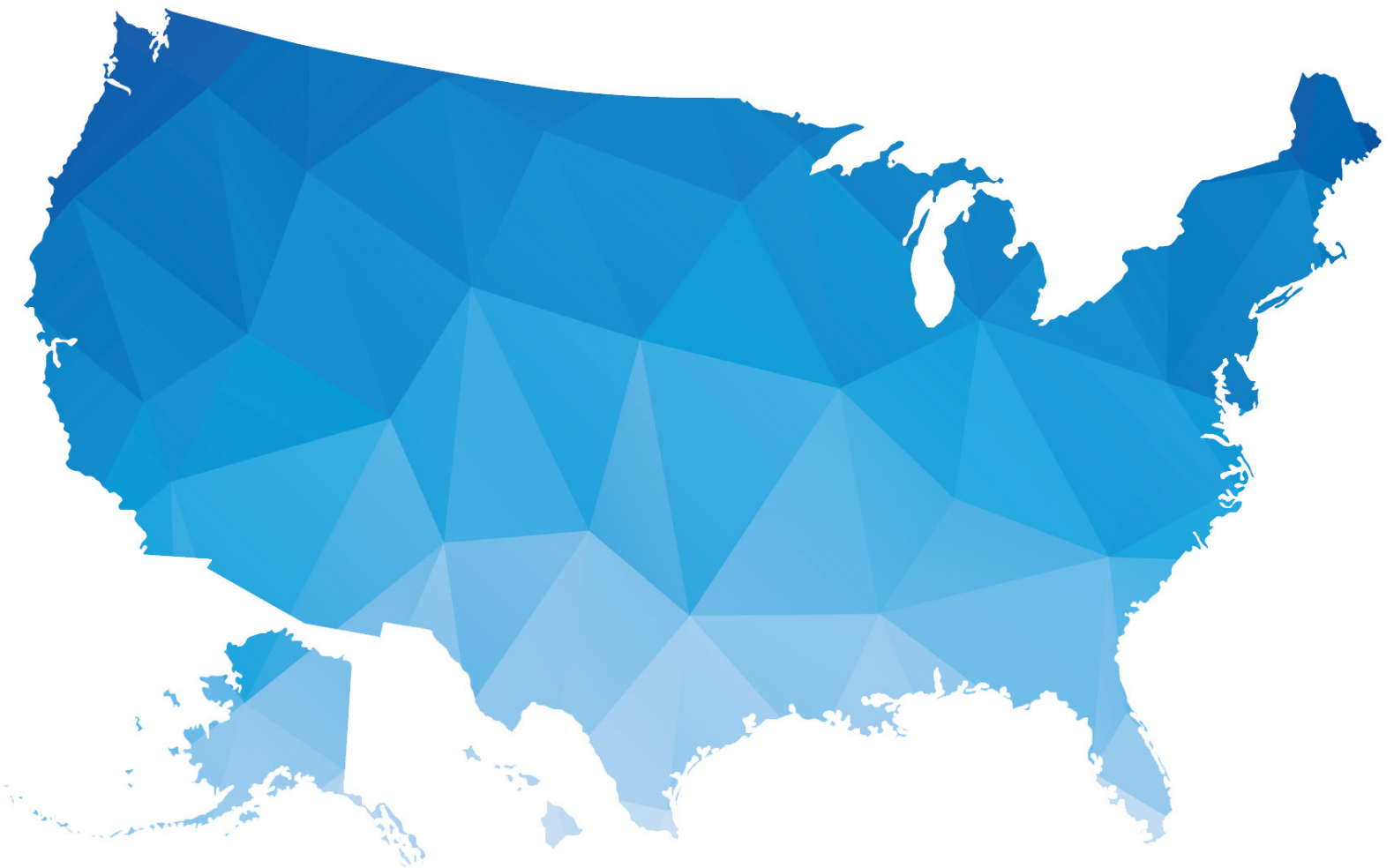


Energy Employment By State — 2019

A JOINT PROJECT OF NASEO & EFI



USEnergyJobs.org

Definitions of Major Energy Technology Applications

Electric Power Generation covers all utility and non-utility employment across electric generating technologies including fossil fuels, nuclear, and renewable energy technologies. Also included in the employment totals are any firms engaged in facility construction, turbine and other generation equipment manufacturing, as well as wholesale parts distribution of all electric generation technologies.

Fuels employment encompasses all work related to fuel extraction and mining, including petroleum refineries and firms that support coal mining, oil, and gas field machinery manufacturing. Workers across both the forestry and agriculture industries that support fuel production with corn ethanol, biodiesels, and fuel wood are also included in the fuel employment estimates.

Transmission, Distribution, and Storage includes transmission, transportation, and storage of electricity and other energy commodities at wholesale and retail levels but excludes the retail delivery and sale of liquid fuels, including gasoline.

Energy Efficiency employment covers both the production of energy-saving products and the provision of services that reduce end-use energy consumption. These services include not only the manufacture of ENERGY STAR appliances and other ENERGY STAR labeled products, but also building design and contracting services that provide insulation, improve natural lighting, and reduce overall energy consumption across homes and businesses.

Motor Vehicles employment encompasses all work related to the manufacture, wholesale trade, distribution, and transport, repair and maintenance, and professional and business services for cars, light-duty and heavy-duty trucks and component parts for these vehicles.

Additional Analysis + Reports

The USEER data base includes detailed data for the 53 separate technologies that comprise the five surveyed sectors. Each of these technologies is, in turn, divided into as many as seven industrial classifications. As a result, the USEER data base can provide an in-depth view of the hiring difficulty, in-demand occupations, and demographic composition of very specific portions of the energy and energy efficiency workforce in each state or in specific counties and, in some cases, portions of counties. In addition, the USEER data base can provide year-to-year comparisons in specific sectors, technologies, and industrial classifications at the state and county level. For information about additional analysis and reports, please contact:

Energy Futures Initiative:

Jeanette Pablo

General Counsel and Senior Associate

Tel: 202-688-0048

Email: JMPablo@EnergyFuturesInitiative.org

National Association of State Energy Officials:

Sandy Fazeli

Managing Director

Tel: 703-299-8800 x 117

Email: SFazeli@NASEO.org

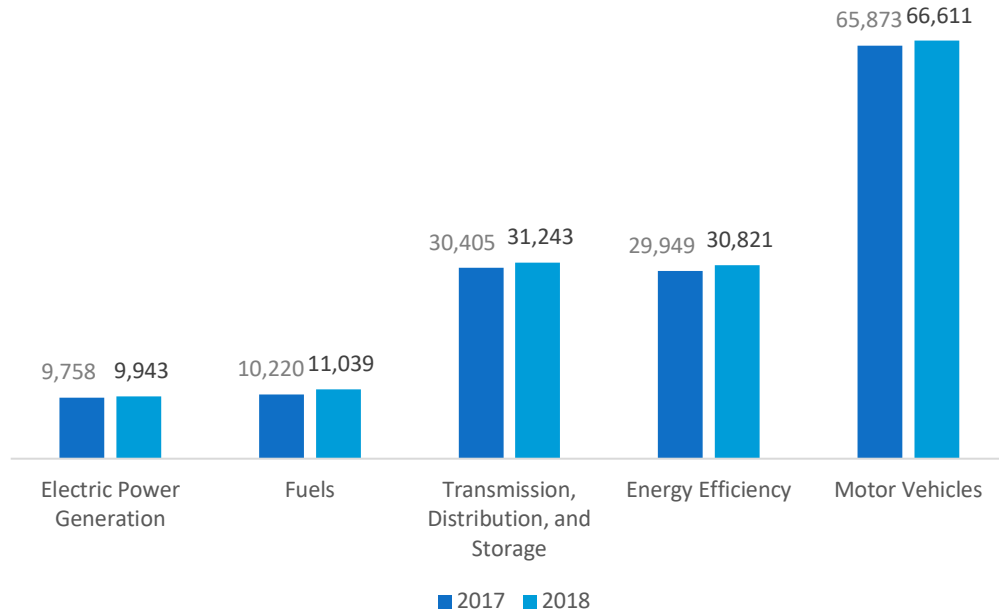
Alabama

ENERGY AND EMPLOYMENT — 2019

Overview

Alabama has a high concentration of energy employment, with 52,224 Traditional Energy workers statewide (representing 1.6 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 9,943 are in Electric Power Generation, 11,039 are in Fuels, and 31,243 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Alabama is 2.7 percent of total state employment (compared to 2.3 percent of national employment). Alabama has an additional 30,821 jobs in Energy Efficiency (1.3 percent of all U.S. Energy Efficiency jobs) and 66,611 jobs in Motor Vehicles (2.6 percent of all U.S. Motor Vehicle jobs).

Figure AL-1.
Employment by Major Energy Technology Application



Overall, Traditional Energy jobs grew by 3.7 percent since the 2018 report, increasing by 1,841 jobs over the period. Energy Efficiency jobs added 872 jobs (2.9 percent) and motor vehicles added 738 jobs (1.1 percent).

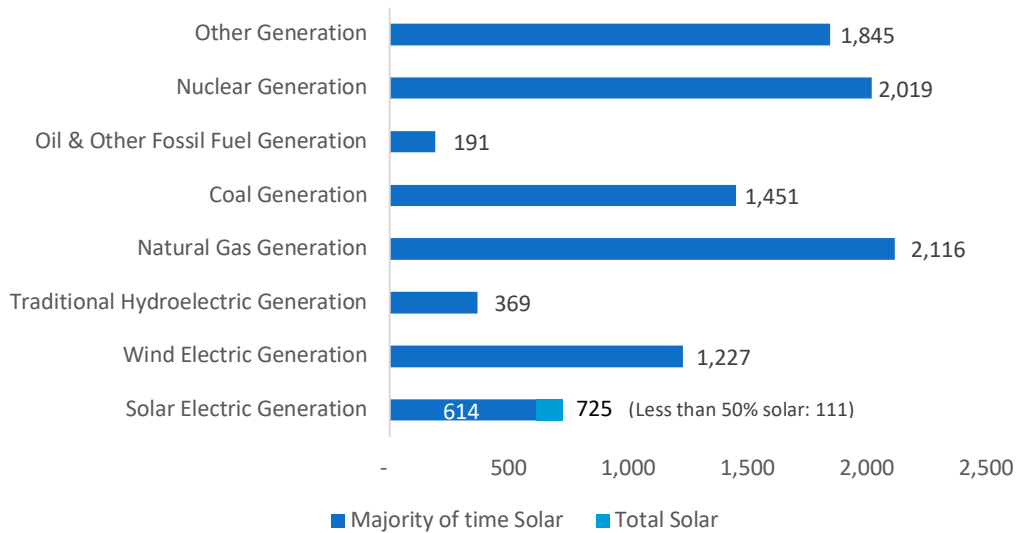
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 9,943 workers in Alabama, 1.1 percent of the national total and adding 185 jobs over the past year (1.9 percent). Traditional fossil fuel generation makes up the largest segment of employment related to Electric Power Generation, with 3,757 jobs (up 1.0 percent), followed by wind at 1,227 jobs (up 5.2 percent).

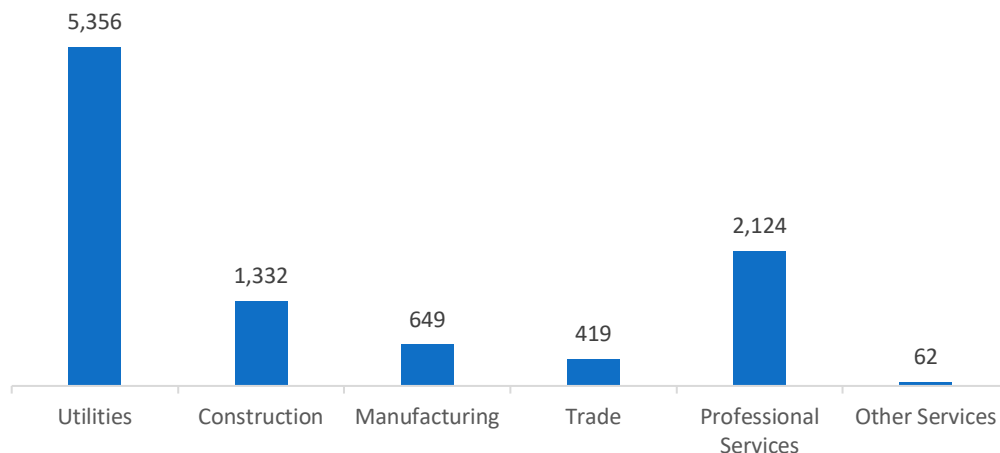
Figure AL-2.

Electric Power Generation Employment by Detailed Technology Application



Utilities are the largest industry sector in Electric Power Generation, with 53.9 percent of jobs. Professional and business services are next with 21.4 percent.

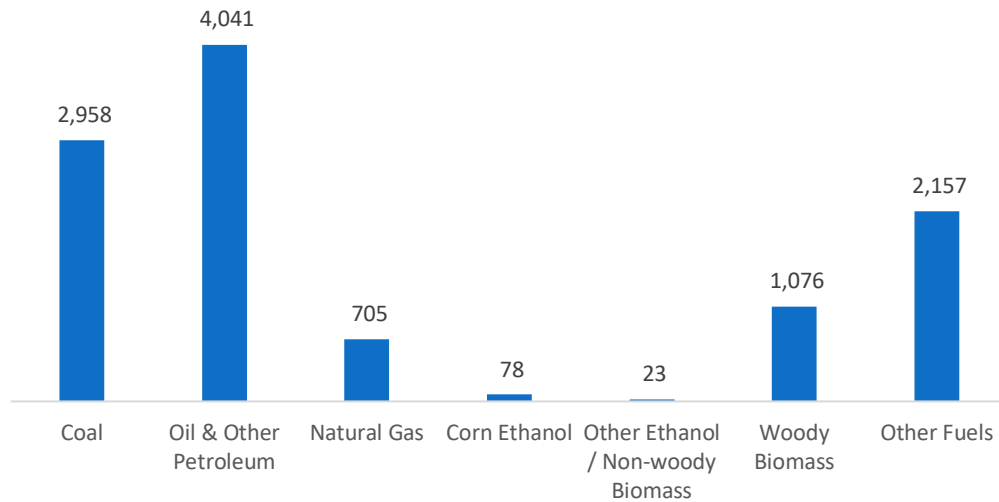
Figure AL-3



Fuels

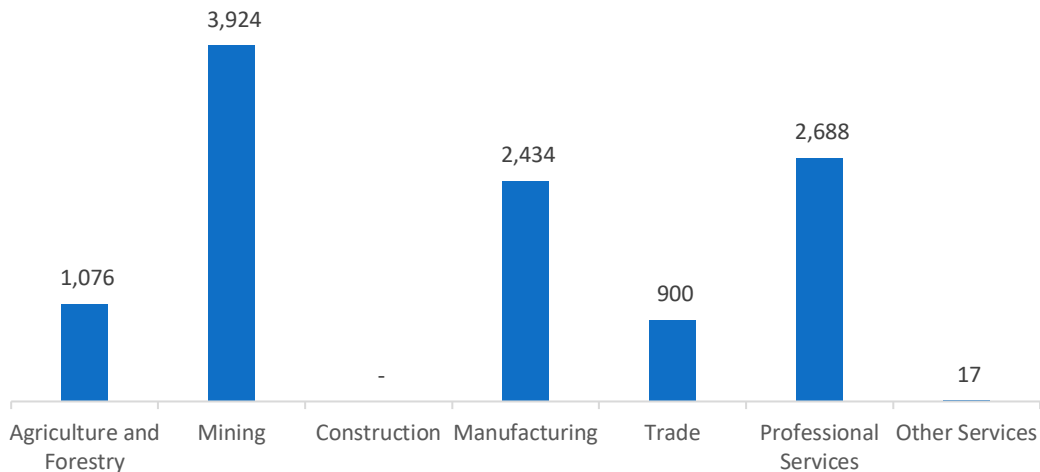
Fuels employs 11,039 workers in Alabama, 1.0 percent of the national total, up 8.0 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure AL-4.
Fuels Employment by Detailed Technology Application



Mining and extraction jobs represent 35.5 percent of Fuels jobs in Alabama.

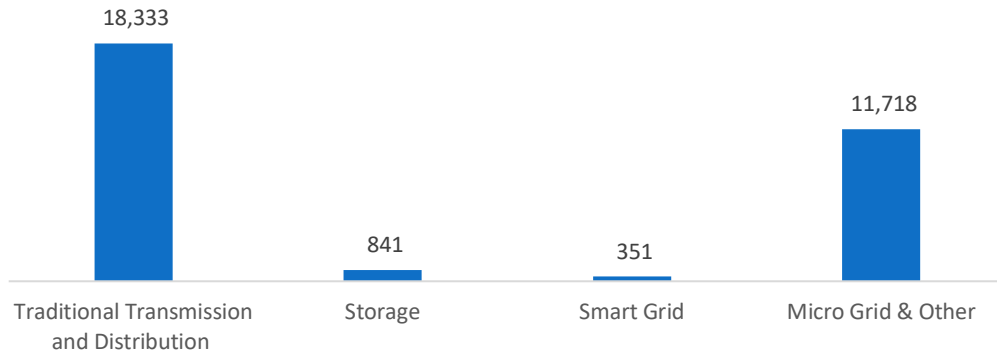
Figure AL-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

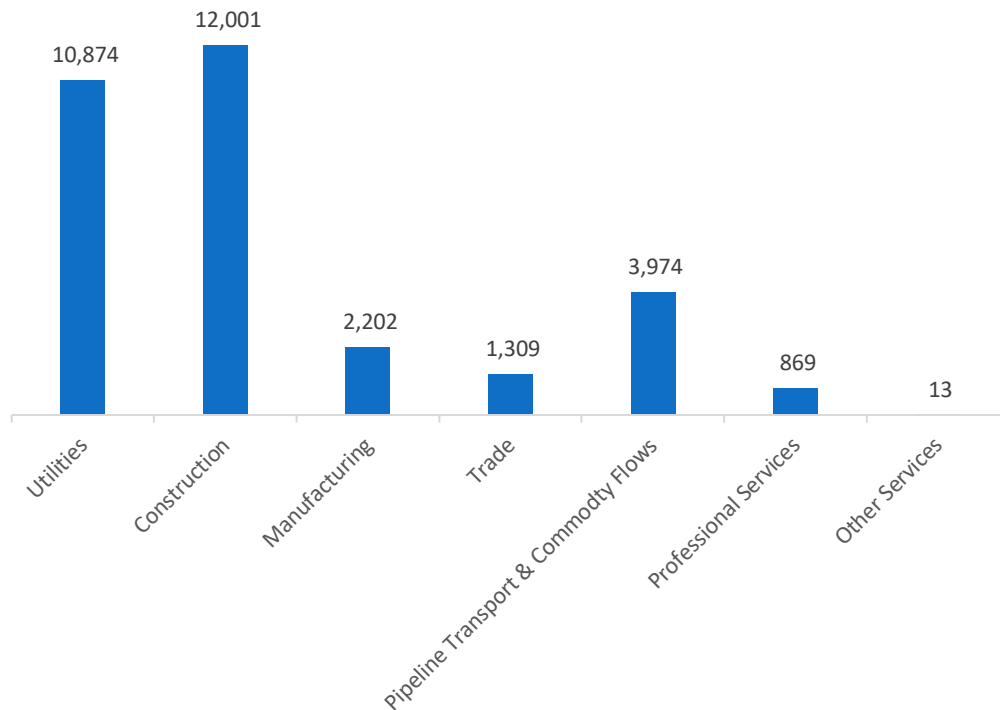
Transmission, Distribution, and Storage employs 31,243 workers in Alabama, 2.3 percent of the national total, up 2.8 percent or 838 jobs since the 2018 report.

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



Construction is responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Alabama, with 38.4 percent of such jobs statewide.

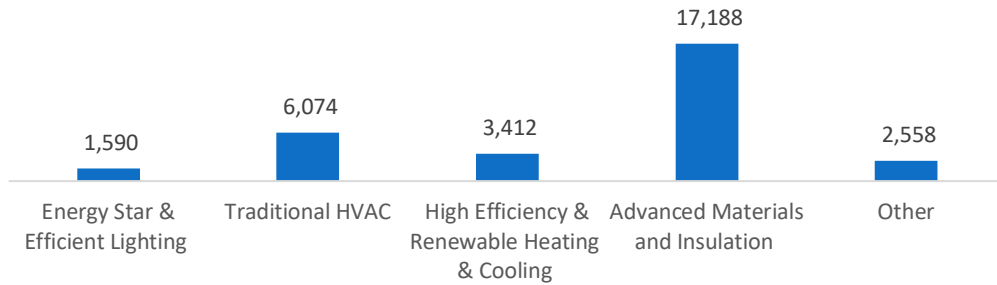
Figure AL-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

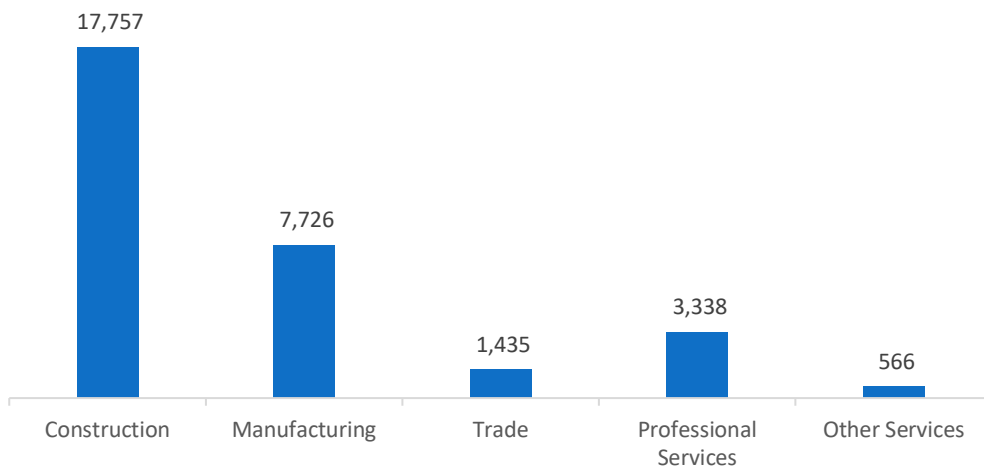
The 30,821 Energy Efficiency jobs in Alabama represent 1.3 percent of all U.S. Energy Efficiency jobs, adding 872 jobs (2.9 percent) since last year. The largest number of these employees work in advanced materials and insulation firms, followed by traditional HVAC.

Figure AL-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

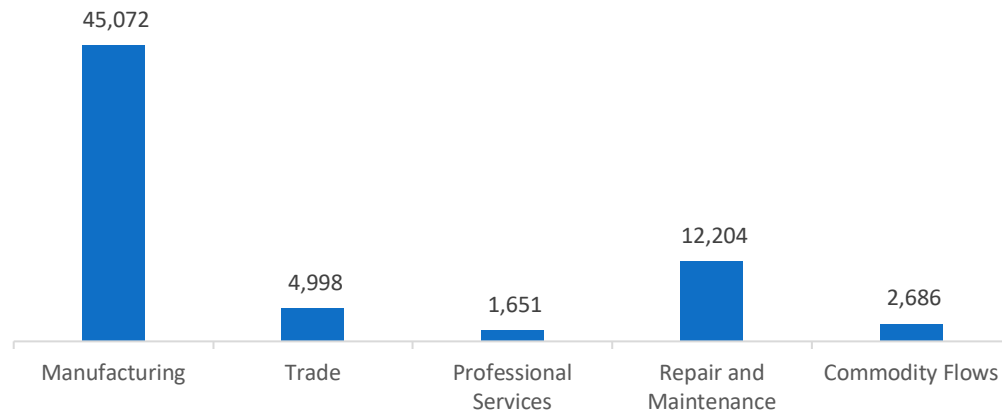
Figure AL-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 66,611 jobs in Alabama, up 738 jobs over the past year (1.1 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is manufacturing.

Figure AL-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in Alabama are less optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (2.4 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 2,055 jobs in Energy Efficiency (6.7 percent) and Motor Vehicles employers expect to add 2,059 jobs (3.1 percent) over the next year.

Table AL-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	9.3	7.1
Electric Power Transmission, Distribution and Storage	1.1	3.2
Energy Efficiency	6.7	7.8
Fuels	--	3.0
Motor Vehicles	3.1	2.2

Hiring Difficulty

Over the last year, 63.4 percent of energy-related employers in Alabama hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Fuels.

Table AL-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	28.6	20.7	14.3	54.8
Electric Power Transmission, Distribution and Storage	9.1	21.9	27.3	46.1
Energy Efficiency	28.6	21.3	42.9	48.1
Fuels	--	37.9	100.0	43.0
Motor Vehicles	--	30.0	70.0	46.4

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

1. Lack of experience, training, or technical skills
2. Insufficient non-technical skills (work ethic, dependability, critical thinking)
3. Insufficient qualifications (certifications or education)

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

1. Technician or mechanical support – \$20.36 median hourly wage
2. Management (directors, supervisors, vice presidents) – \$38.34 median hourly wage
3. Sales, marketing, or customer service – \$32.57 median hourly wage

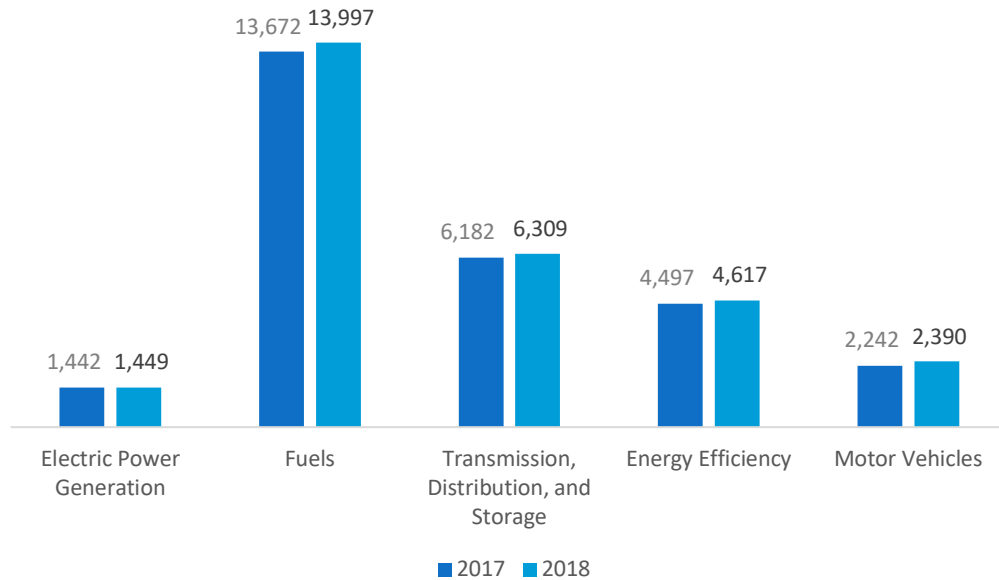
Alaska

ENERGY AND EMPLOYMENT — 2019

Overview

Alaska has a high concentration of energy employment, with 21,756 Traditional Energy workers statewide (representing 0.6 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 1,449 are in Electric Power Generation, 13,997 are in Fuels, and 6,309 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Alaska is 6.5 percent of total state employment (compared to 2.3 percent of national employment). Alaska has an additional 4,617 jobs in Energy Efficiency (0.2 percent of all U.S. Energy Efficiency jobs) and 2,390 jobs in Motor Vehicles (0.1 percent of all U.S. Motor Vehicle jobs).

Figure AK-1.
Employment by Major Energy Technology Application



Overall, Traditional Energy jobs grew by 2.2 percent since the 2018 report, increasing by 460 jobs over the period. Energy Efficiency jobs added 119 jobs (2.7 percent) and motor vehicles added 148 jobs (6.6 percent).

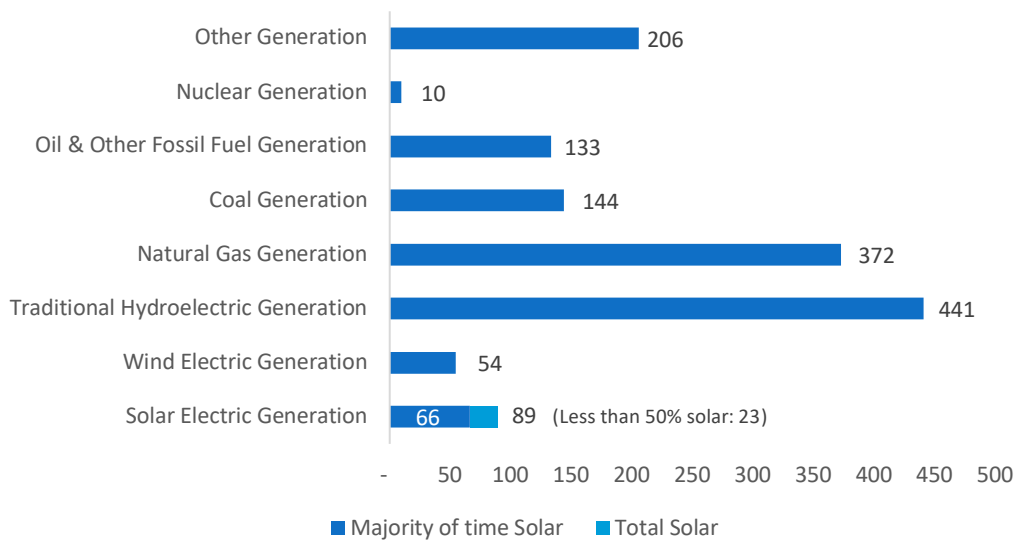
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 1,449 workers in Alaska, 0.2 percent of the national total and adding 7 jobs over the past year (0.5 percent). Traditional fossil fuel generation makes up the largest segment of employment related to Electric Power Generation, with 649 jobs (up 1.2 percent), followed by traditional hydroelectric generation at 441 jobs (down 2.6 percent).

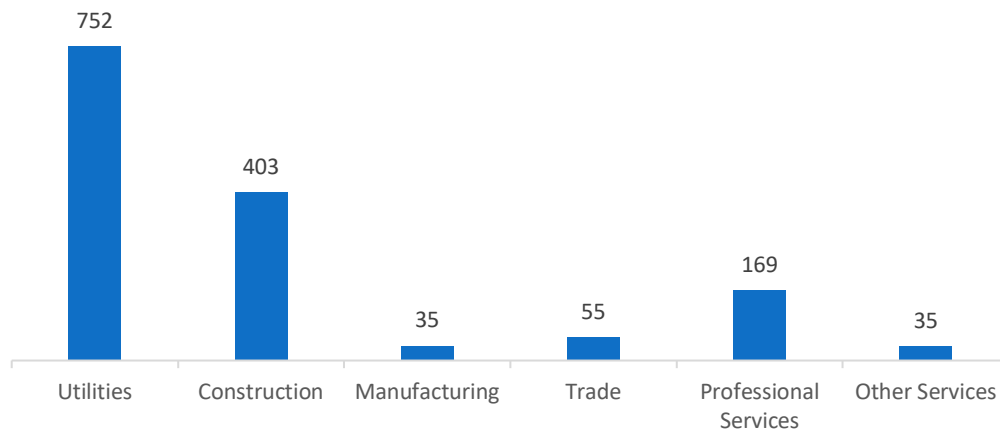
Figure AK-2.

Electric Power Generation Employment by Detailed Technology Application



Utilities are the largest industry sector in Electric Power Generation, with 51.9 percent of jobs. Construction is next with 27.8 percent.

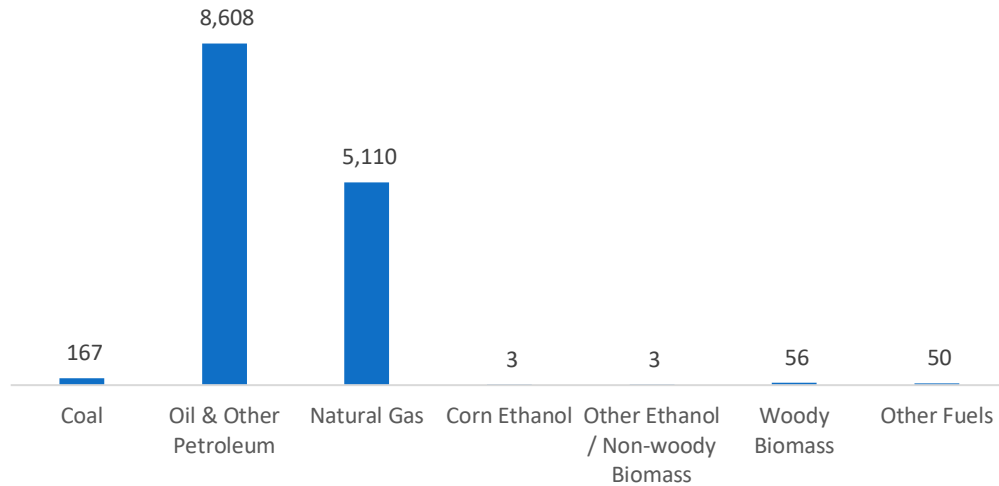
Figure AK-3.



Fuels

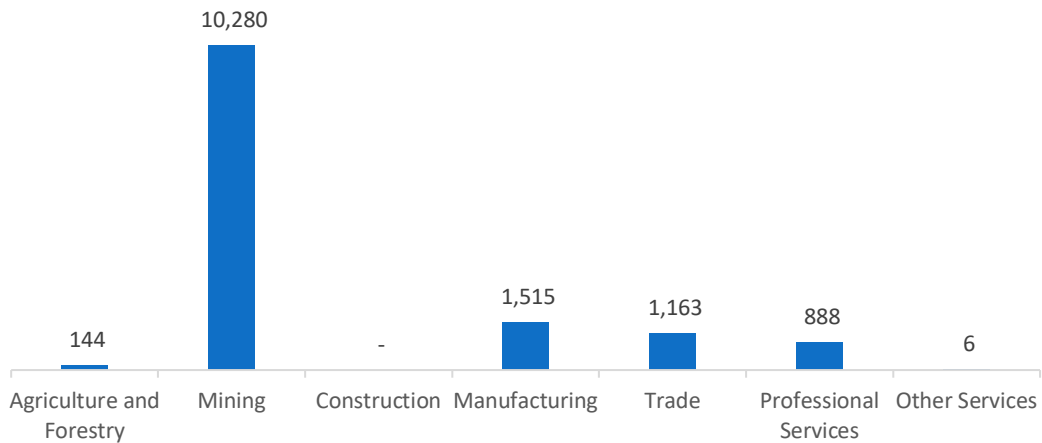
Fuels employs 13,997 workers in Alaska, 1.2 percent of the national total, up 2.4 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure AK-4.
Fuels Employment by Detailed Technology Application



Mining and extraction jobs represent 73.4 percent of Fuels jobs in Alaska.

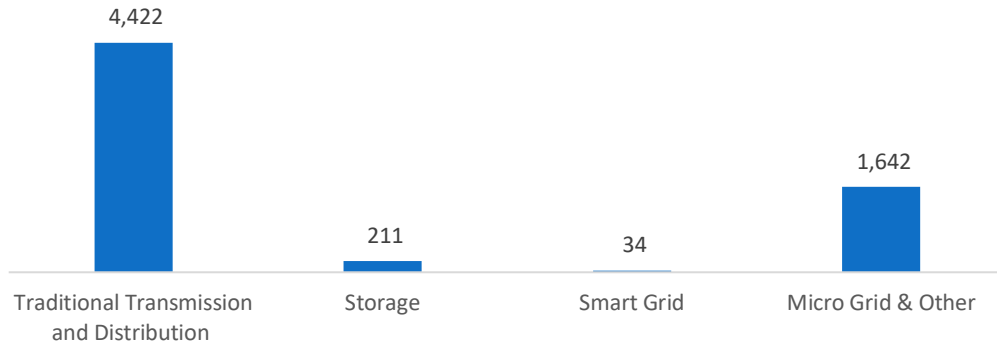
Figure AK-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

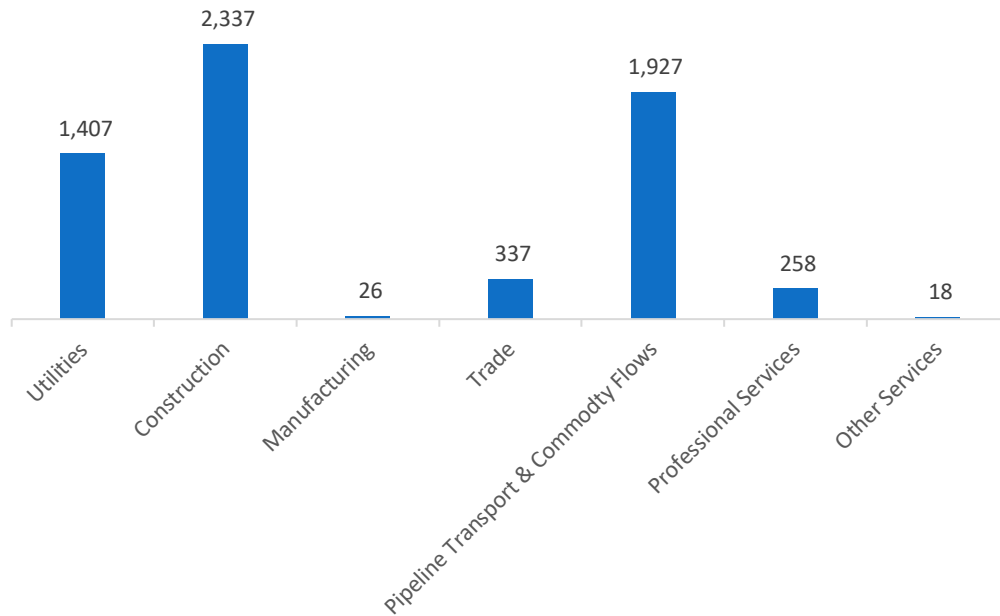
Transmission, Distribution, and Storage employs 6,309 workers in Alaska, 0.5 percent of the national total, up 2.1 percent or 127 jobs since the 2018 report.

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



Construction is responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Alaska, with 37.0 percent of such jobs statewide.

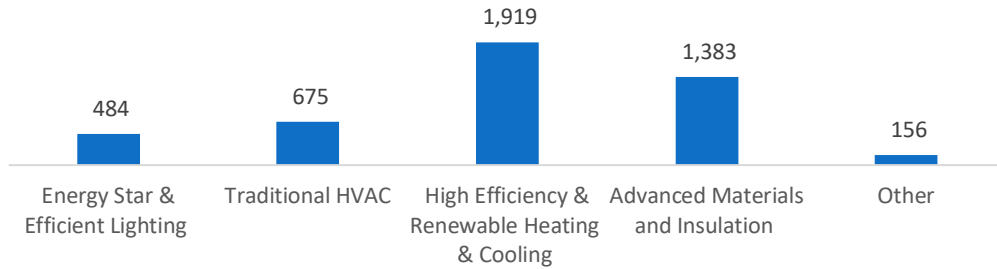
Figure AK-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

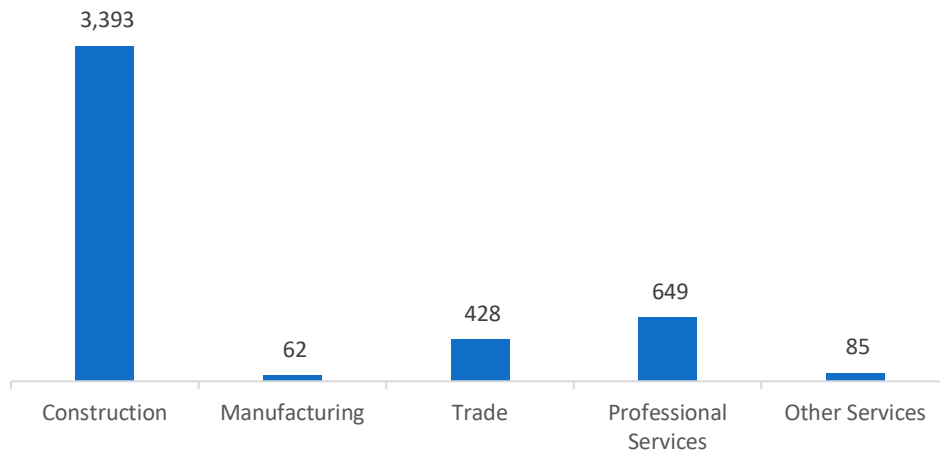
The 4,617 Energy Efficiency jobs in Alaska represent 0.2 percent of all U.S. Energy Efficiency jobs, adding 119 jobs (2.7 percent) since last year. The largest number of these employees work in high efficiency HVAC and renewable heating and cooling firms, followed by advanced materials and insulation.

Figure AK-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

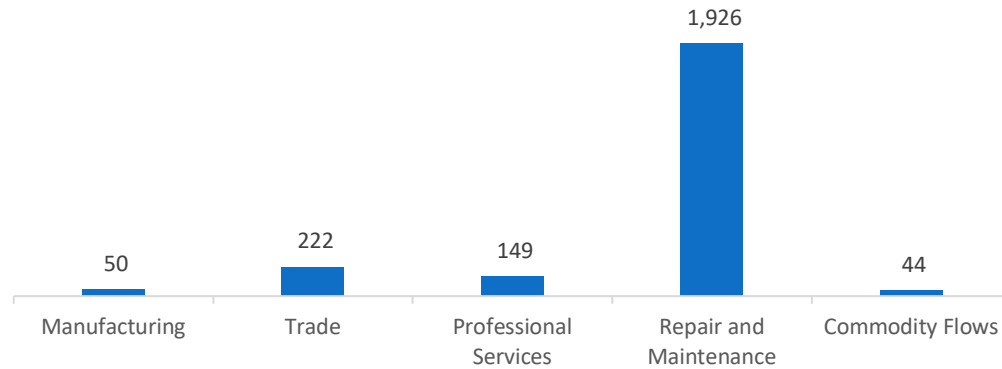
Figure AK-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 2,390 jobs in Alaska, up 148 jobs over the past year (6.6 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure AK-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in Alaska are less optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (2.0 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 368 jobs in Energy Efficiency (8.0 percent) and Motor Vehicles employers expect to add 47 jobs (2.0 percent) over the next year.

Table AK-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	9.8	7.1
Electric Power Transmission, Distribution and Storage	4.5	3.2
Energy Efficiency	8.0	7.8
Fuels	--	3.0
Motor Vehicles	2.0	2.2

Hiring Difficulty

Over the last year, 67.4 percent of energy-related employers in Alaska hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Fuels.

Table AK-11
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	16.7	20.7	66.7	54.8
Electric Power Transmission, Distribution and Storage	55.6	21.9	22.2	46.1
Energy Efficiency	50.0	21.3	37.5	48.1
Fuels	--	37.9	100.0	43.0
Motor Vehicles	25.0	30.0	50.0	46.4

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

1. Lack of experience, training, or technical skills
2. Location
3. Competition/ small applicant pool

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

1. Technician or mechanical support – \$19.59 median hourly wage
2. Electrician/construction laborers – \$20.18 median hourly wage
3. Engineers/scientists – \$39.06 median hourly wage

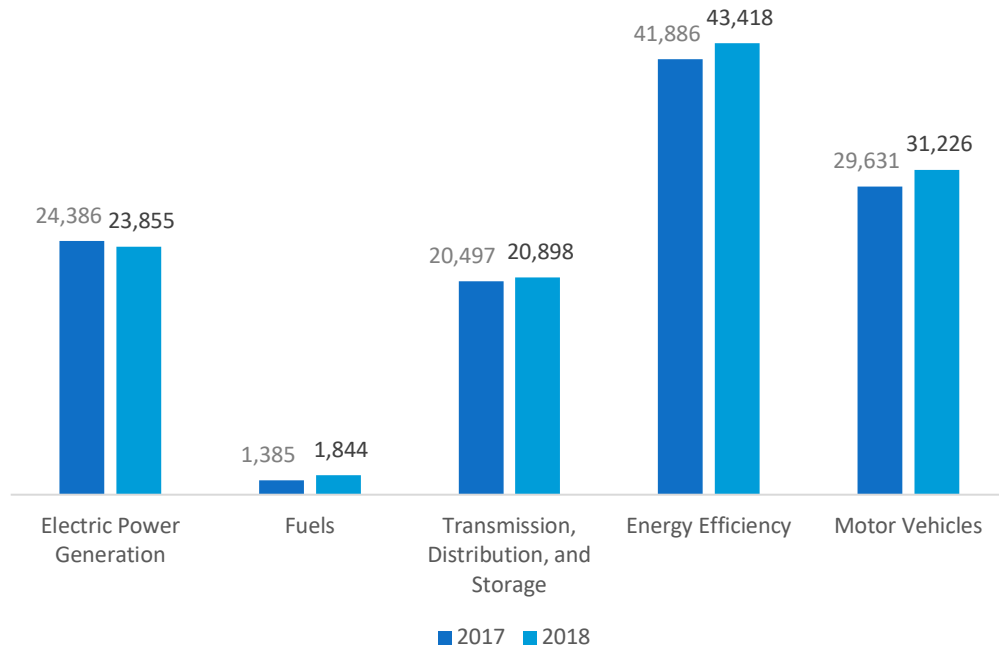
Arizona

ENERGY AND EMPLOYMENT – 2019

Overview

Arizona has a low concentration of energy employment, with 46,597 Traditional Energy workers statewide (representing 1.4 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 23,855 are in Electric Power Generation, 1,844 are in Fuels, and 20,898 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 43,418 jobs in Energy Efficiency (1.9 percent of all U.S. Energy Efficiency jobs) and 31,226 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 0.7 percent since the 2018 report, increasing by 329 jobs over the period. Energy Efficiency jobs added 1,532 jobs (3.7 percent) and motor vehicles added 1,595 jobs (5.4 percent).

