Arizona ENERGY AND EMPLOYMENT - 2020

Overview

Arizona has a low concentration of energy employment, with 46,951 Traditional Energy workers statewide (representing 1.4 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 24,080 are in Electric Power Generation, 2,095 are in Fuels, and 20,776 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Arizona is 1.7 percent of total state employment (compared to 2.3 percent of national employment). Arizona has an additional 44,782 jobs in Energy Efficiency (1.9 percent of all U.S. Energy Efficiency jobs) and 31,949 jobs in Motor Vehicles (1.2 percent of all U.S. Motor Vehicle jobs).

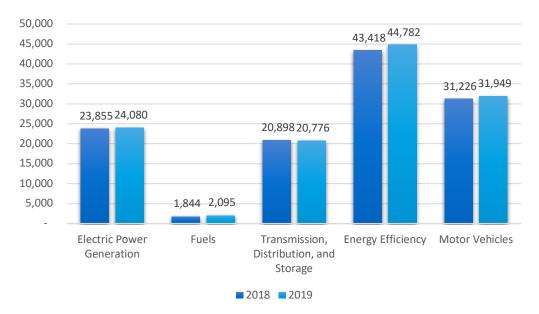


Figure AZ-1. Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 0.8 percent since the 2019 report, increasing by 354 jobs over the period. Energy Efficiency jobs added 1,364 jobs (3.1 percent) and motor vehicles added 723 jobs (2.3 percent).

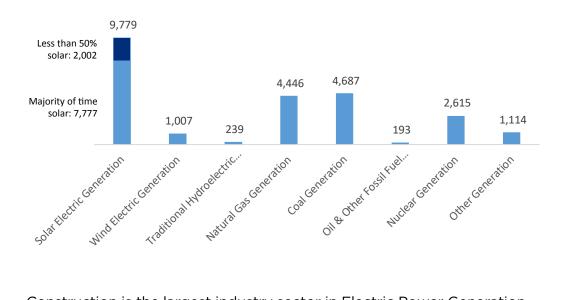
Breakdown by Technology Applications

ELECTRIC POWER GENERATION

Electric Power Generation employs 24,080 workers in Arizona, 2.7 percent of the national total and adding 225 jobs over the past year (0.9 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 9,779 jobs (up 5.6 percent), followed by traditional fossil fuel generation at 9,326 jobs (down -5.6 percent).

Figure AZ-2.





Construction is the largest industry sector in Electric Power Generation, with 35.5 percent of jobs. Professional and business services are next with 23.8 percent.

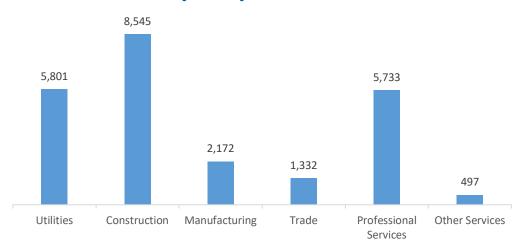
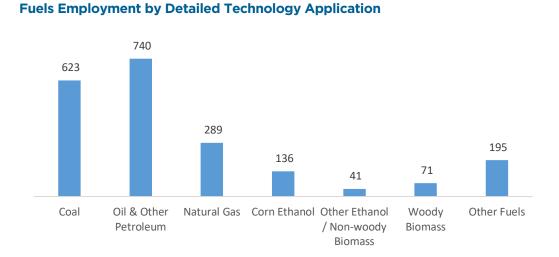


Figure AZ-3. Electric Power Generation by Industry Sector

FUELS

Figure AZ-4.

Fuels employs 2,095 workers in Arizona, 0.2 percent of the national total, up 13.6 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.



Professional and business services jobs represent 52.6 percent of Fuels jobs in Arizona.

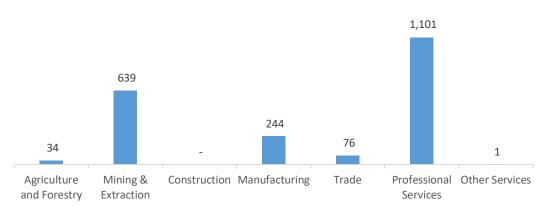
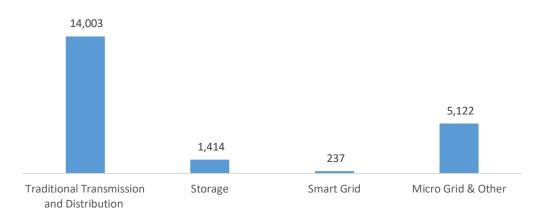


