

Executive Summary






Clean Energy Employees over 100,000 in Ohio.

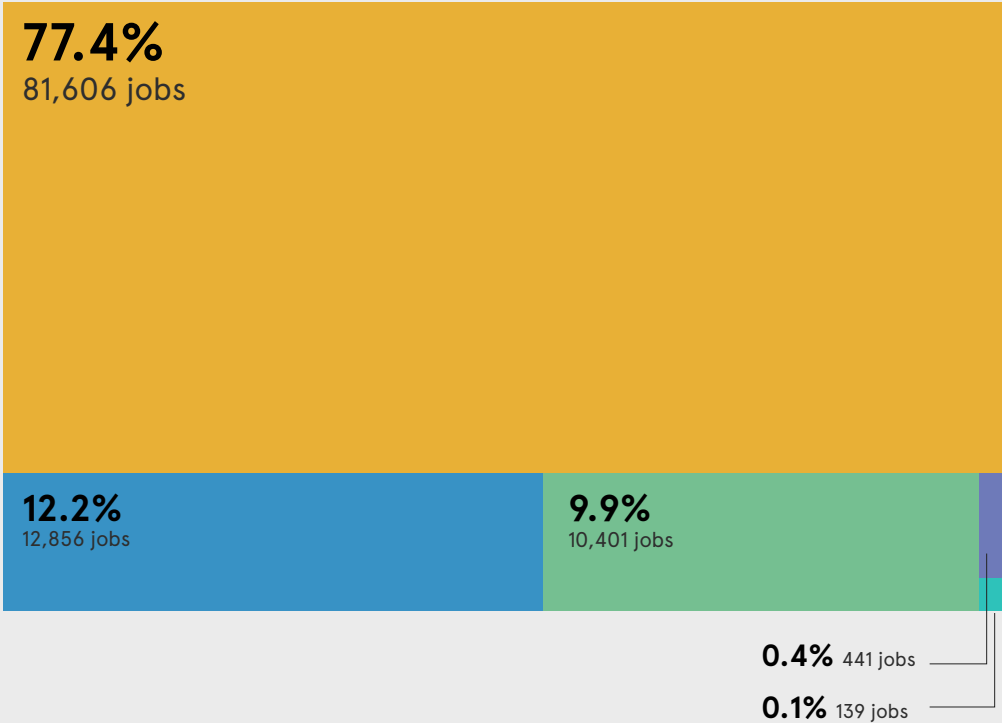
Ohio is home to the second-largest number clean energy jobs in the region with 105,443. While those jobs were not growing as fast as the rest of the region, clean energy jobs in Ohio grew six times faster than other jobs in the state between 2015 and 2016.¹ Along with the rest of the region, Ohio saw strong job gains in the renewable energy generation sector, growing at nearly 14%. A strong energy efficiency sector is leading the Buckeye State’s clean energy industry, accounting for more than 3 in 4 clean energy jobs. The clean energy sector in Ohio continues to be a significant contributor to the state’s economy, particularly in manufacturing.

¹ Overall employment data comes from the [Bureau of Labor Statistics’](#) annual average of employment by state.

Sector Breakdown

Fig. 1: Clean Energy Technology Sectors, 2016

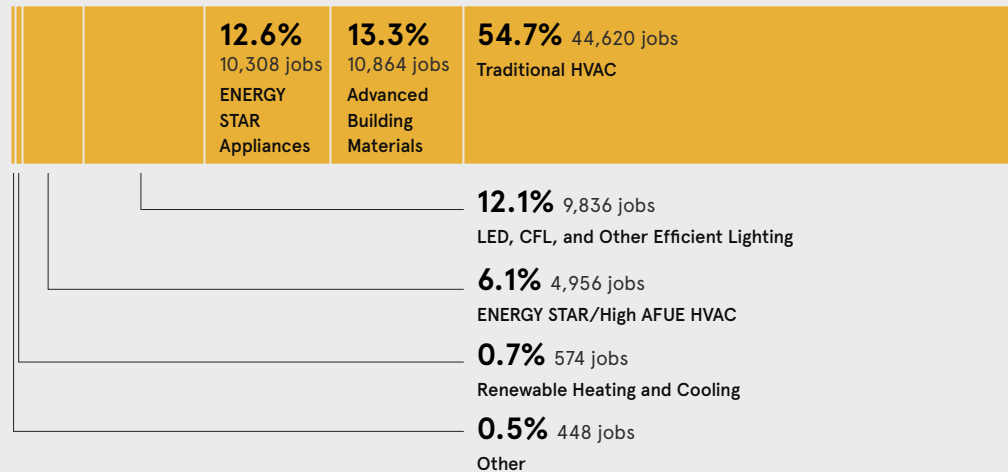
-  Energy Efficiency
-  Advanced Transportation
-  Renewable Energy
-  Clean Fuels
-  Advanced Grid



Energy efficiency is the largest clean energy job sector in Ohio with 81,606 workers. The heating, ventilation, and air conditioning (HVAC) industry makes up the largest portion of energy efficiency jobs followed closely by advanced building materials and efficient lighting. These energy efficiency jobs include hardware and software implementers, contractors who can diagnose, adjust and verify the efficiency of HVAC systems, and system technicians. The growth in clean energy jobs in traditional sectors such as HVAC illustrates a transition to embrace the clean energy economy.