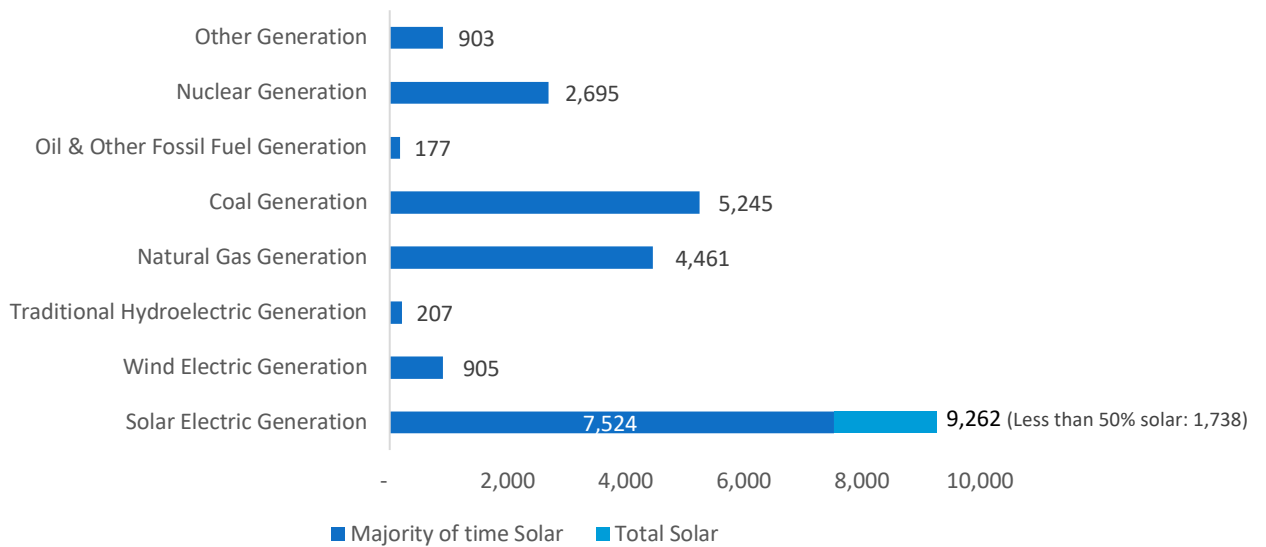
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 23,855 workers in Arizona, 2.7 percent of the national total and losing 531 jobs over the past year (-2.2 percent). Traditional fossil fuel generation makes up the largest segment of employment related to Electric Power Generation, with 9,883 jobs (down 5.0 percent), followed by solar at 9,262 jobs (down 3.0 percent).

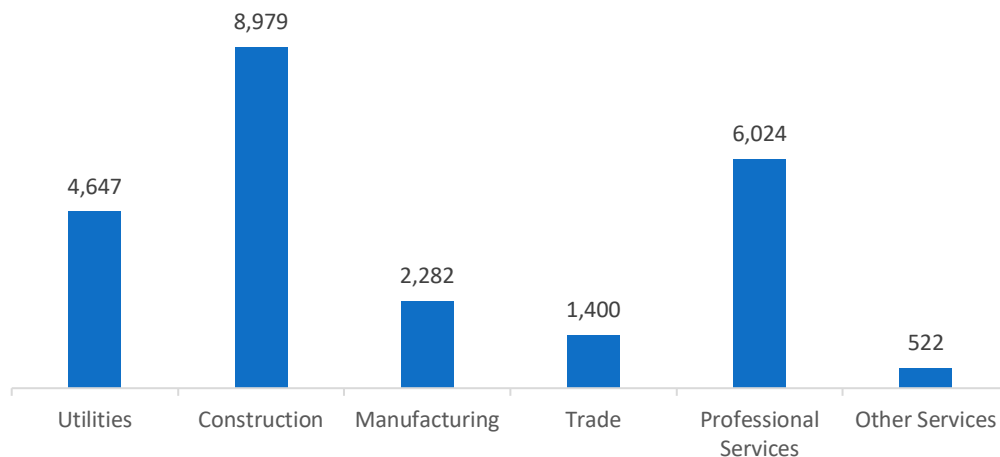
Figure AZ-2.

Electric Power Generation Employment by Detailed Technology Application



Construction is the largest industry sector in Electric Power Generation, with 37.6 percent of jobs. Professional and business services are next with 25.3 percent.

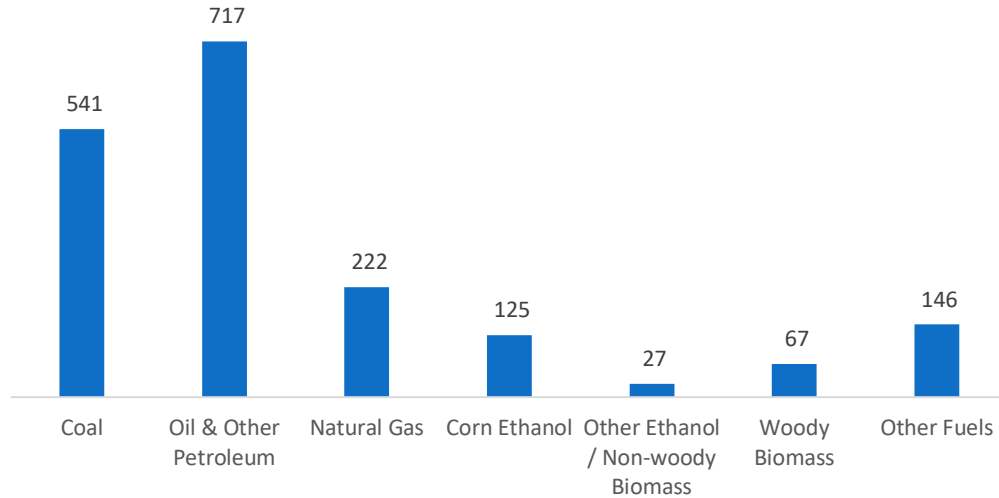
Figure AZ-3.



Fuels

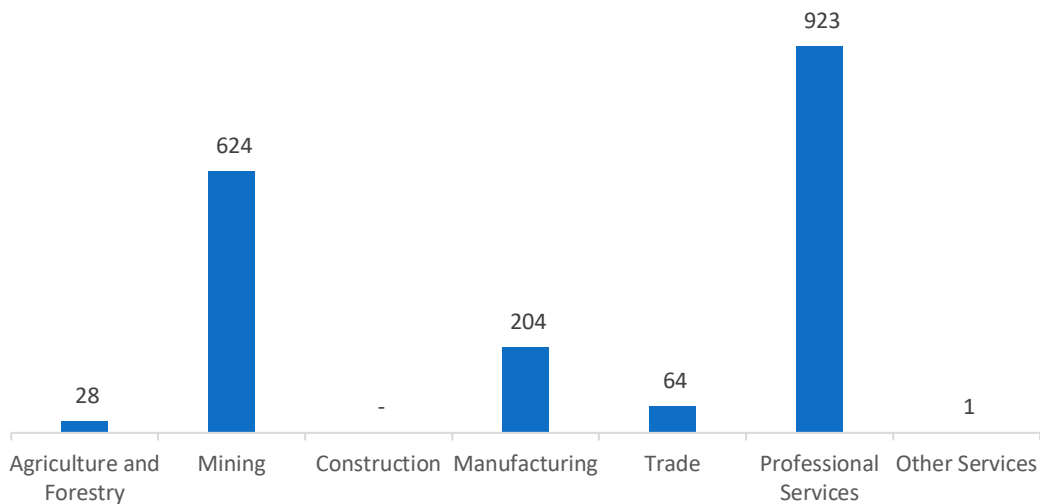
Fuels employs 1,844 workers in Arizona, 0.2 percent of the national total, up 33.2 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure AZ-4.
Fuels Employment by Detailed Technology Application



Professional and business services jobs represent 50.1 percent of Fuels jobs in Arizona.

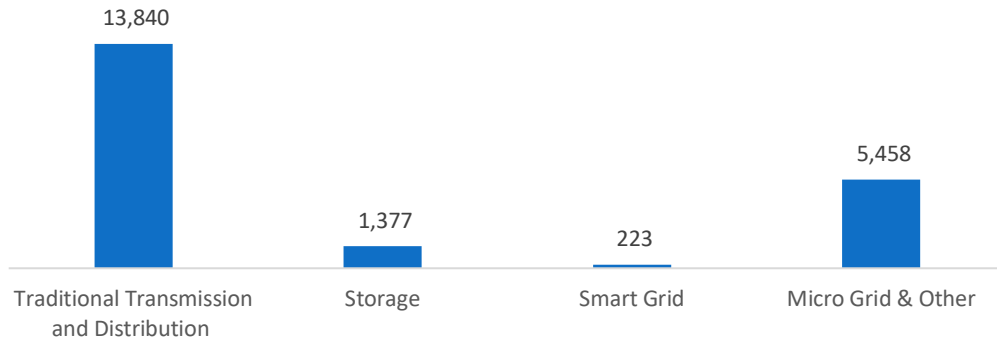
Figure AZ-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

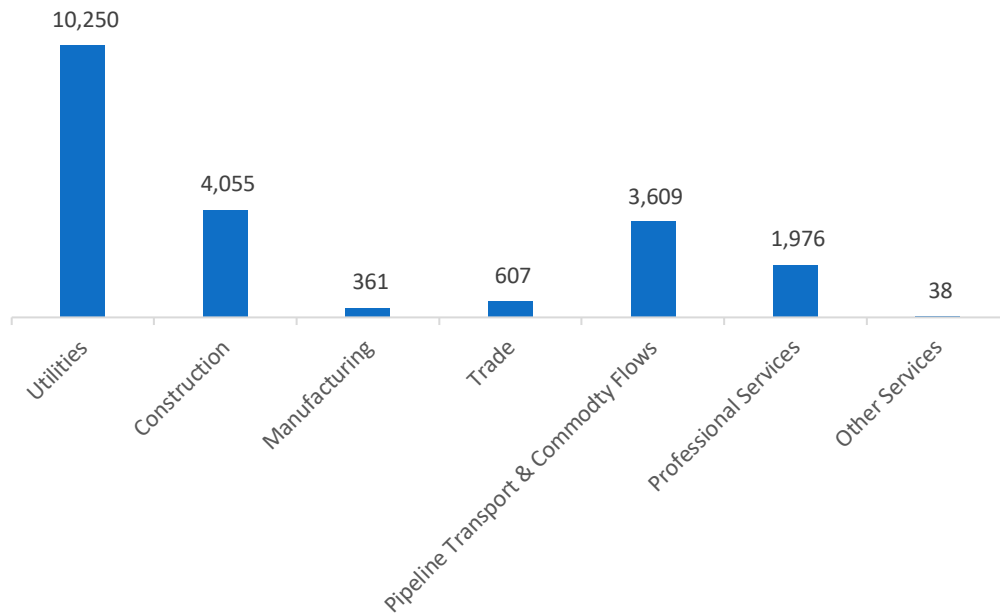
Transmission, Distribution, and Storage employs 20,898 workers in Arizona, 1.5 percent of the national total, up 2.0 percent or 400 jobs since the 2018 report.

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 49.1 percent of such jobs statewide.

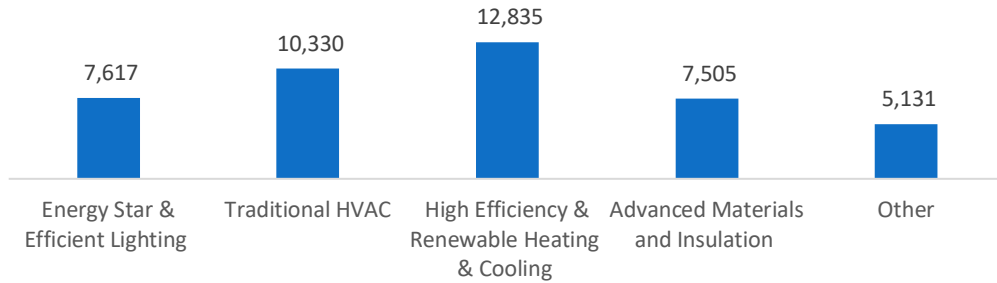
Figure AZ-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

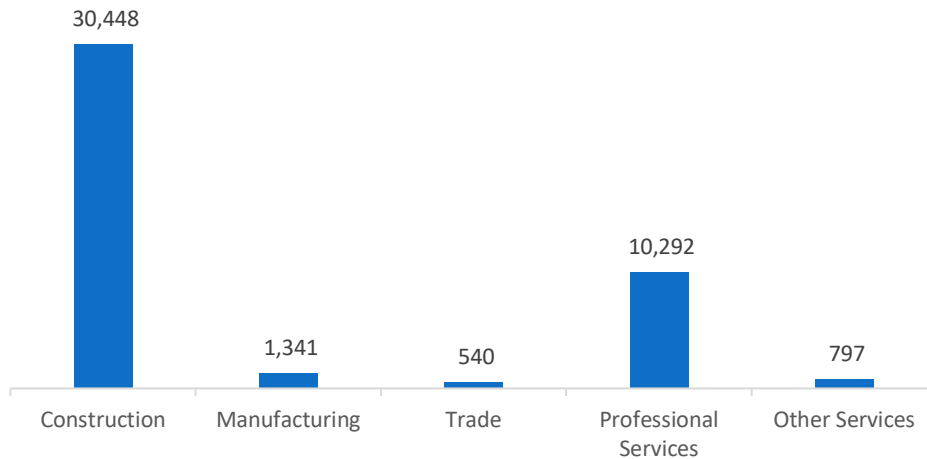
The 43,418 Energy Efficiency jobs in Arizona represent 1.9 percent of all U.S. Energy Efficiency jobs, adding 1,532 jobs (3.7 percent) since last year. The largest number of these employees work in high efficiency HVAC and renewable heating and cooling firms, followed by traditional HVAC.

Figure AZ-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

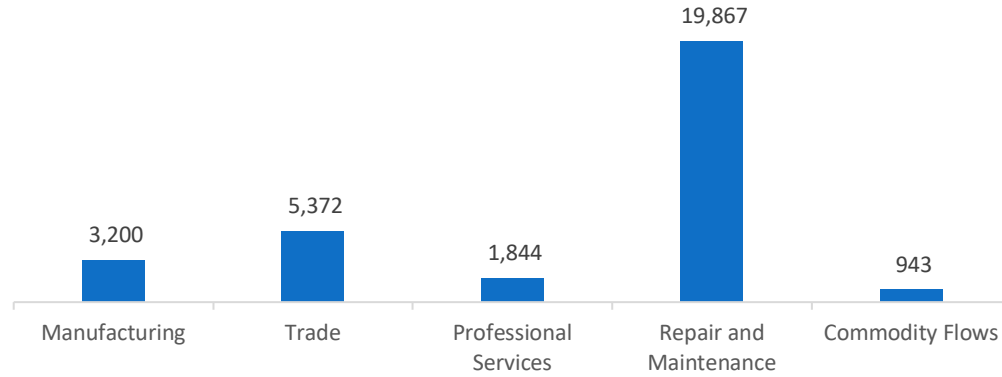
Figure AZ-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 31,226 jobs in Arizona, up 1,595 jobs over the past year (5.4 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure AZ-10.
Motor Vehicle Employment by Industry Sector



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 (5.5 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 2,920 jobs in Energy Efficiency (6.7 percent) and Motor Vehicles employers expect to add 618 jobs (2.0 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	7.7	7.1
Electric Power Transmission, Distribution and Storage	3.2	3.2
Energy Efficiency	6.7	7.8
Fuels	2.2	3.0
Motor Vehicles	2.0	2.2

Hiring Difficulty

Over the last year, 42.1 percent of energy-related employers in Arizona hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Electric Power Generation.

Table AZ-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	28.0	20.7	56.0	54.8
Electric Power Transmission, Distribution and Storage	50.0	21.9	16.7	46.1
Energy Efficiency	18.8	21.3	56.3	48.1
Fuels	66.7	37.9	--	43.0
Motor Vehicles	25.0	30.0	50.0	46.4

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

1. Lack of experience, training, or technical skills
2. Insufficient non-technical skills (work ethic, dependability, critical thinking)
3. Insufficient qualifications (certifications or education)

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

1. Technician or mechanical support – \$22.40 median hourly wage
2. Sales, marketing, or customer service – \$33.14 median hourly wage
3. Electrician/construction laborers – \$25.35 median hourly wage

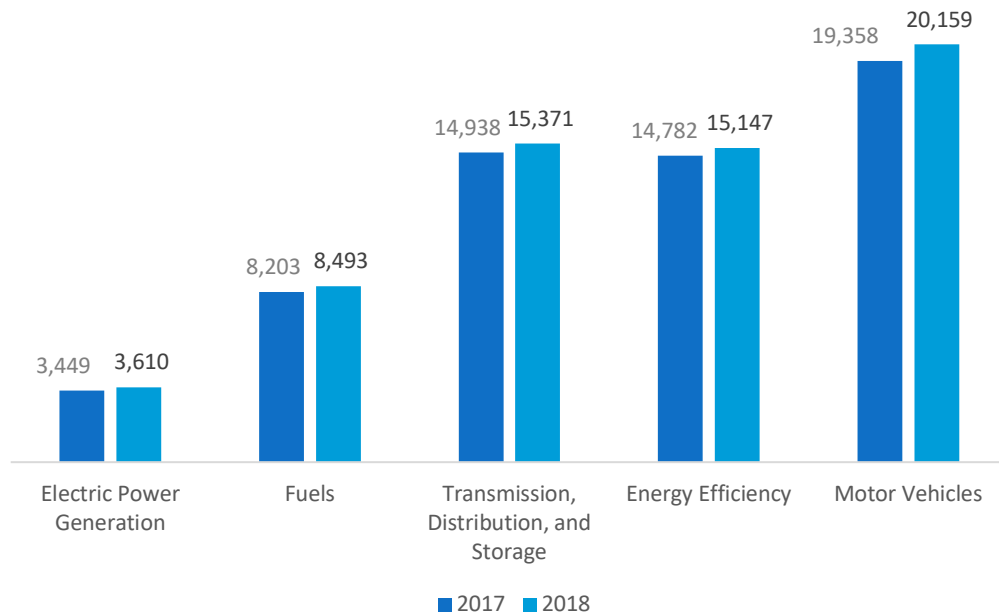
Arkansas

ENERGY AND EMPLOYMENT — 2019

Overview

Arkansas has an average concentration of energy employment, with 27,474 Traditional Energy workers statewide (representing 0.8 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 3,610 are in Electric Power Generation, 8,493 are in Fuels, and 15,371 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Arkansas is 2.3 percent of total state employment (compared to 2.3 percent of national employment). Arkansas has an additional 15,147 jobs in Energy Efficiency (0.7 percent of all U.S. Energy Efficiency jobs) and 20,159 jobs in Motor Vehicles (0.8 percent of all U.S. Motor Vehicle jobs).

Figure AR-1.
Employment by Major Energy Technology Application



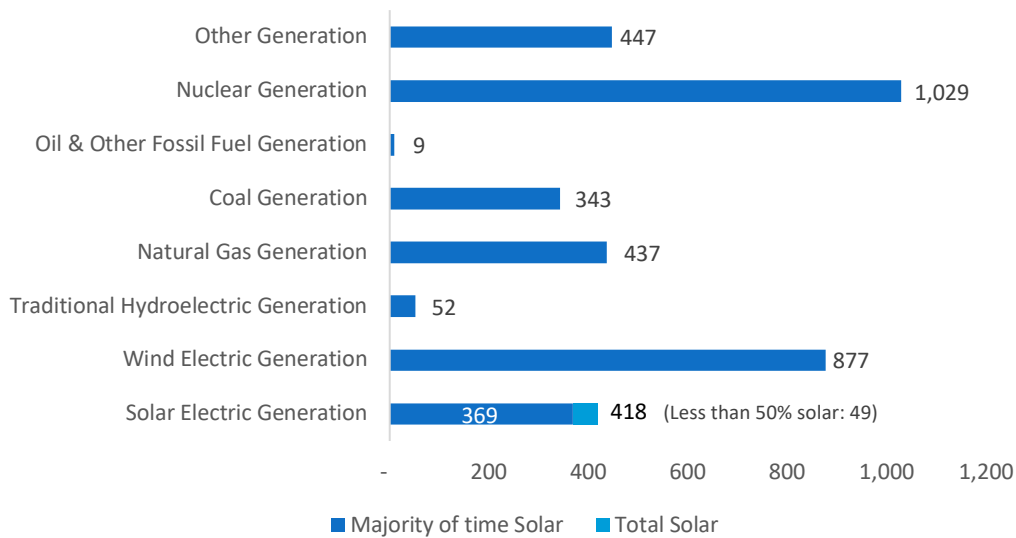
Overall, Traditional Energy jobs grew by 3.3 percent since the 2018 report, increasing by 884 jobs over the period. Energy Efficiency jobs added 365 jobs (2.5 percent) and motor vehicles added 800 jobs (4.1 percent).

Breakdown by Technology Applications

Electric Power Generation

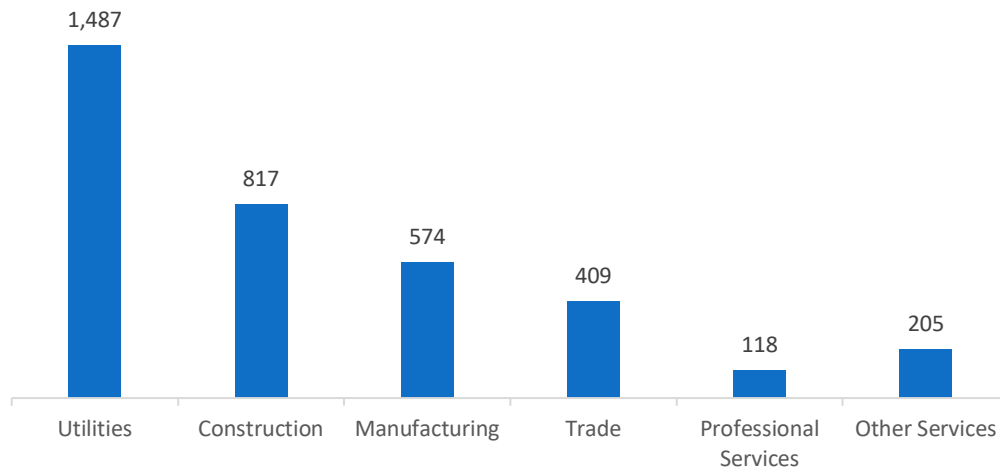
Electric Power Generation employs 3,610 workers in Arkansas, 0.4 percent of the national total and adding 161 jobs over the past year (4.7 percent). Wind makes up the largest segment of employment related to Electric Power Generation, with 877 jobs (up 1.6 percent), followed by traditional fossil fuel generation at 788 jobs (up 1.7 percent).

Figure AR-2.
Electric Power Generation Employment by Detailed Technology Application



Utilities are the largest industry sector in Electric Power Generation, with 41.2 percent of jobs. Construction is next with 22.6 percent.

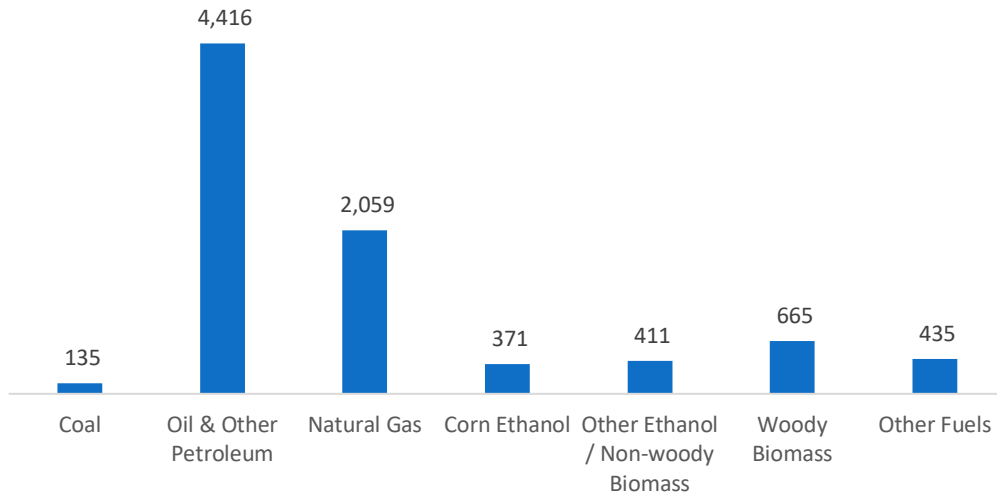
Figure AR-3.



Fuels

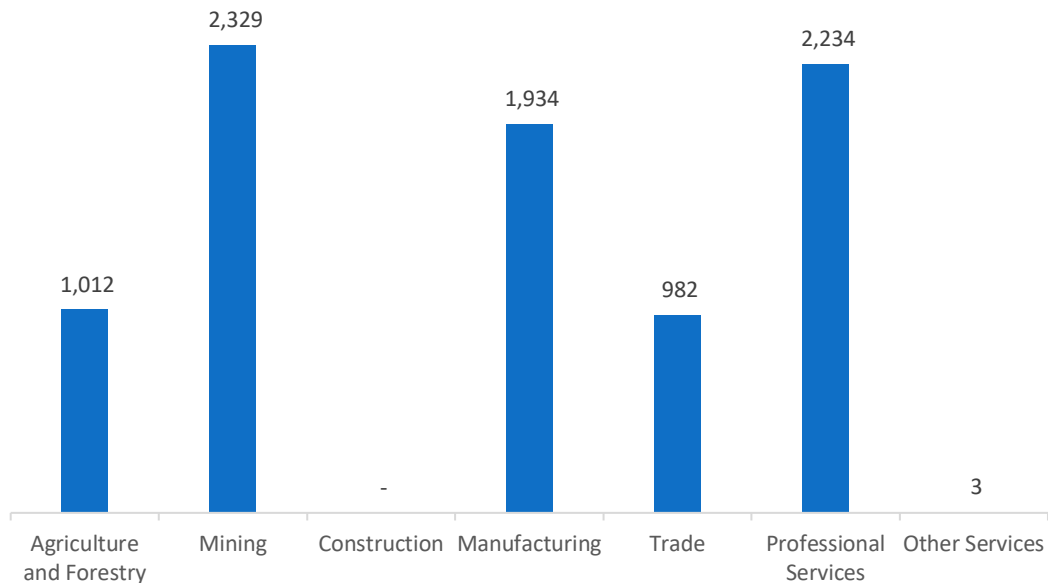
Fuels employs 8,493 workers in Arkansas, 0.8 percent of the national total, up 3.5 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure AR-4.
Fuels Employment by Detailed Technology Application



Mining and extraction jobs represent 27.4 percent of Fuels jobs in Arkansas.

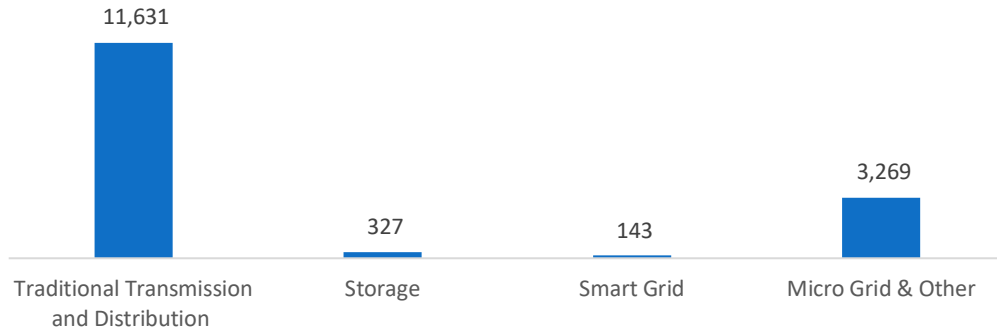
Figure AR-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

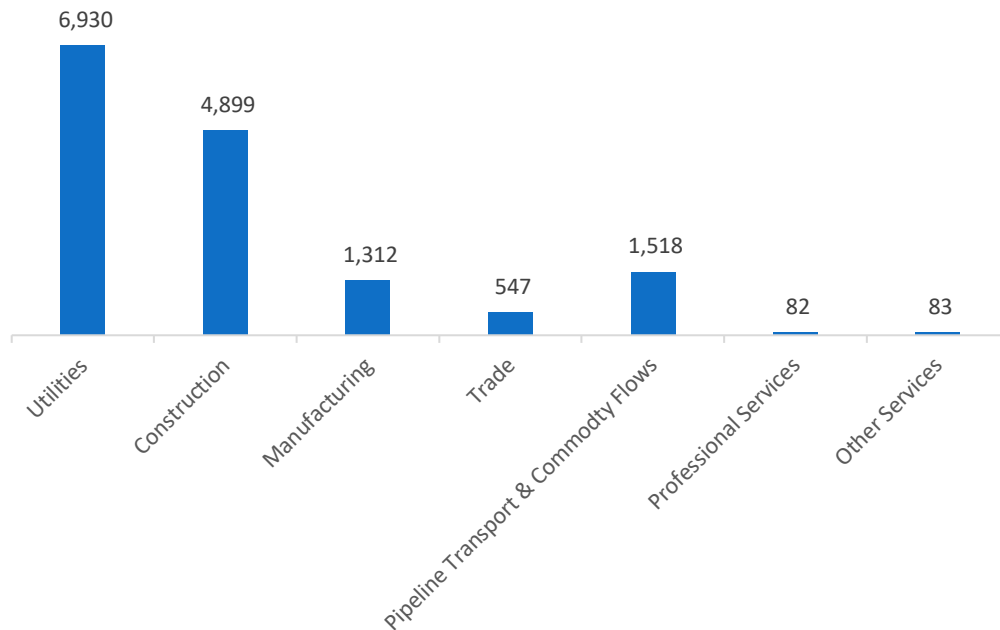
Transmission, Distribution, and Storage employs 15,371 workers in Arkansas, 1.1 percent of the national total, up 2.9 percent or 432 jobs since the 2018 report.

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



Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Arkansas, with 45.1 percent of such jobs statewide.

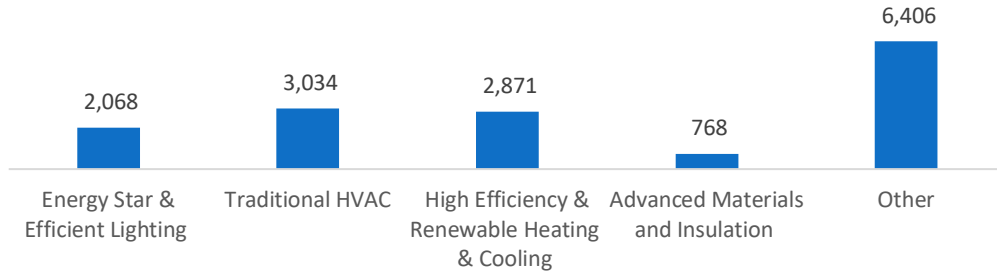
Figure AR-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

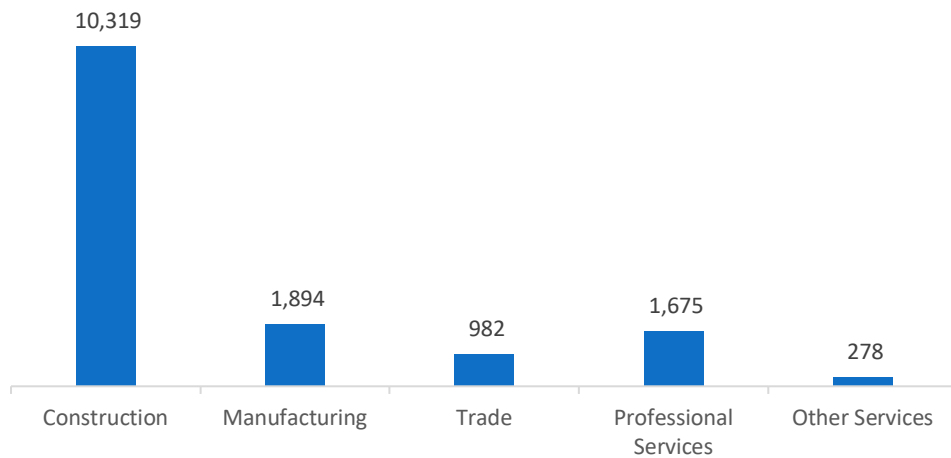
The 15,147 Energy Efficiency jobs in Arkansas represent 0.7 percent of all U.S. Energy Efficiency jobs, adding 365 jobs (2.5 percent) since last year. The largest number of these employees work in (other energy efficiency products and services firms, followed by traditional HVAC.

Figure AR-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

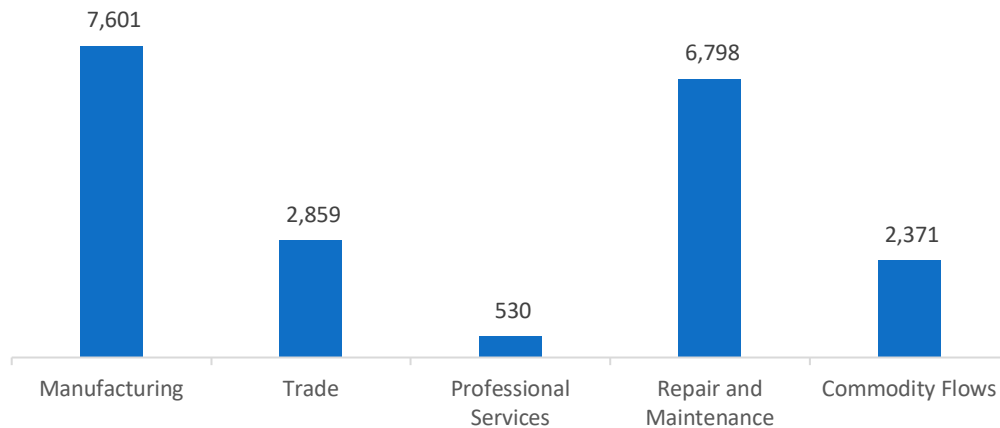
Figure AR-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 20,159 jobs in Arkansas, up 800 jobs over the past year (4.1 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is manufacturing.

Figure AR-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in Arkansas are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (4.8 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 1,296 jobs in Energy Efficiency (8.6 percent) and Motor Vehicles employers expect to add 399 jobs (2.0 percent) over the next year.

Table AR-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	7.1	7.1
Electric Power Transmission, Distribution and Storage	4.8	3.2
Energy Efficiency	8.6	7.8
Fuels	4.0	3.0
Motor Vehicles	2.0	2.2

Hiring Difficulty

Over the last year, 67.3 percent of energy-related employers in Arkansas hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Energy Efficiency.

Table AR-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	--	20.7	66.7	54.8
Electric Power Transmission, Distribution and Storage	16.7	21.9	16.7	46.1
Energy Efficiency	60.0	21.3	20.0	48.1
Fuels	50.0	37.9	--	43.0
Motor Vehicles	40.0	30.0	40.0	46.4

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

1. Lack of experience, training, or technical skills
2. Insufficient non-technical skills (work ethic, dependability, critical thinking)
3. Difficulty finding industry-specific knowledge, skills, and interest

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

1. Technician or mechanical support – \$18.82 median hourly wage
2. Management (directors, supervisors, vice presidents) – \$36.90 median hourly wage
3. Sales, marketing, or customer service – \$28.43 median hourly wage

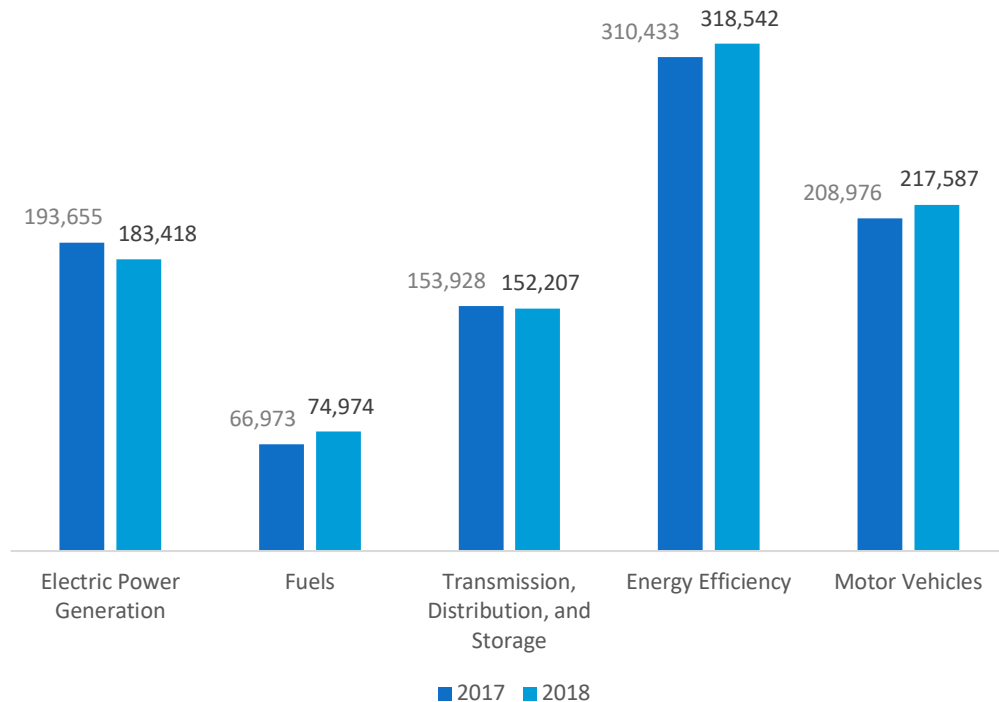
California

ENERGY AND EMPLOYMENT — 2019

Overview

California has an average concentration of energy employment, with 410,600 Traditional Energy workers statewide (representing 12.2 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 183,418 are in Electric Power Generation, 74,974 are in Fuels, and 152,207 are in Transmission, Distribution, and Storage. The Traditional Energy sector in California is 2.3 percent of total state employment (compared to 2.3 percent of national employment). California has an additional 318,542 jobs in Energy Efficiency (13.7 percent of all U.S. Energy Efficiency jobs) and 217,587 jobs in Motor Vehicles (8.6 percent of all U.S. Motor Vehicle jobs).

Figure CA-1.
Employment by Major Energy Technology Application



Overall, Traditional Energy jobs declined by 1.0 percent since the 2018 report, decreasing by 3,956 jobs over the period. Energy Efficiency jobs added 8,109 jobs (2.6 percent) and motor vehicles added 8,612 jobs (4.1 percent).

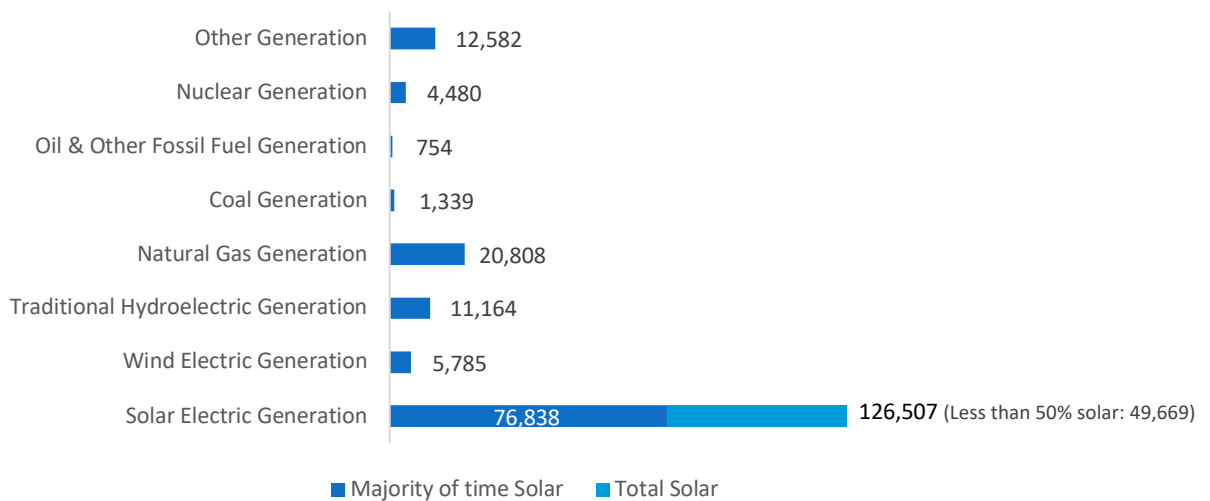
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 183,418 workers in California, 20.9 percent of the national total and losing 10,237 jobs over the past year (-5.3 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 126,507 jobs (down 8.5 percent), followed by traditional fossil fuel generation at 22,901 jobs (up 3.9 percent).

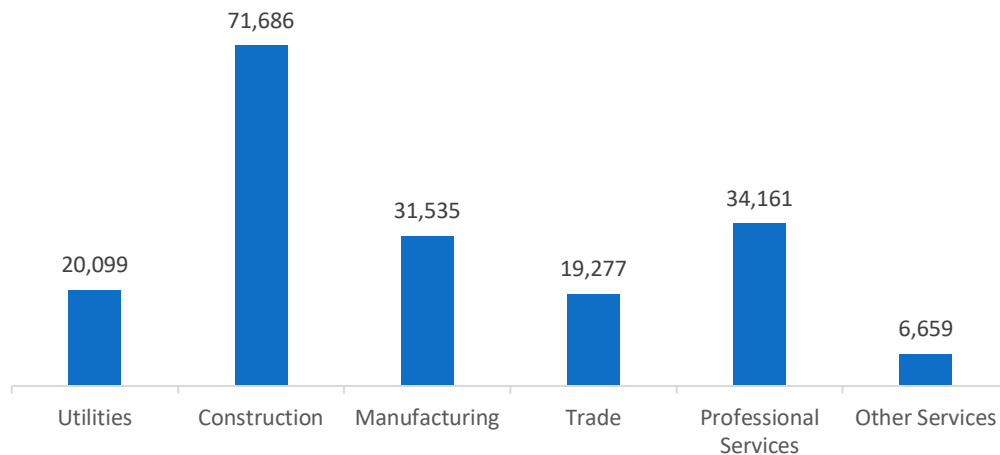
Figure CA-2.

Electric Power Generation Employment by Detailed Technology Application



Construction is the largest industry sector in Electric Power Generation, with 39.1 percent of jobs. Professional and business services are next with 18.6 percent.

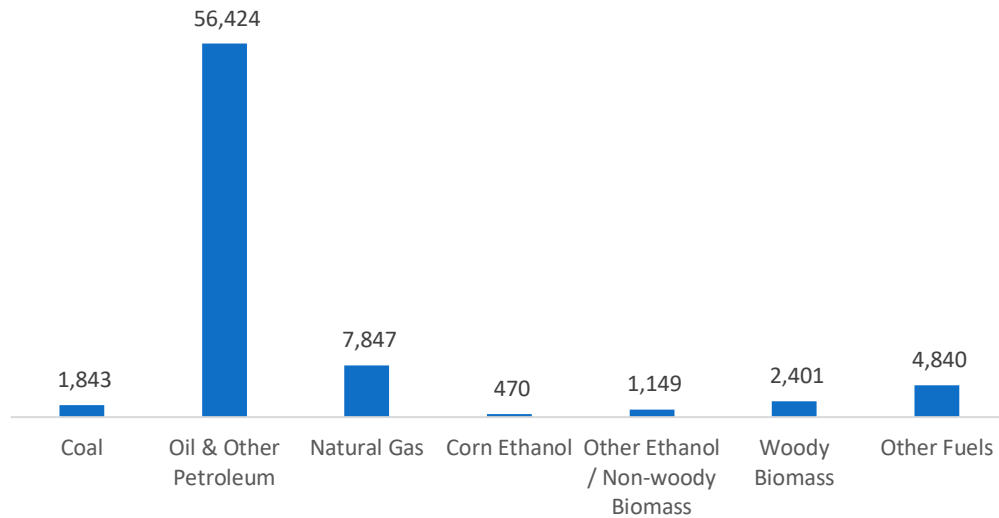
Figure CA-3



Fuels

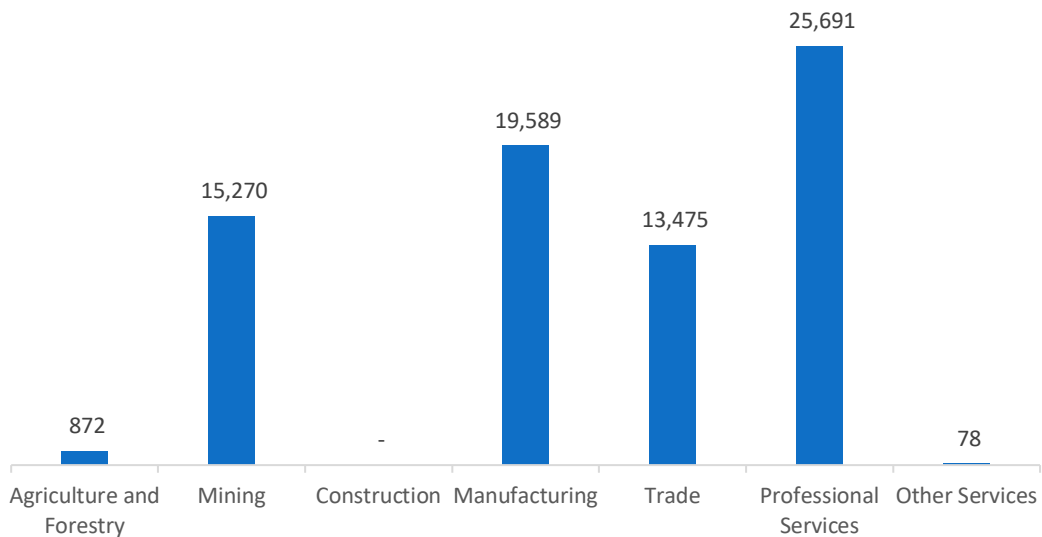
Fuels employs 74,974 workers in California, 6.6 percent of the national total, up 11.9 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure CA-4.
Fuels Employment by Detailed Technology Application



Professional and business services jobs represent 34.3 percent of Fuels jobs in California.