Figure AZ-5. Fuels Employment by Industry Sector

TRANSMISSION, DISTRIBUTION AND STORAGE

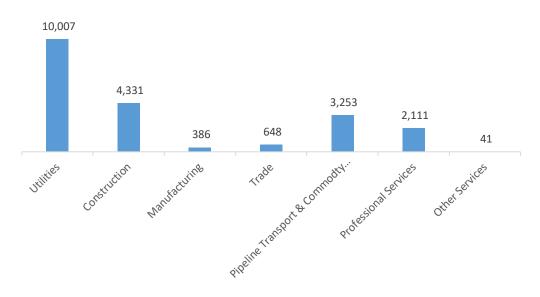
Transmission, Distribution, and Storage employs 20,776 workers in Arizona, 1.5 percent of the national total, down 0.6 percent or 121 jobs since the 2018 report.

Figure AZ-6. Transmission, Distribution and Storage Employment by Detailed Technology



Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Arizona, with 48.2 percent of such jobs statewide.

Figure AZ-7. Transmission, Distribution and Storage Employment by Industry Sector

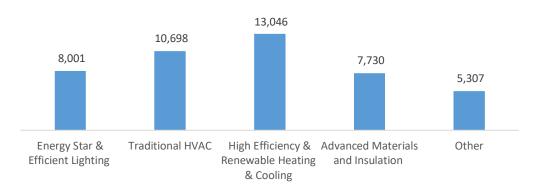


ENERGY EFFICIENCY

The 44,782 Energy Efficiency jobs in Arizona represent 1.9 percent of all U.S. Energy Efficiency jobs, adding 1,364 jobs (3.1 percent) since last year. The largest number of these employees work in (high efficiency HVAC and renewable heating and cooling firms, followed by traditional HVAC.

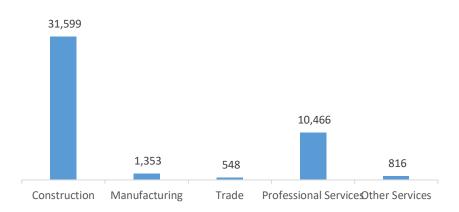
Figure AZ-8.





Energy Efficiency employment is primarily found in the construction industry.

Figure AZ-9. Energy Efficiency Employment by Industry Sector

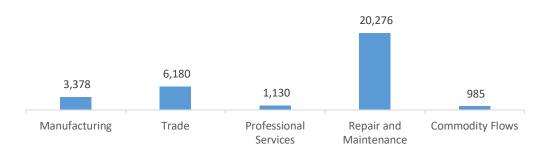


MOTOR VEHICLES

Motor Vehicle employment accounts for 31,949 jobs in Arizona, up 723 jobs over the past year (2.3 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure AZ-10.





Workforce Characteristics

EMPLOYER GROWTH

Employers in Arizona are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (5.2 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 1,972 jobs in Energy Efficiency (4.4 percent) and Motor Vehicles employers expect to add 1,317 jobs (4.1 percent) over the next year.

Table AZ-1

Projected Growth by Major Technology Application.

Technology	State Projected Growth Next 12 Months (percent)	U.S. Projected Growth Next 12 Months (percent)
Electric Power Generation	6.6	4.8
Electric Power Transmission, Distribution, and Storage	3.3	3.5
Energy Efficiency	4.4	3.0
Fuels	7.8	1.7
Motor Vehicles	4.1	3.1

HIRING DIFFICULTY

Over the last year, 40.3 percent of energy-related employers in Arizona hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Motor Vehicles.

Table AZ-2

Hiring Difficulty by Major Technology Application.

Technology	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)
Electric Power Generation	18.7	68.0	13.2
Electric Power Transmission, Distribution, and Storage	18.9	65.7	15.3
Energy Efficiency	29.0	46.2	24.8
Fuels	31.1	45.2	23.7
Motor Vehicles	29.1	61.7	9.2

Employers in Arizona gave the following as the top three reasons for their reported difficulty:

- 1. Lack of experience, training, or technical skills
- 2. Competition/ small applicant pool
- 3. Economy/structural problem

Employers reported the following as the three most difficult occupations to hire for:

- 1. Sales, marketing, or customer service \$32.48 median hourly wage
- 2. Management (directors, supervisors, vice presidents) \$39.89 median hourly wage
- 3. Technician or mechanical support \$21.82 median hourly wage