance state-level clean energy policies.** It will be important for Ohio to enact state policies like the Energy Jobs and Justice Act that support renewable energy, energy efficiency and electric vehicles to leverage federal investment and help create thousands of new jobs.

## Jobs by Sector



## 2021 Subsector Details



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 2021 U.S. Energy Employment Report (2021 USEER), produced by the United States Department of Energy (DOE) and collected and analyzed by BW Research Partnership (BWRP).