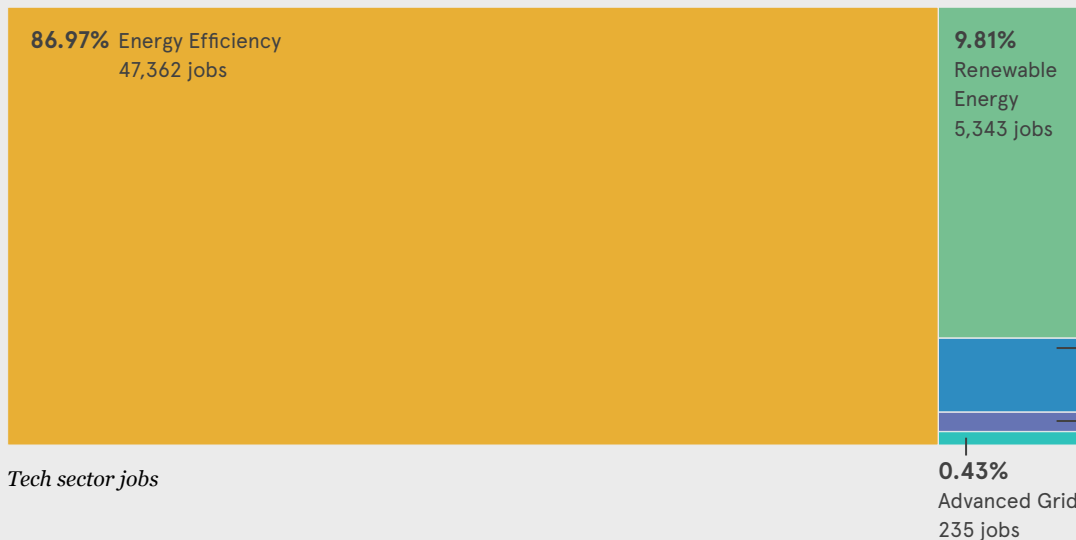


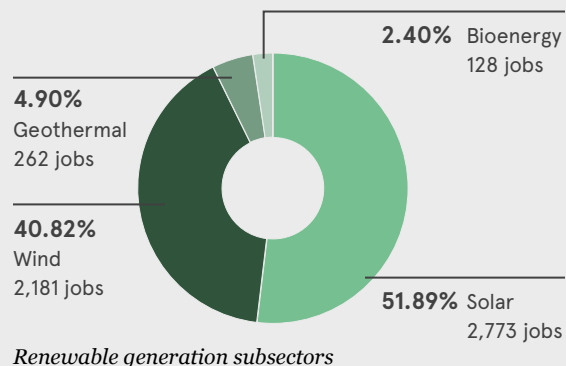
Minnesota *Story*

Minnesota's clean energy sector is substantial, with over 54,000 clean energy jobs located across the state. Further, jobs in the sector are projected to grow by 4.4% over the next 12 months. 87% of the workforce is involved in energy efficiency, and 77% of the value chain is in installation jobs. Small businesses drive the clean energy sector in Minnesota, with nearly 80% of businesses employing fewer than 25 individuals.



HVAC is the largest portion of energy efficiency jobs at over 25,000. These include hardware and software implementers, contractors who can diagnose, adjust and verify the efficiency of HVAC systems, and system technicians. The shift in traditional sectors such as HVAC illustrates a transition to embrace the clean energy economy as a business decision. Energy efficiency is an important part of the HVAC business and often requires special training, even if it does not occupy a majority of workers' time. 24% of energy efficiency workers spend at least 50% of their time conducting energy efficiency work. 21% of energy efficiency workers spend all of their time conducting energy efficiency work.

Renewable energy generation follows energy efficiency as the second largest clean energy job sector in Minnesota with 5,343 jobs. Renewable energy includes solar (51.9% of renewable generation jobs), wind (40.8%), geothermal (4.9%), and bioenergy (2.4%). 70% of renewable energy workers spend at least 50% of their time conducting renewable energy work, and 58% of renewable energy workers spend all of their time conducting renewable energy work. Minnesota has 2,773 solar jobs, of which 1,995 spend a majority of their time on solar.



MN *Quick Facts*

54,458 jobs

Minnesota has a large energy efficiency sector, with HVAC playing a strong role

4.4% projected growth

Further, policies are favorable to investment in clean energy jobs

MN	Installation & Maintenance	Manufacturing	Trade & Distribution	Engineering & Research	Professional	Other
Jobs	41,866	1,984	6,879	725	2,458	546
%	76.88%	3.64%	12.63	1.33%	4.51%	1.00%

Value chain

Currently, women make up 18.6% of the clean jobs workforce, and 39% of recent hires were women. Racial and ethnic minorities make up 26.3% of clean energy employees, and 9.5% of the workforce are veterans. This range and diversity is encouraging for a growing business sectors. Despite a diverse workforce, three quarters of employers surveyed report difficulty hiring. Factors include lack of experience, as well as training and education. This is a common theme across the Midwest's clean energy economy, with new technology and specialized roles increasing the demand for new skill sets.

MSA	Total CJ	RE	EE	Other
Minneapolis-St. Paul-Bloomington, MN-WI MSA	38,076	4,213	32,655	1,208
Duluth, MN-WI MSA	1,527	100	1,380	48

St. Cloud, MN MSA	1,180	77	1,066	37
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Top 3 MSAs in the region

Minnesotans are familiar with state and federal clean energy policies, with the majority of survey respondents indicating that they are aware of the federal renewable energy Investment Tax Credit (ITC) and consider it beneficial to business prospects. Minnesota has an active Renewable Portfolio Standard, set for 26.5% by 2025 for Investor-Owned Utilities and 25% by 2025 for other utilities. The state also has an Energy Efficiency Resource Standard (EERS), and is ranked 10th (out of 51) in ACEEE's Energy Efficiency Scorecard - tied with Illinois for the top state in the region. Minnesota's RPS and EERS have contributed to job growth in renewable generation and energy efficiency, helping to provide market certainty for these sectors to grow and become more established.

About the Survey

Clean Jobs Midwest is a survey of clean energy employment in 12 Midwestern states. The region currently employs 568,979 workers in sectors including renewable energy generation, clean transmission, energy efficiency, clean fuels, and advanced transportation.