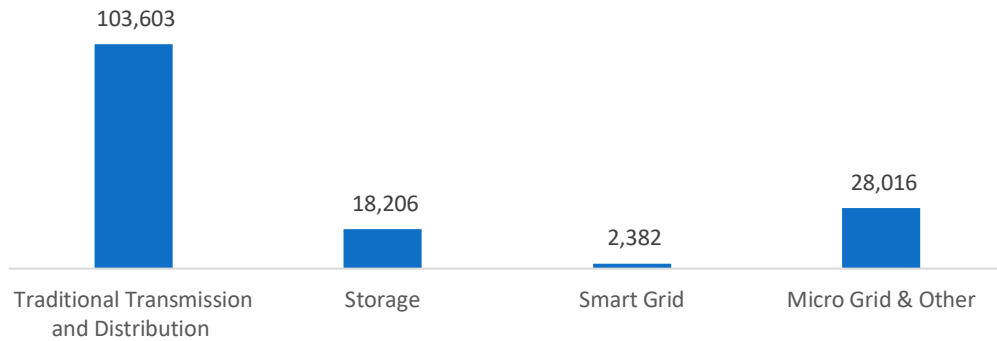
Figure CA-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

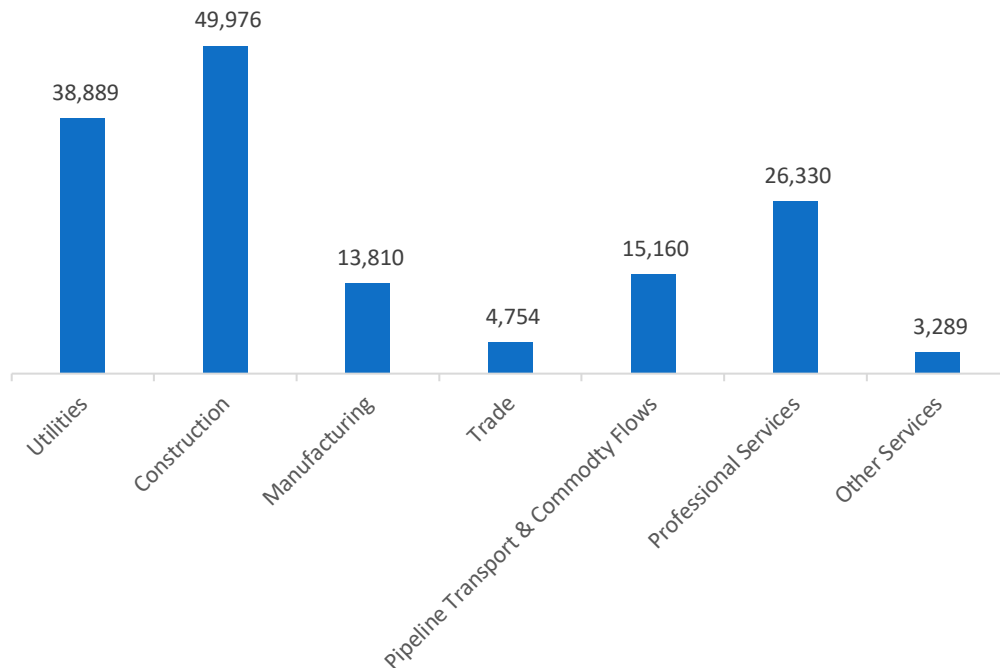
Transmission, Distribution, and Storage employs 152,207 workers in California, 11.1 percent of the national total, down 1.1 percent or 1,721 jobs since the 2018 report.

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



Construction is responsible for the largest percentage of Transmission, Distribution, and Storage jobs in California, with 32.8 percent of such jobs statewide.

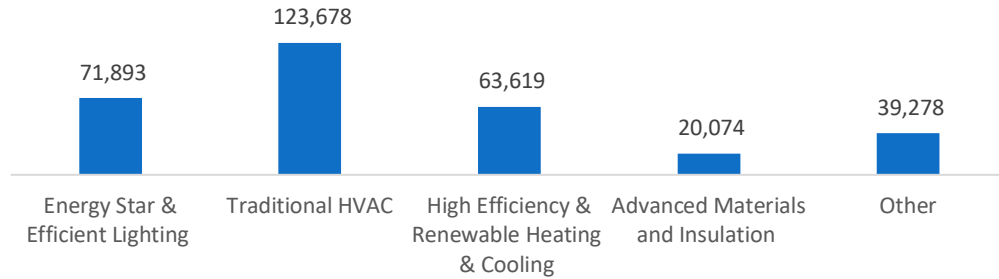
Figure CA-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

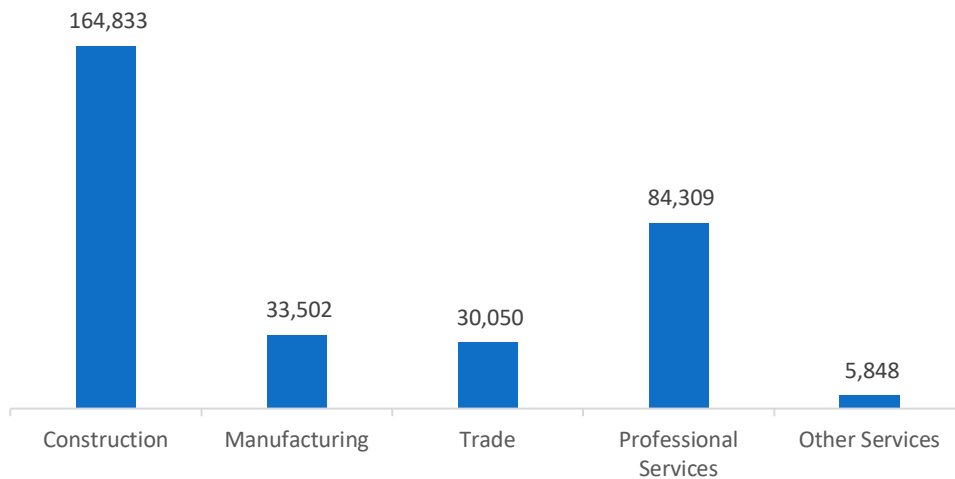
The 318,542 Energy Efficiency jobs in California represent 13.7 percent of all U.S. Energy Efficiency jobs, adding 8,109 jobs (2.6 percent) since last year. The largest number of these employees work in (traditional HVAC firms, followed by ENERGY STAR and efficient lighting.

Figure CA-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

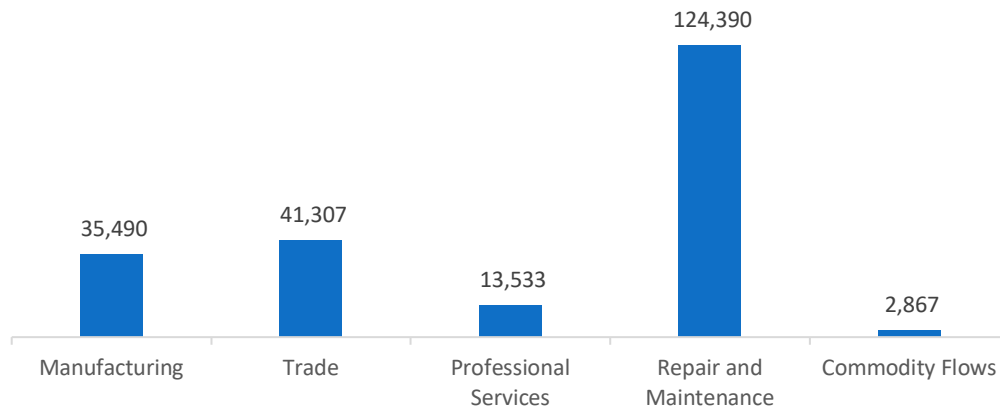
Figure CA-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 217,587 jobs in California, up 8,612 jobs over the past year (4.1 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure CA-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in California 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 4.1 percent nationally). Energy Efficiency employers expect to add 26,382 jobs in Energy Efficiency (8.3 percent) and Motor Vehicles employers expect to add 4,308 jobs (2.0 percent) over the next year.

Table CA-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	7.4	7.1
Electric Power Transmission, Distribution and Storage	3.2	3.2
Energy Efficiency	8.3	7.8
Fuels	3.9	3.0
Motor Vehicles	2.0	2.2

Hiring Difficulty

Over the last year, 45.1 percent of energy-related employers in California hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Fuels.

Table CA-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	25.1	20.7	58.2	54.8
Electric Power Transmission, Distribution and Storage	25.0	21.9	53.1	46.1
Energy Efficiency	40.8	21.3	42.3	48.1
Fuels	12.5	37.9	87.5	43.0
Motor Vehicles	32.0	30.0	40.0	46.4

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

1. Lack of experience, training, or technical skills
2. Insufficient qualifications (certifications or education)
3. Competition/ small applicant pool

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

1. Sales, marketing, or customer service – \$37.04 median hourly wage
2. Management (directors, supervisors, vice presidents) – \$40.05 median hourly wage
3. Electrician/construction laborers – \$19.60 median hourly wage

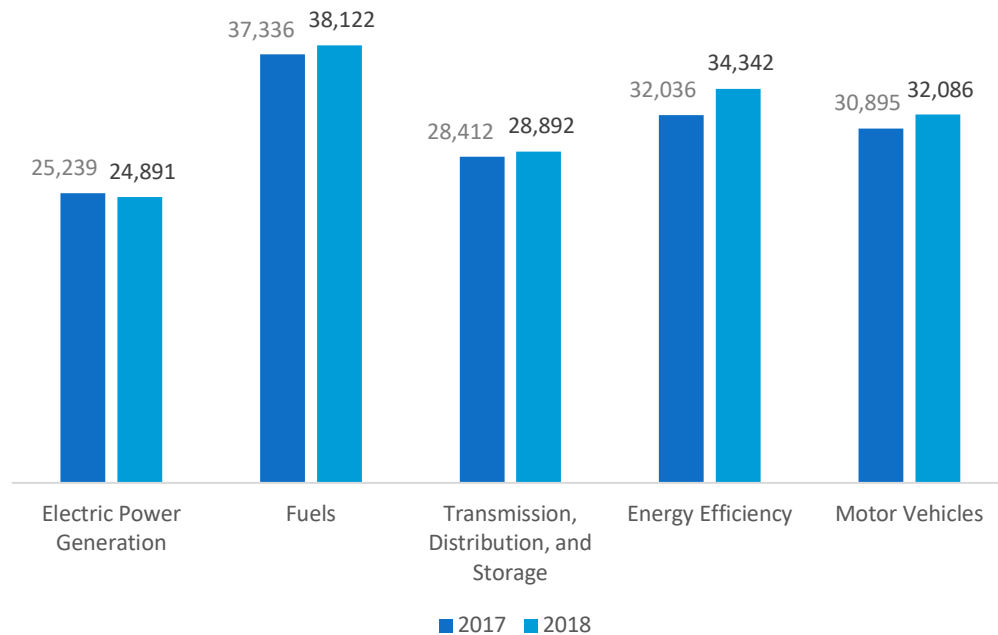
Colorado

ENERGY AND EMPLOYMENT — 2019

Overview

Colorado has a high concentration of energy employment, with 91,905 Traditional Energy workers statewide (representing 2.7 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 24,891 are in Electric Power Generation, 38,122 are in Fuels, and 28,892 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Colorado is 3.4 percent of total state employment (compared to 2.3 percent of national employment). Colorado has an additional 34,342 jobs in Energy Efficiency (1.5 percent of all U.S. Energy Efficiency jobs) and 32,086 jobs in Motor Vehicles (1.3 percent of all U.S. Motor Vehicle jobs).

Figure CO-1.
Employment by Major Energy Technology Application



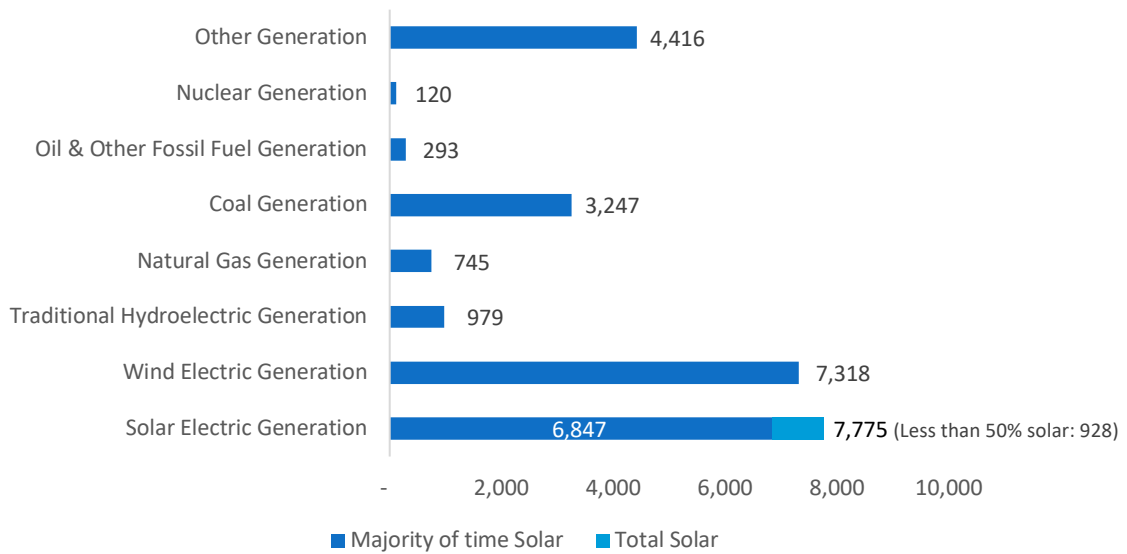
Overall, Traditional Energy jobs grew by 1.0 percent since the 2018 report, increasing by 918 jobs over the period. Energy Efficiency jobs added 2,305 jobs (7.2 percent) and motor vehicles added 1,190 jobs (3.9 percent).

Breakdown by Technology Applications

Electric Power Generation

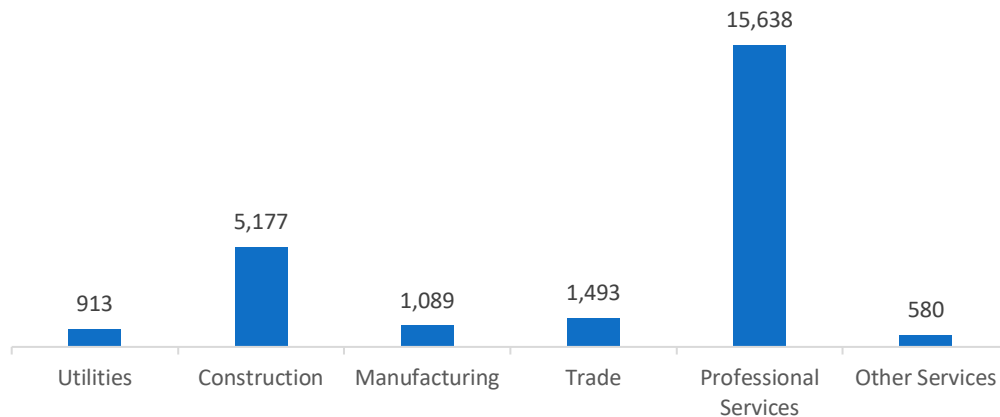
Electric Power Generation employs 24,891 workers in Colorado, 2.8 percent of the national total and losing 348 jobs over the past year (-1.4 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 7,775 jobs (down 0.6 percent), followed by wind at 7,318 jobs (down less than 1 percent).

Figure CO-2.
Electric Power Generation Employment by Detailed Technology Application



Professional and business services are the largest industry sector in Electric Power Generation, with 62.8 percent of jobs. Construction is next with 20.8 percent.

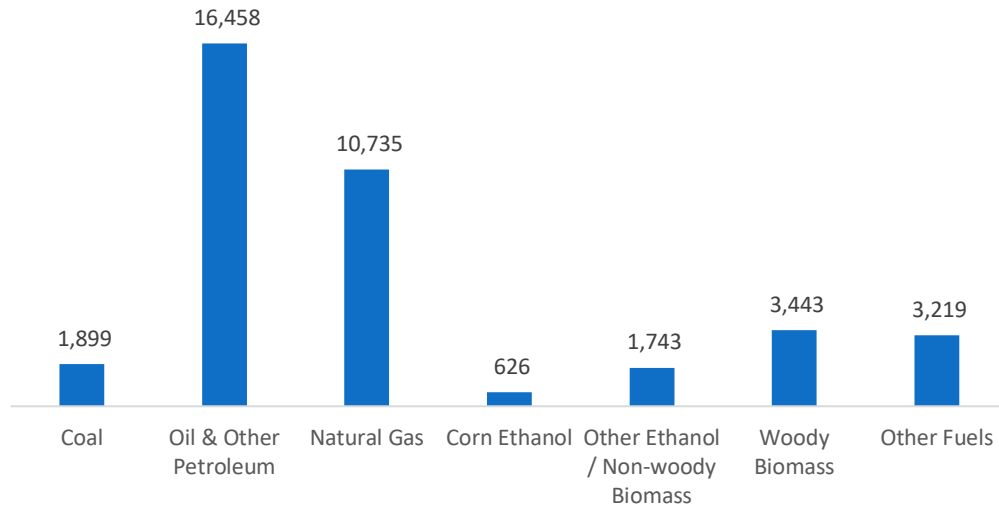
Figure CO-3.



Fuels

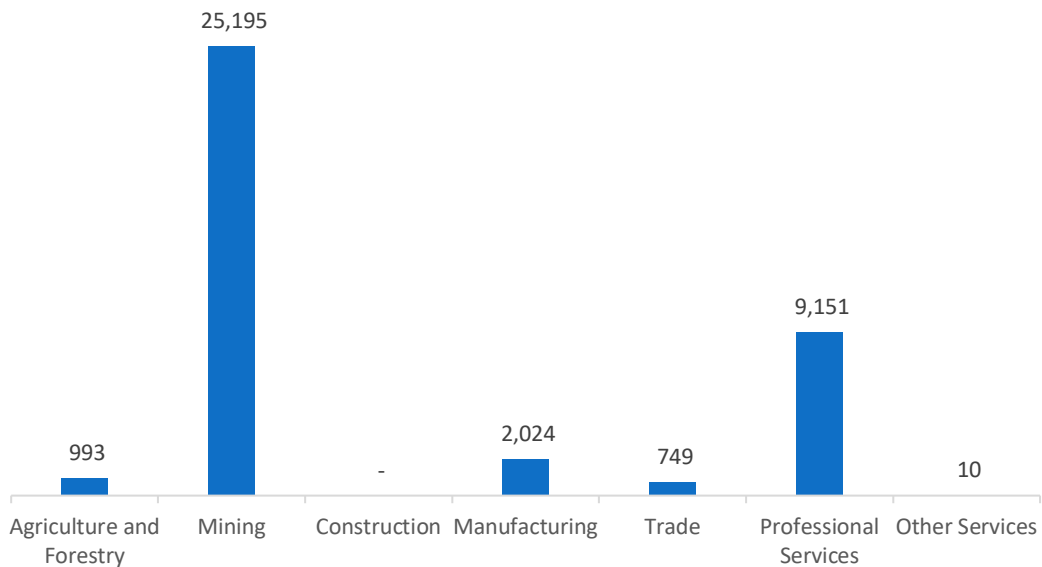
Fuels employs 38,122 workers in Colorado, 3.4 percent of the national total, up 2.1 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure CO-4.
Fuels Employment by Detailed Technology Application



Mining and extraction jobs represent 66.1 percent of Fuels jobs in Colorado.

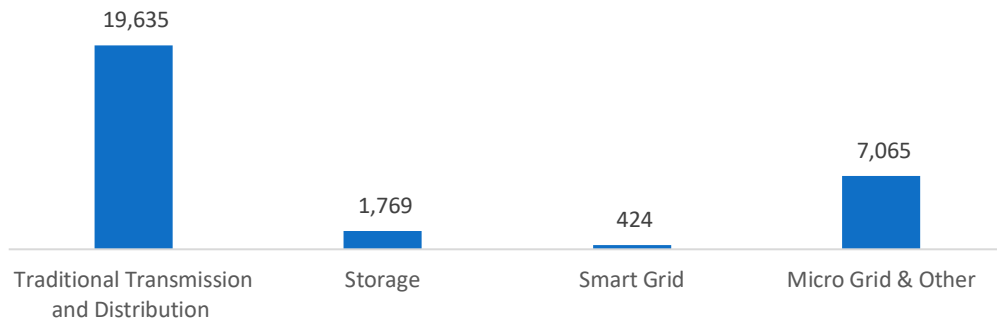
Figure CO-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

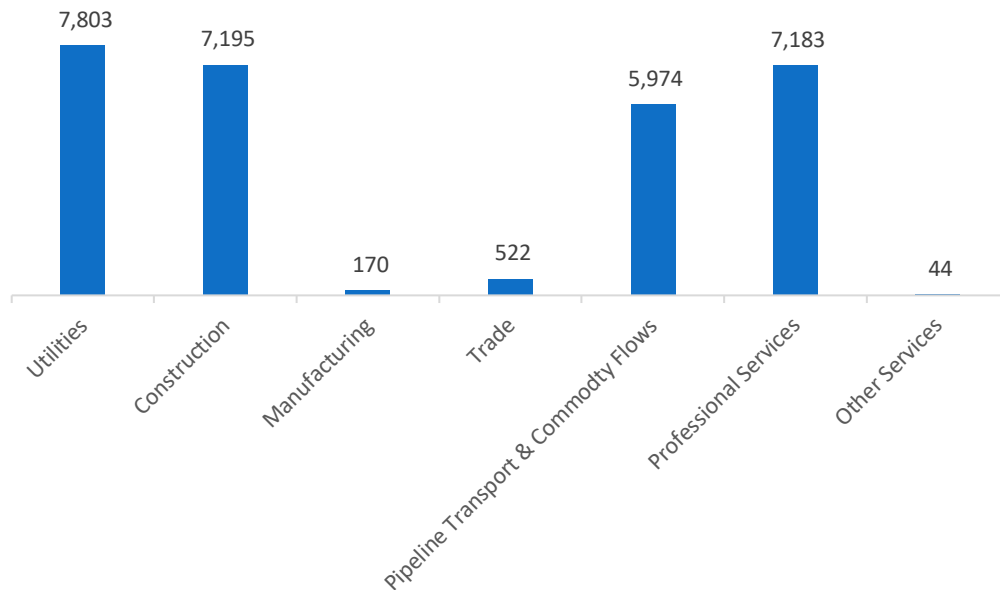
Transmission, Distribution, and Storage employs 28,892 workers in Colorado, 2.1 percent of the national total, up 1.7 percent or 480 jobs since the 2018 report.

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



Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Colorado, with 27.0 percent of such jobs statewide.

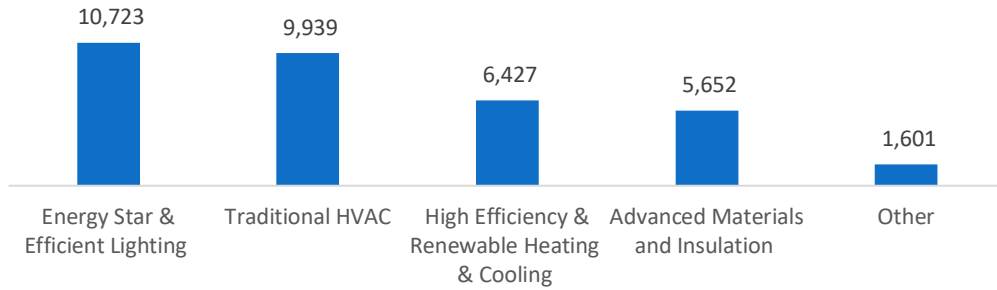
Figure CO-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

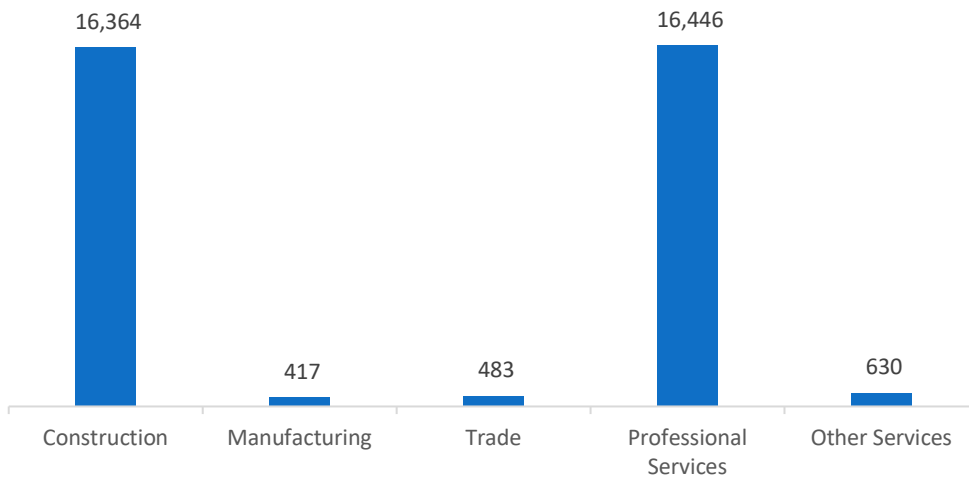
The 34,342 Energy Efficiency jobs in Colorado represent 1.5 percent of all U.S. Energy Efficiency jobs, adding 2,305 jobs (7.2 percent) since last year. The largest number of these employees work in (ENERGY STAR and efficient lighting firms, followed by traditional HVAC.

Figure CO-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the professional and business services industry.

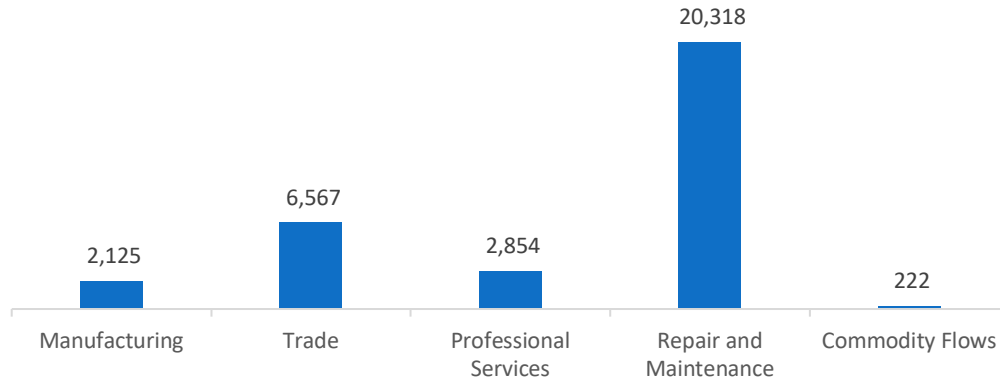
Figure CO-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 32,086 jobs in Colorado, up 1,190 jobs over the past year (3.9 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure CO-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in Colorado are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (5.1 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 2,744 jobs in Energy Efficiency (8.0 percent) and Motor Vehicles employers expect to add 1,219 jobs (3.8 percent) over the next year.

Table CO-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	7.6	7.1
Electric Power Transmission, Distribution and Storage	4.8	3.2
Energy Efficiency	8.0	7.8
Fuels	3.7	3.0
Motor Vehicles	3.8	2.2

Hiring Difficulty

Over the last year, 53.5 percent of energy-related employers in Colorado hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Energy Efficiency.

Table CO-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	22.4	20.7	51.0	54.8
Electric Power Transmission, Distribution and Storage	28.6	21.9	42.9	46.1
Energy Efficiency	40.0	21.3	45.0	48.1
Fuels	--	37.9	71.4	43.0
Motor Vehicles	55.6	30.0	22.2	46.4

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

1. Lack of experience, training, or technical skills
2. Difficulty finding industry-specific knowledge, skills, and interest
3. Competition/ small applicant pool

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

1. Technician or mechanical support – \$24.23 median hourly wage
2. Sales, marketing, or customer service – \$38.08 median hourly wage
3. Electrician/construction laborers – \$25.99 median hourly wage

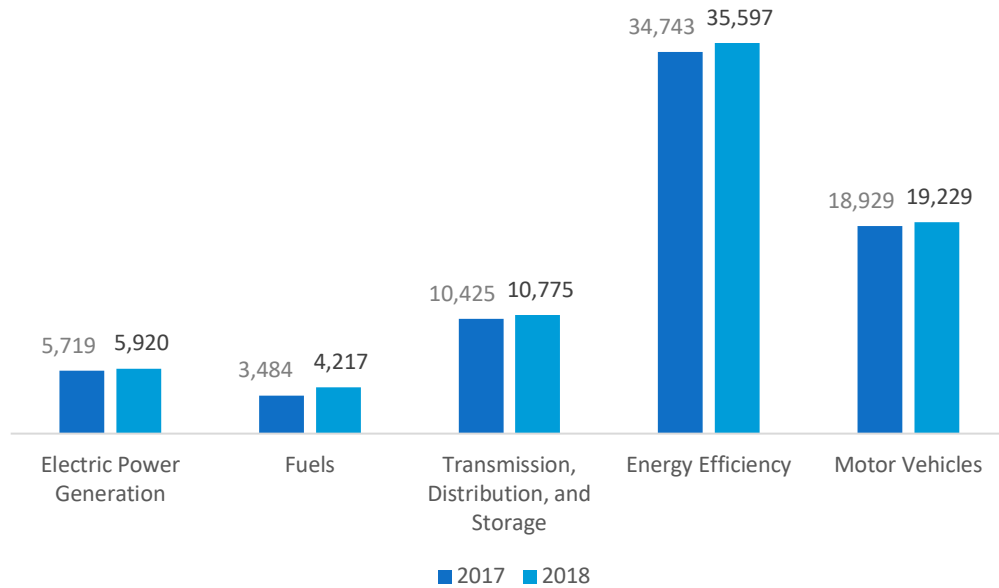
Connecticut

ENERGY AND EMPLOYMENT – 2019

Overview

Connecticut has a low concentration of energy employment, with 20,912 Traditional Energy workers statewide (representing 0.6 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 5,920 are in Electric Power Generation, 4,217 are in Fuels, and 10,775 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Connecticut is 1.2 percent of total state employment (compared to 2.3 percent of national employment). Connecticut has an additional 35,597 jobs in Energy Efficiency (1.5 percent of all U.S. Energy Efficiency jobs) and 19,229 jobs in Motor Vehicles (0.8 percent of all U.S. Motor Vehicle jobs).

Figure CT-1.
Employment by Major Energy Technology Application



Overall, Traditional Energy jobs grew by 6.5 percent since the 2018 report, increasing by 1,284 jobs over the period. Energy Efficiency jobs added 854 jobs (2.5 percent) and motor vehicles added 301 jobs (1.6 percent).

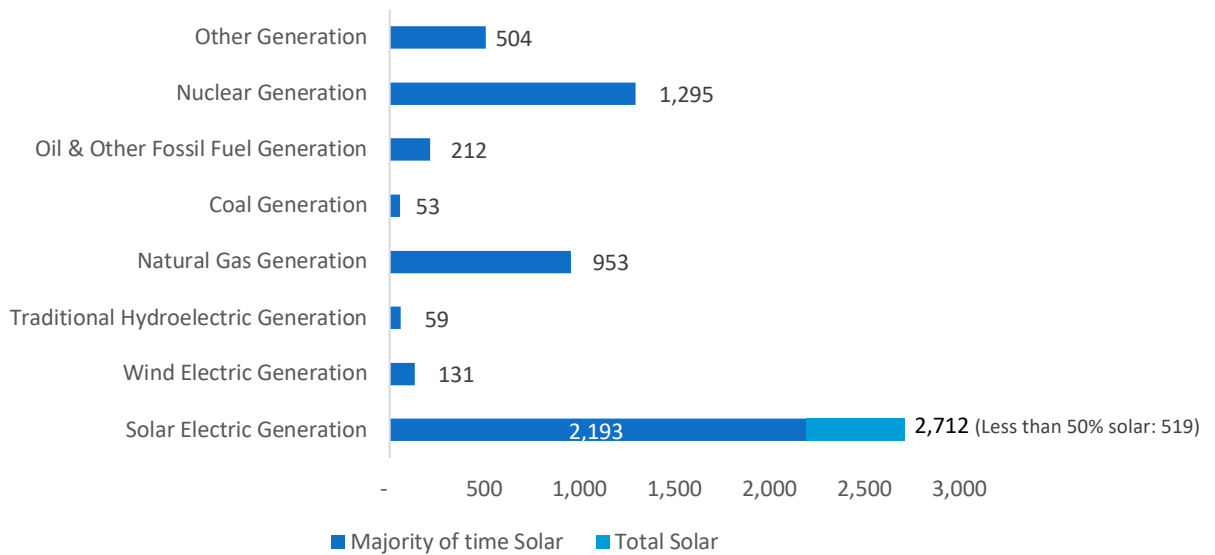
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 5,920 workers in Connecticut, 0.7 percent of the national total and adding 200 jobs over the past year (3.5 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 2,712 jobs (down 2.2 percent), followed by traditional fossil fuel generation at 1,218 jobs (up 7.4 percent).

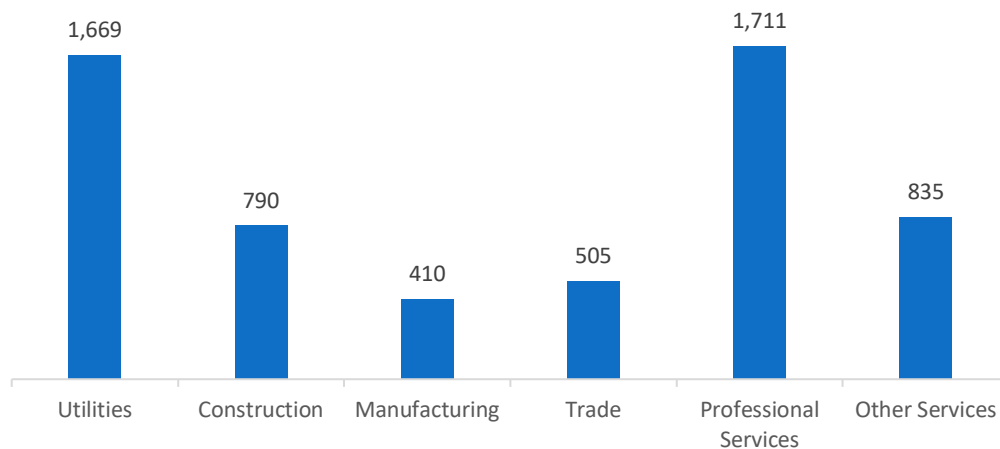
Figure CT-2.

Electric Power Generation Employment by Detailed Technology Application



Professional and business services are the largest industry sector in Electric Power Generation, with 28.9 percent of jobs. Utilities are next with 28.2 percent.

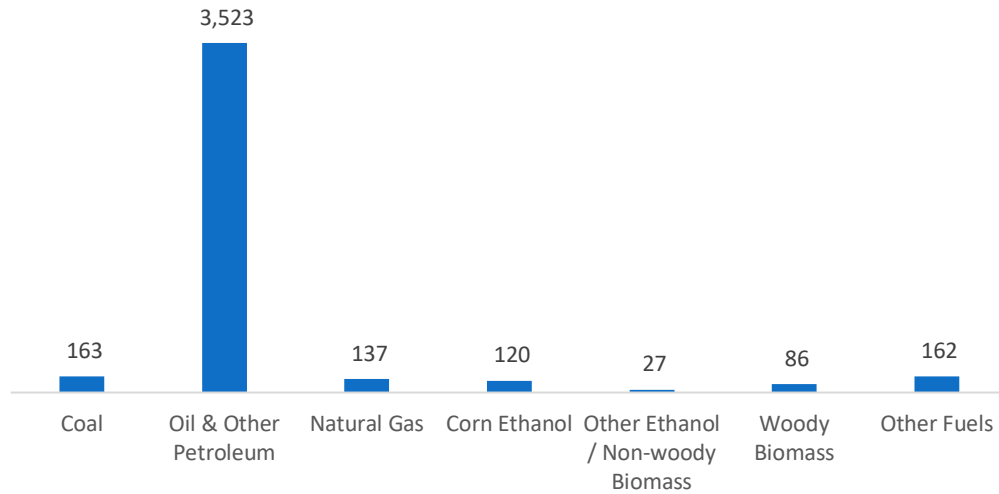
Figure CT-3.



Fuels

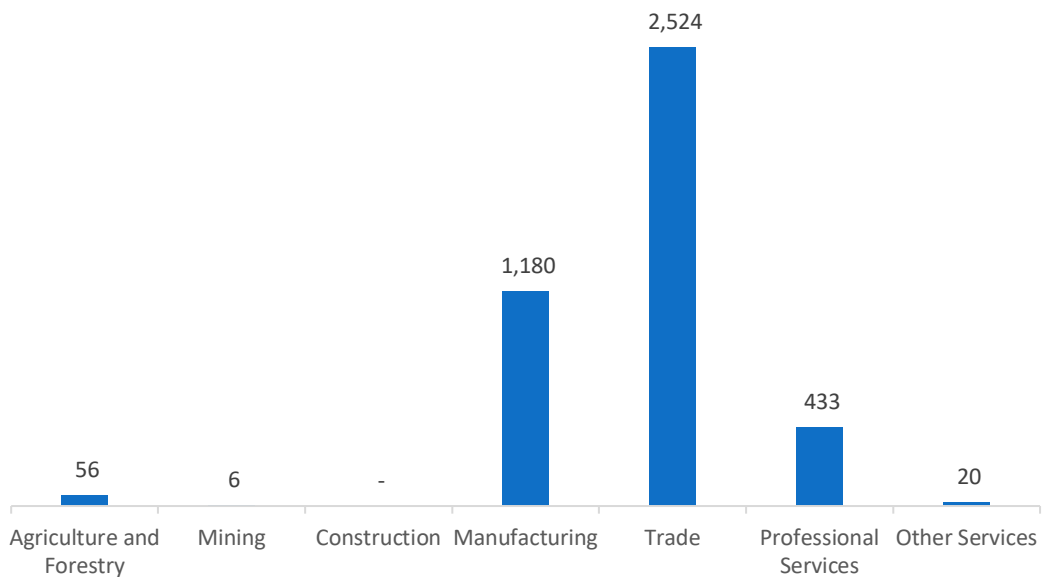
Fuels employs 4,217 workers in Connecticut, 0.4 percent of the national total, up 21.0 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure CT-4.
Fuels Employment by Detailed Technology Application



Wholesale trade jobs represent 59.8 percent of Fuels jobs in Connecticut.

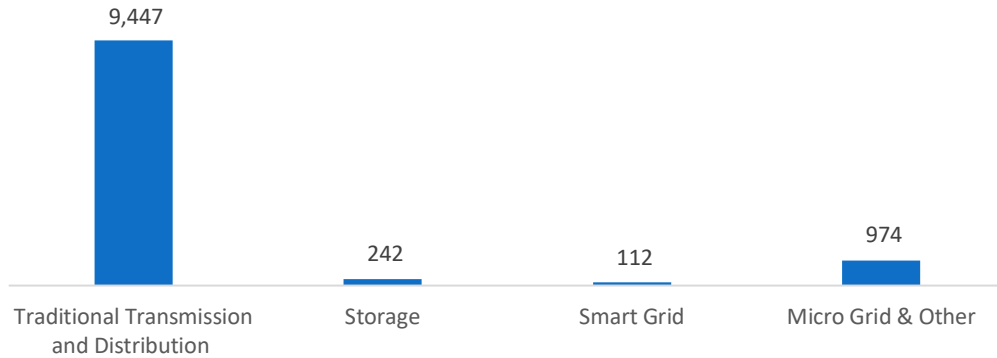
Figure CT-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

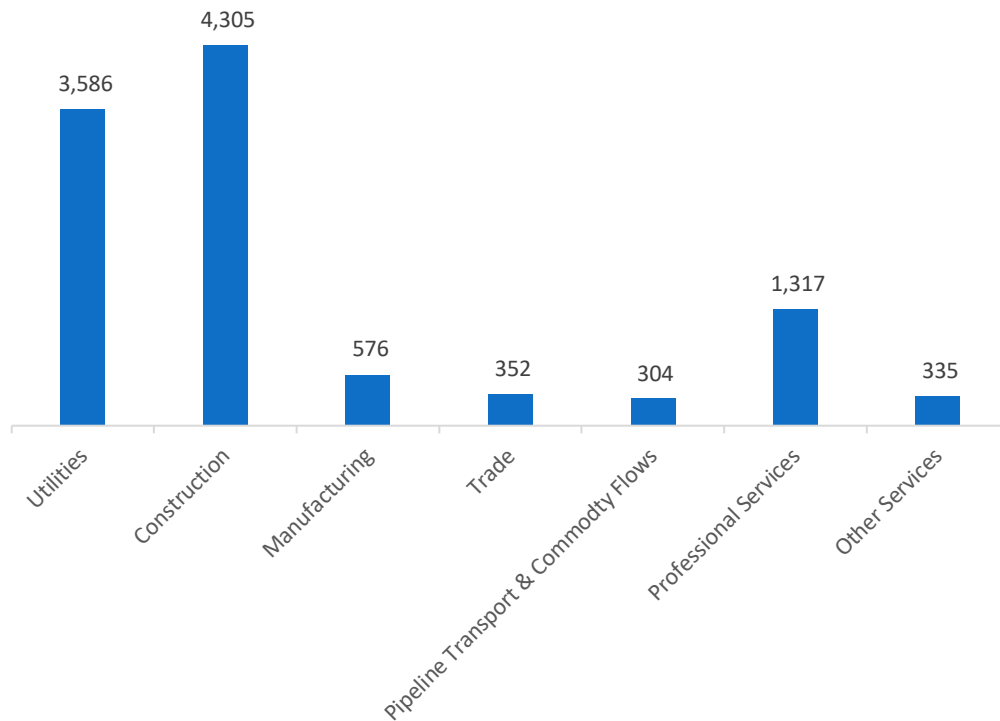
Transmission, Distribution, and Storage employs 10,775 workers in Connecticut, 0.8 percent of the national total, up 3.4 percent or 351 jobs since the 2018 report.

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



Construction is responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Connecticut, with 40.0 percent of such jobs statewide.

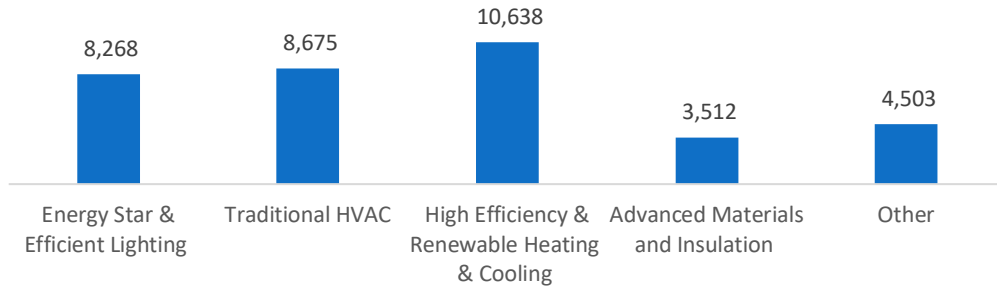
Figure CT-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

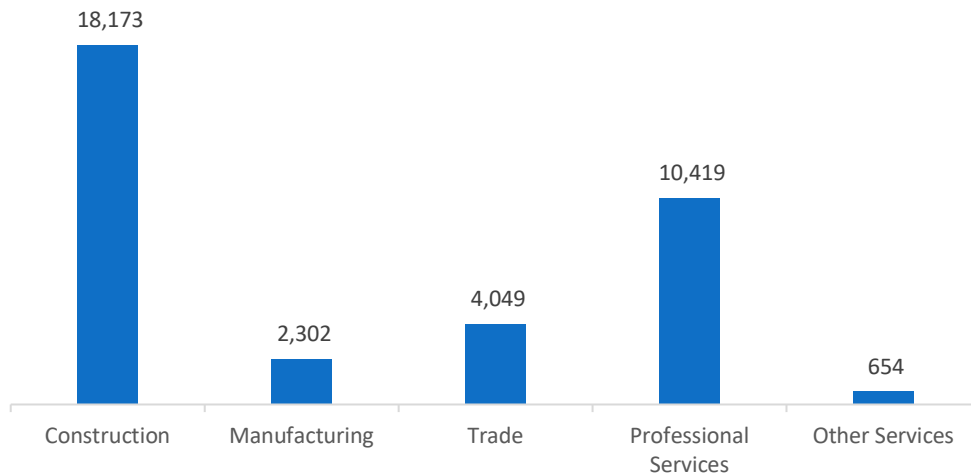
The 35,597 Energy Efficiency jobs in Connecticut represent 1.5 percent of all U.S. Energy Efficiency jobs, adding 854 jobs (2.5 percent) since last year. The largest number of these employees work in high efficiency HVAC and renewable heating and cooling firms, followed by traditional HVAC.

