

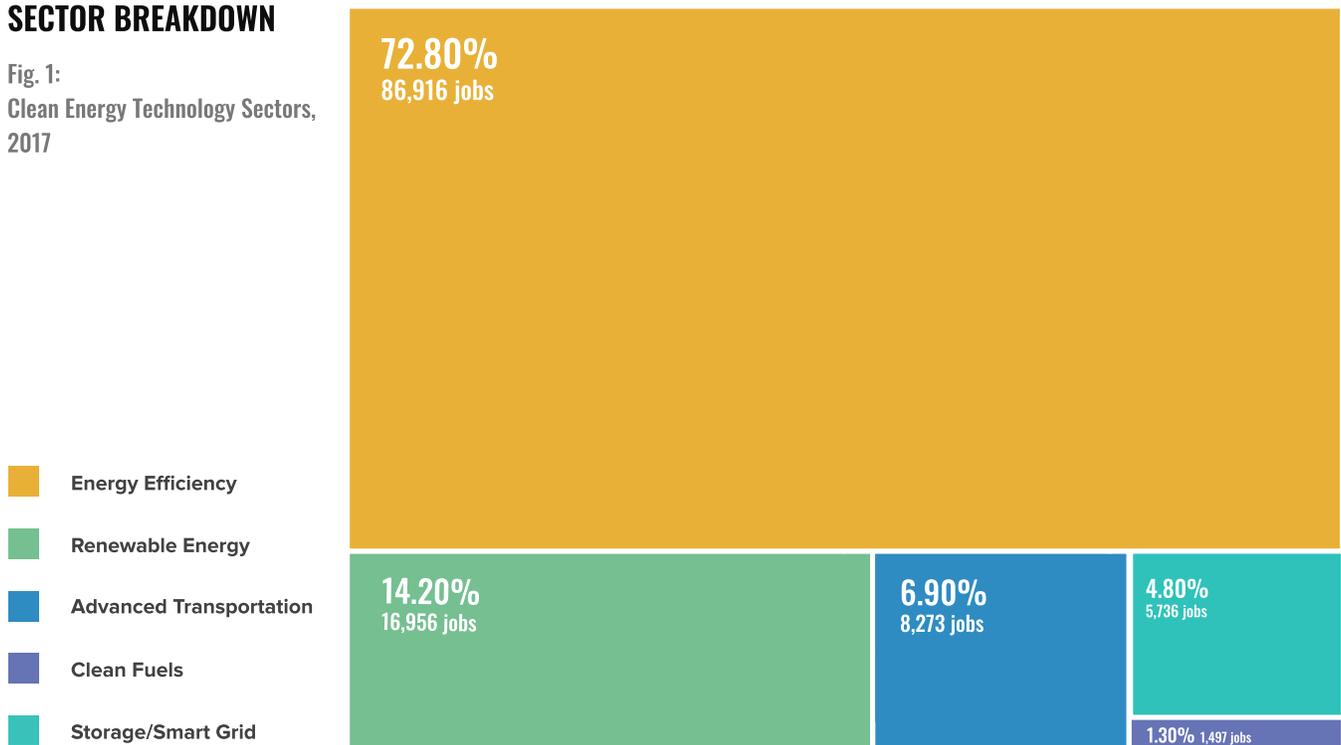
Illinois is home to **119,377** clean energy jobs

Energy Efficiency, Renewables Top Clean Energy Industries in Illinois

Illinois' clean energy industry continues to grow and is home to 119,377 clean energy jobs.¹ From 2016 to 2017, overall clean energy jobs grew by just less than 1 percent. Illinois leads the Midwest in energy efficiency jobs (86,916 jobs, 3.5 percent growth rate) and renewable energy jobs (16,956, 7.6 percent). Renewable energy job growth in Illinois accounted for nearly one-third (30%) of the entire region's growth in renewable jobs. By comparison, Illinois is home to just 31,821 fossil fuel jobs.