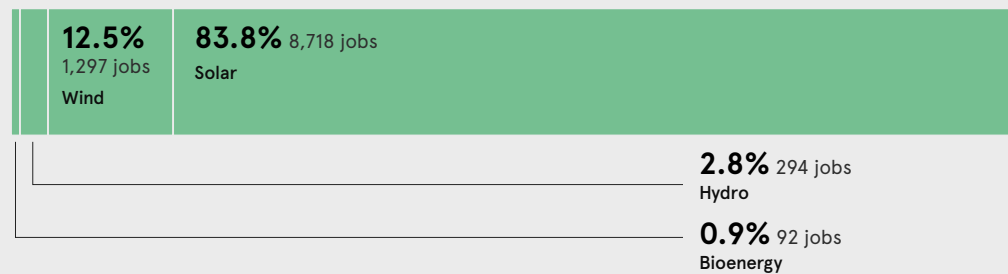
Renewable energy generation is the second largest clean energy jobs sector in Ohio, employing

Fig. 2:
Energy Efficiency
Subsectors, 2016



10,401 people. Ohio leads the Midwest in solar jobs with 8,718 jobs, primarily driven by manufacturing. However, Ohio ranked 8th in the 12 state region with 1,138 wind energy jobs. Renewable energy generation is the fastest growing clean energy sector in the Midwest and Ohio is no exception. Renewable energy generation jobs overall—including solar, wind, geothermal, bioenergy, and low-impact hydropower—grew by nearly 14% in Ohio.

Fig. 3:
Renewable Energy
Subsectors, 2016

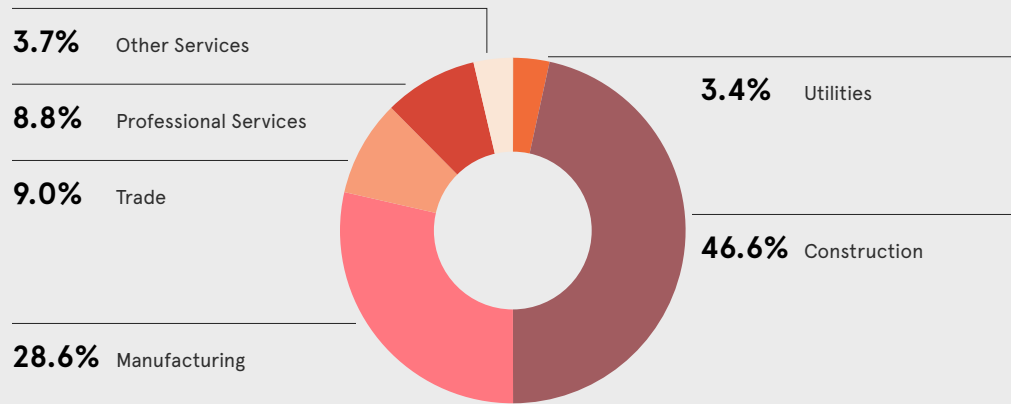


Beyond energy efficiency and renewable energy generation, 12,856 work in advanced transportation, 441 in the clean fuels space, and 139 people work in the advanced grid sector.

Value Chain

Clean energy jobs can also be described by what role they play in the larger economic value chain. This report divides these clean energy jobs into agriculture, utility, construction, manufacturing, trade, professional service and other service jobs. The divisions in the value chain described here include jobs from multiple technology sectors. For example, construction jobs can include some jobs in the energy efficiency sector as well as jobs in the renewable energy sector and every other technology sector.

Fig. 4: Clean Energy Jobs Value Chain, 2016



Ohio manufacturers play an important role in the clean energy economy, employing local Ohioans and producing energy efficiency and other products for the entire country. Manufacturing jobs make up nearly 30% of the clean energy value chain in the state, employing 30,157 people—the second largest number of clean energy manufacturing jobs in the Midwest.

Previous surveys have shown that small businesses drive the clean energy sector with more than 75% of businesses employing fewer than 25 individuals.²

² 2016 Clean Jobs Midwest

Fig. 5: Top 3 MSAs in Clean Energy Employment, 2016 (job numbers rounded to nearest hundred)

MSA job numbers only include jobs within this state

Metro Area (MSA)	Total Clean Energy Employment	Renewable Energy Employment	Energy Efficiency Employment
Cleveland-Elyria-Mentor, OH MSA	18,600	1,500	16,900
Cincinnati-Middletown, OH-KY-IN MSA	17,700	2,200	13,400
Columbus, OH MSA	10,300	1,000	9,000

Recap

The clean energy sector employs 105,443 people in Ohio and these jobs grew six times faster than overall job growth in the state. However, there is still room for improvement in the Buckeye state. Ohio’s clean energy job growth was the second slowest in the region and the American Council for an Energy-Efficient Economy energy efficiency scorecard ranks Ohio 29th out of 51—down 2 spots from 2015.³ A rising tide of clean energy adoption is positively benefiting Ohio, but challenges remain.

³ [2017 ACEEE State Scorecard](#)