Figure CT-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

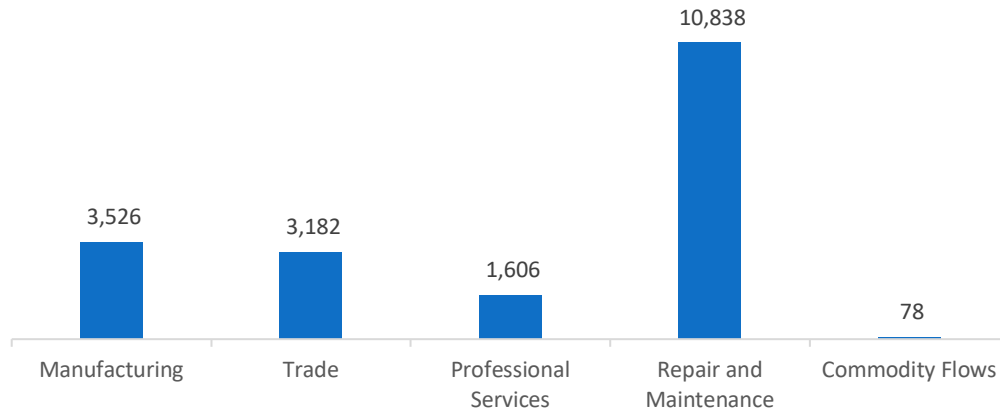
Figure CT-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 19,229 jobs in Connecticut, up 301 jobs over the past year (1.6 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure CT-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in Connecticut are less optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (3.1 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 3,128 jobs in Energy Efficiency (8.8 percent) and Motor Vehicles employers expect to add 381 jobs (2.0 percent) over the next year.

Table CT-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	7.6	7.1
Electric Power Transmission, Distribution and Storage	0.4	3.2
Energy Efficiency	8.8	7.8
Fuels	3.4	3.0
Motor Vehicles	2.0	2.2

Hiring Difficulty

Over the last year, 39.5 percent of energy-related employers in Connecticut hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Motor Vehicles.

Table CT-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	16.7	20.7	50.0	54.8
Electric Power Transmission, Distribution and Storage	--	21.9	50.0	46.1
Energy Efficiency	40.0	21.3	60.0	48.1
Fuels	--	37.9	--	43.0
Motor Vehicles	100.0	30.0	--	46.4

Employers in Connecticut 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. Insufficient qualifications (certifications or education)

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

1. Technician or mechanical support – \$26.11 median hourly wage
2. Electrician/construction laborers – \$26.32 median hourly wage
3. Management (directors, supervisors, vice presidents) – \$47.79 median hourly wage

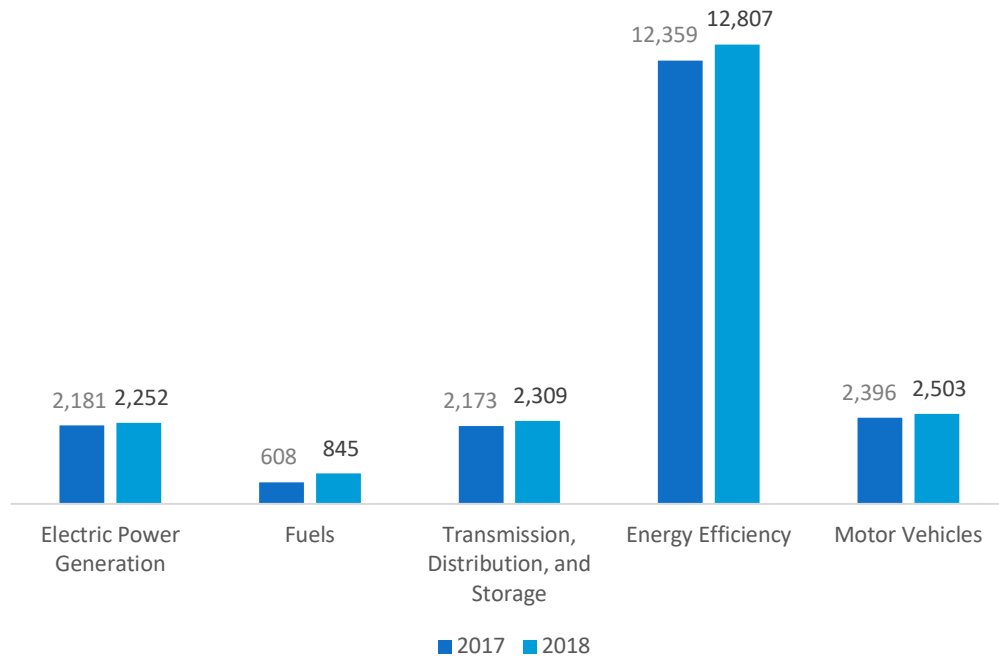
District of Columbia

ENERGY AND EMPLOYMENT – 2019

Overview

District of Col. has a low concentration of energy employment, with 5,406 Traditional Energy workers statewide (representing 0.2 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 2,252 are in Electric Power Generation, 845 are in Fuels, and 2,309 are in Transmission, Distribution, and Storage. The Traditional Energy sector in District of Col. is 0.7 percent of total state employment (compared to 2.3 percent of national employment). District of Col. has an additional 12,807 jobs in Energy Efficiency (0.6 percent of all U.S. Energy Efficiency jobs) and 2,503 jobs in Motor Vehicles (0.1 percent of all U.S. Motor Vehicle jobs).

Figure DC-1.
Employment by Major Energy Technology Application



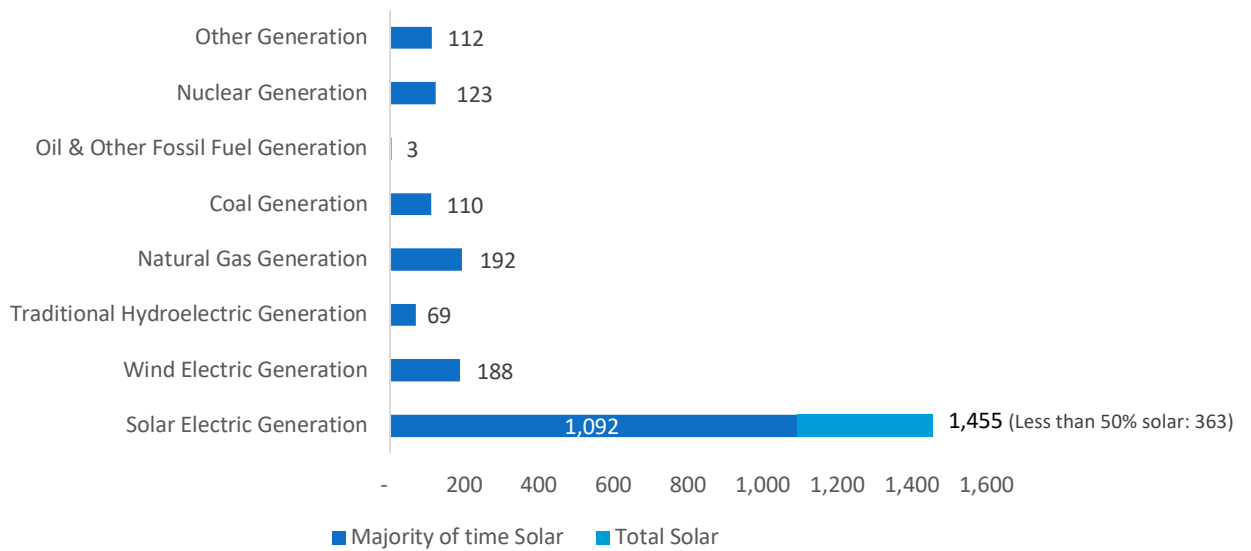
Overall, Traditional Energy jobs grew by 9.0 percent since the 2018 report, increasing by 445 jobs over the period. Energy Efficiency jobs added 448 jobs (3.6 percent) and motor vehicles added 108 jobs (4.5 percent).

Breakdown by Technology Applications

Electric Power Generation

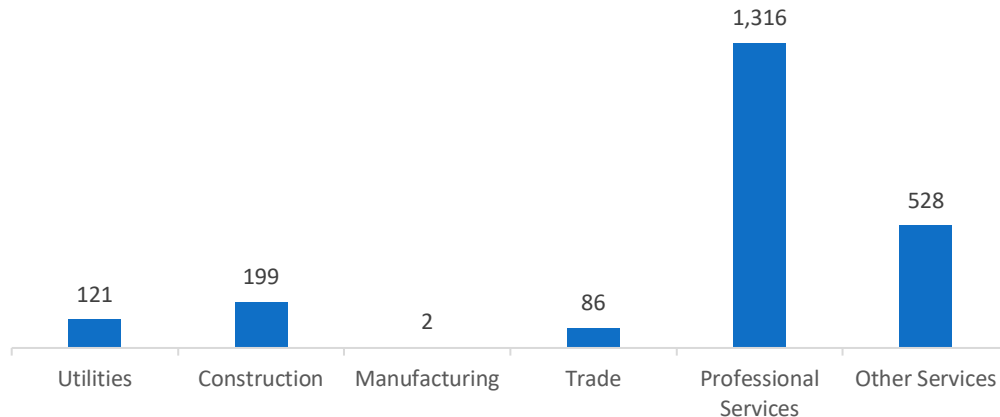
Electric Power Generation employs 2,252 workers in District of Col., 0.3 percent of the national total and adding 72 jobs over the past year (3.3 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 1,455 jobs (down 5.0 percent), followed by traditional fossil fuel generation at 305 jobs (up 13.1 percent).

Figure DC-2.
Electric Power Generation Employment by Detailed Technology Application



Professional and business services are the largest industry sector in Electric Power Generation, with 58.4 percent of jobs. Other services next with 23.4 percent.

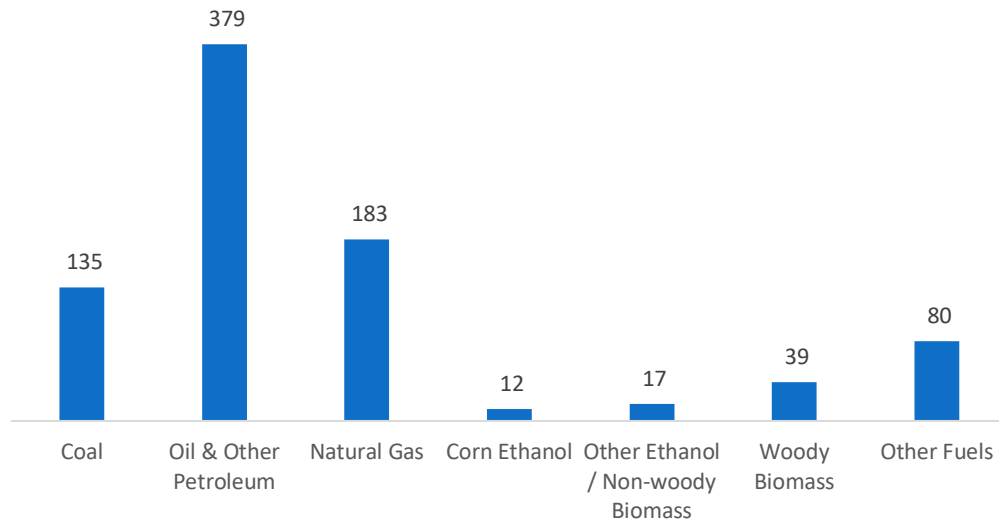
Figure DC-3.



Fuels

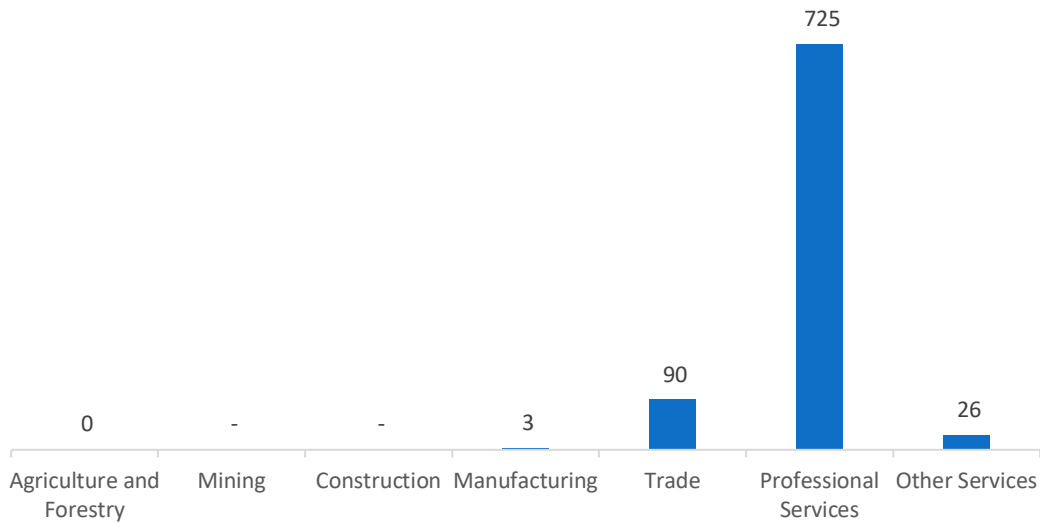
Fuels employs 845 workers in District of Col., 0.1 percent of the national total, up 39.1 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure DC-4.
Fuels Employment by Detailed Technology Application



Professional and business services jobs represent 85.9 percent of Fuels jobs in District of Col.

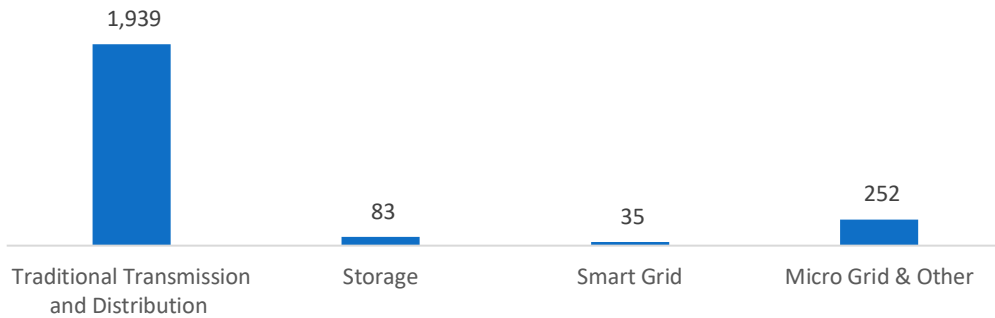
Figure DC-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

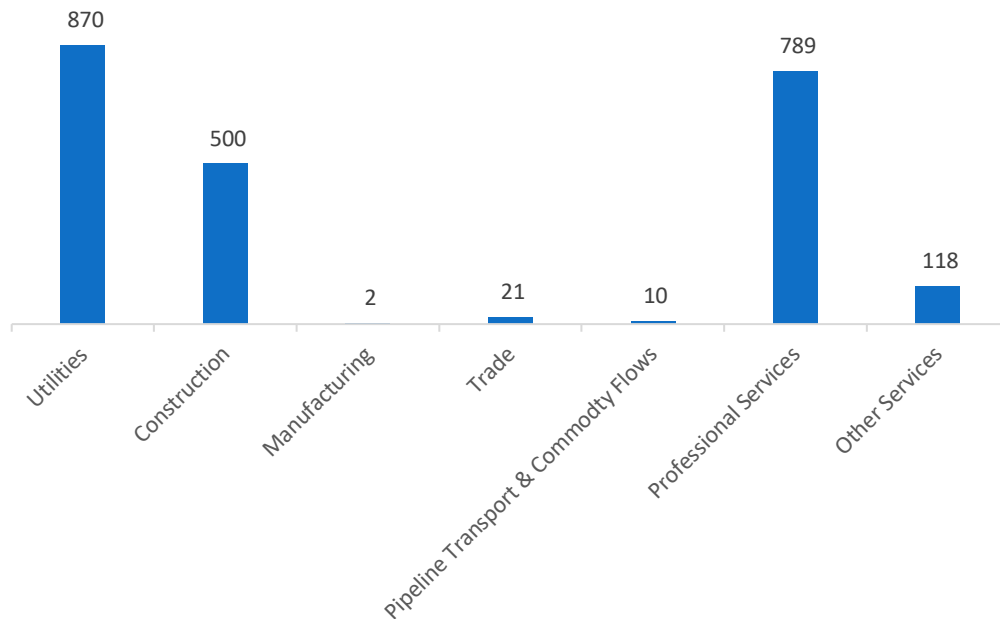
Transmission, Distribution, and Storage employs 2,309 workers in District of Col., 0.2 percent of the national total, up 6.2 percent or 136 jobs since the 2018 report.

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



Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in District of Col., with 37.7 percent of such jobs statewide.

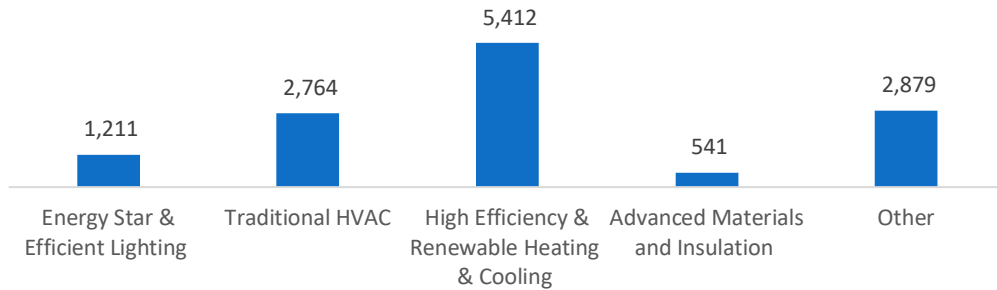
Figure DC-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

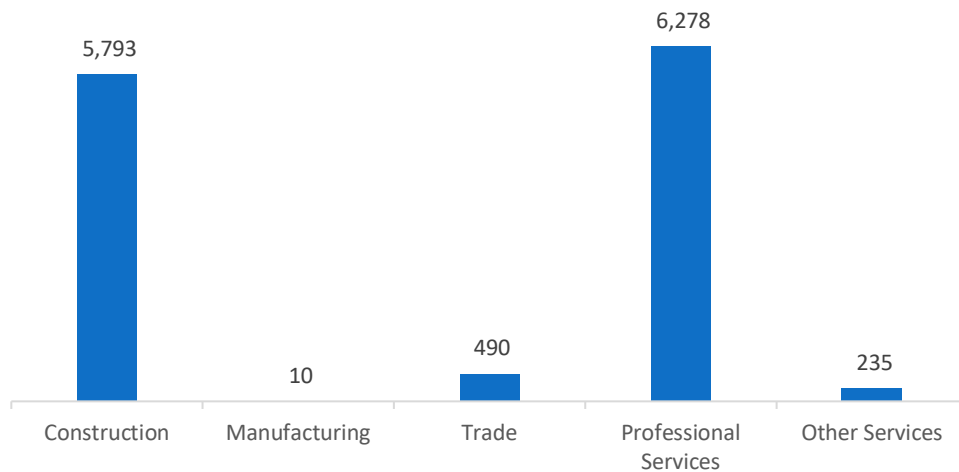
The 12,807 Energy Efficiency jobs in District of Col. represent 0.6 percent of all U.S. Energy Efficiency jobs, adding 448 jobs (3.6 percent) since last year. The largest number of these employees work in high efficiency HVAC and renewable heating and cooling firms, followed by other energy efficiency products and services.

Figure DC-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the professional and business services industry.

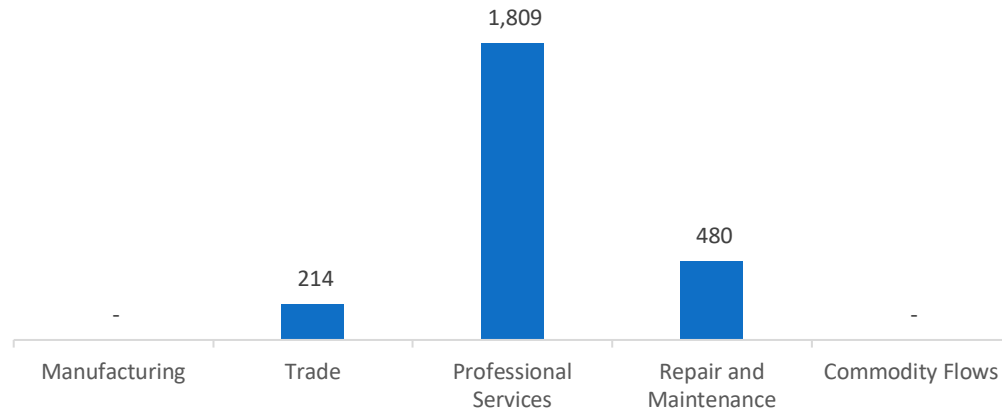
Figure DC-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 2,503 jobs in District of Col., up 108 jobs over the past year (4.5 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is professional and business services.

Figure DC-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in District of Col. are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (4.8 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 1,090 jobs in Energy Efficiency (8.5 percent) and Motor Vehicles employers expect to add 50 jobs (2.0 percent) over the next year.

Table DC-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	7.5	7.1
Electric Power Transmission, Distribution and Storage	4.0	3.2
Energy Efficiency	8.5	7.8
Fuels	--	3.0
Motor Vehicles	2.0	2.2

Hiring Difficulty

Over the last year, 39.3 percent of energy-related employers in District of Col. hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Energy Efficiency.

Table DC-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	7.1	20.7	71.4	54.8
Electric Power Transmission, Distribution and Storage	--	21.9	--	46.1
Energy Efficiency	33.3	21.3	66.7	48.1
Fuels	--	37.9	--	43.0
Motor Vehicles	--	30.0	--	46.4

Employers in District of Col. gave the following as the top three reasons for their reported difficulty:

1. Lack of experience, training, or technical skills
2. Difficulty finding industry-specific knowledge, skills, and interest
3. Competition/ small applicant pool

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

1. Management (directors, supervisors, vice presidents) – \$40.70 median hourly wage
2. Engineers/scientists – \$32.78 median hourly wage
3. Sales, marketing, or customer service – \$30.90 median hourly wage

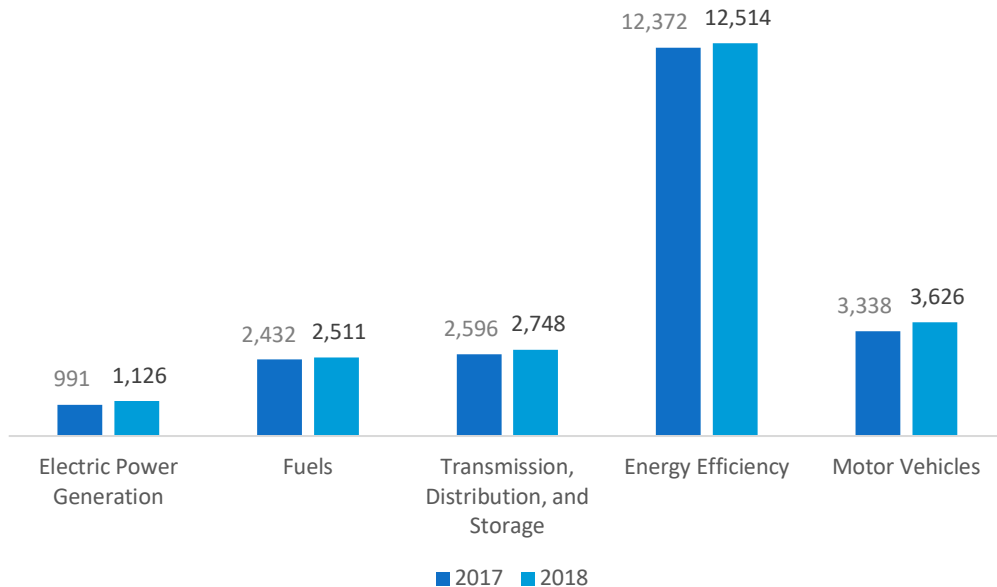
Delaware

ENERGY AND EMPLOYMENT — 2019

Overview

Delaware has a low concentration of energy employment, with 6,385 Traditional Energy workers statewide (representing 0.2 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 1,126 are in Electric Power Generation, 2,511 are in Fuels, and 2,748 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Delaware is 1.4 percent of total state employment (compared to 2.3 percent of national employment). Delaware has an additional 12,514 jobs in Energy Efficiency (0.5 percent of all U.S. Energy Efficiency jobs) and 3,626 jobs in Motor Vehicles (0.1 percent of all U.S. Motor Vehicle jobs).

Figure DE-1.
Employment by Major Energy Technology Application



Overall, Traditional Energy jobs grew by 4.6 percent since the 2018 report, increasing by 282 jobs over the period. Energy Efficiency jobs added 141 jobs (1.1 percent) and motor vehicles added 288 jobs (8.6 percent).

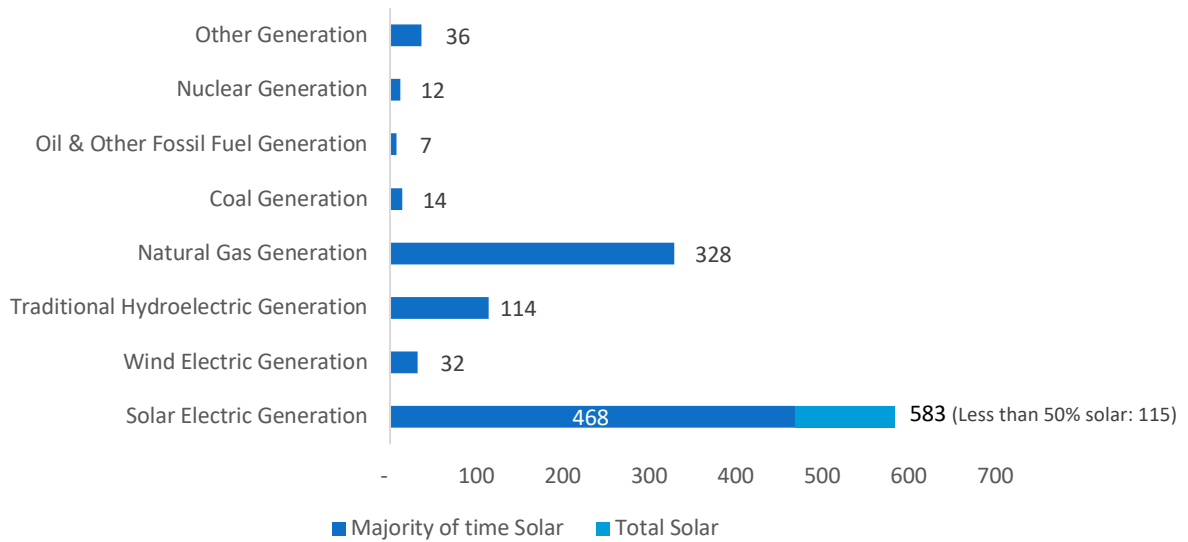
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 1,126 workers in Delaware, 0.1 percent of the national total and adding 51 jobs over the past year (4.8 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 583 jobs (down 1.4 percent), followed by traditional fossil fuel generation at 350 jobs (up 7.0 percent).

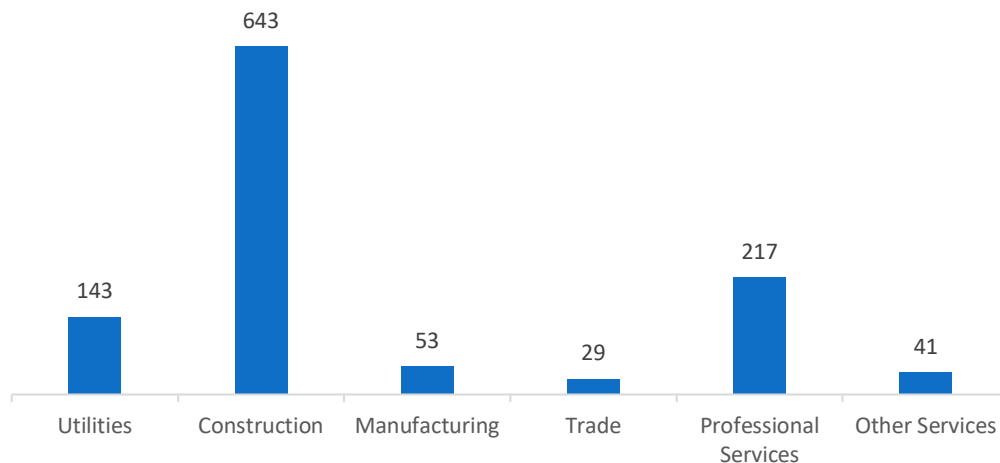
Figure DE-2.

Electric Power Generation Employment by Detailed Technology Application



Construction is the largest industry sector in Electric Power Generation, with 57.1 percent of jobs. Professional and business services are next with 19.2 percent.

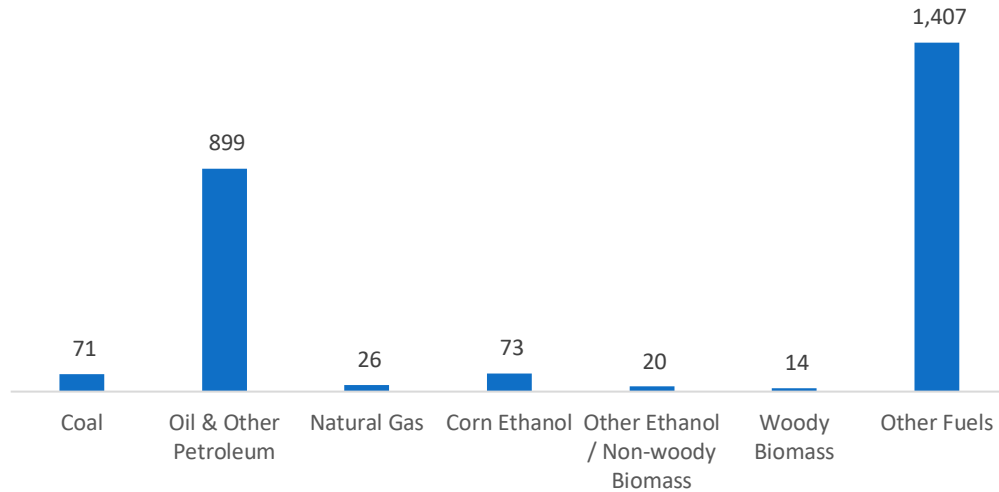
Figure DE-3.



Fuels

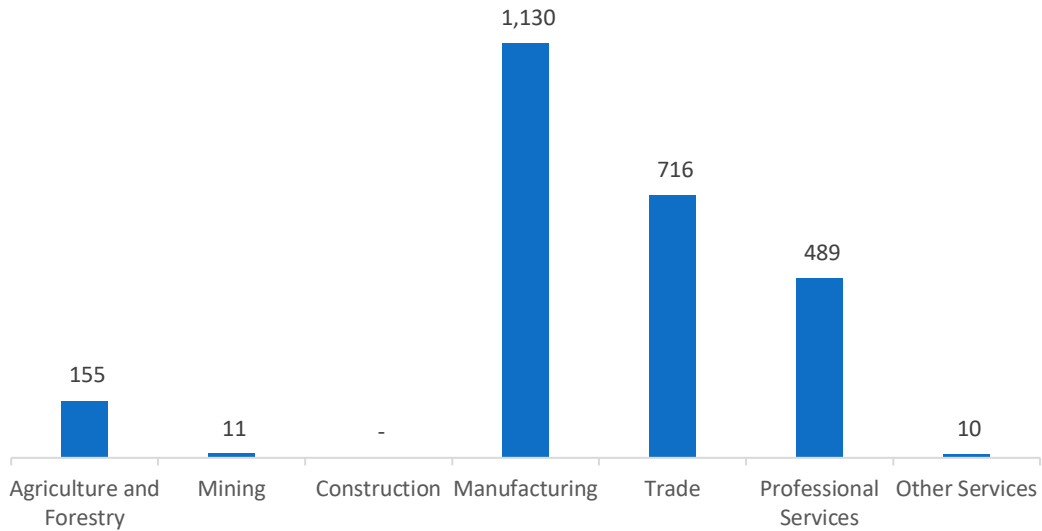
Fuels employs 2,511 workers in Delaware, 0.2 percent of the national total, up 3.2 percent over the past year. Other fuels makes up the largest segment of employment related to Fuels.

Figure DE-4.
Fuels Employment by Detailed Technology Application



Manufacturing jobs represent 45.0 percent of Fuels jobs in Delaware.

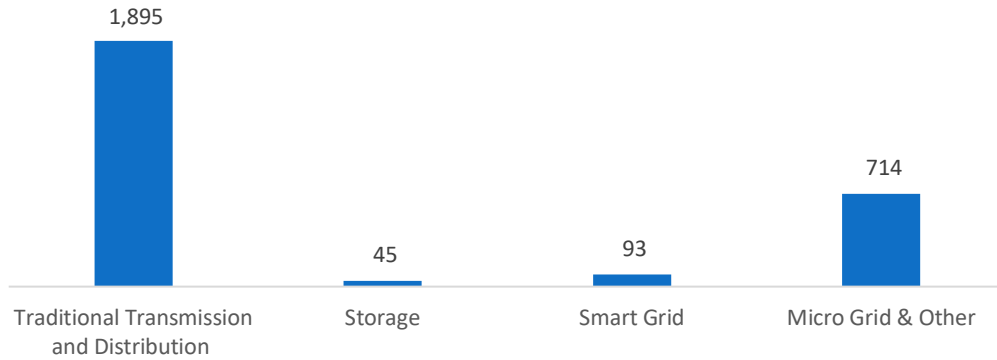
Figure DE-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

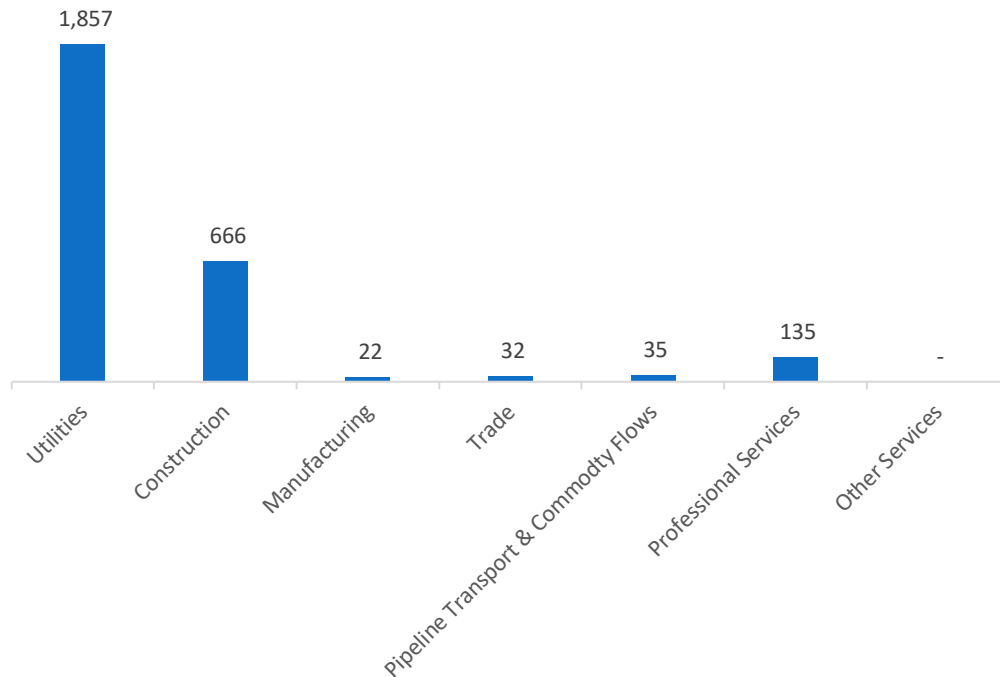
Transmission, Distribution, and Storage employs 2,748 workers in Delaware, 0.2 percent of the national total, up 5.9 percent or 152 jobs since the 2018 report.

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



Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Delaware, with 67.6 percent of such jobs statewide.

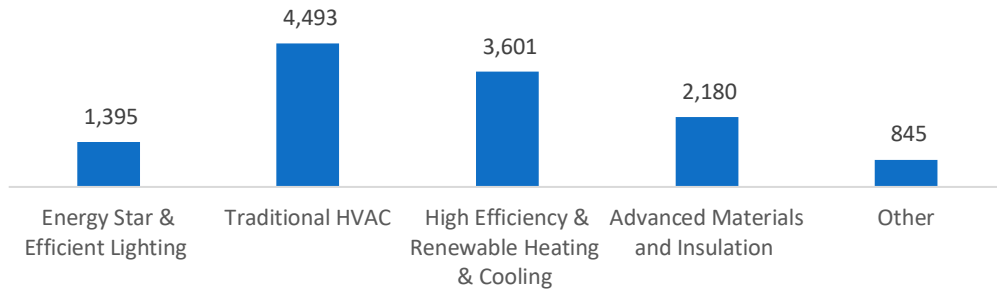
Figure DE-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

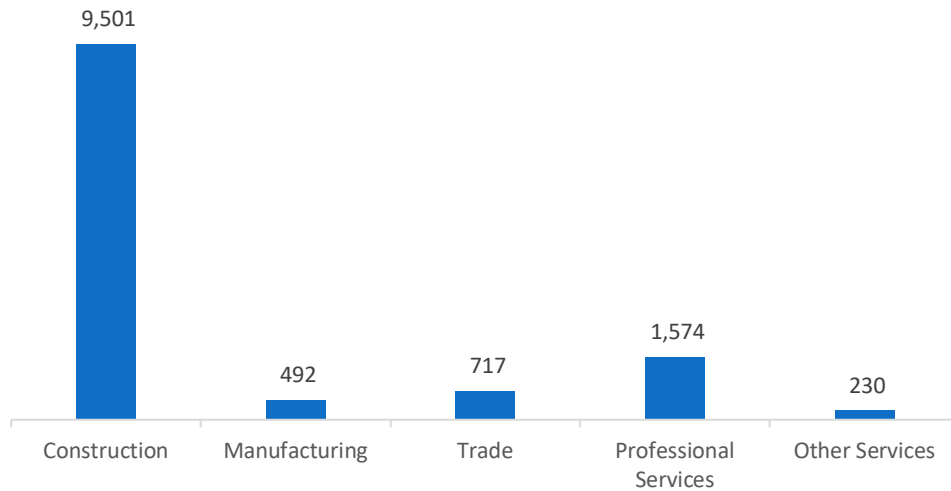
The 12,514 Energy Efficiency jobs in Delaware represent 0.5 percent of all U.S. Energy Efficiency jobs, adding 141 jobs (1.1 percent) since last year. The largest number of these employees work in traditional HVAC firms, followed by high efficiency HVAC and renewable heating and cooling.

Figure DE-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

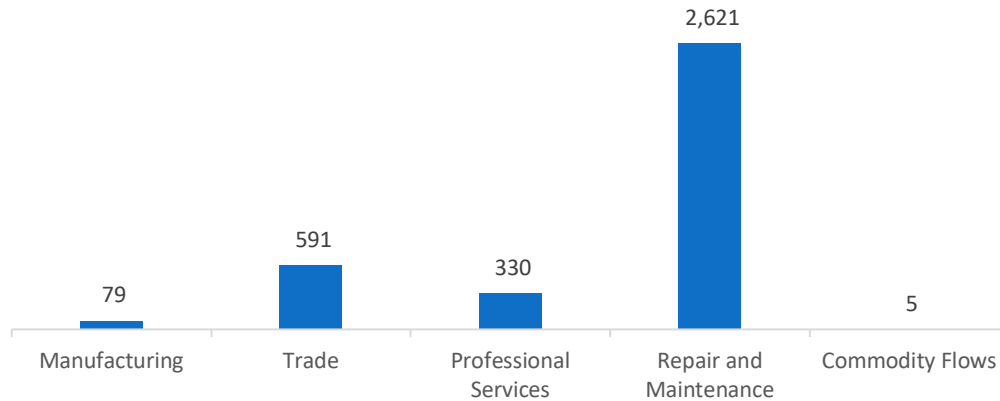
Figure DE-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 3,626 jobs in Delaware, up 288 jobs over the past year (8.6 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure DE-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in Delaware are less optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (3.2 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 432 jobs in Energy Efficiency (3.4 percent) and Motor Vehicles employers expect to add 72 jobs (2.0 percent) over the next year.

Table DE-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	8.5	7.1
Electric Power Transmission, Distribution and Storage	4.0	3.2
Energy Efficiency	3.4	7.8
Fuels	--	3.0
Motor Vehicles	2.0	2.2

Hiring Difficulty

Over the last year, 41.4 percent of energy-related employers in Delaware hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Electric Power Generation.

Table DE-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	50.0	20.7	50.0	54.8
Electric Power Transmission, Distribution and Storage	--	21.9	--	46.1
Energy Efficiency	42.9	21.3	28.6	48.1
Fuels	--	37.9	--	43.0
Motor Vehicles	--	30.0	--	46.4

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

1. Lack of experience, training, or technical skills
2. Insufficient qualifications (certifications or education)
3. Insufficient non-technical skills (work ethic, dependability, critical thinking)

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

1. Installation workers – \$18.00 median hourly wage
2. Technician or mechanical support – \$17.87 median hourly wage
3. Electrician/construction laborers – \$15.99 median hourly wage

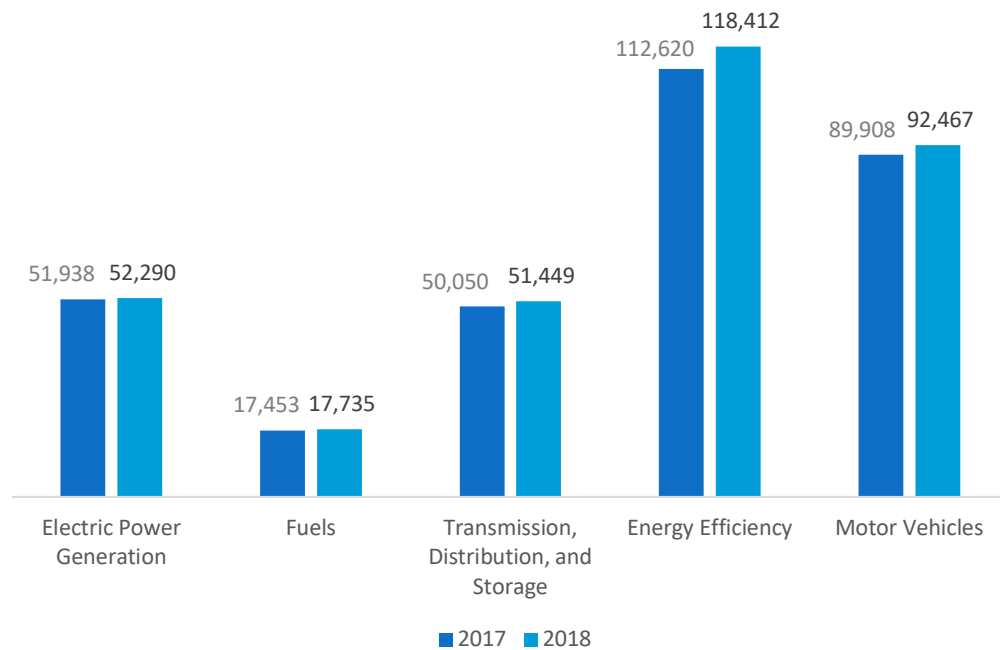
Florida

ENERGY AND EMPLOYMENT — 2019

Overview

Florida has a low concentration of energy employment, with 121,475 Traditional Energy workers statewide (representing 3.6 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 52,290 are in Electric Power Generation, 17,735 are in Fuels, and 51,449 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Florida is 1.4 percent of total state employment (compared to 2.3 percent of national employment). Florida has an additional 118,412 jobs in Energy Efficiency (5.1 percent of all U.S. Energy Efficiency jobs) and 92,467 jobs in Motor Vehicles (3.6 percent of all U.S. Motor Vehicle jobs).