SECTOR BREAKDOWN

Fig. 1:
Clean Energy Technology Sectors,
2017

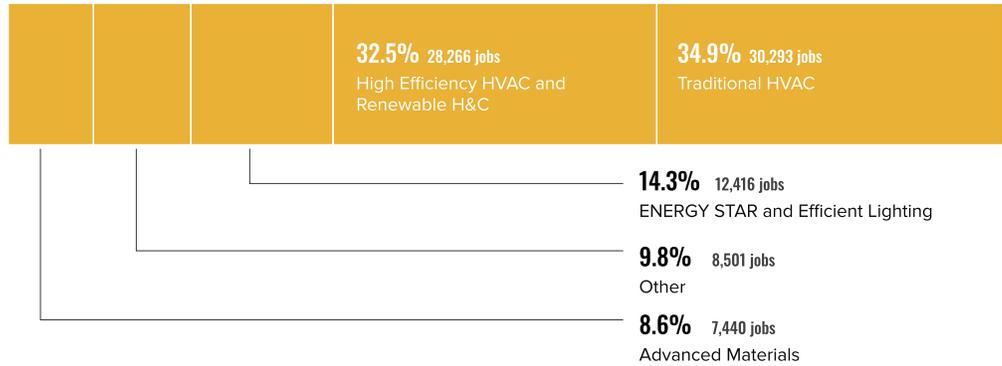


1. Unless otherwise stated, all data is based on the 2018 U.S. Energy and Employment Report (Source: National Association of State Energy Officers; Energy Futures Initiative). The report incorporates an updated methodology that captures more energy efficiency manufacturing jobs than in previous years. Unlike past Clean Jobs Midwest reports, this year's report does not count fossil fuel industry workers who also spend a portion of their time on renewable energy or energy efficiency as clean energy jobs. See the About section at cleanjobsmidwest.com/about for full details.

Bulk of Illinois' Clean Energy Jobs in Energy Efficiency

Energy efficiency has the biggest clean energy workforce in the state with 86,916 jobs. Over the past year, 2,929 energy efficiency jobs were added in Illinois, more than any other state in the region and good enough for a 3.5 percent growth rate. These jobs include software developers in Chicago, contractors who diagnose, adjust, and verify the efficiency of heating, ventilation, and air conditioning (HVAC) systems in rural high schools, and factory workers who manufacture energy efficient appliances.

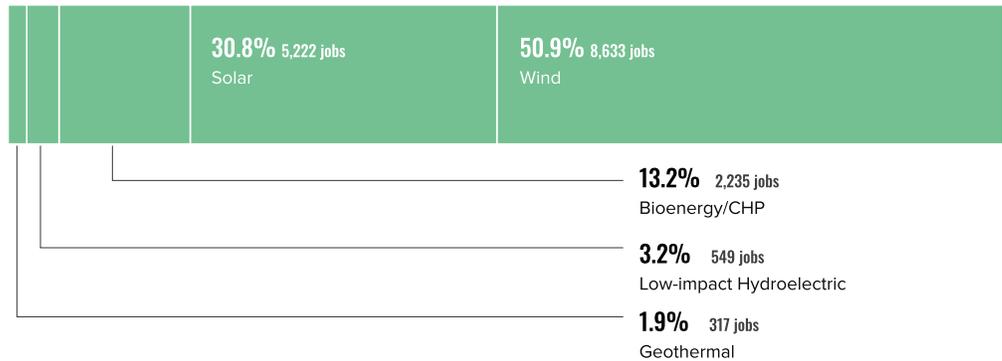
Fig. 2:
Energy Efficiency Subsectors,
2017



Renewable Energy Jobs Tick Upward

Over the past year, Illinois renewable energy jobs spiked 7.6 percent to 16,956. Looking at individual industries, there are 8,633 wind jobs and 5,222 solar jobs. From 2016 to 2017, wind jobs grew nearly 4 percent; solar jobs, meanwhile, dropped nearly 2 percent. Renewable energy jobs also include diverse industries like geothermal, bioenergy, and low-impact hydroelectric power.

