

Executive Summary

Wisconsin is home to 26,382 clean energy jobs.

While the size of the clean energy sector is significant, Wisconsin has a lot of room to grow—the state has the smallest clean energy workforce in the region as a percentage of the state’s workforce. However, the clean energy sector grew by almost 7% between 2015 and 2016 – the third fastest in the region. Clean energy jobs also grew six times faster than overall job growth in the state.¹

¹ Overall employment data comes from the *Bureau of Labor Statistics’* annual average of employment by state.

Sector Breakdown

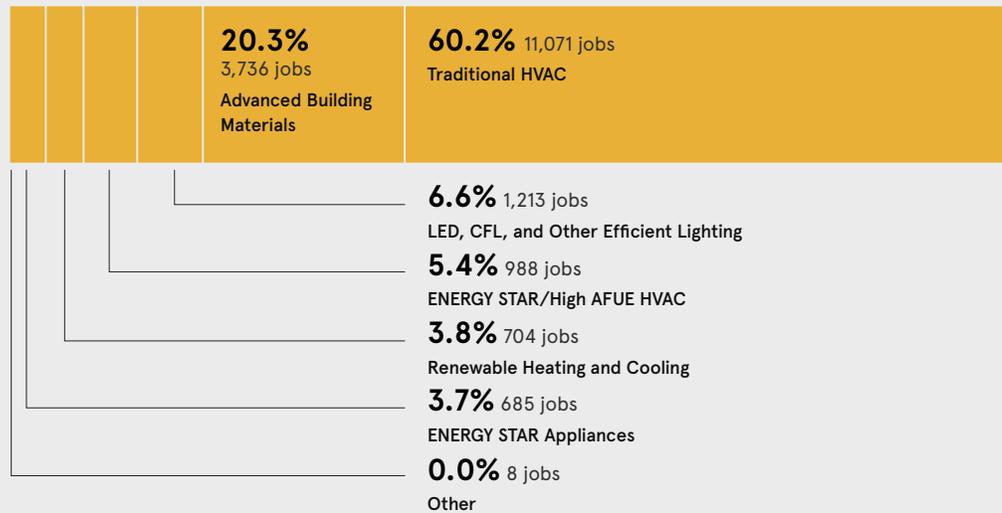
Fig. 1: Clean Energy Technology Sectors, 2016

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



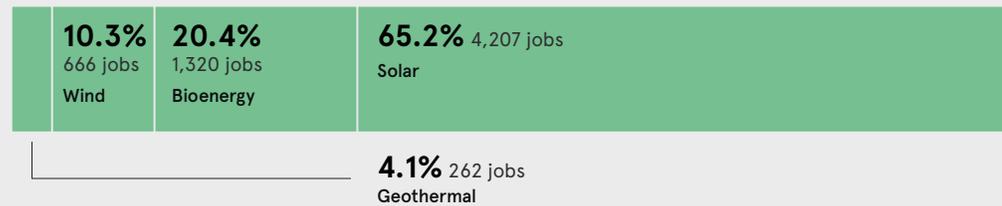
Energy efficiency makes up the largest share of the clean energy workforce in Wisconsin, employing nearly 7 in 10 clean energy workers. The energy efficiency sector expanded by 852 jobs in the state since last year; Wisconsin is now home to 18,404 energy efficiency jobs. These include hardware and software implementers, contractors who can diagnose, adjust and verify the efficiency of heating, ventilation, and air conditioning (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. The HVAC industry makes up the largest portion of energy efficiency jobs followed closely by advanced building materials and efficient lighting.

Fig. 2:
Energy Efficiency
Subsectors, 2016



Renewable energy jobs also play an important role in the state’s clean energy economy and are the fastest growing clean energy jobs sector in Wisconsin. Between 2015 and 2016, Wisconsin added 788 renewable energy generation jobs—growing by nearly 14%. This includes adding 82 wind jobs and 512 solar jobs. Renewable energy generation jobs include solar, wind, geothermal, bioenergy, and low-impact hydropower.

Fig. 3:
Renewable Energy
Subsectors, 2016

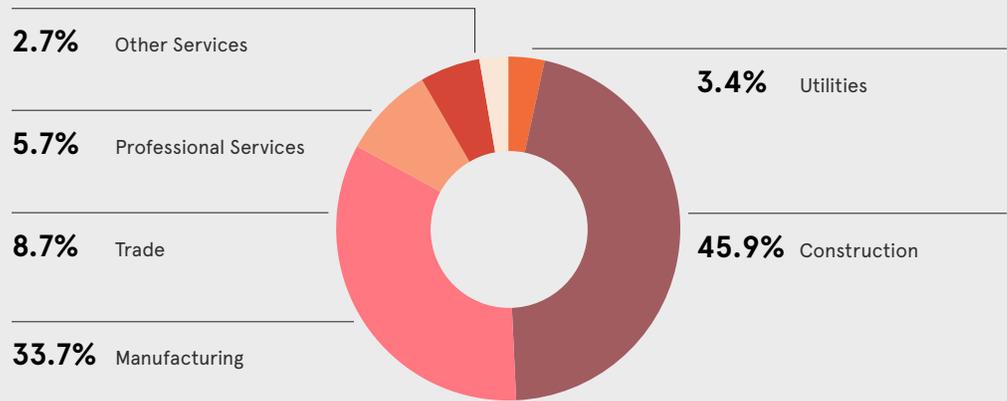


Wisconsin has one of the strongest bioenergy sectors in the region—this includes people who work with biodigesters processing agricultural waste. It is the largest relative to total clean energy workers, as 5% of all Wisconsin clean energy workers are employed in the bioenergy sector. Wisconsin is one of only two states in the region, along with Illinois, to have over 20% of its renewable energy generation jobs in the bioenergy 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



Construction jobs are the largest portion of clean energy jobs in Wisconsin, with 12,098 jobs. Manufacturing jobs are second with 8,885 jobs.

Small businesses drive the clean energy sector in Wisconsin. Previous surveys have shown that more than 70% of businesses working in clean energy employ fewer than 25 individuals.

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
Milwaukee-Waukesha-West Allis, WI MSA	7,000	1,600	5,300
Madison, WI MSA	3,100	700	2,300
Appleton, WI MSA	1,300	300	700

Recap

There are 26,382 clean energy jobs in Wisconsin encompassing everything from biodigesters to construction using advanced building materials. Clean energy jobs in Wisconsin grew more than 6 times faster than all other jobs, with renewable energy generation jobs growing the fastest. Looking towards the future, Wisconsin’s strong growth holds promise, but improving state policies can encourage further growth. The state recently ranked 22 by the American Council of an Energy-Efficient Economy on its State Energy Efficiency Scorecard.² Further, while the state has a renewable portfolio standard, the goals in that standard for renewable energy were met several years ago; so making the standard more robust would further encourage clean energy job creation in the state.

² [2017 ACEEE State Scorecard](#)

Clean energy jobs are a large and growing part of the economy impacting every part of the value chain from agriculture to construction and manufacturing to professional services.