Figure FL-1.
Employment by Major Energy Technology Application



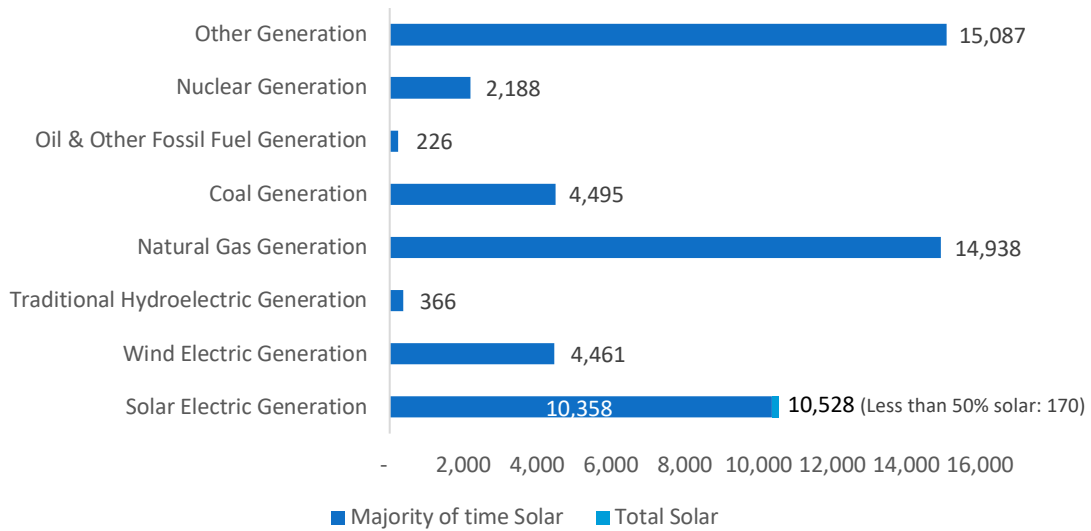
Overall, Traditional Energy jobs grew by 2.3 percent since the 2018 report, increasing by 2,683 jobs over the period. Energy Efficiency jobs added 5,792 jobs (5.1 percent) and motor vehicles added 2,560 jobs (2.8 percent).

Breakdown by Technology Applications

Electric Power Generation

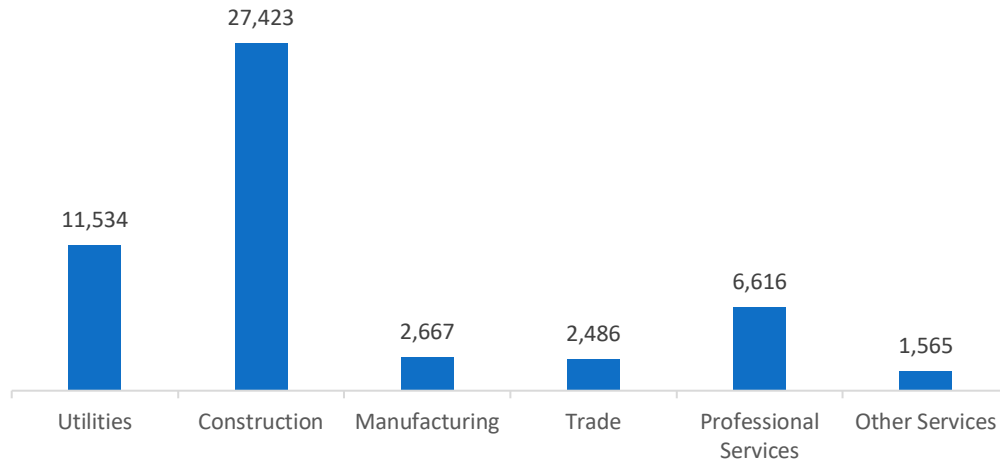
Electric Power Generation employs 52,290 workers in Florida, 6.0 percent of the national total and adding 1,002 jobs over the past year (2.0 percent). Traditional fossil fuel generation makes up the largest segment of employment related to Electric Power Generation, with 19,659 jobs (up 1.2 percent), followed by solar at 10,528 jobs (up 2.6 percent).

Figure FL-2.
Electric Power Generation Employment by Detailed Technology Application



Construction is the largest industry sector in Electric Power Generation, with 52.4 percent of jobs. Utilities are next with 22.1 percent.

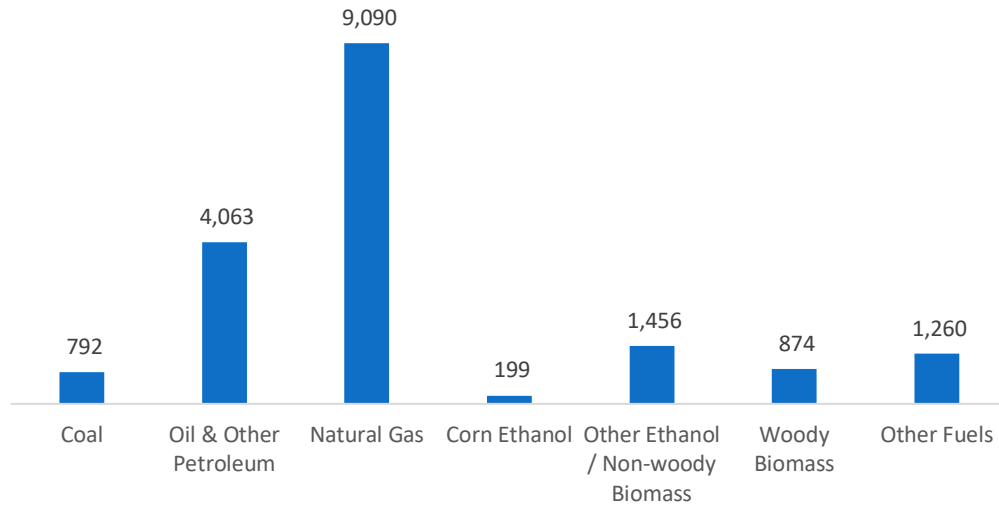
Figure FL-3.



Fuels

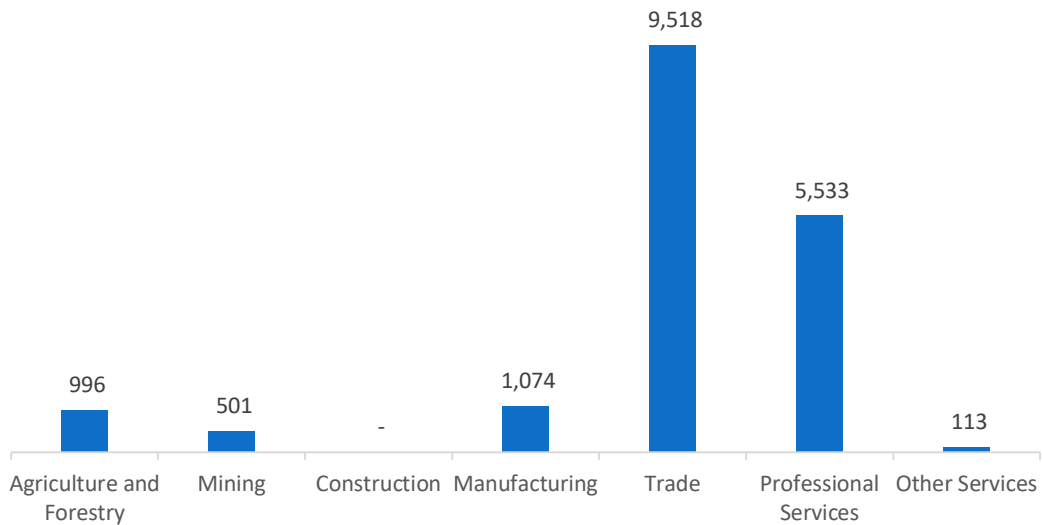
Fuels employs 17,735 workers in Florida, 1.6 percent of the national total, up 1.6 percent over the past year. Natural gas makes up the largest segment of employment related to Fuels.

Figure FL-4.
Fuels Employment by Detailed Technology Application



Wholesale trade jobs represent 53.7 percent of Fuels jobs in Florida.

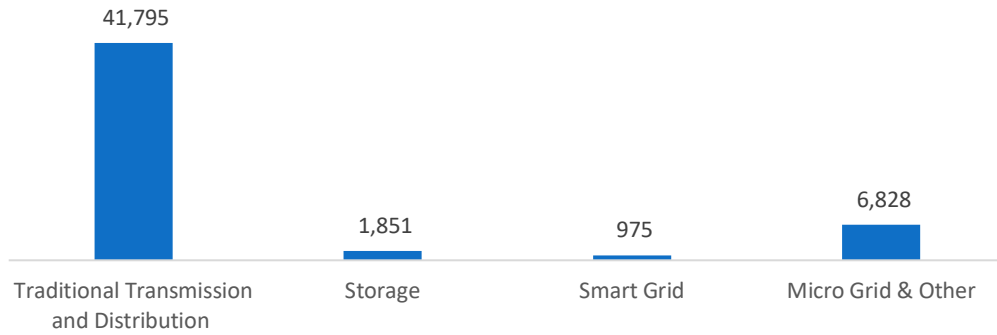
Figure FL-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

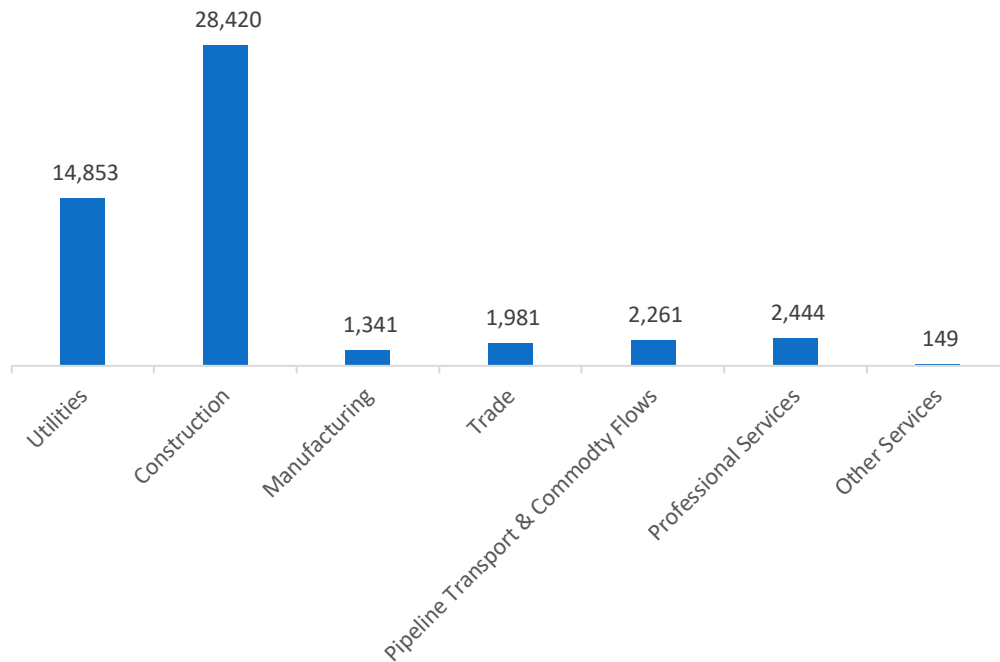
Transmission, Distribution, and Storage employs 51,449 workers in Florida, 3.8 percent of the national total, up 2.8 percent or 1,399 jobs since the 2018 report.

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



Construction is responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Florida, with 55.2 percent of such jobs statewide.

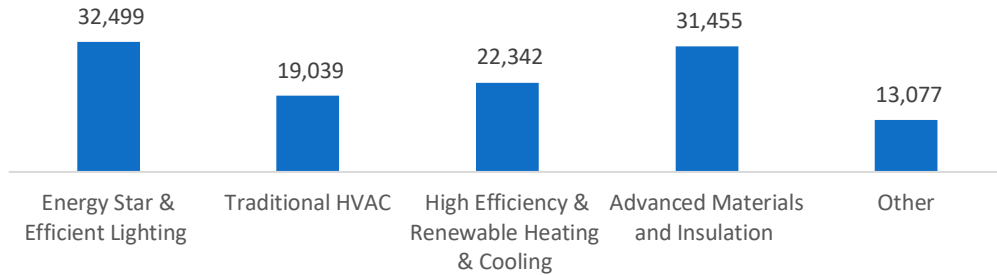
Figure FL-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

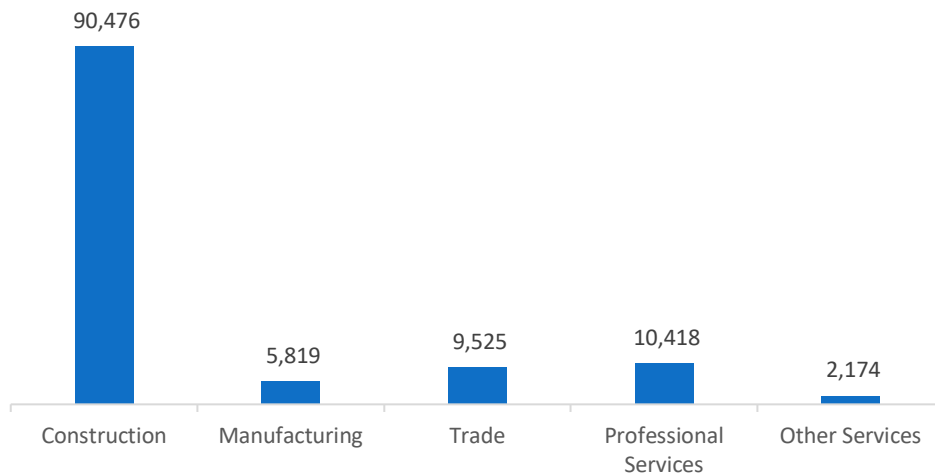
The 118,412 Energy Efficiency jobs in Florida represent 5.1 percent of all U.S. Energy Efficiency jobs, adding 5,792 jobs (5.1 percent) since last year. The largest number of these employees work in ENERGY STAR and efficient lighting firms, followed by advanced materials and insulation.

Figure FL-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

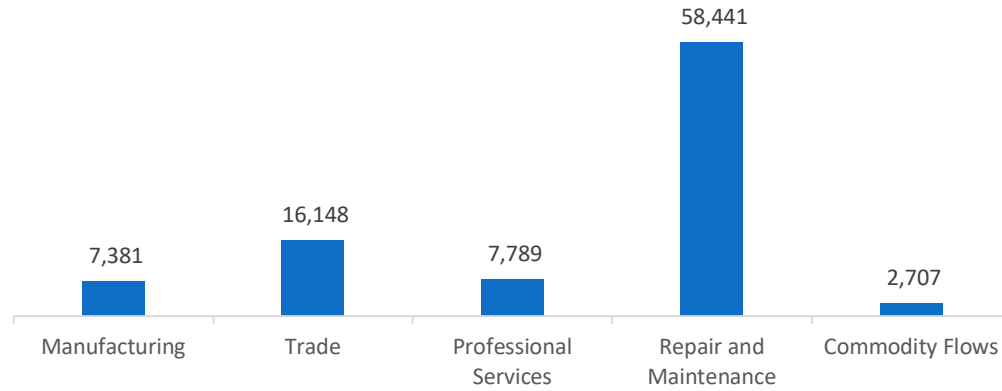
Figure FL-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 92,467 jobs in Florida, up 2,560 jobs over the past year (2.8 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure FL-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in Florida are less optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (3.6 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 10,284 jobs in Energy Efficiency (8.7 percent) and Motor Vehicles employers expect to add 2,345 jobs (2.5 percent) over the next year.

Table FL-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	3.5	7.1
Electric Power Transmission, Distribution and Storage	3.8	3.2
Energy Efficiency	8.7	7.8
Fuels	3.3	3.0
Motor Vehicles	2.5	2.2

Hiring Difficulty

Over the last year, 48.4 percent of energy-related employers in Florida hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Fuels.

Table FL-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	43.8	20.7	53.1	54.8
Electric Power Transmission, Distribution and Storage	37.5	21.9	41.7	46.1
Energy Efficiency	56.4	21.3	28.2	48.1
Fuels	--	37.9	100.0	43.0
Motor Vehicles	33.3	30.0	50.0	46.4

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

1. Lack of experience, training, or technical skills
2. Insufficient non-technical skills (work ethic, dependability, critical thinking)
3. Insufficient qualifications (certifications or education)

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

1. Technician or mechanical support – \$15.30 median hourly wage
2. Electrician/construction laborers – \$15.11 median hourly wage
3. Sales, marketing, or customer service – \$27.50 median hourly wage

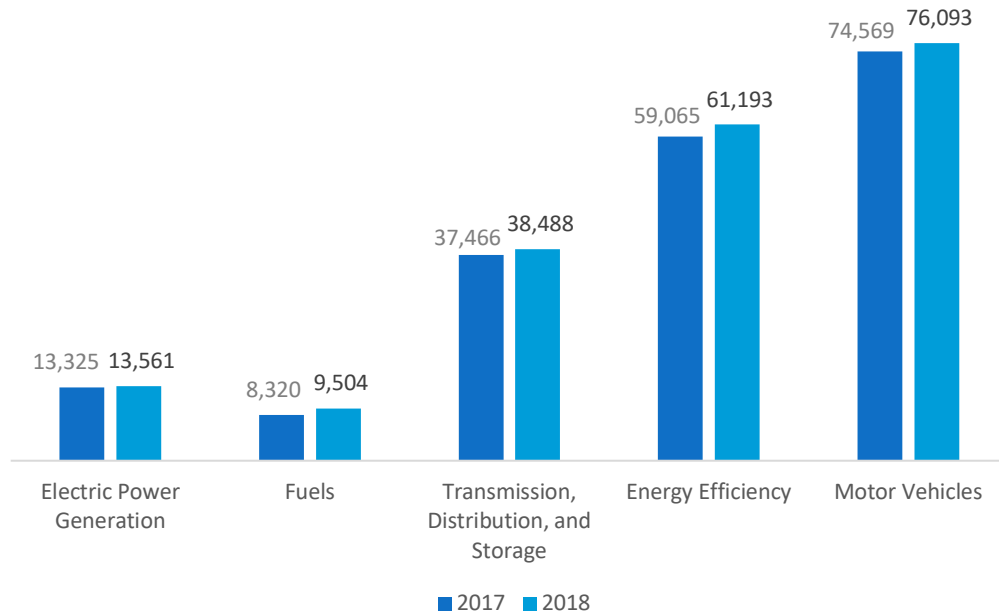
Georgia

ENERGY AND EMPLOYMENT — 2019

Overview

Georgia has a low concentration of energy employment, with 61,553 Traditional Energy workers statewide (representing 1.8 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 13,561 are in Electric Power Generation, 9,504 are in Fuels, and 38,488 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Georgia is 1.4 percent of total state employment (compared to 2.3 percent of national employment). Georgia has an additional 61,193 jobs in Energy Efficiency (2.6 percent of all U.S. Energy Efficiency jobs) and 76,093 jobs in Motor Vehicles (3.0 percent of all U.S. Motor Vehicle jobs).

Figure GA-1.
Employment by Major Energy Technology Application



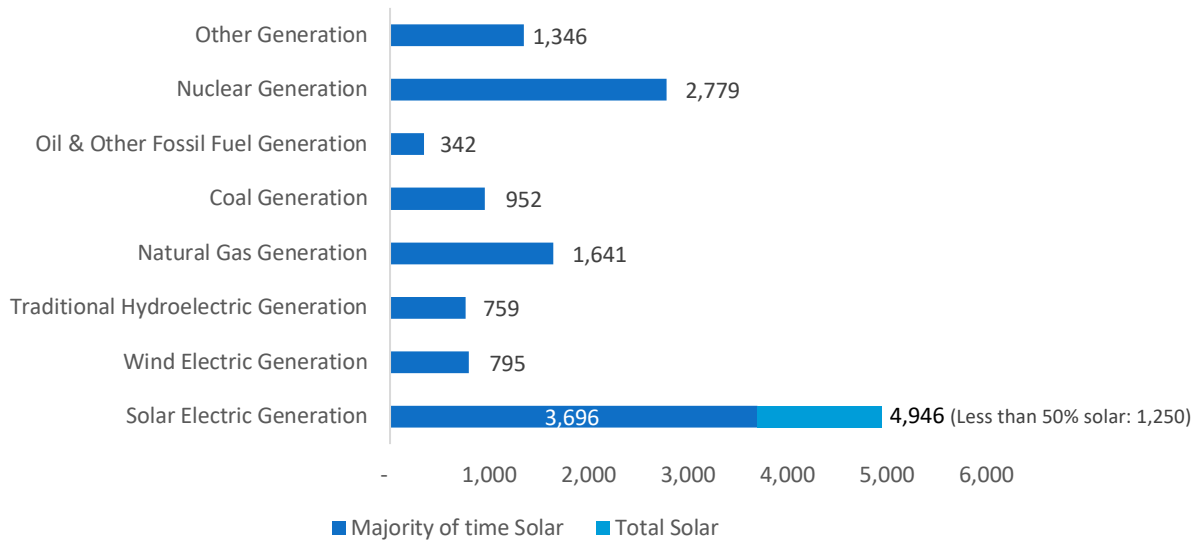
Overall, Traditional Energy jobs grew by 4.1 percent since the 2018 report, increasing by 2,441 jobs over the period. Energy Efficiency jobs added 2,128 jobs (3.6 percent) and motor vehicles added 1,524 jobs (2.0 percent).

Breakdown by Technology Applications

Electric Power Generation

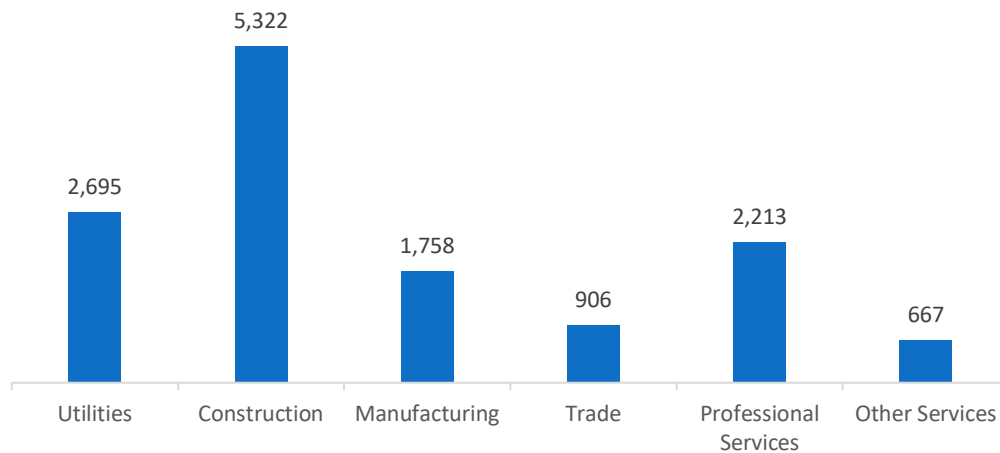
Electric Power Generation employs 13,561 workers in Georgia, 1.5 percent of the national total and adding 235 jobs over the past year (1.8 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 4,946 jobs (down 4.6 percent), followed by traditional fossil fuel generation at 2,935 jobs (up 2.5 percent).

Figure GA-2.
Electric Power Generation Employment by Detailed Technology Application



Construction is the largest industry sector in Electric Power Generation, with 39.2 percent of jobs. Utilities are next with 19.9 percent.

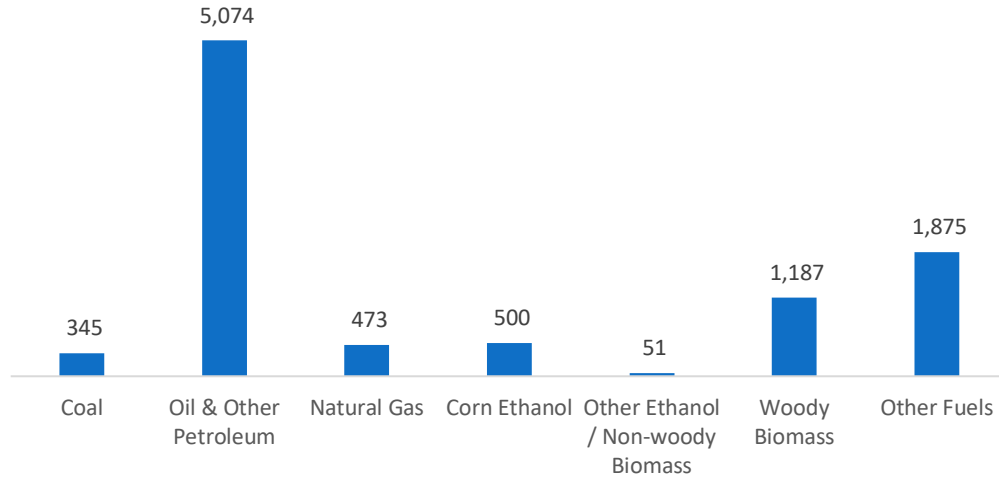
Figure GA-3.



Fuels

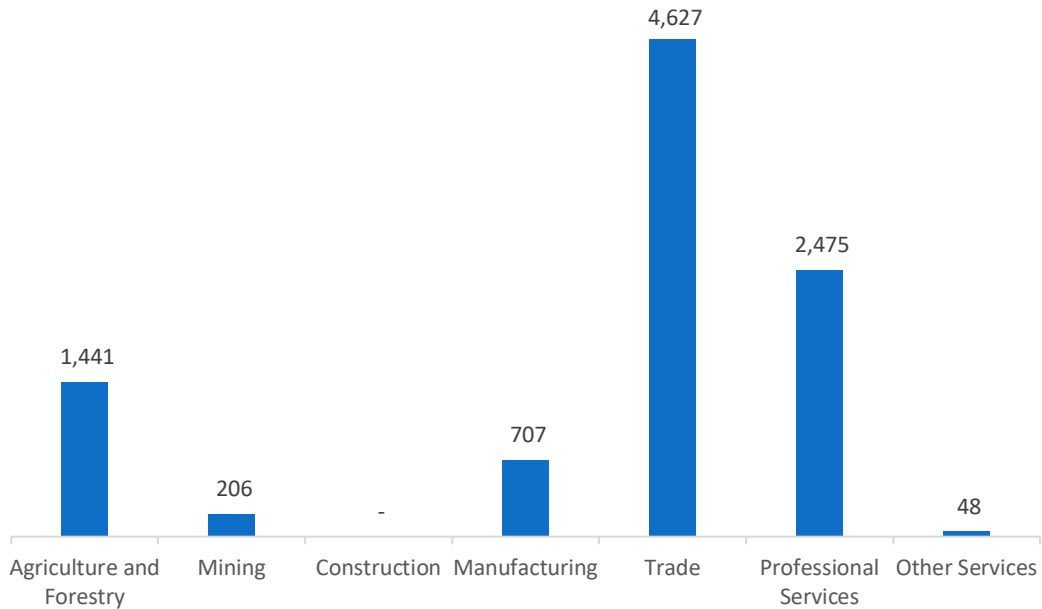
Fuels employs 9,504 workers in Georgia, 0.8 percent of the national total, up 14.2 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure GA-4.
Fuels Employment by Detailed Technology Application



Wholesale trade jobs represent 48.7 percent of Fuels jobs in Georgia.

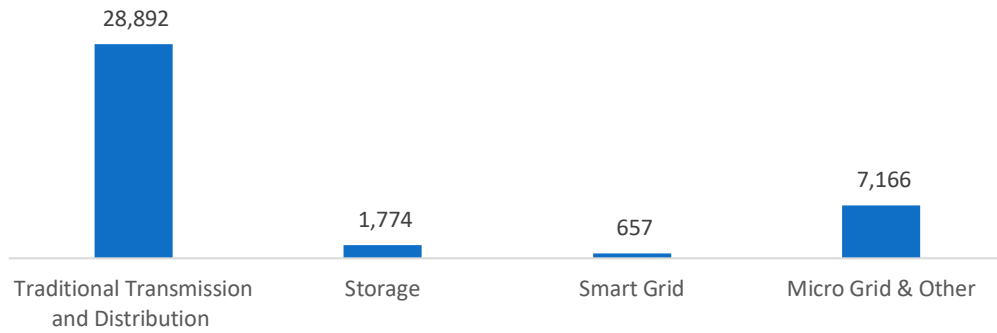
Figure GA-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

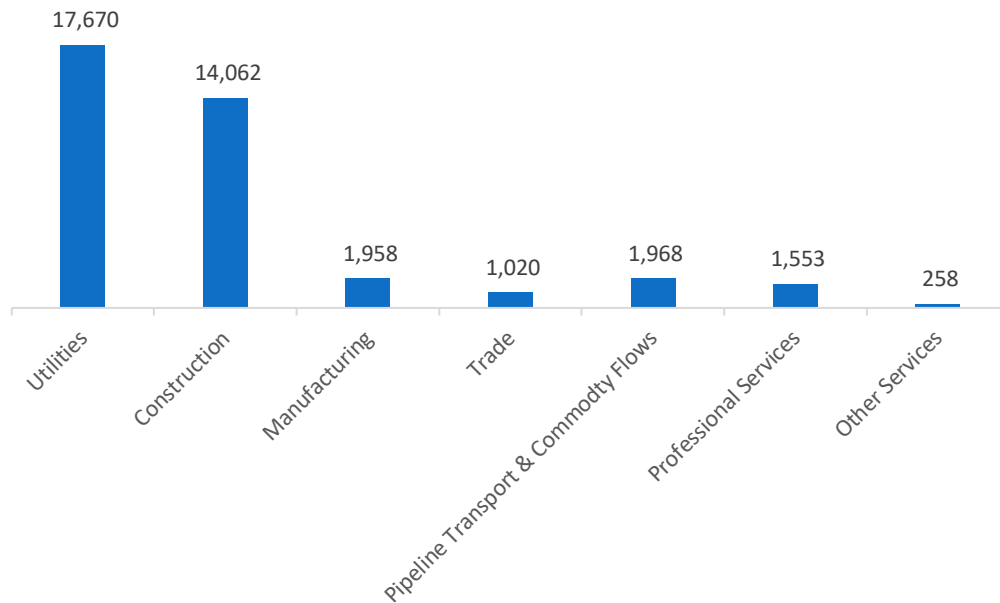
Transmission, Distribution, and Storage employs 38,488 workers in Georgia, 2.8 percent of the national total, up 2.7 percent or 1,022 jobs since the 2018 report.

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



Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Georgia, with 45.9 percent of such jobs statewide.

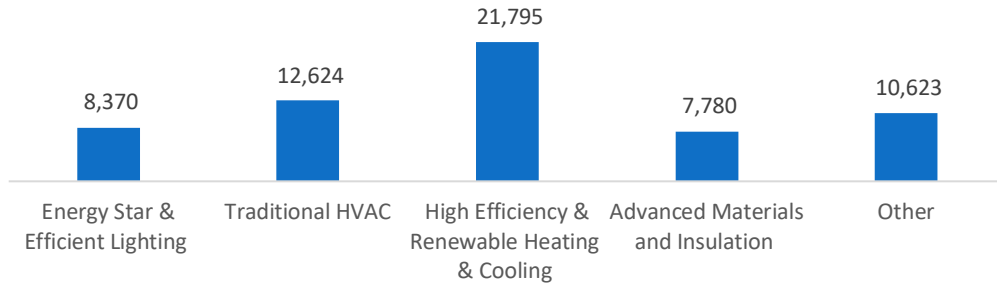
Figure GA-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

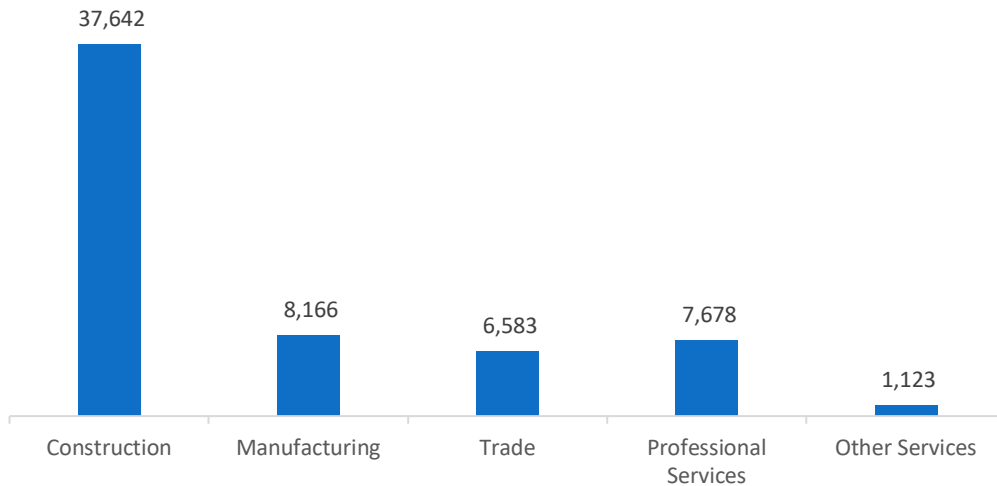
The 61,193 Energy Efficiency jobs in Georgia represent 2.6 percent of all U.S. Energy Efficiency jobs, adding 2,128 jobs (3.6 percent) since last year. The largest number of these employees work in high efficiency HVAC and renewable heating and cooling firms, followed by traditional HVAC.

Figure GA-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

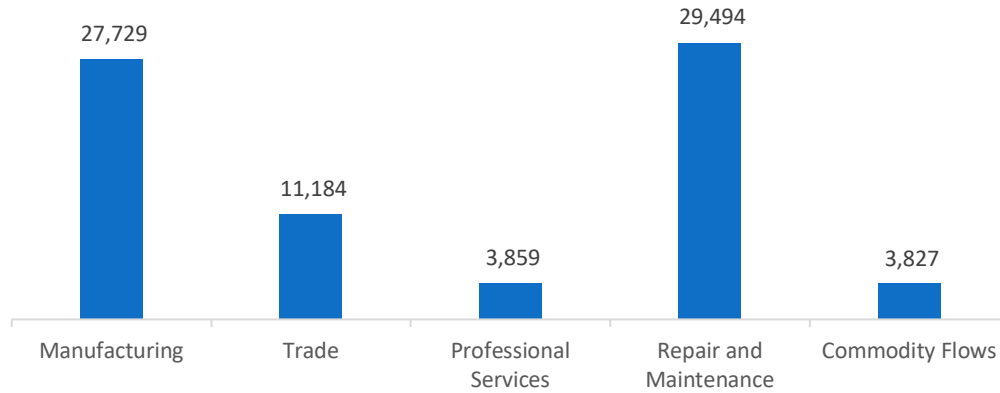
Figure GA-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 76,093 jobs in Georgia, up 1,524 jobs over the past year (2.0 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure GA-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in Georgia are less optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (1.3 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 5,007 jobs in Energy Efficiency (8.2 percent) and Motor Vehicles employers expect to add 3,099 jobs (4.1 percent) over the next year.

Table GA-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	7.4	7.1
Electric Power Transmission, Distribution and Storage	(0.6)	3.2
Energy Efficiency	8.2	7.8
Fuels	--	3.0
Motor Vehicles	4.1	2.2

Hiring Difficulty

Over the last year, 50.8 percent of energy-related employers in Georgia hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Fuels.

Table GA-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	15.4	20.7	53.8	54.8
Electric Power Transmission, Distribution and Storage	11.1	21.9	33.3	46.1
Energy Efficiency	33.3	21.3	40.0	48.1
Fuels	50.0	37.9	50.0	43.0
Motor Vehicles	27.3	30.0	36.4	46.4

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

1. Lack of experience, training, or technical skills
2. Insufficient non-technical skills (work ethic, dependability, critical thinking)
3. Difficulty finding industry-specific knowledge, skills, and interest

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

1. Technician or mechanical support – \$16.10 median hourly wage
2. Sales, marketing, or customer service – \$28.08 median hourly wage
3. Drivers/dispatchers – \$16.05 median hourly wage

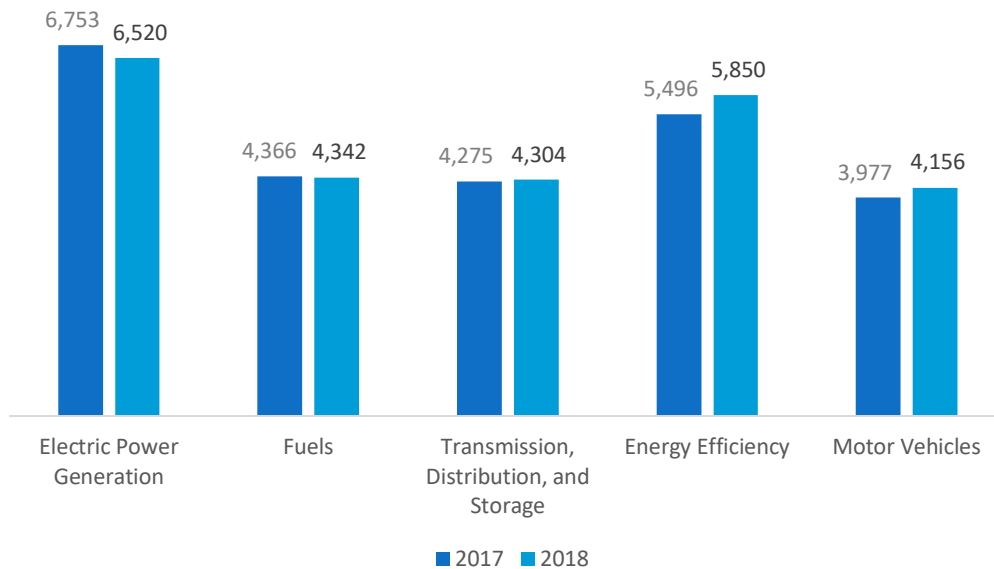
Hawaii

ENERGY AND EMPLOYMENT — 2019

Overview

Hawaii has an average concentration of energy employment, with 15,167 Traditional Energy workers statewide (representing 0.5 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 6,520 are in Electric Power Generation, 4,342 are in Fuels, and 4,304 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Hawaii is 2.3 percent of total state employment (compared to 2.3 percent of national employment). Hawaii has an additional 5,850 jobs in Energy Efficiency (0.3 percent of all U.S. Energy Efficiency jobs) and 4,156 jobs in Motor Vehicles (0.2 percent of all U.S. Motor Vehicle jobs).

Figure HI-1.
Employment by Major Energy Technology Application



Overall, Traditional Energy jobs declined by 1.5 percent since the 2018 report, decreasing by 227 jobs over the period. Energy Efficiency jobs added 354 jobs (6.4 percent) and motor vehicles added 179 jobs (4.5 percent).

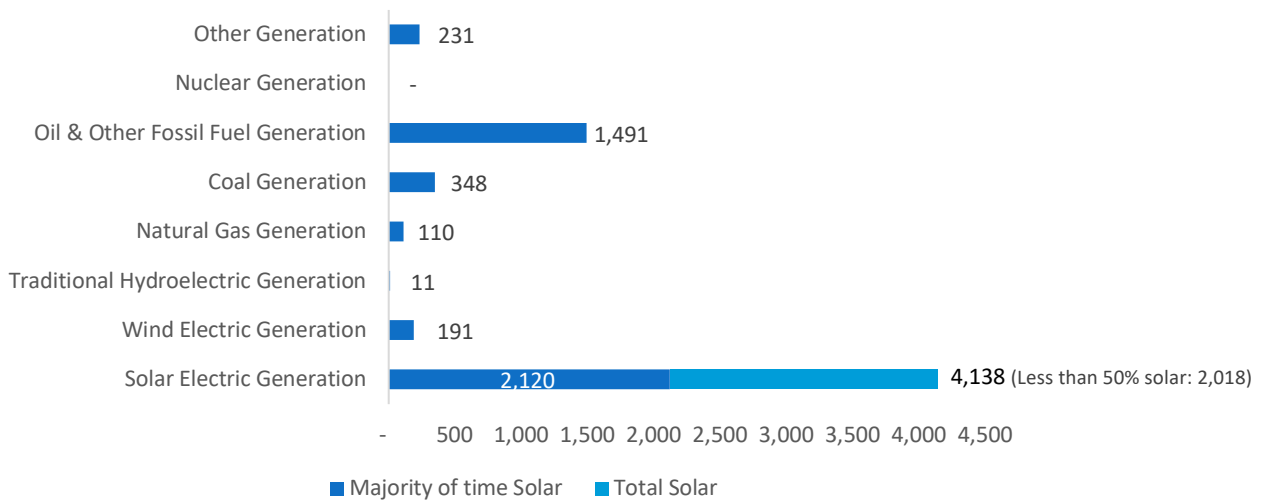
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 6,520 workers in Hawaii, 0.7 percent of the national total and losing 232 jobs over the past year (-3.4 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 4,138 jobs (down 4.3 percent), followed by traditional fossil fuel generation at 1,949 jobs (down 4.3 percent).

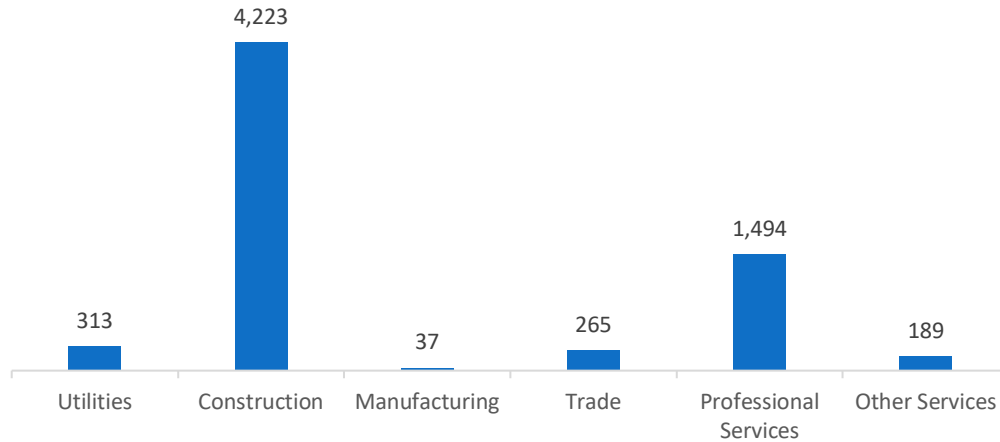
Figure HI-2.

Electric Power Generation Employment by Detailed Technology Application



Construction is the largest industry sector in Electric Power Generation, with 64.8 percent of jobs. Professional and business services are next with 22.9 percent.

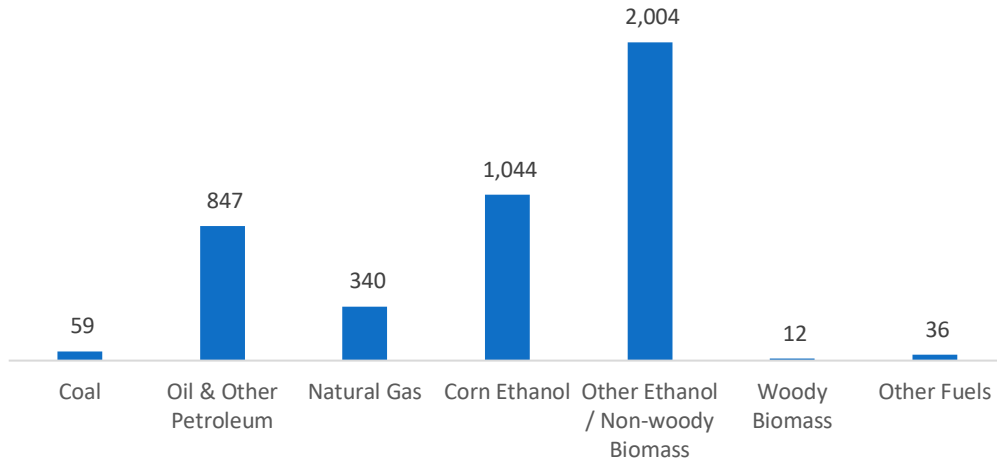
Figure HI-3.



Fuels

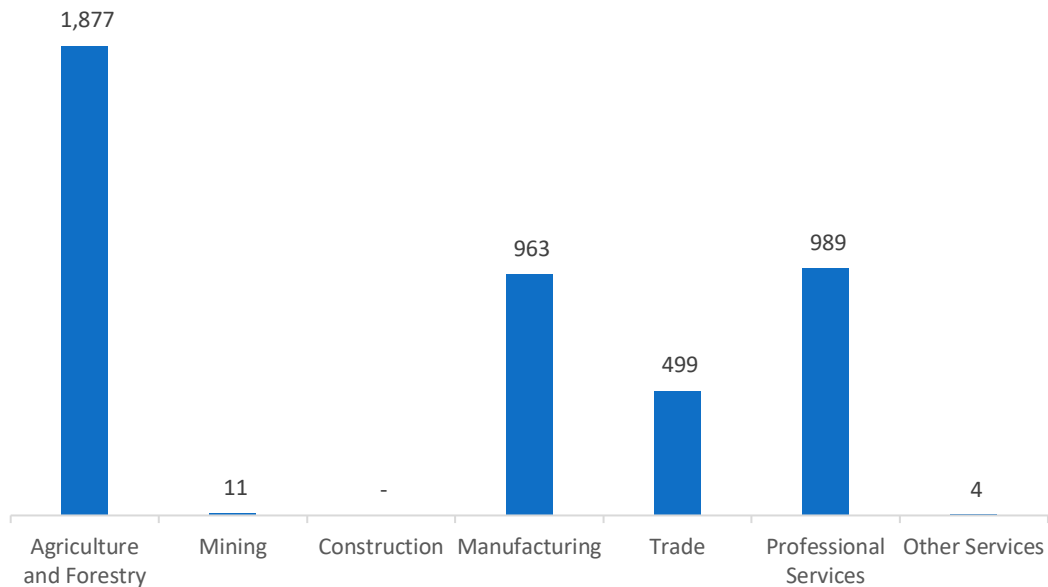
Fuels employs 4,342 workers in Hawaii, 0.4 percent of the national total, down 0.5 percent over the past year. Other ethanol/non-Woody biomass, including biodiesel makes up the largest segment of employment related to Fuels.

Figure HI-4.
Fuels Employment by Detailed Technology Application



Agriculture jobs represent 43.2 percent of Fuels jobs in Hawaii.