Fig. 3:
Renewable Energy Subsectors,
2017



Job Losses in Advanced Transportation, but EV Hiring Revs Up

Advanced transportation jobs are the third-largest clean energy sector in Illinois with 8,273 jobs. However, the sector experienced the biggest jobs decline in Illinois and across the region. In Illinois, advanced transportation shed 2,528 jobs, a 23.4 percent decline. Losses were felt across the Midwest as jobs in hybrid-electric, plug-in hybrid electric, natural gas and hydrogen, and fuel-cell vehicles all declined. Competition from Japanese and European automakers in

advanced transportation has also been increasing. So, although electric and plug-in vehicles are more popular than ever, these foreign automakers have been out-competing American autos. One bright spot, however, was electric vehicles (EVs), which grew nearly 20 percent, or by 344 jobs, reaching 2,092 in total. Advanced transportation jobs help build and develop hybrid and plug-in electric vehicles, alternative fuels vehicles, and fuel cell vehicles.

Advanced Grid Jobs Employ over 5,000

Advanced grid jobs represent the fourth-largest clean energy employer in Illinois with 5,736 jobs. They also encompass cutting-edge industries like energy storage, smart grid, microgrid, and other grid-modernization work. Combined, jobs in these industries dipped 4.1 percent, losing 246 jobs.

Small Clean Fuels Sector Endures Job Losses

In Illinois, 1,497 people work in clean fuels jobs. The clean fuels sector encompasses non-corn ethanol, non-woody biomass, and other technologies not yet in wide commercial production, including algal biofuel, syngas, bioheat blends, landfill gas, and advanced biofuels. The fifth-biggest clean energy jobs sector in the state, clean fuels jobs, fell 18 percent, a loss of 328 jobs.

Fig. 4:
Top 3 MSAs in Clean Energy
Employment, 2017

Metro Area (MSA)	Clean Energy Employment	Renewable Energy Employment	Energy Efficiency Employment
Chicago-Naperville-Joliet, IL-IN-WI MSA	83,654	12,298	60,561
St. Louis, MO-IL MSA	5,863	680	4,399
Peoria, IL MSA	3,539	449	2,621

**CLEAN ENERGY
INDUSTRY OUTLOOK**

State and Federal Policies Sending Mixed Messages to Clean Energy Businesses

Passed in December 2016, the Future Energy Jobs Act puts Illinois on track to acquire a quarter of its electricity from renewable energy by 2025 and also strengthens the state’s energy efficiency standards. This likely triggered business expansion and related job growth in the state’s two biggest clean energy sectors – energy efficiency and renewables. In fact, Illinois outpaced all other Midwestern states in those sectors.

Illinois’ clean energy jobs are still growing just marginally faster than the rest of the state’s economy. While the overall state job market grew by just 0.72 percent,² clean energy jobs grew 0.93 percent. A slow growth rate can be credited to several factors. Tops on the list may be hiring difficulties facing employers. In 2017, nearly 84 percent of Illinois clean energy businesses reported it was “very difficult” or “somewhat difficult” to hire qualified employees.

One reason hiring may be difficult right now is the tight national labor market due to relatively low unemployment. Other potential factors include federal policy uncertainty caused by the potential expiration of the 179D Commercial Building Energy Efficiency Tax Deduction, the U.S. EPA’s attempt to roll back fuel economy standards in the auto industry, and the anticipation of a tariff levied on solar panels. Together, these factors created general market uncertainty for many clean energy businesses in the Midwest.