Figure HI-5.
Fuels Employment by Industry Sector

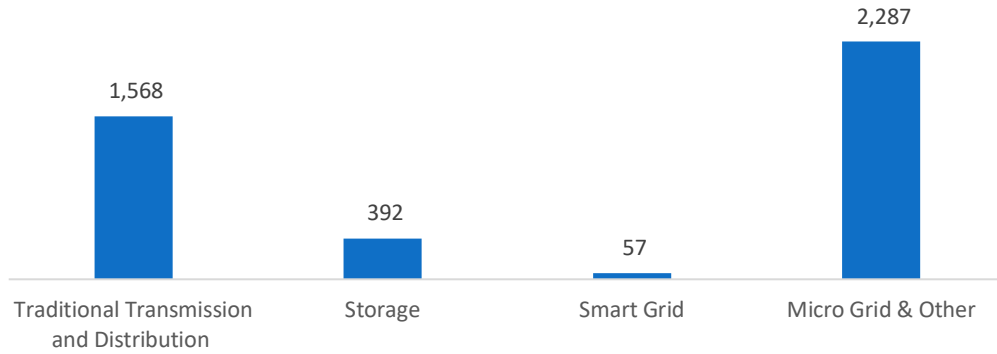


Transmission, Distribution and Storage

Transmission, Distribution, and Storage employs 4,304 workers in Hawaii, 0.3 percent of the national total, up 0.7 percent or 29 jobs since the 2018 report.

Figure HI-6.

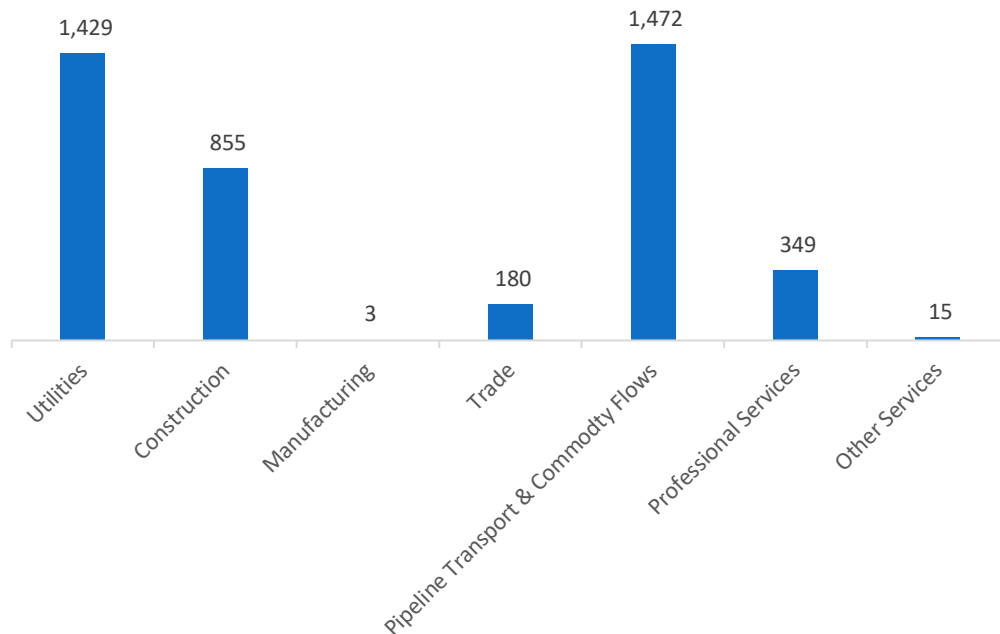
Transmission, Distribution and Storage Employment by Detailed Technology



Pipeline transport and commodity flows are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Hawaii, with 34.2 percent of such jobs statewide.

Figure HI-7.

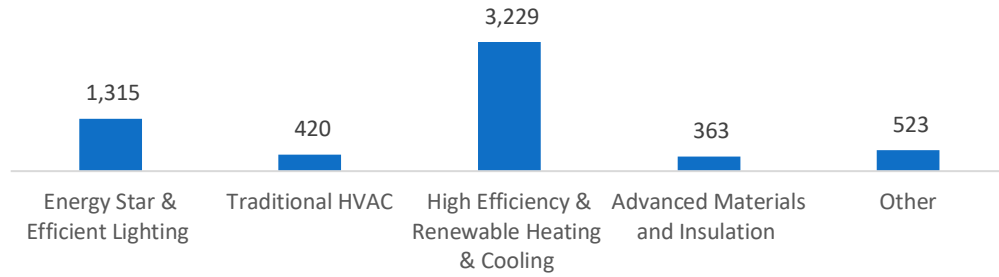
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

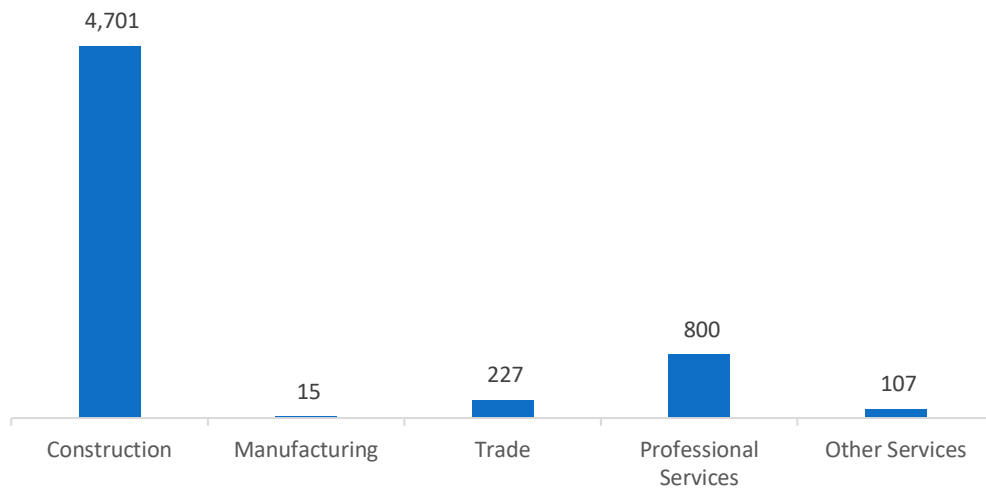
The 5,850 Energy Efficiency jobs in Hawaii represent 0.3 percent of all U.S. Energy Efficiency jobs, adding 354 jobs (6.4 percent) since last year. The largest number of these employees work in high efficiency HVAC and renewable heating and cooling firms, followed by ENERGY STAR and efficient lighting.

Figure HI-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

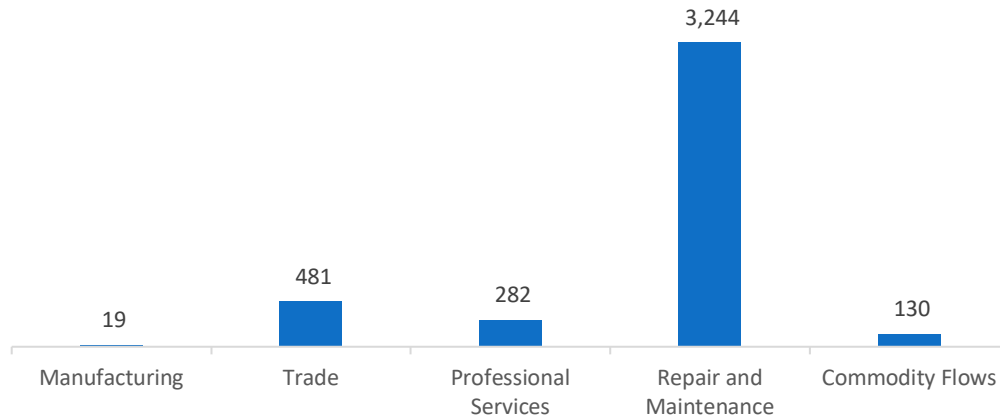
Figure HI-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 4,156 jobs in Hawaii, up 179 jobs over the past year (4.5 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure HI-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in Hawaii are similarly optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (4.5 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 219 jobs in Energy Efficiency (3.7 percent) and Motor Vehicles employers expect to add 82 jobs (2.0 percent) over the next year.

Table HI-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	8.1	7.1
Electric Power Transmission, Distribution and Storage	3.7	3.2
Energy Efficiency	3.7	7.8
Fuels	--	3.0
Motor Vehicles	2.0	2.2

Hiring Difficulty

Over the last year, 37.0 percent of energy-related employers in Hawaii hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Electric Power Generation.

Table HI-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	33.3	20.7	66.7	54.8
Electric Power Transmission, Distribution and Storage	--	21.9	66.7	46.1
Energy Efficiency	25.0	21.3	50.0	48.1
Fuels	--	37.9	--	43.0
Motor Vehicles	--	30.0	50.0	46.4

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

1. Insufficient qualifications (certifications or education)
2. Lack of experience, training, or technical skills
3. Insufficient non-technical skills (work ethic, dependability, critical thinking)

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

1. Technician or mechanical support – \$19.01 median hourly wage
2. Management (directors, supervisors, vice presidents) – \$39.56 median hourly wage
3. Sales, marketing, or customer service – \$34.81 median hourly wage

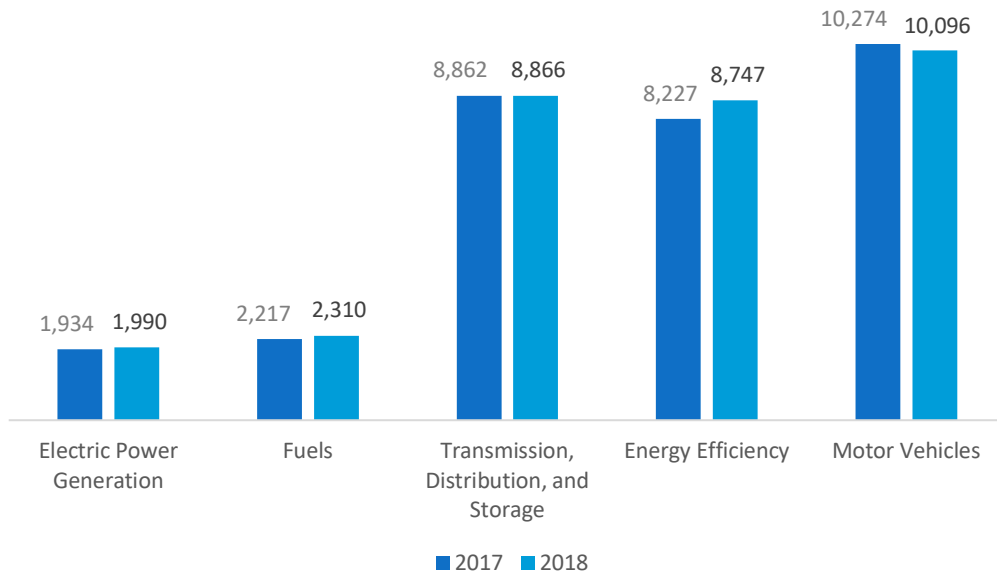
Idaho

ENERGY AND EMPLOYMENT — 2019

Overview

Idaho has a low concentration of energy employment, with 13,165 Traditional Energy workers statewide (representing 0.4 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 1,990 are in Electric Power Generation, 2,310 are in Fuels, and 8,866 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Idaho is 1.8 percent of total state employment (compared to 2.3 percent of national employment). Idaho has an additional 8,747 jobs in Energy Efficiency (0.4 percent of all U.S. Energy Efficiency jobs) and 10,096 jobs in Motor Vehicles (0.4 percent of all U.S. Motor Vehicle jobs).

Figure ID-1.
Employment by Major Energy Technology Application



Overall, Traditional Energy jobs grew by 1.2 percent since the 2018 report, increasing by 152 jobs over the period. Energy Efficiency jobs added 520 jobs (6.3 percent) and motor vehicles lost 179 jobs (-1.7 percent).

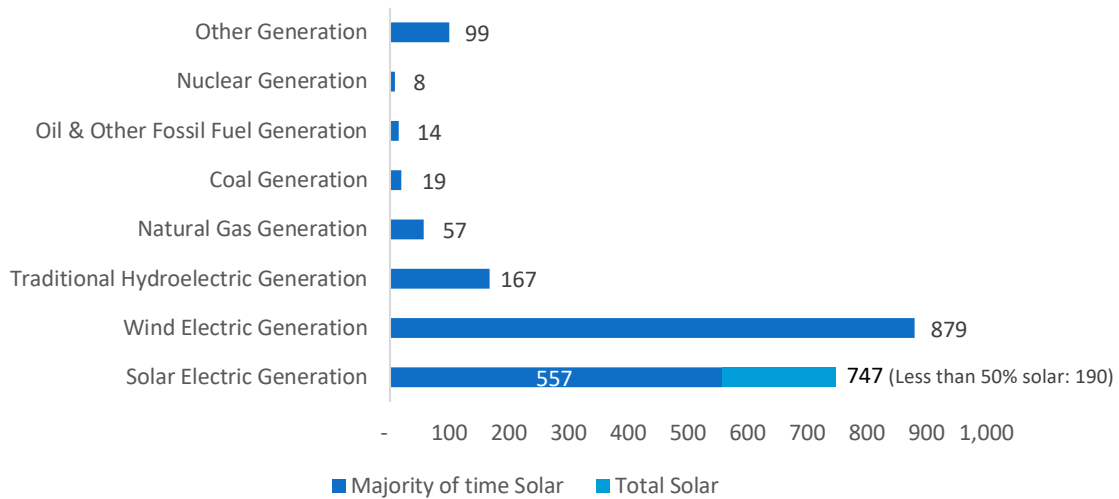
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 1,990 workers in Idaho, 0.2 percent of the national total and adding 55 jobs over the past year (2.9 percent). Wind makes up the largest segment of employment related to Electric Power Generation, with 879 jobs (up 1.6 percent), followed by solar at 747 jobs (down 4.8 percent).

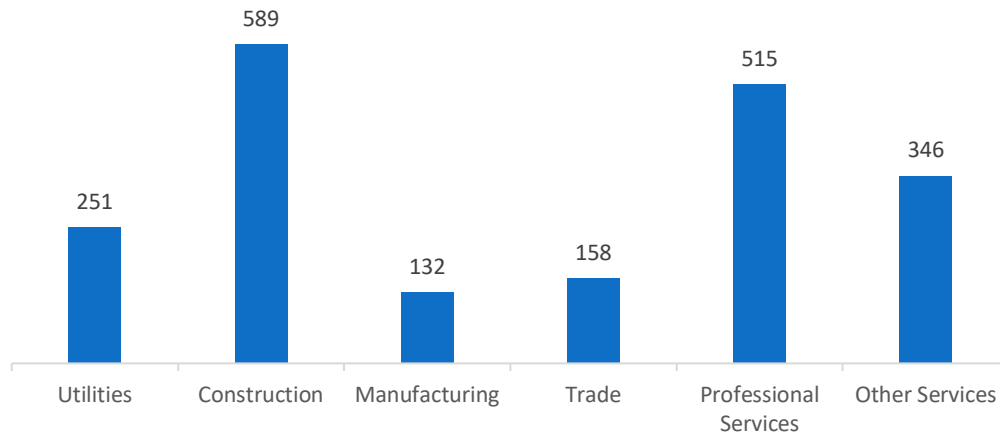
Figure ID-2.

Electric Power Generation Employment by Detailed Technology Application



Construction is the largest industry sector in Electric Power Generation, with 29.6 percent of jobs. Professional and business services are next with 25.9 percent.

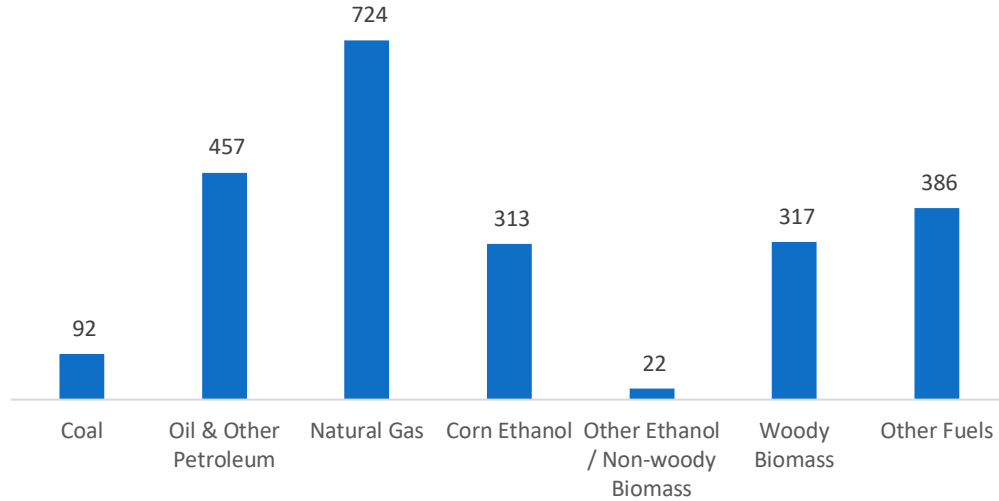
Figure ID-3.



Fuels

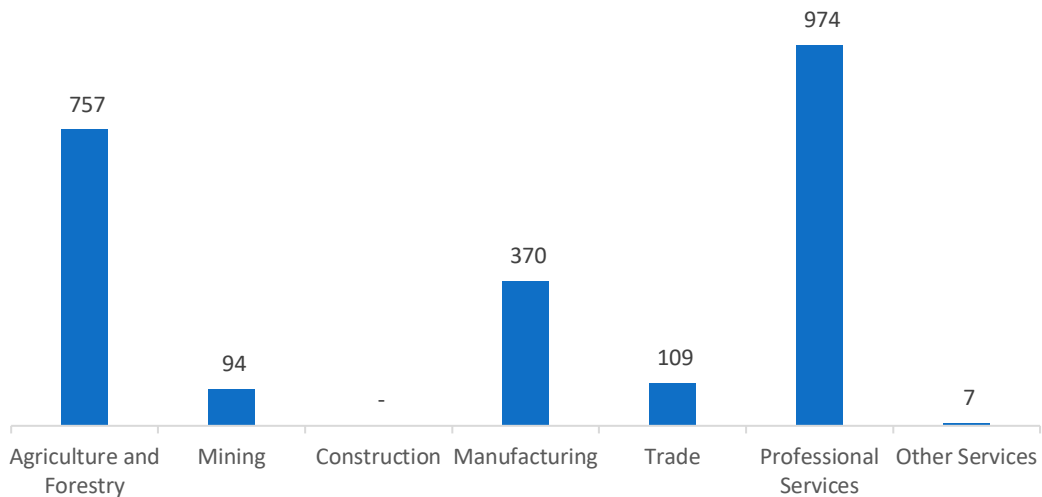
Fuels employs 2,310 workers in Idaho, 0.2 percent of the national total, up 4.2 percent over the past year. Natural gas makes up the largest segment of employment related to Fuels.

Figure ID-4.
Fuels Employment by Detailed Technology Application



Professional and business services jobs represent 42.1 percent of Fuels jobs in Idaho.

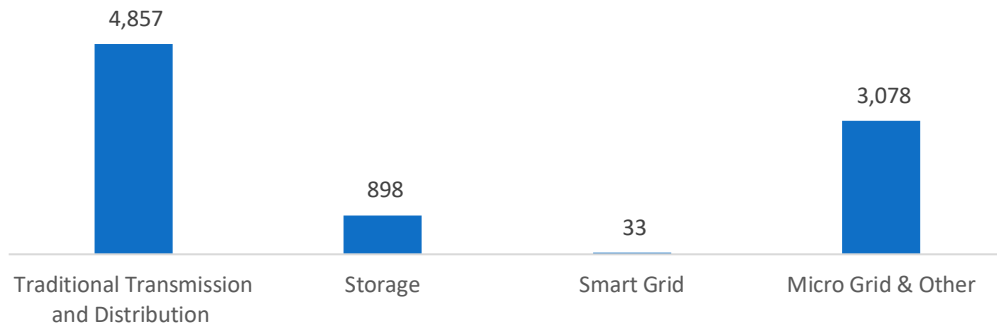
Figure ID-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

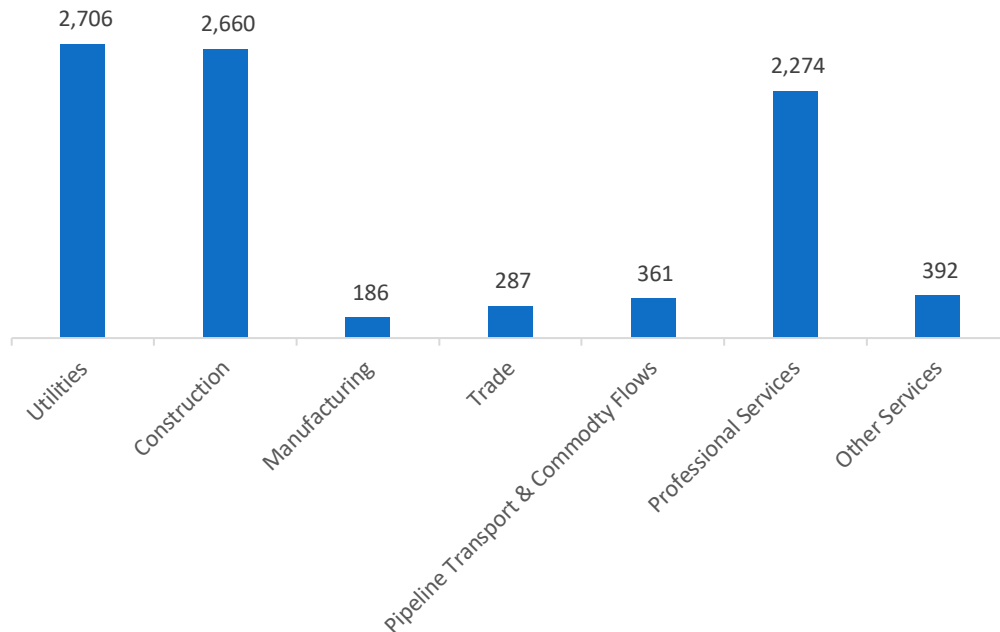
Transmission, Distribution, and Storage employs 8,866 workers in Idaho, 0.6 percent of the national total, up 0.0 percent or 4 jobs since the 2018 report.

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



Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Idaho, with 30.5 percent of such jobs statewide.

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

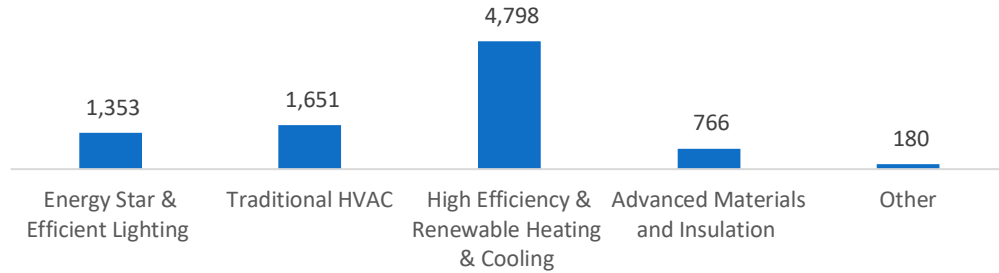


Energy Efficiency

The 8,747 Energy Efficiency jobs in Idaho represent 0.4 percent of all U.S. Energy Efficiency jobs, adding 520 jobs (6.3 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 ID-8.

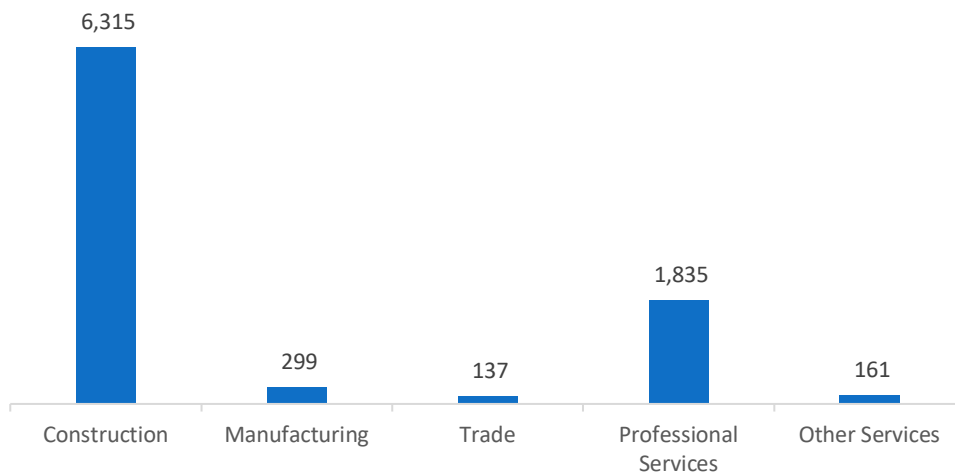
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

Figure ID-9.

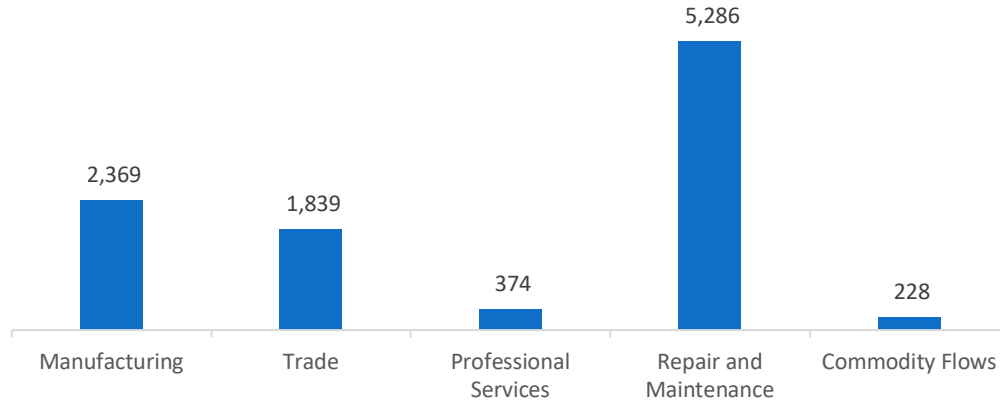
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 10,096 jobs in Idaho, down 179 jobs over the past year (-1.7 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure ID-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in Idaho are less optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (1.4 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 723 jobs in Energy Efficiency (8.3 percent) and Motor Vehicles employers expect to add 705 jobs (7.0 percent) over the next year.

Table ID-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	9.5	7.1
Electric Power Transmission, Distribution and Storage	--	3.2
Energy Efficiency	8.3	7.8
Fuels	--	3.0
Motor Vehicles	7.0	2.2

Hiring Difficulty

Over the last year, 75.0 percent of energy-related employers in Idaho hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Energy Efficiency.

Table ID-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	--	20.7	66.7	54.8
Electric Power Transmission, Distribution and Storage	33.3	21.9	--	46.1
Energy Efficiency	--	21.3	100.0	48.1
Fuels	25.0	37.9	50.0	43.0
Motor Vehicles	20.0	30.0	40.0	46.4

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

1. Lack of experience, training, or technical skills
2. Insufficient qualifications (certifications or education)
3. Difficulty finding industry-specific knowledge, skills, and interest

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

1. Technician or mechanical support – \$22.40 median hourly wage
2. Electrician/construction laborers – \$25.22 median hourly wage
3. Sales, marketing, or customer service – \$33.79 median hourly wage

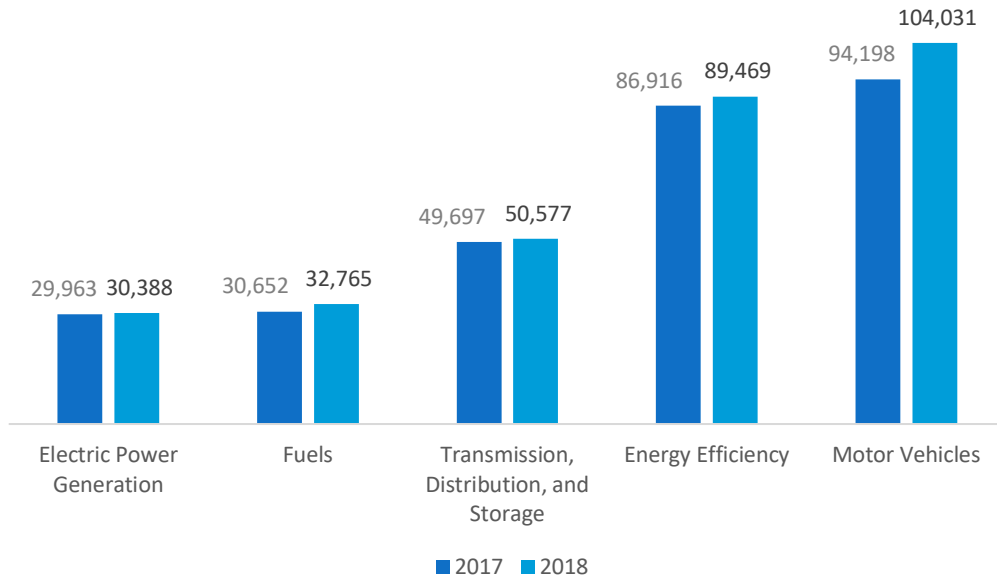
Illinois

ENERGY AND EMPLOYMENT — 2019

Overview

Illinois has a low concentration of energy employment, with 113,730 Traditional Energy workers statewide (representing 3.4 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 30,388 are in Electric Power Generation, 32,765 are in Fuels, and 50,577 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Illinois is 1.9 percent of total state employment (compared to 2.3 percent of national employment). Illinois has an additional 89,469 jobs in Energy Efficiency (3.8 percent of all U.S. Energy Efficiency jobs) and 104,031 jobs in Motor Vehicles (4.1 percent of all U.S. Motor Vehicle jobs).

Figure IL-1.
Employment by Major Energy Technology Application



Overall, Traditional Energy jobs grew by 3.1 percent since the 2018 report, increasing by 3,418 jobs over the period. Energy Efficiency jobs added 2,553 jobs (2.9 percent) and motor vehicles added 9,833 jobs (10.4 percent).

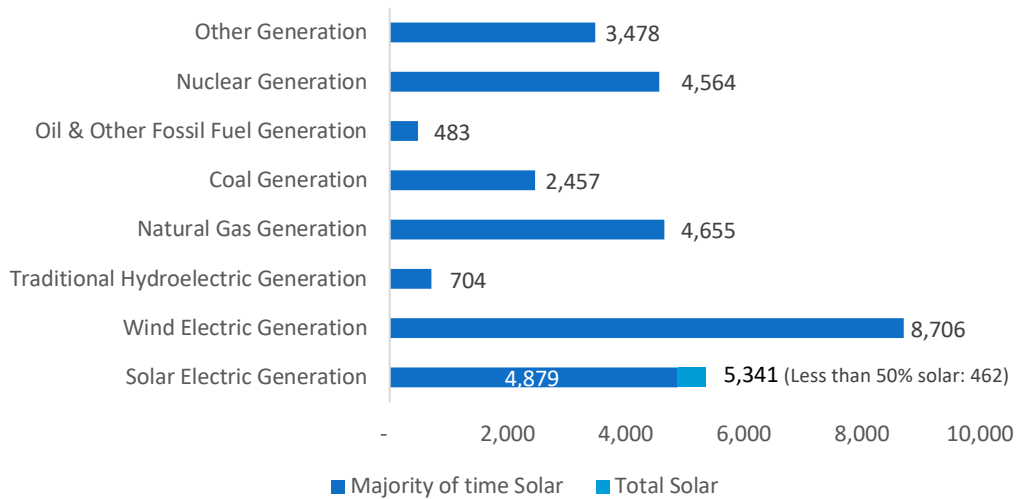
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 30,388 workers in Illinois, 3.5 percent of the national total and adding 425 jobs over the past year (1.4 percent). Wind makes up the largest segment of employment related to Electric Power Generation, with 8,706 jobs (up 0.9 percent), followed by traditional fossil fuel generation at 7,595 jobs (down 0.1 percent).

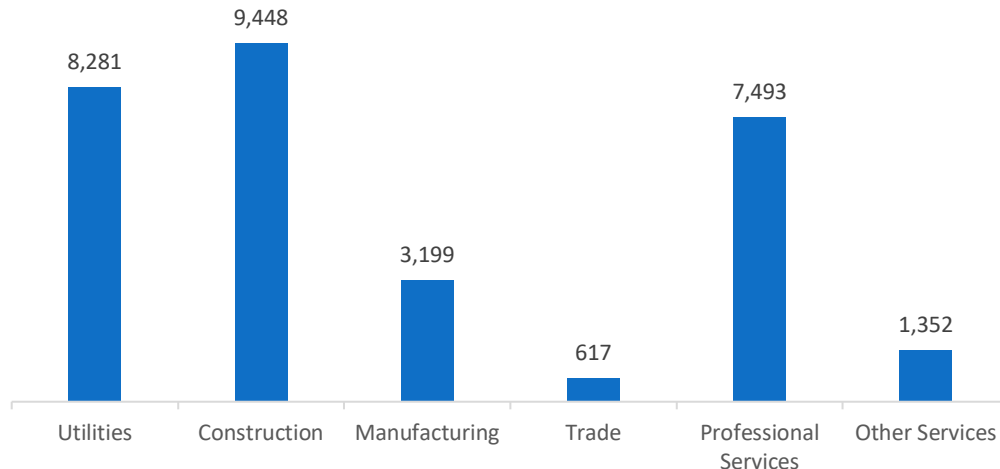
Figure IL-2.

Electric Power Generation Employment by Detailed Technology Application



Construction is the largest industry sector in Electric Power Generation, with 31.1 percent of jobs. Utilities are next with 27.2 percent.

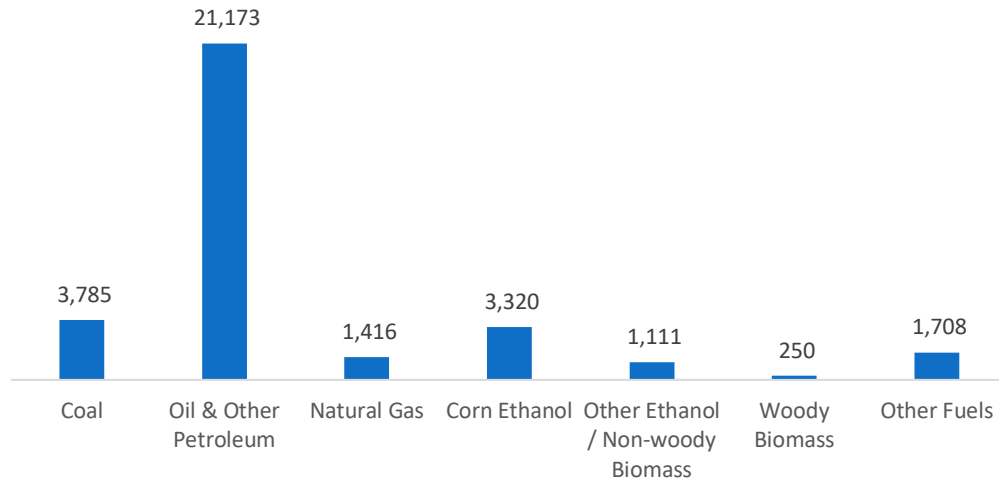
Figure IL-3.



Fuels

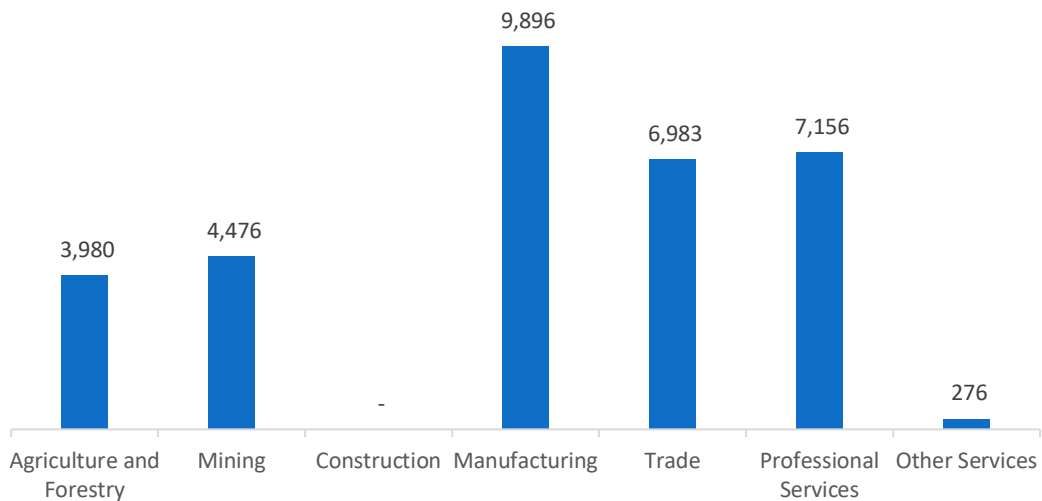
Fuels employs 32,765 workers in Illinois, 2.9 percent of the national total, up 6.9 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure IL-4.
Fuels Employment by Detailed Technology Application



Manufacturing jobs represent 30.2 percent of Fuels jobs in Illinois.

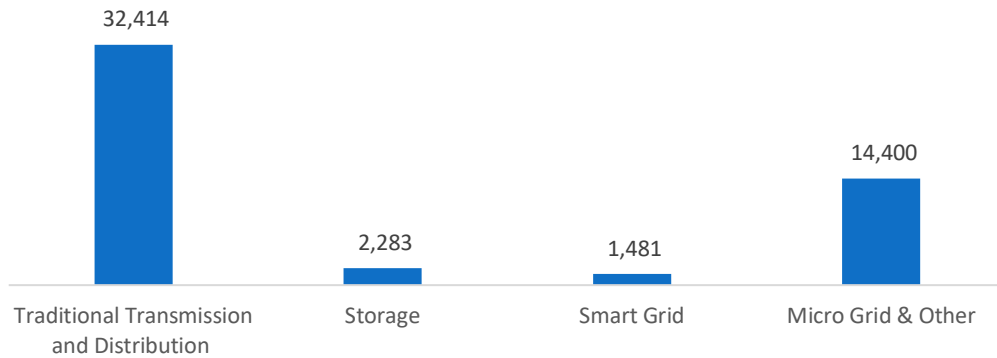
Figure IL-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

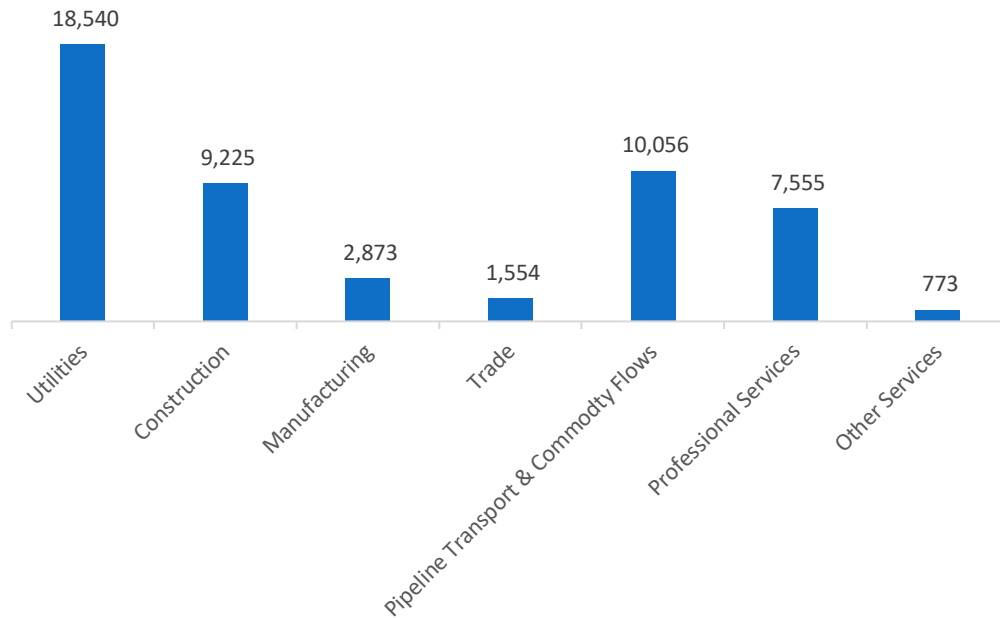
Transmission, Distribution, and Storage employs 50,577 workers in Illinois, 3.7 percent of the national total, up 1.8 percent or 880 jobs since the 2018 report.

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



Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Illinois, with 36.7 percent of such jobs statewide.

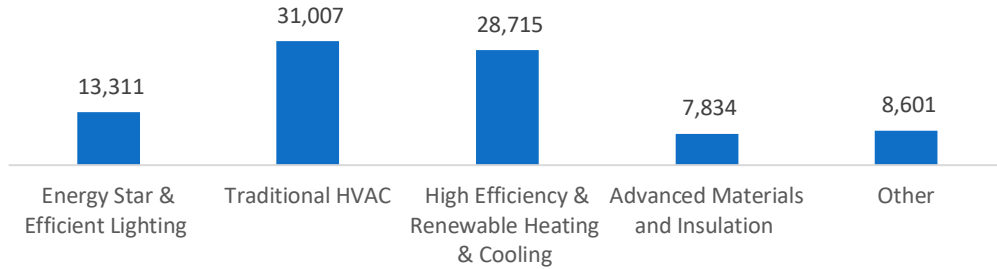
Figure IL-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

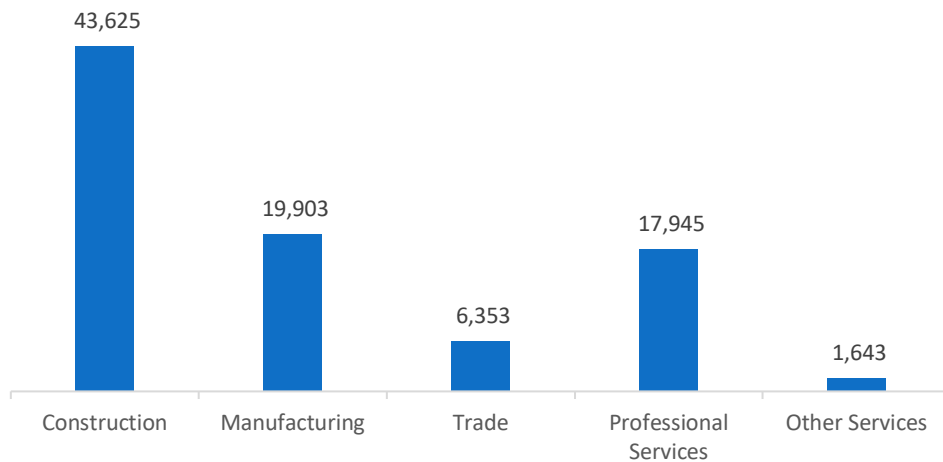
The 89,469 Energy Efficiency jobs in Illinois represent 3.8 percent of all U.S. Energy Efficiency jobs, adding 2,553 jobs (2.9 percent) since last year. The largest number of these employees work in traditional HVAC firms, followed by high efficiency HVAC and renewable heating and cooling.

Figure IL-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

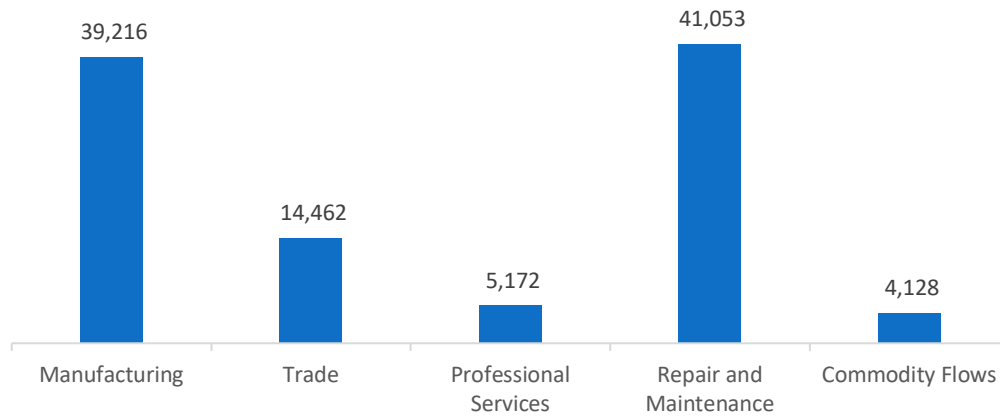
Figure IL-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 104,031 jobs in Illinois, up 9,833 jobs over the past year (10.4 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure IL-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in Illinois 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 4.1 percent nationally). Energy Efficiency employers expect to add 7,399 jobs in Energy Efficiency (8.3 percent) and Motor Vehicles employers expect to add 2,060 jobs (2.0 percent) over the next year.

Table IL-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	8.6	7.1
Electric Power Transmission, Distribution and Storage	4.7	3.2
Energy Efficiency	8.3	7.8
Fuels	2.9	3.0
Motor Vehicles	2.0	2.2

Hiring Difficulty

Over the last year, 48.4 percent of energy-related employers in Illinois hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Energy Efficiency.

Table IL-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	26.3	20.7	47.4	54.8
Electric Power Transmission, Distribution and Storage	16.7	21.9	66.7	46.1
Energy Efficiency	31.6	21.3	63.2	48.1
Fuels	50.0	37.9	--	43.0
Motor Vehicles	15.4	30.0	69.2	46.4

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

1. Lack of experience, training, or technical skills
2. Difficulty finding industry-specific knowledge, skills, and interest
3. Insufficient non-technical skills (work ethic, dependability, critical thinking)

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

1. Technician or mechanical support – \$24.38 median hourly wage
2. Electrician/construction laborers – \$25.71 median hourly wage
3. Sales, marketing, or customer service – \$33.41 median hourly wage

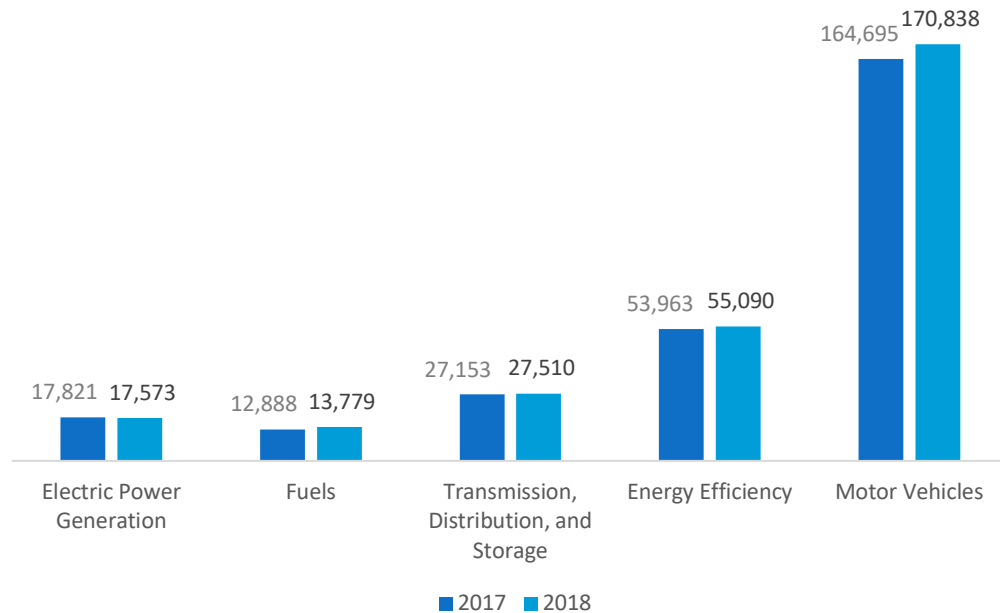
Indiana

ENERGY AND EMPLOYMENT — 2019

Overview

Indiana has a low concentration of energy employment, with 58,862 Traditional Energy workers statewide (representing 1.7 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 17,573 are in Electric Power Generation, 13,779 are in Fuels, and 27,510 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Indiana is 1.9 percent of total state employment (compared to 2.3 percent of national employment). Indiana has an additional 55,090 jobs in Energy Efficiency (2.4 percent of all U.S. Energy Efficiency jobs) and 170,838 jobs in Motor Vehicles (6.7 percent of all U.S. Motor Vehicle jobs).

Figure IN-1.
Employment by Major Energy Technology Application



Overall, Traditional Energy jobs grew by 1.7 percent since the 2018 report, increasing by 1,000 jobs over the period. Energy Efficiency jobs added 1,126 jobs (2.1 percent) and motor vehicles added 6,144 jobs (3.7 percent).

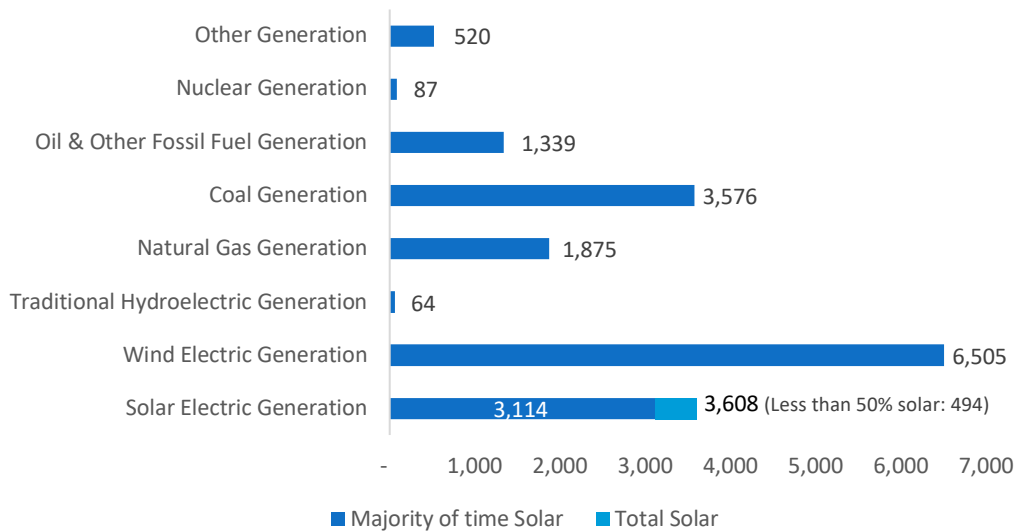
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 17,573 workers in Indiana, 2.0 percent of the national total and losing 248 jobs over the past year (-1.4 percent). Traditional fossil fuel generation makes up the largest segment of employment related to Electric Power Generation, with 6,789 jobs (down 2.4 percent), followed by wind at 6,505 jobs (down 0.7 percent).

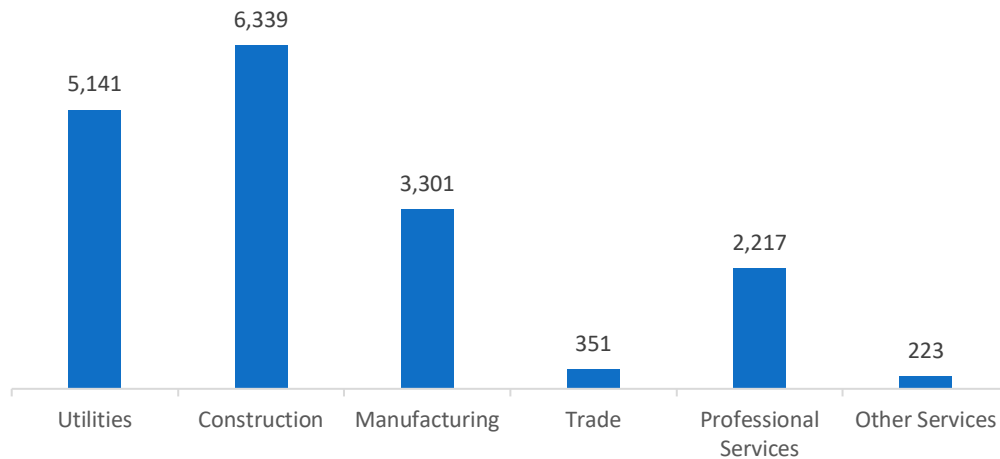
Figure IN-2.

Electric Power Generation Employment by Detailed Technology Application



Construction is the largest industry sector in Electric Power Generation, with 36.1 percent of jobs. Utilities are next with 29.3 percent.

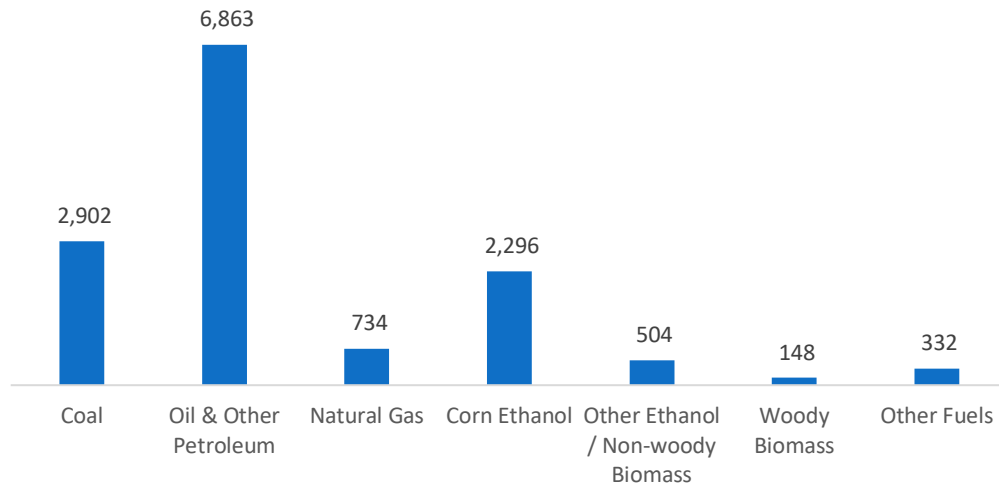
Figure IN-3.



Fuels

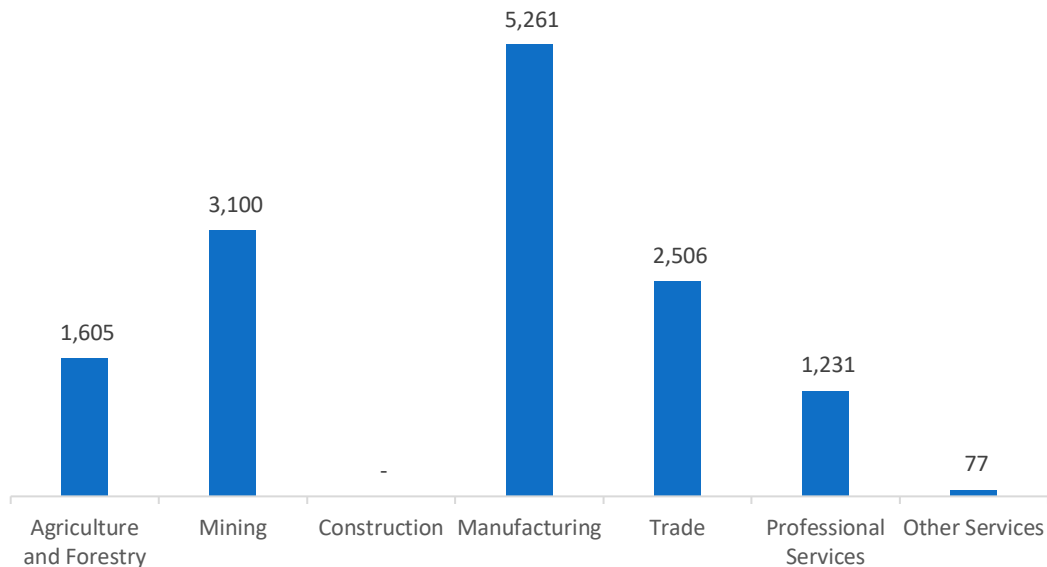
Fuels employs 13,779 workers in Indiana, 1.2 percent of the national total, up 6.9 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure IN-4.
Fuels Employment by Detailed Technology Application



Manufacturing jobs represent 38.2 percent of Fuels jobs in Indiana.

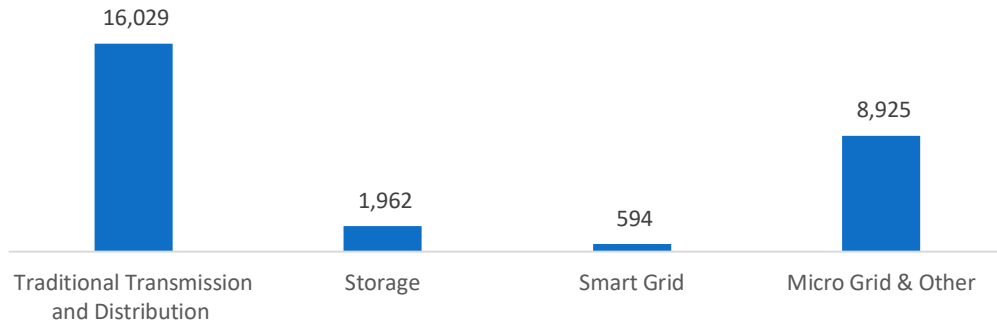
Figure IN-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

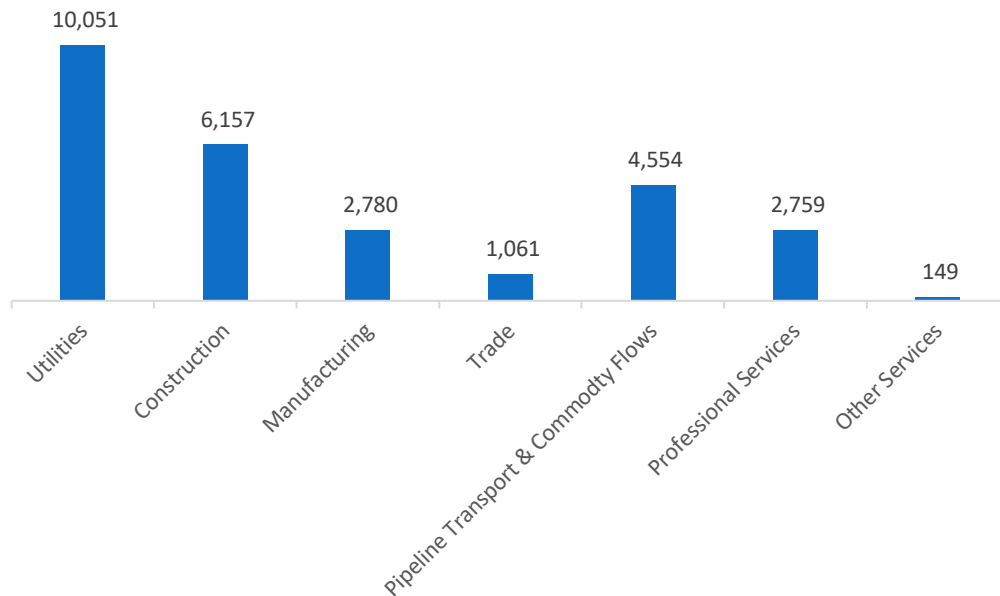
Transmission, Distribution, and Storage employs 27,510 workers in Indiana, 2.0 percent of the national total, up 1.3 percent or 357 jobs since the 2018 report.

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



Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Indiana, with 36.5 percent of such jobs statewide.

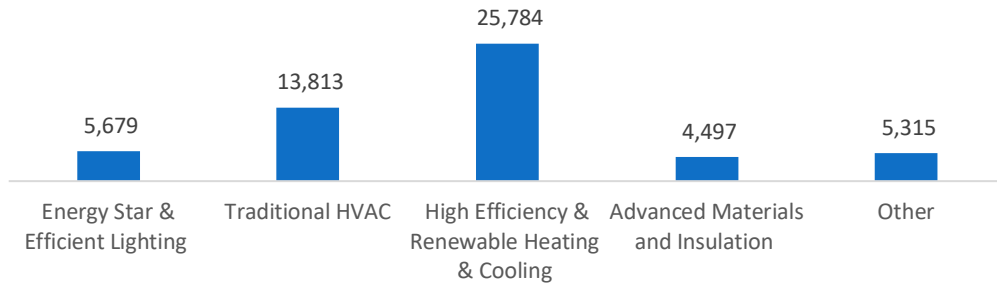
Figure IN-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

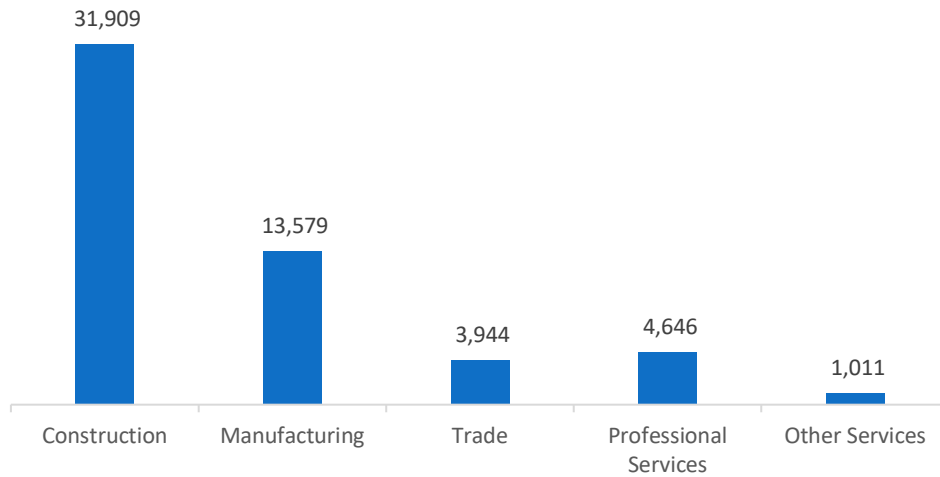
The 55,090 Energy Efficiency jobs in Indiana represent 2.4 percent of all U.S. Energy Efficiency jobs, adding 1,126 jobs (2.1 percent) since last year. The largest number of these employees work in high efficiency HVAC and renewable heating and cooling firms, followed by traditional HVAC.

Figure IN-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

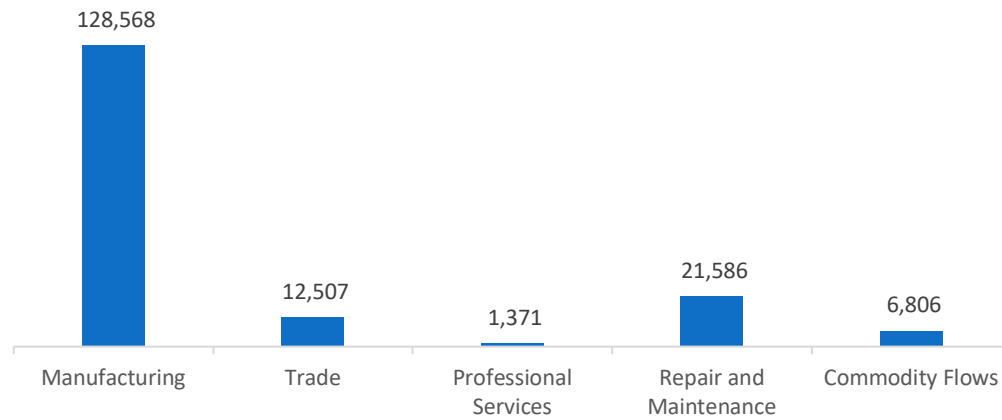
Figure IN-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 170,838 jobs in Indiana, up 6,144 jobs over the past year (3.7 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is manufacturing.

Figure IN-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in Indiana are less optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (1.6 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 2,556 jobs in Energy Efficiency (4.6 percent) and Motor Vehicles employers expect to add 3,383 jobs (2.0 percent) over the next year.

Table IN-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	7.0	7.1
Electric Power Transmission, Distribution and Storage	(2.9)	3.2
Energy Efficiency	4.6	7.8
Fuels	3.7	3.0
Motor Vehicles	2.0	2.2

Hiring Difficulty

Over the last year, 55.0 percent of energy-related employers in Indiana hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Motor Vehicles.

Table IN-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	11.8	20.7	52.9	54.8
Electric Power Transmission, Distribution and Storage	--	21.9	55.6	46.1
Energy Efficiency	31.3	21.3	50.0	48.1
Fuels	50.0	37.9	50.0	43.0
Motor Vehicles	54.5	30.0	45.5	46.4

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

1. Lack of experience, training, or technical skills
2. Insufficient non-technical skills (work ethic, dependability, critical thinking)
3. Difficulty finding industry-specific knowledge, skills, and interest

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

1. Technician or mechanical support – \$23.02 median hourly wage
2. Sales, marketing, or customer service – \$35.01 median hourly wage
3. Electrician/construction laborers – \$21.84 median hourly wage

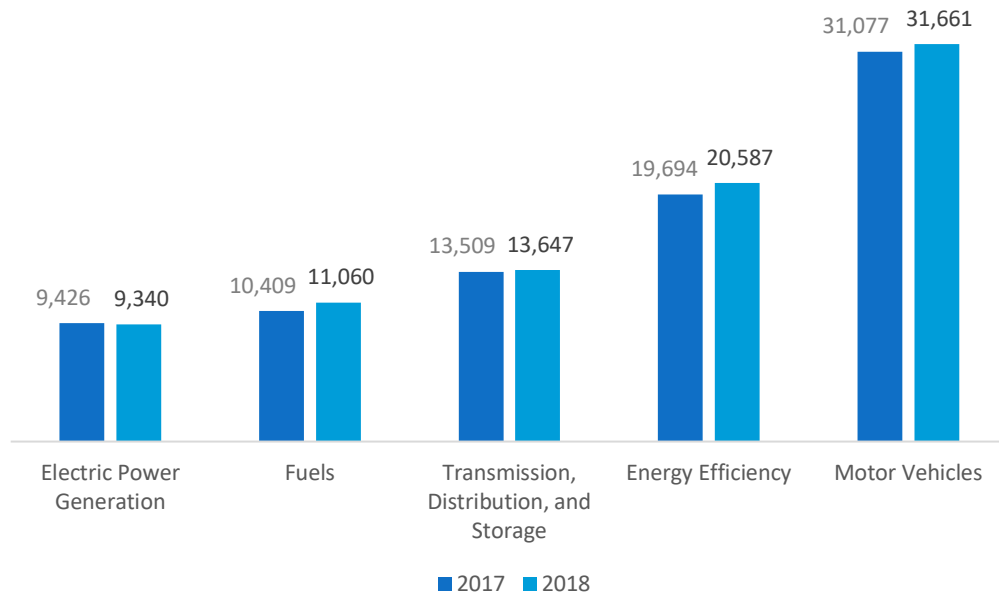
Iowa

ENERGY AND EMPLOYMENT — 2019

Overview

Iowa has an average concentration of energy employment, with 34,047 Traditional Energy workers statewide (representing 1.0 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 9,340 are in Electric Power Generation, 11,060 are in Fuels, and 13,647 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Iowa is 2.1 percent of total state employment (compared to 2.3 percent of national employment). Iowa has an additional 20,587 jobs in Energy Efficiency (0.9 percent of all U.S. Energy Efficiency jobs) and 31,661 jobs in Motor Vehicles (1.2 percent of all U.S. Motor Vehicle jobs).

Figure IA-1.
Employment by Major Energy



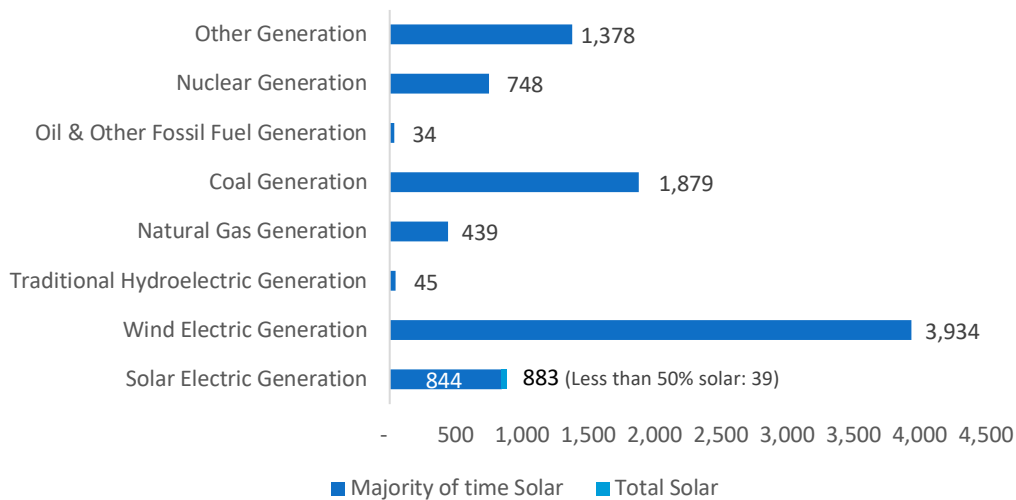
Overall, Traditional Energy jobs grew by 1.8 percent since the 2018 report, increasing by 617 jobs over the period. Energy Efficiency jobs added 893 jobs (4.5 percent) and motor vehicles added 585 jobs (1.9 percent).

Breakdown by Technology Applications

Electric Power Generation

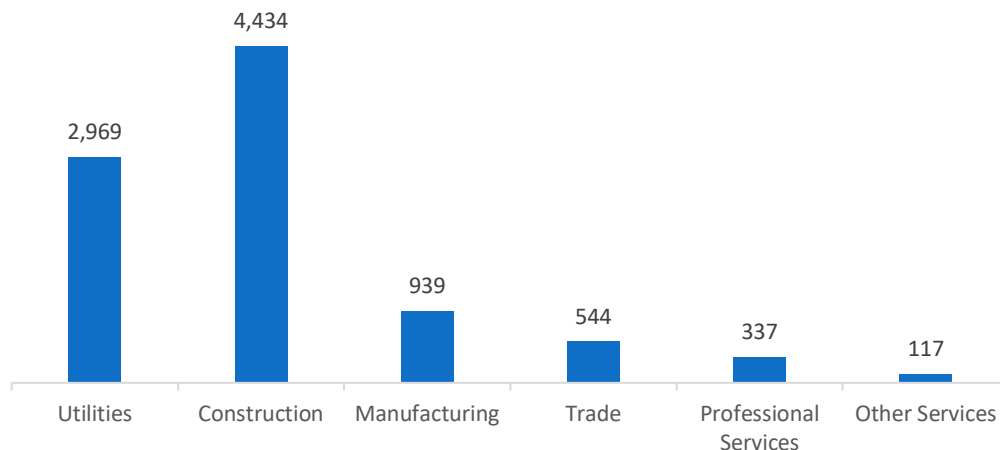
Electric Power Generation employs 9,340 workers in Iowa, 1.1 percent of the national total and losing 173 jobs over the past year (-1.8 percent). Wind makes up the largest segment of employment related to Electric Power Generation, with 3,934 jobs (down 0.4 percent), followed by traditional fossil fuel generation at 2,352 jobs (down 3.8 percent).

Figure IA-2.
Electric Power Generation Employment by Detailed Technology Application



Construction is the largest industry sector in Electric Power Generation, with 47.5 percent of jobs. Utilities are next with 31.8 percent.

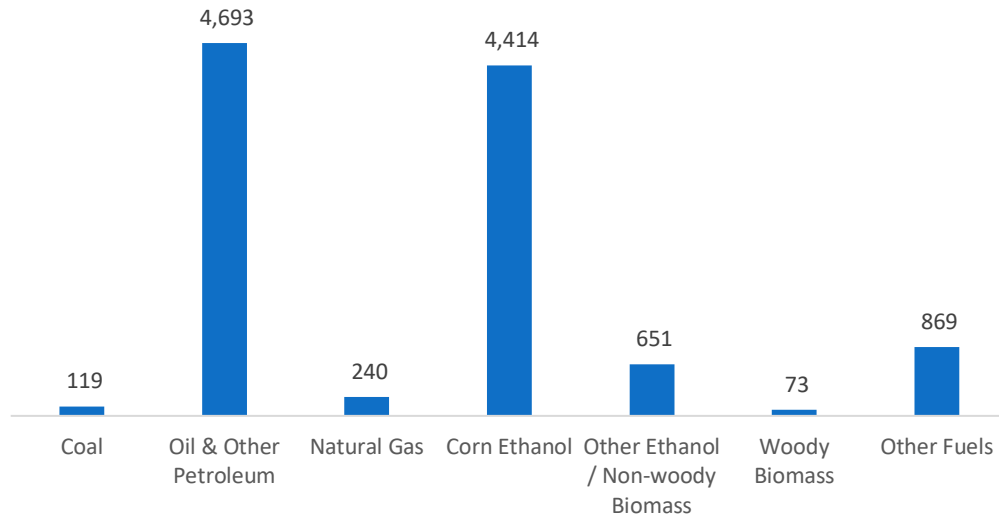
Figure IA-3.



Fuels

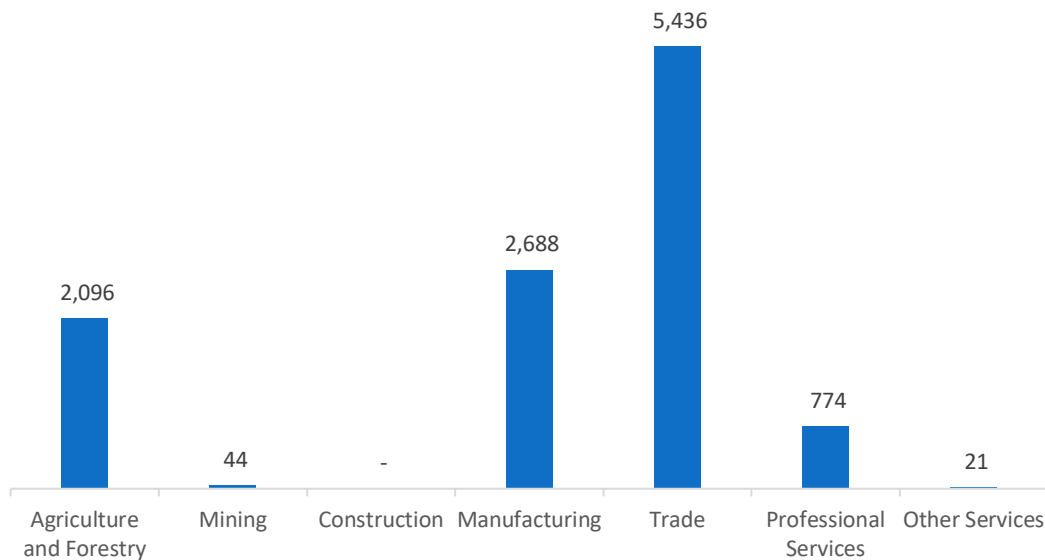
Fuels employs 11,060 workers in Iowa, 1.0 percent of the national total, up 6.3 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure IA-4.
Fuels Employment by Detailed Technology Application



Wholesale trade jobs represent 49.2 percent of Fuels jobs in Iowa.

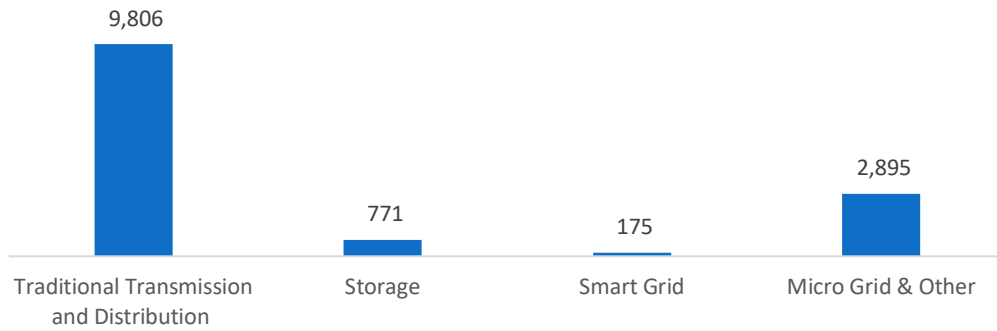
Figure IA-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

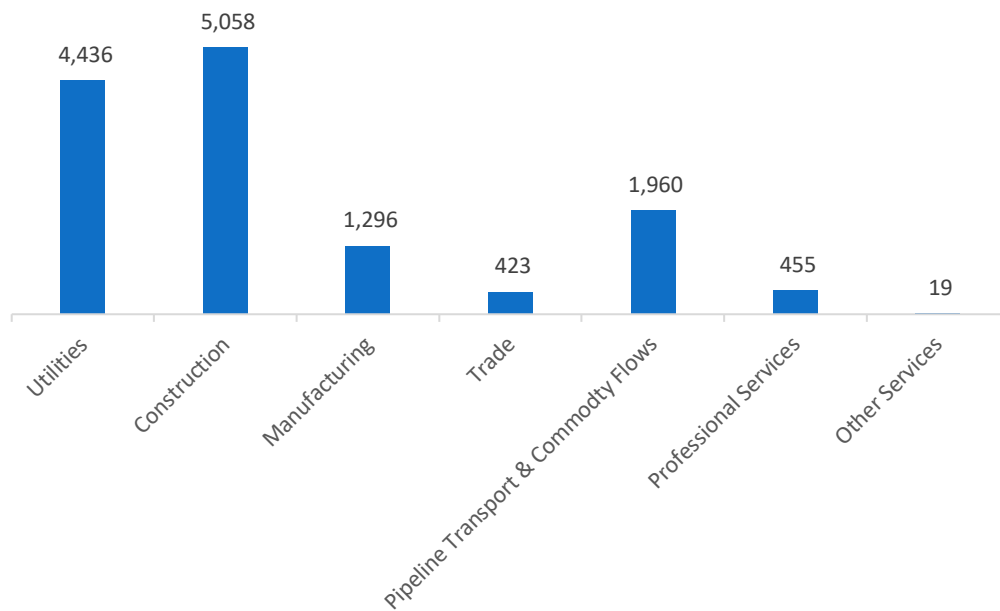
Transmission, Distribution, and Storage employs 13,647 workers in Iowa, 1.0 percent of the national total, up 1.0 percent or 138 jobs since the 2018 report.

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



Construction is responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Iowa, with 37.1 percent of such jobs statewide.

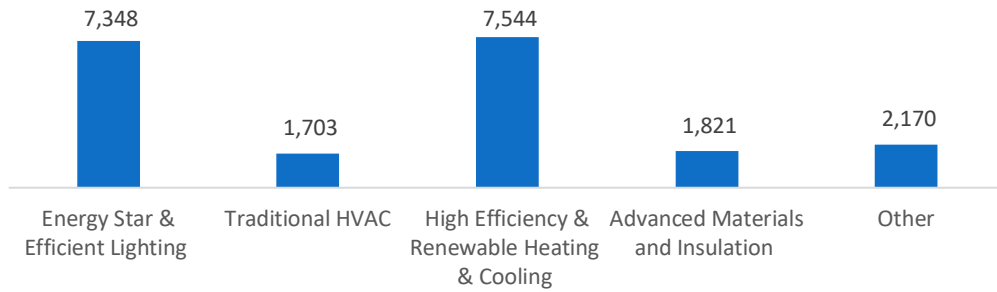
Figure IA-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

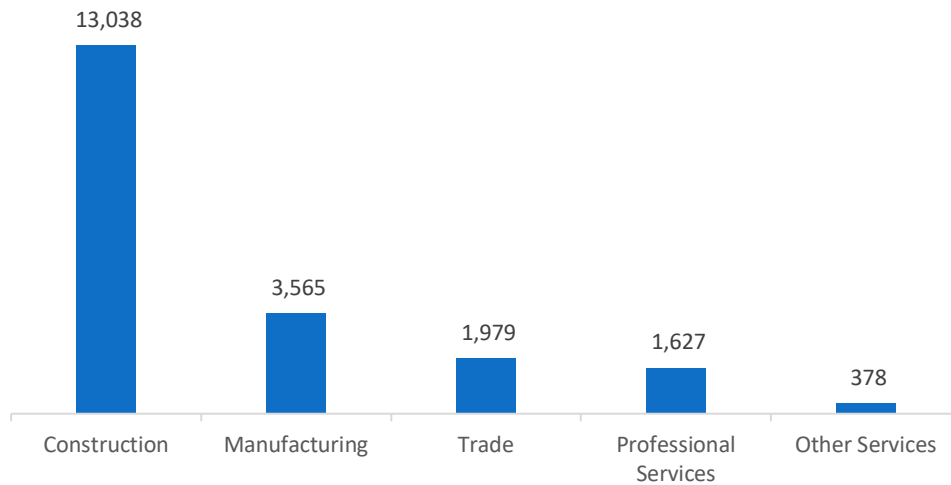
The 20,587 Energy Efficiency jobs in Iowa represent 0.9 percent of all U.S. Energy Efficiency jobs, adding 893 jobs (4.5 percent) since last year. The largest number of these employees work in high efficiency HVAC and renewable heating and cooling firms, followed by ENERGY STAR and efficient lighting.

Figure IA-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

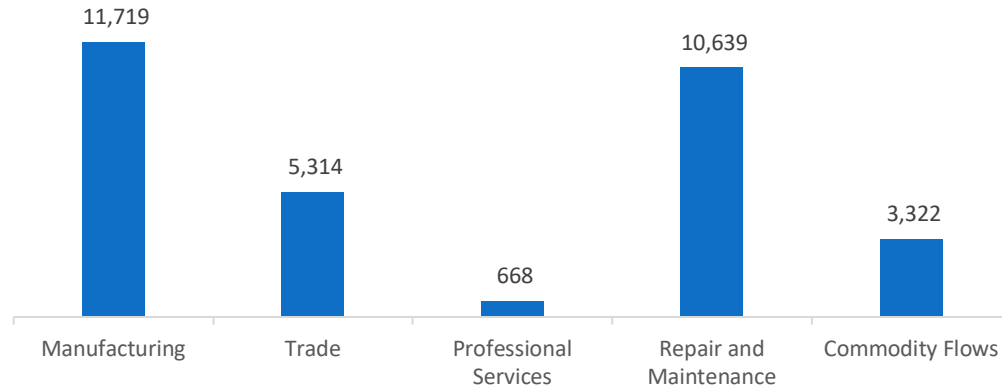
Figure IA-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 31,661 jobs in Iowa, up 585 jobs over the past year (1.9 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is manufacturing.

Figure IA-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in Iowa are less optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (2.4 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 1,642 jobs in Energy Efficiency (8.0 percent) and Motor Vehicles employers expect to add 627 jobs (2.0 percent) over the next year.

Table IA-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	8.9	7.1
Electric Power Transmission, Distribution and Storage	--	3.2
Energy Efficiency	8.0	7.8
Fuels	--	3.0
Motor Vehicles	2.0	2.2

Hiring Difficulty

Over the last year, 58.9 percent of energy-related employers in Iowa hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Energy Efficiency.

Table IA-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	38.5	20.7	30.8	54.8
Electric Power Transmission, Distribution and Storage	--	21.9	80.0	46.1
Energy Efficiency	33.3	21.3	66.7	48.1
Fuels	--	37.9	66.7	43.0
Motor Vehicles	38.5	30.0	38.5	46.4

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

1. Lack of experience, training, or technical skills
2. Insufficient non-technical skills (work ethic, dependability, critical thinking)
3. Competition/ small applicant pool

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

1. Technician or mechanical support – \$23.01 median hourly wage
2. Electrician/construction laborers – \$23.50 median hourly wage
3. Sales, marketing, or customer service – \$30.97 median hourly wage

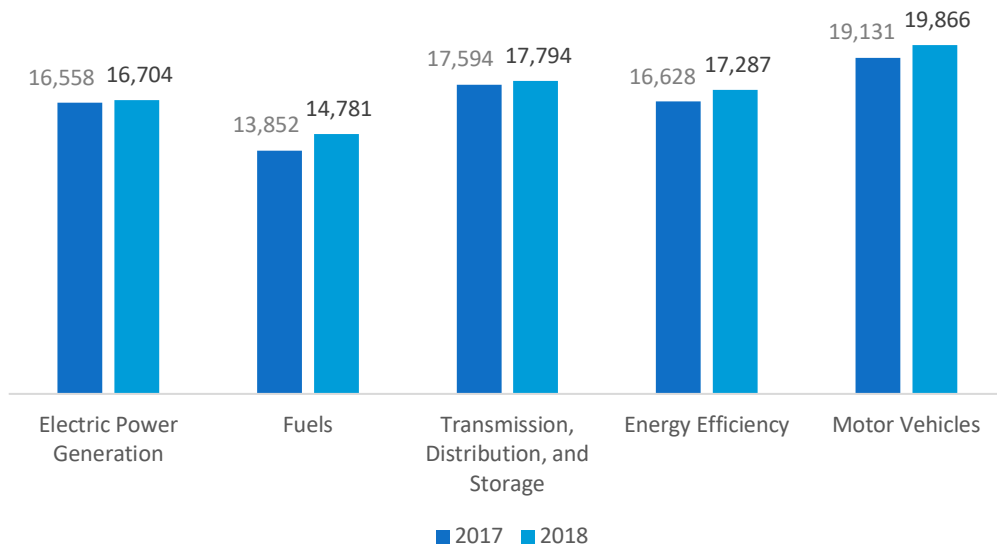
Kansas

ENERGY AND EMPLOYMENT — 2019

Overview

Kansas has a high concentration of energy employment, with 49,279 Traditional Energy workers statewide (representing 1.5 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 16,704 are in Electric Power Generation, 14,781 are in Fuels, and 17,794 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Kansas is 3.5 percent of total state employment (compared to 2.3 percent of national employment). Kansas has an additional 17,287 jobs in Energy Efficiency (0.7 percent of all U.S. Energy Efficiency jobs) and 19,866 jobs in Motor Vehicles (0.8 percent of all U.S. Motor Vehicle jobs).

Figure KS-1.
Employment by Major Energy Technology Application



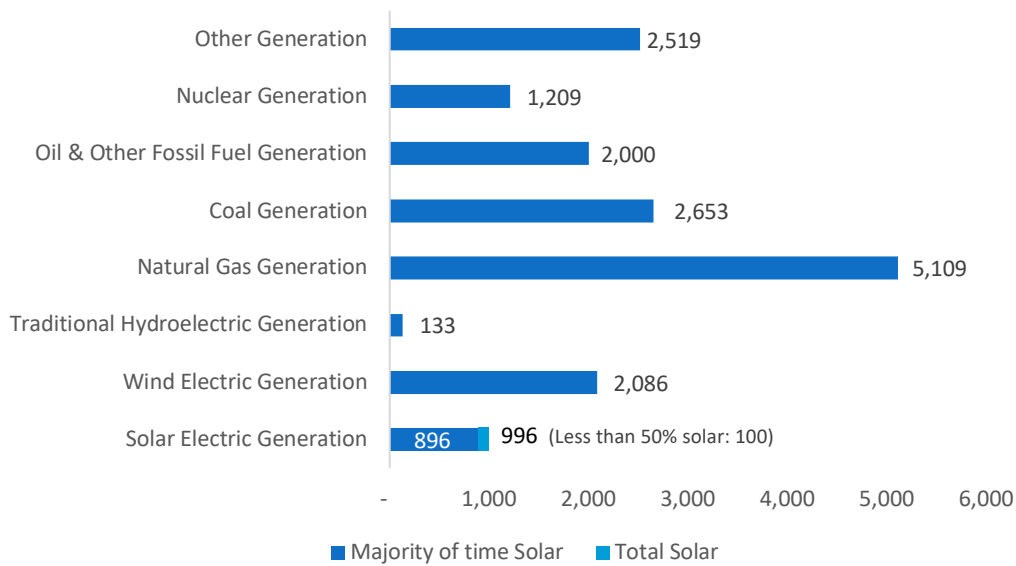
Overall, Traditional Energy jobs grew by 2.7 percent since the 2018 report, increasing by 1,275 jobs over the period. Energy Efficiency jobs added 659 jobs (4.0 percent) and motor vehicles added 735 jobs (3.8 percent).

Breakdown by Technology Applications

Electric Power Generation

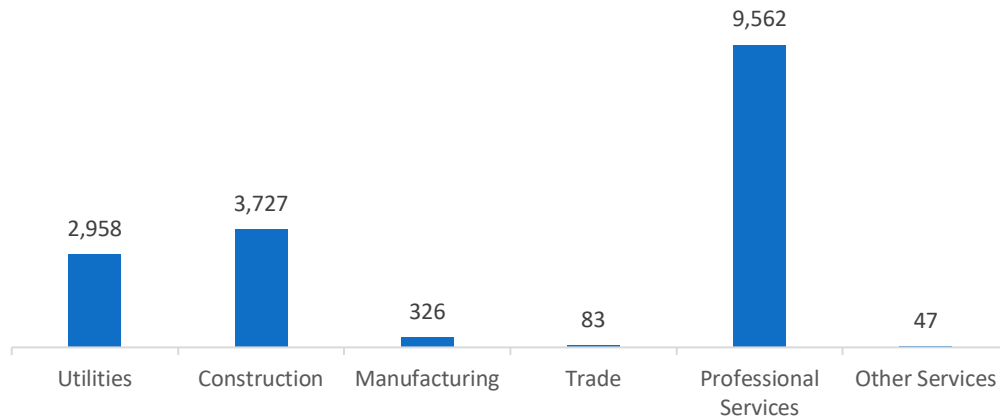
Electric Power Generation employs 16,704 workers in Kansas, 1.9 percent of the national total and adding 146 jobs over the past year (0.9 percent). Traditional fossil fuel generation makes up the largest segment of employment related to Electric Power Generation, with 9,761 jobs (down 2.0 percent), followed by wind at 2,086 jobs (up 1.8 percent).

Figure KS-2.
Electric Power Generation Employment by Detailed Technology Application



Professional and business services are the largest industry sector in Electric Power Generation, with 57.2 percent of jobs. Construction is next with 22.3 percent.

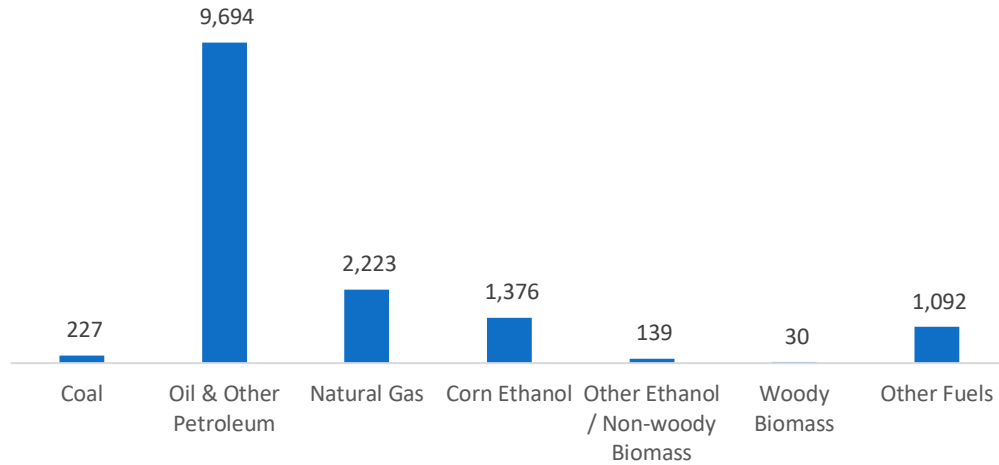
Figure KS-3.