2. 2017 Bureau of Labor Statistics
Current Employment Statistics (CES)

Even with these headwinds, business owners see the industry growing next year. The American Council of an Energy-Efficient Economy ranks Illinois No. 11 in its latest ACEEE State Energy Efficiency Scorecard, up one spot from the previous ranking. As the Future Energy Jobs Act is implemented over the next year, it will likely continue to help create clean energy jobs. Across the Midwest, clean energy employers are optimistic; they project a 9 percent clean energy job growth next year.

Comparing Clean Energy Jobs to Fossil Fuel Jobs

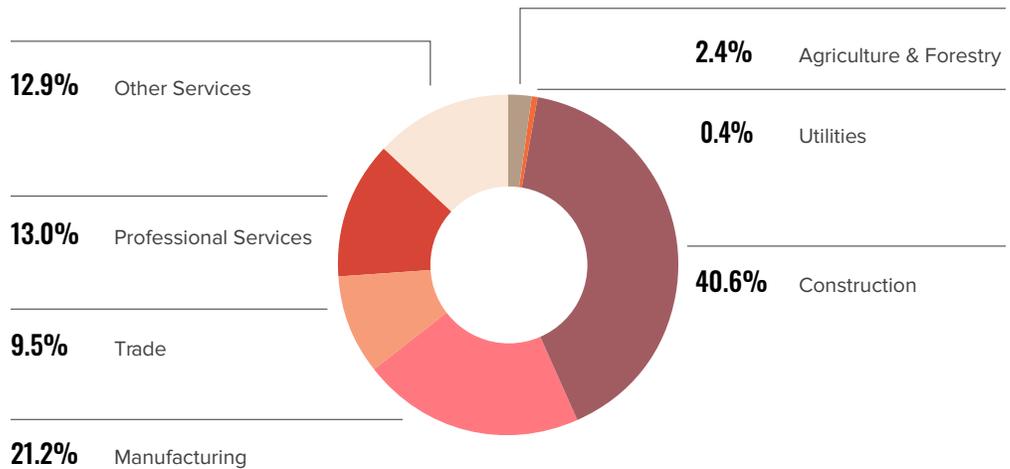
In 2017 in Illinois, 31,281 people worked in fossil fuel energy jobs in industries like coal, natural gas, and oil.³ There were 7,601 jobs generating electric power from fossil fuels in Illinois, a fraction of the 16,956 jobs in the state involved in renewable energy generation. While coal jobs dropped by 13.5 percent, renewable energy jobs grew 7.6 percent.

3. 2018 U.S. Energy and Employment Report

VALUE CHAIN

Clean energy jobs can also be categorized by the role they play in the value chain. This report divides the clean energy jobs value chain into the following categories: agriculture, utility, construction, manufacturing, trade, professional service, and other service jobs. Each category captures jobs from multiple different clean energy sectors. For example, construction jobs can include energy efficiency jobs and renewable energy jobs.

Fig. 5: Clean Energy Jobs Value Chain, 2017



When Illinois clean energy jobs are broken down by their placement in the value chain, construction is home to 40.6 percent of the jobs while manufacturing is home to 21.2 percent.

Small businesses drive Illinois' clean energy sector – 75 percent of Illinois' clean energy businesses employ fewer than 20 individuals.

In Illinois, 11.2 percent of the state's clean energy workers are veterans. By comparison, 6 percent of all workers nationwide are veterans.⁴ The large ratio of veterans transitioning to clean energy jobs is the result of the U.S. Department of Defense's long-standing commitment to investing in renewable energy, energy efficiency and training programs that prepare veterans for private-sector employment in industries like solar.

4. 2018 Bureau of Labor Statistics Current Population Survey (CPS)

SUMMARY

Illinois' clean energy industry continues to grow. As of 2017, it employs 119,377 jobs. Thanks to the Future Energy Jobs Act, renewable energy and energy efficiency are bright spots in Illinois' economy, and job growth is expected to continue in both sectors. To become the dominant player in clean energy jobs in the Midwest, however, the state must jumpstart job growth in additional industries, including advanced transportation, advanced grid, and clean fuels.