Fuels

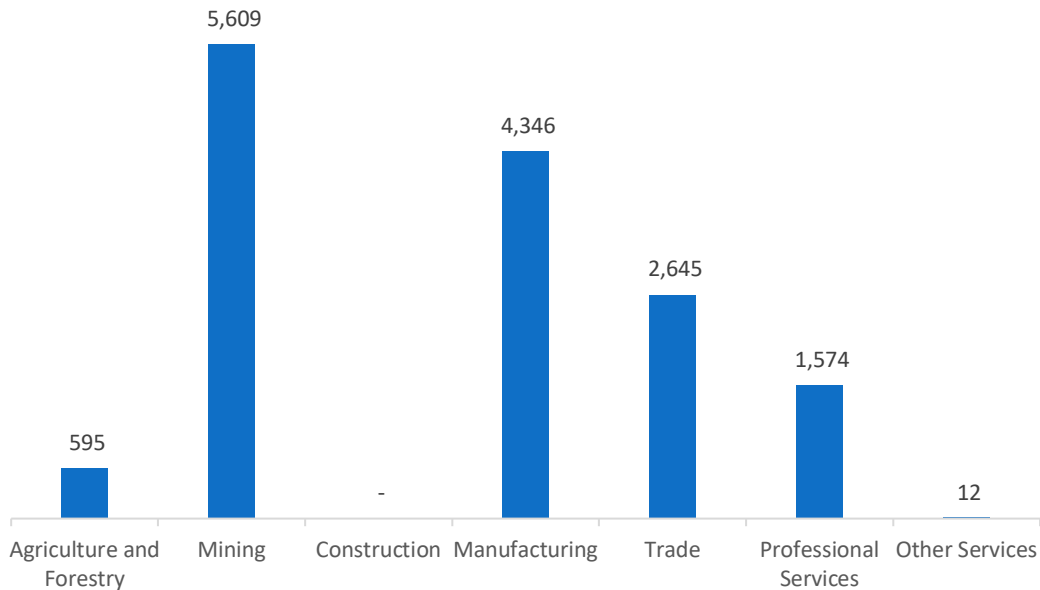
Fuels employs 14,781 workers in Kansas, 1.3 percent of the national total, up 6.7 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure KS-4.
Fuels Employment by Detailed Technology Application



Mining and extraction jobs represent 37.9 percent of Fuels jobs in Kansas.

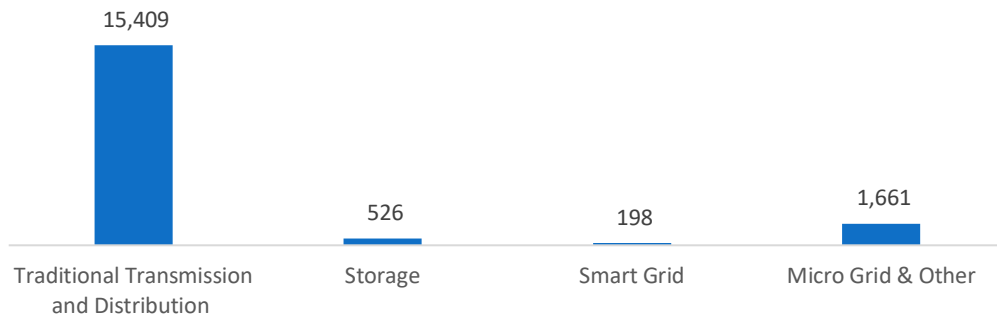
Figure KS-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

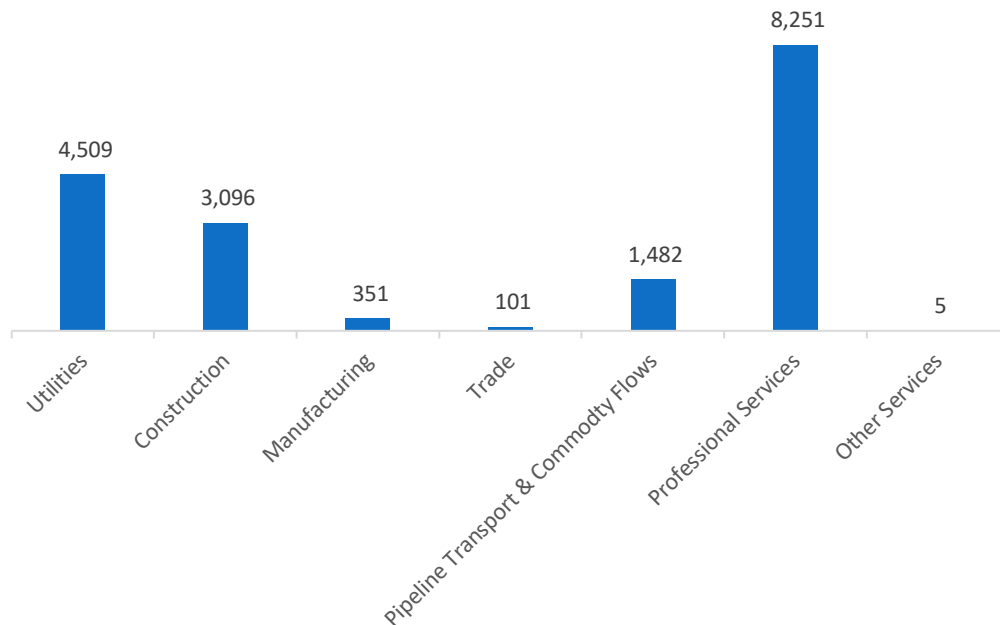
Transmission, Distribution, and Storage employs 17,794 workers in Kansas, 1.3 percent of the national total, up 1.1 percent or 200 jobs since the 2018 report.

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



Professional and business services are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Kansas, with 46.4 percent of such jobs statewide.

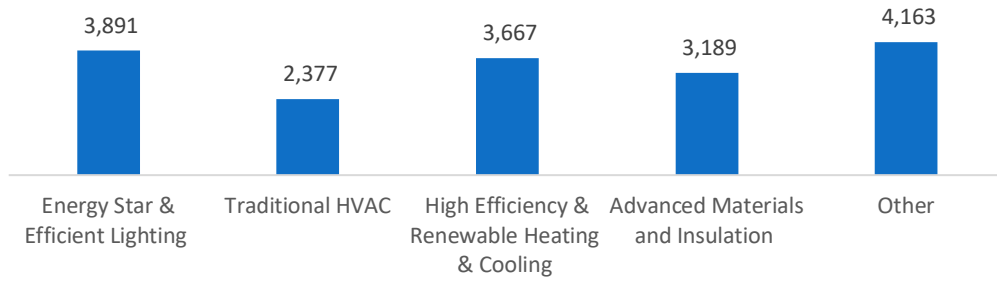
Figure KS-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

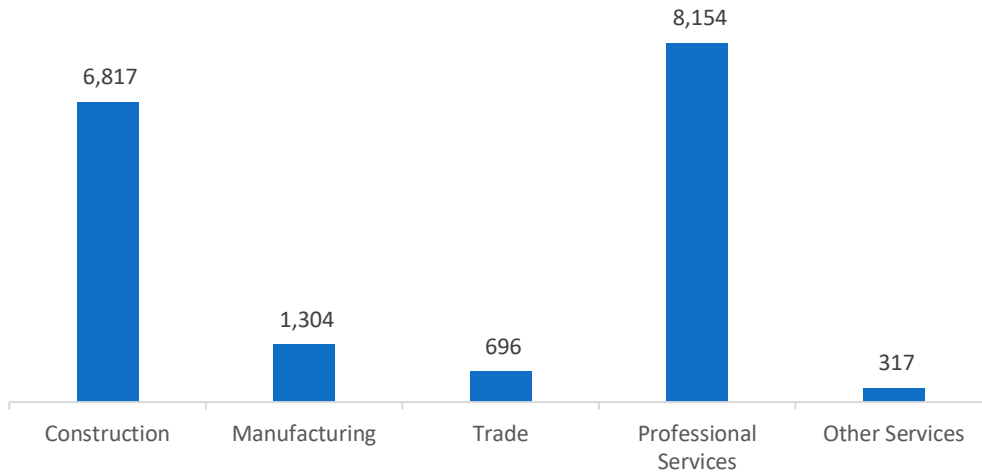
The 17,287 Energy Efficiency jobs in Kansas represent 0.7 percent of all U.S. Energy Efficiency jobs, adding 659 jobs (4.0 percent) since last year. The largest number of these employees work in other energy efficiency products and services firms, followed by ENERGY STAR and efficient lighting.

Figure KS-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the professional and business services industry.

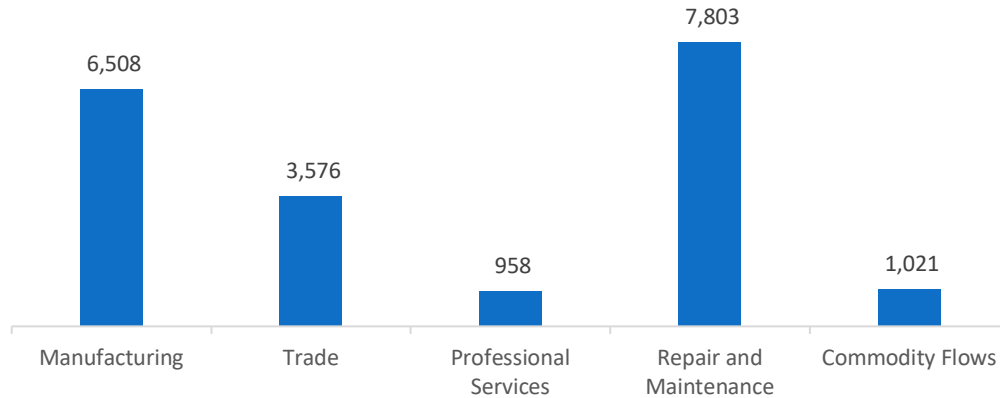
Figure KS-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 19,866 jobs in Kansas, up 735 jobs over the past year (3.8 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure KS-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in Kansas are less optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (0.9 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 1,449 jobs in Energy Efficiency (8.4 percent) and Motor Vehicles employers expect to add 368 jobs (1.9 percent) over the next year.

Table KS-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	0.4	7.1
Electric Power Transmission, Distribution and Storage	2.2	3.2
Energy Efficiency	8.4	7.8
Fuels	--	3.0
Motor Vehicles	1.9	2.2

Hiring Difficulty

Over the last year, 45.5 percent of energy-related employers in Kansas hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Energy Efficiency.

Table KS-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	--	20.7	100.0	54.8
Electric Power Transmission, Distribution and Storage	--	21.9	77.8	46.1
Energy Efficiency	50.0	21.3	50.0	48.1
Fuels	--	37.9	50.0	43.0
Motor Vehicles	--	30.0	100.0	46.4

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

1. Lack of experience, training, or technical skills
2. Insufficient non-technical skills (work ethic, dependability, critical thinking)
3. Location

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

1. Electrician/construction laborers – \$23.51 median hourly wage
2. Technician or mechanical support – \$22.39 median hourly wage
3. Sales, marketing, or customer service – \$31.59 median hourly wage

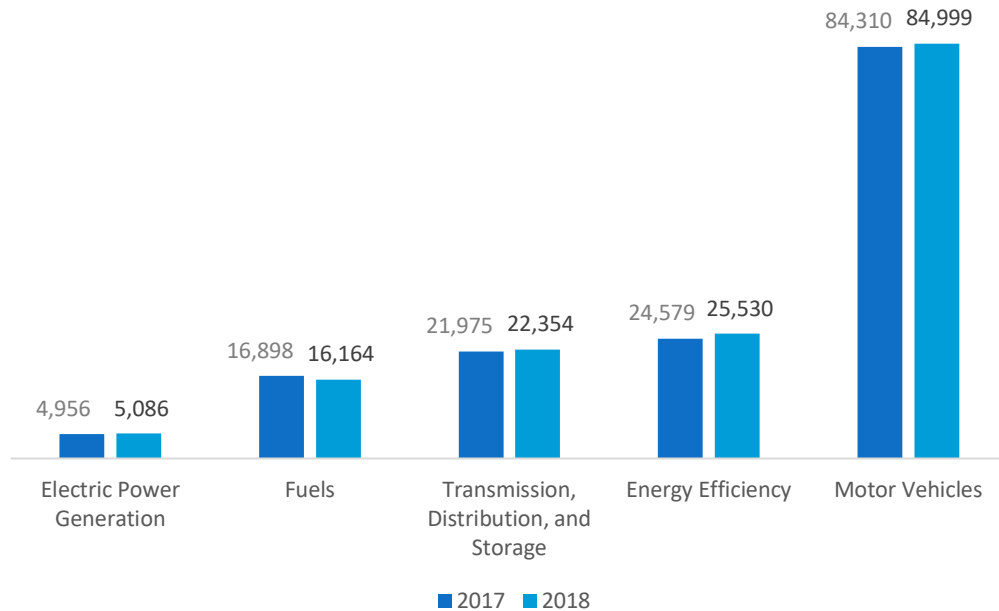
Kentucky

ENERGY AND EMPLOYMENT — 2019

Overview

Kentucky has an average concentration of energy employment, with 43,604 Traditional Energy workers statewide (representing 1.3 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 5,086 are in Electric Power Generation, 16,164 are in Fuels, and 22,354 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Kentucky is 2.3 percent of total state employment (compared to 2.3 percent of national employment). Kentucky has an additional 25,530 jobs in Energy Efficiency (1.1 percent of all U.S. Energy Efficiency jobs) and 84,999 jobs in Motor Vehicles (3.4 percent of all U.S. Motor Vehicle jobs).

Figure KY-1.
Employment by Major Energy Technology Application



Overall, Traditional Energy jobs declined by 0.5 percent since the 2018 report, decreasing by 226 jobs over the period. Energy Efficiency jobs added 952 jobs (3.9 percent) and motor vehicles added 689 jobs (0.8 percent).

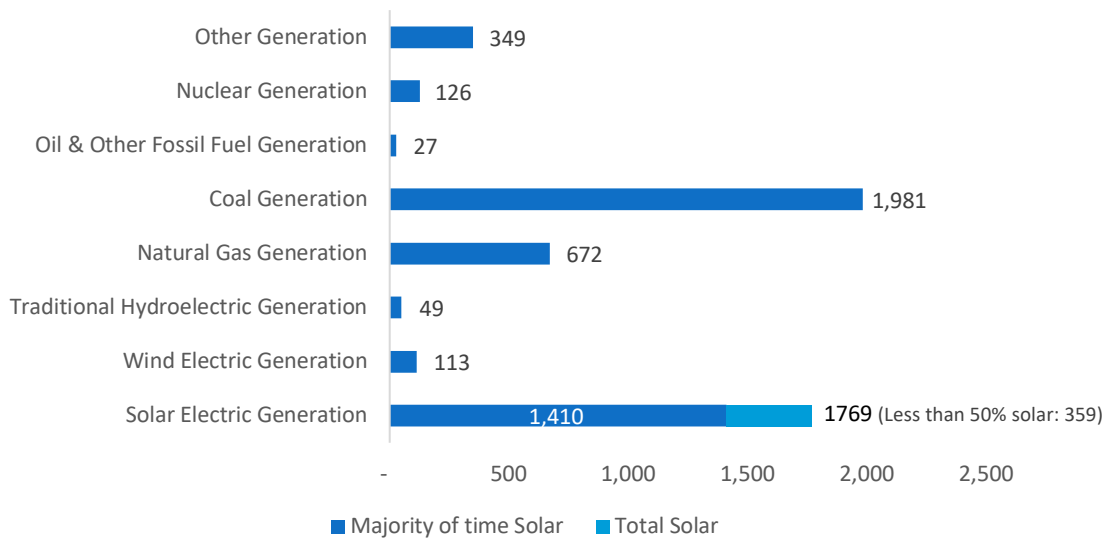
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 5,086 workers in Kentucky, 0.6 percent of the national total and adding 130 jobs over the past year (2.6 percent). Traditional fossil fuel generation makes up the largest segment of employment related to Electric Power Generation, with 2,680 jobs (down 4.9 percent), followed by solar at 1,769 jobs (up 6.8 percent).

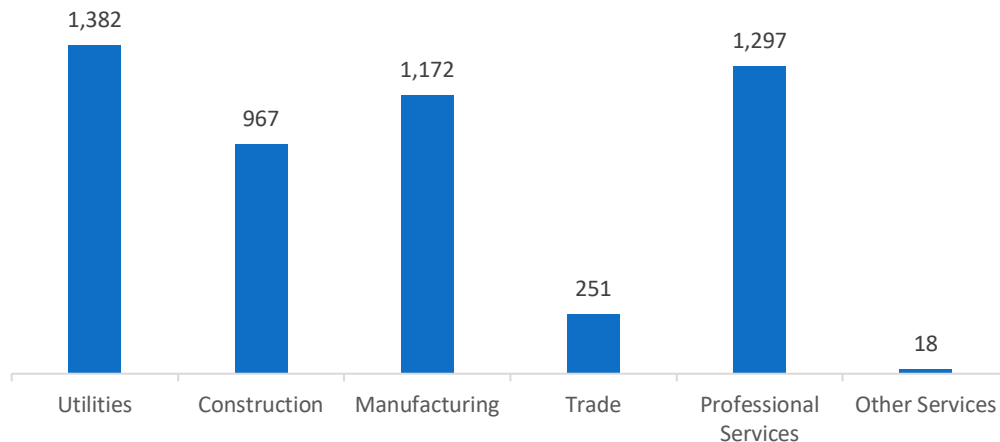
Figure KY-2.

Electric Power Generation Employment by Detailed Technology Application



Utilities are the largest industry sector in Electric Power Generation, with 27.2 percent of jobs. Professional and business services are next with 25.5 percent.

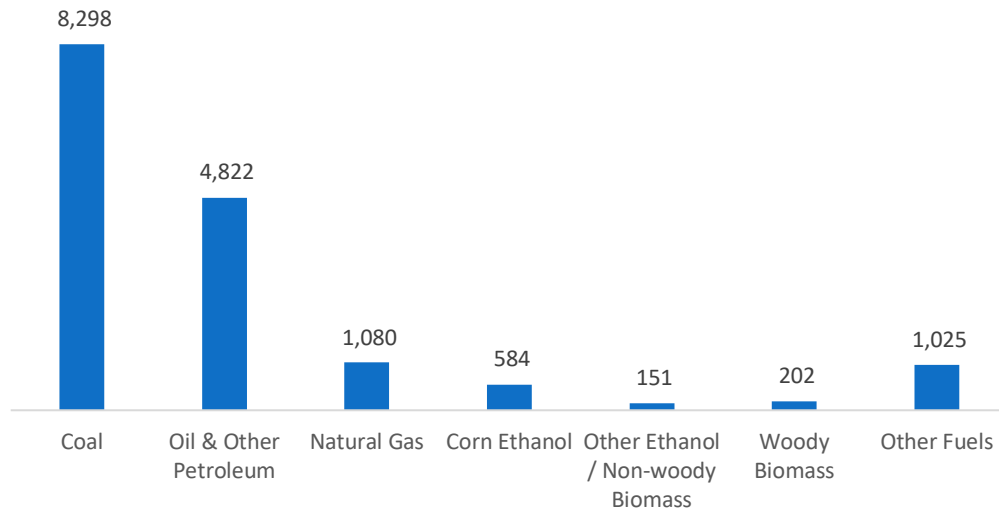
Figure KY-3.



Fuels

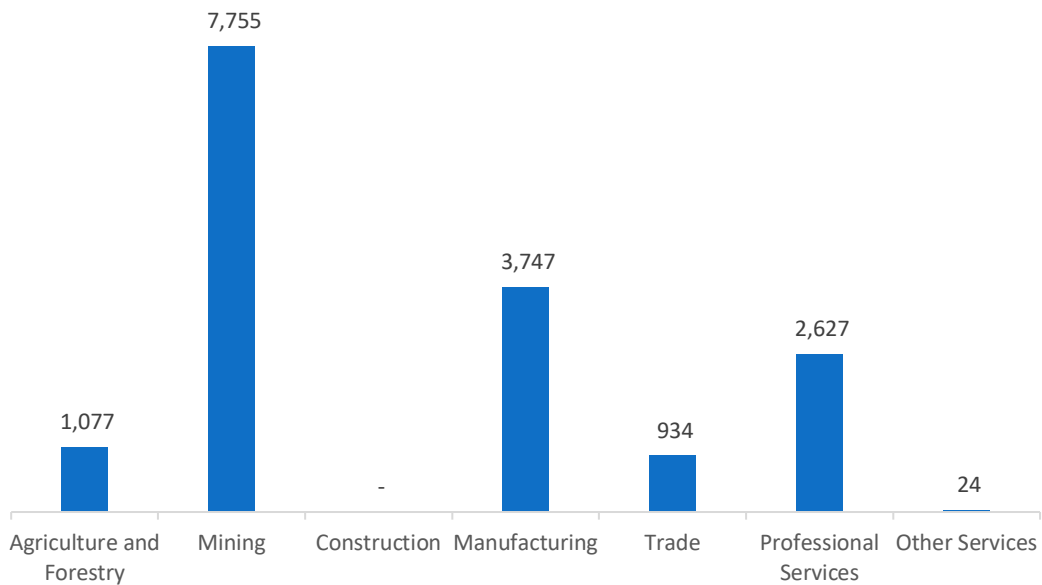
Fuels employs 16,164 workers in Kentucky, 1.4 percent of the national total, down 4.3 percent over the past year. Coal makes up the largest segment of employment related to Fuels.

Figure KY-4.
Fuels Employment by Detailed Technology Application



Mining and extraction jobs represent 48.0 percent of Fuels jobs in Kentucky.

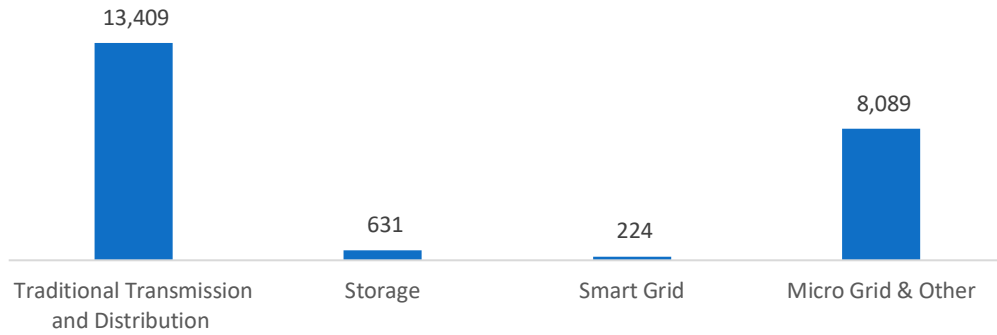
Figure KY-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

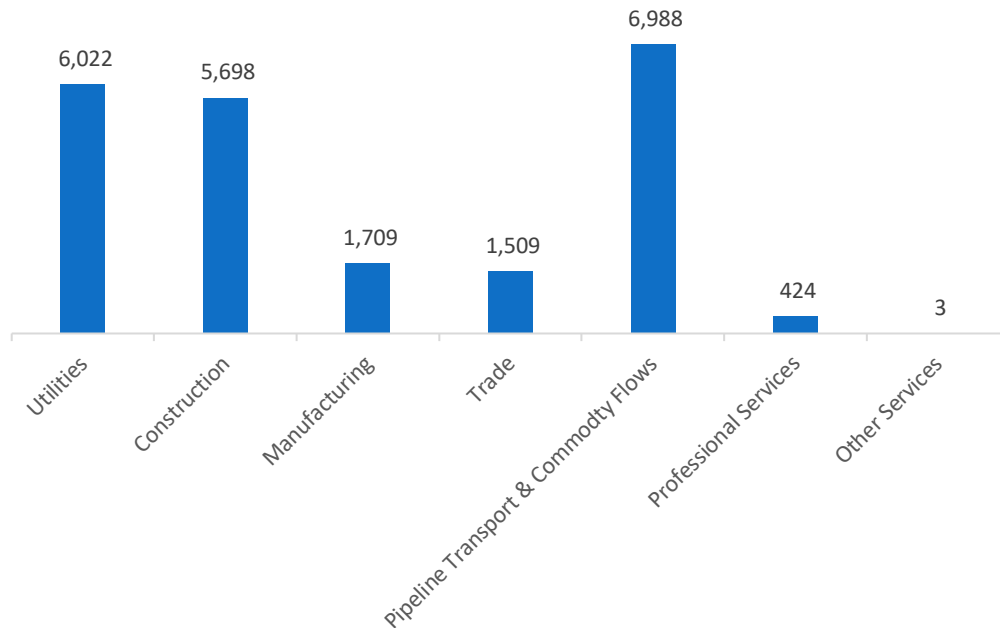
Transmission, Distribution, and Storage employs 22,354 workers in Kentucky, 1.6 percent of the national total, up 1.7 percent or 379 jobs since the 2018 report.

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



Pipeline transport and commodity flows are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Kentucky, with 31.3 percent of such jobs statewide.

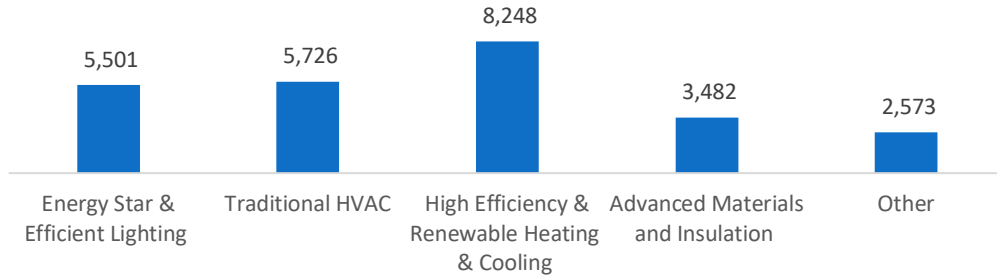
Figure KY-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

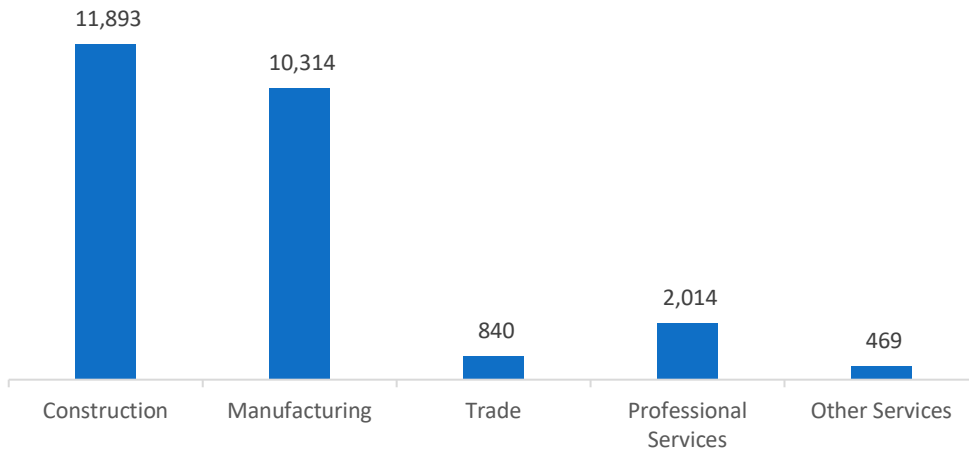
The 25,530 Energy Efficiency jobs in Kentucky represent 1.1 percent of all U.S. Energy Efficiency jobs, adding 952 jobs (3.9 percent) since last year. The largest number of these employees work in high efficiency HVAC and renewable heating and cooling firms, followed by traditional HVAC.

Figure KY-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

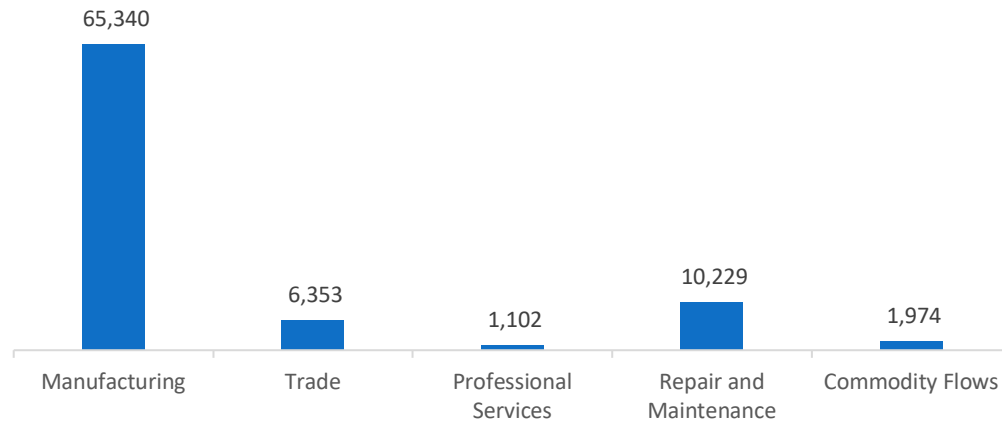
Figure KY-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 84,999 jobs in Kentucky, up 689 jobs over the past year (0.8 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is manufacturing.

Figure KY-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in Kentucky are less optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (1.1 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 2,627 jobs in Energy Efficiency (10.3 percent) and Motor Vehicles employers expect to add 1,683 jobs (2.0 percent) over the next year.

Table KY-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	9.5	7.1
Electric Power Transmission, Distribution and Storage	--	3.2
Energy Efficiency	10.3	7.8
Fuels	--	3.0
Motor Vehicles	2.0	2.2

Hiring Difficulty

Over the last year, 53.5 percent of energy-related employers in Kentucky hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Electric Power Generation.

Table KY-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	33.3	20.7	66.7	54.8
Electric Power Transmission, Distribution and Storage	20.0	21.9	40.0	46.1
Energy Efficiency	33.3	21.3	66.7	48.1
Fuels	33.3	37.9	33.3	43.0
Motor Vehicles	50.0	30.0	25.0	46.4

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

1. Lack of experience, training, or technical skills
2. Insufficient non-technical skills (work ethic, dependability, critical thinking)
3. Competition/ small applicant pool

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

1. Technician or mechanical support – \$20.74 median hourly wage
2. Electrician/construction laborers – \$19.97 median hourly wage
3. Sales, marketing, or customer service – \$32.44 median hourly wage

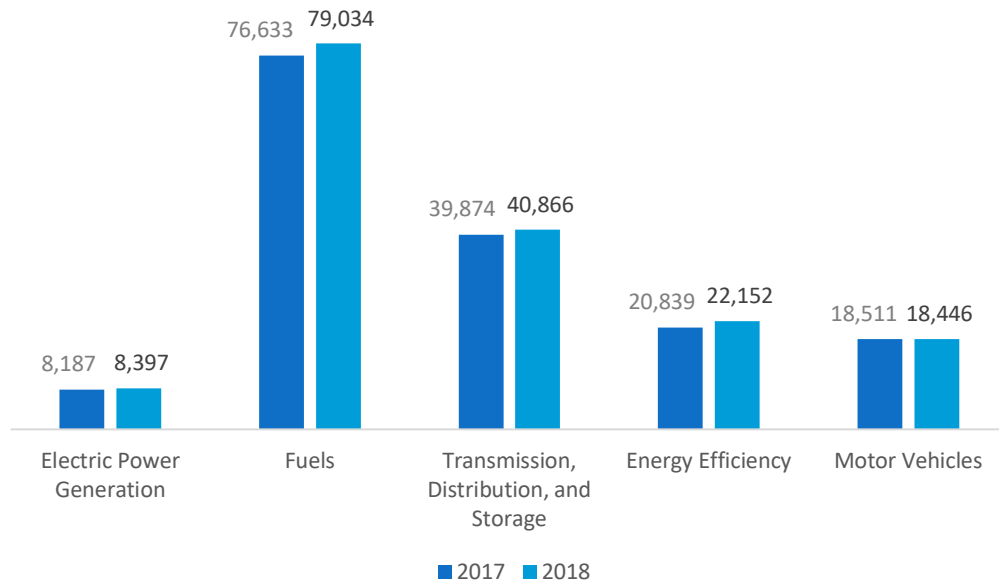
Louisiana

ENERGY AND EMPLOYMENT — 2019

Overview

Louisiana has a high concentration of energy employment, with 128,297 Traditional Energy workers statewide (representing 3.8 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 8,397 are in Electric Power Generation, 79,034 are in Fuels, and 40,866 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Louisiana is 6.7 percent of total state employment (compared to 2.3 percent of national employment). Louisiana has an additional 22,152 jobs in Energy Efficiency (1.0 percent of all U.S. Energy Efficiency jobs) and 18,446 jobs in Motor Vehicles (0.7 percent of all U.S. Motor Vehicle jobs).

Figure LA-1.
Employment by Major Energy Technology Application



Overall, Traditional Energy jobs grew by 2.9 percent since the 2018 report, increasing by 3,603 jobs over the period. Energy Efficiency jobs added 1,312 jobs (6.3 percent) and motor vehicles lost 66 jobs (-0.4 percent).

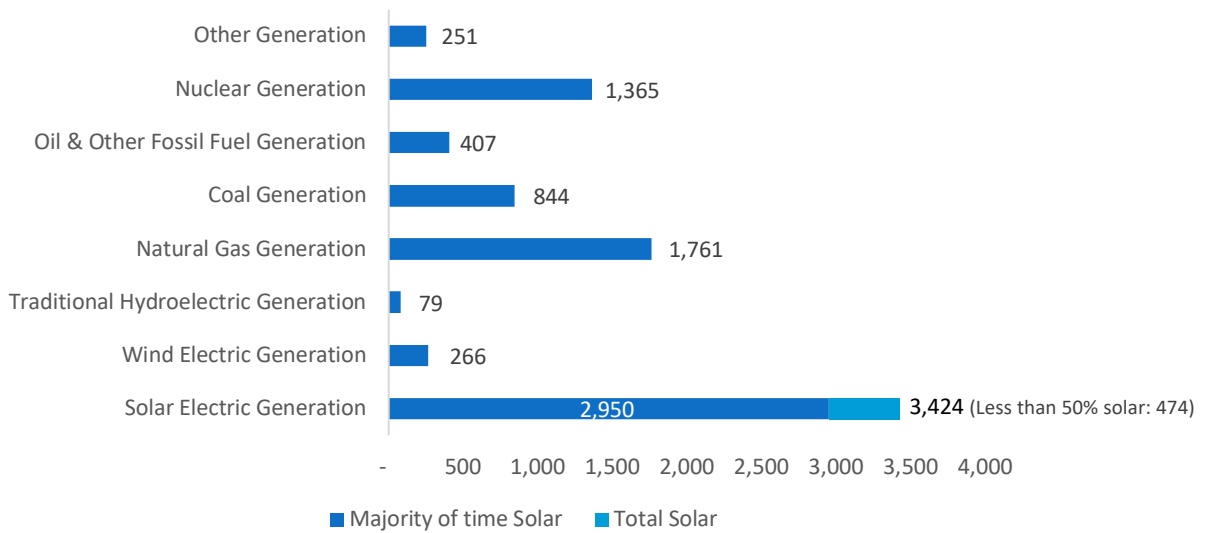
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 8,397 workers in Louisiana, 1.0 percent of the national total and adding 210 jobs over the past year (2.6 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 3,424 jobs (down 0.7 percent), followed by traditional fossil fuel generation at 3,011 jobs (up 0.6 percent).

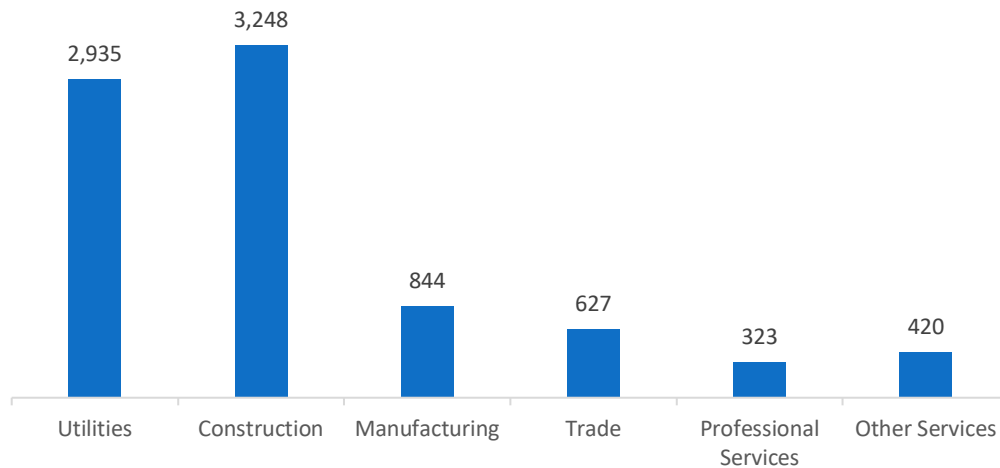
Figure LA-2.

Electric Power Generation Employment by Detailed Technology Application



Construction is the largest industry sector in Electric Power Generation, with 38.7 percent of jobs. Utilities are next with 35.0 percent.

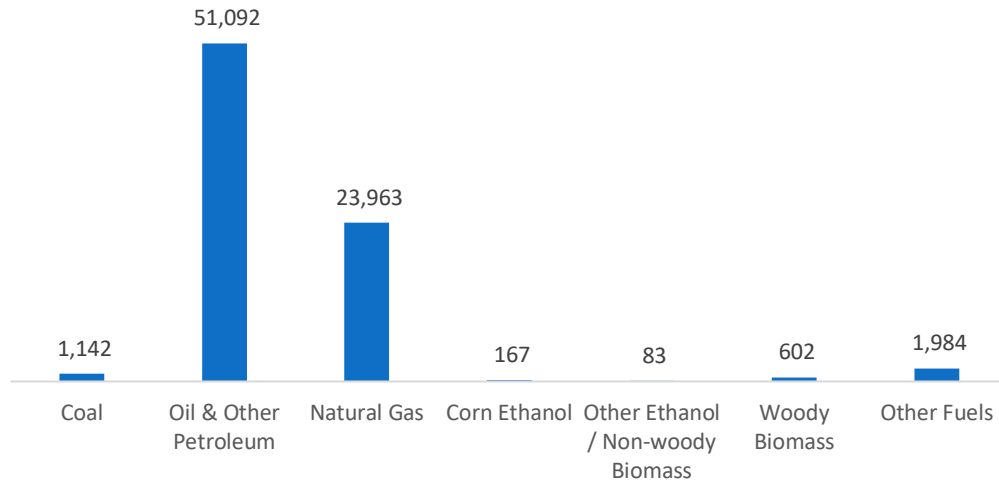
Figure LA-3.



Fuels

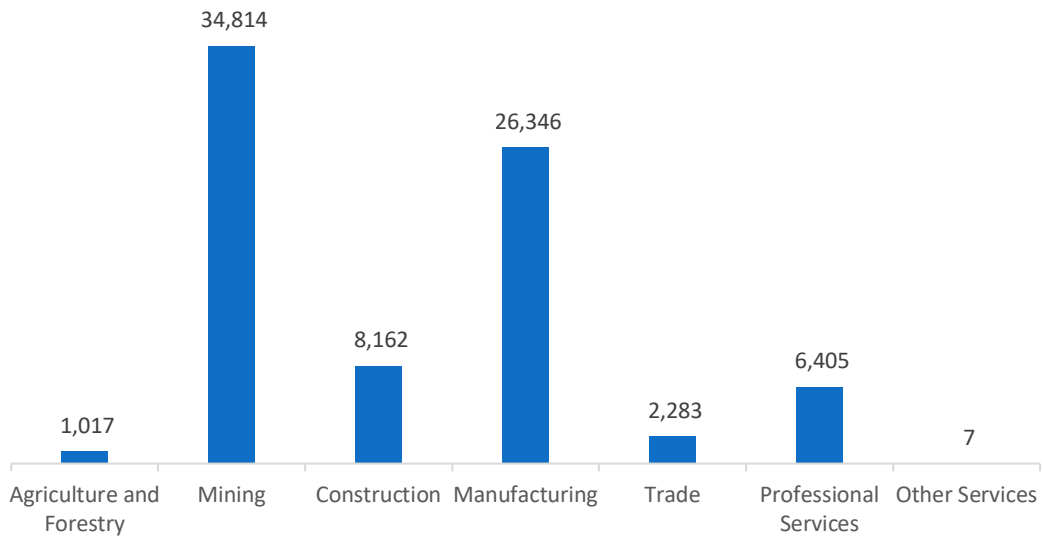
Fuels employs 79,034 workers in Louisiana, 7.0 percent of the national total, up 3.1 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure LA-4.
Fuels Employment by Detailed Technology Application



Mining and extraction jobs represent 44.0 percent of Fuels jobs in Louisiana.

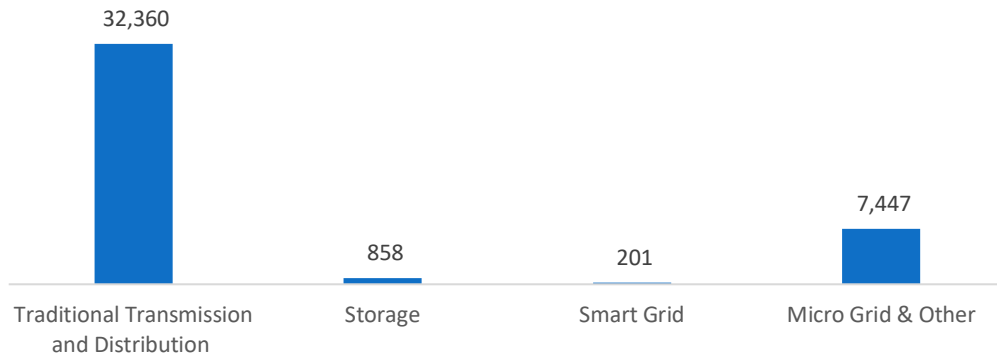
Figure LA-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

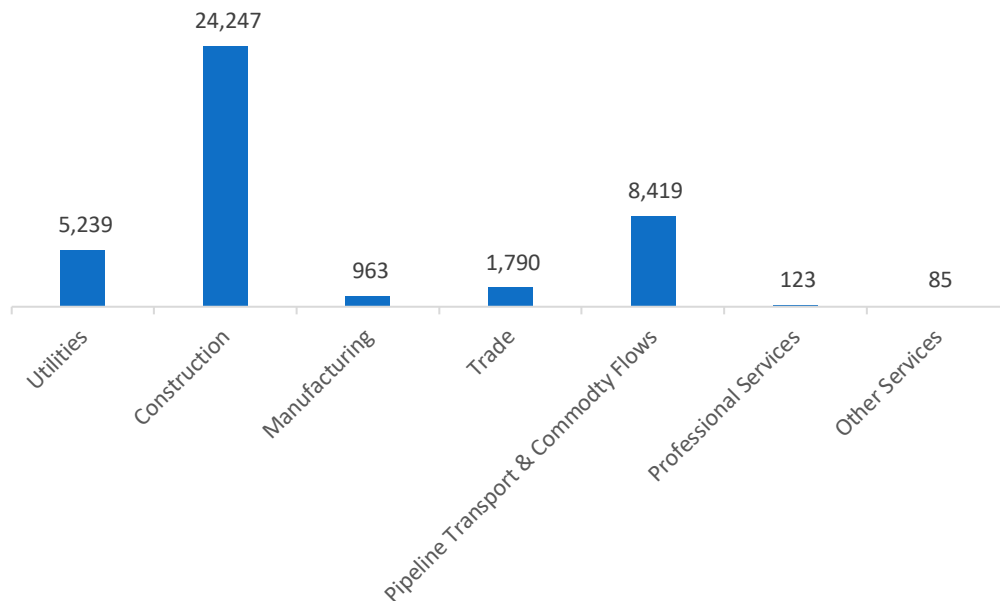
Transmission, Distribution, and Storage employs 40,866 workers in Louisiana, 3.0 percent of the national total, up 2.5 percent or 991 jobs since the 2018 report.

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



Construction is responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Louisiana, with 59.3 percent of such jobs statewide.

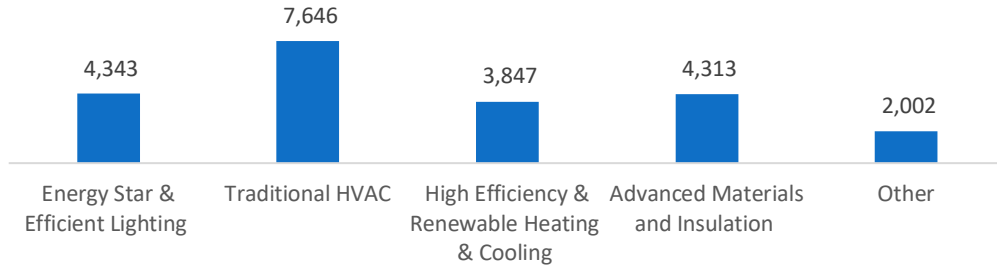
Figure LA-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

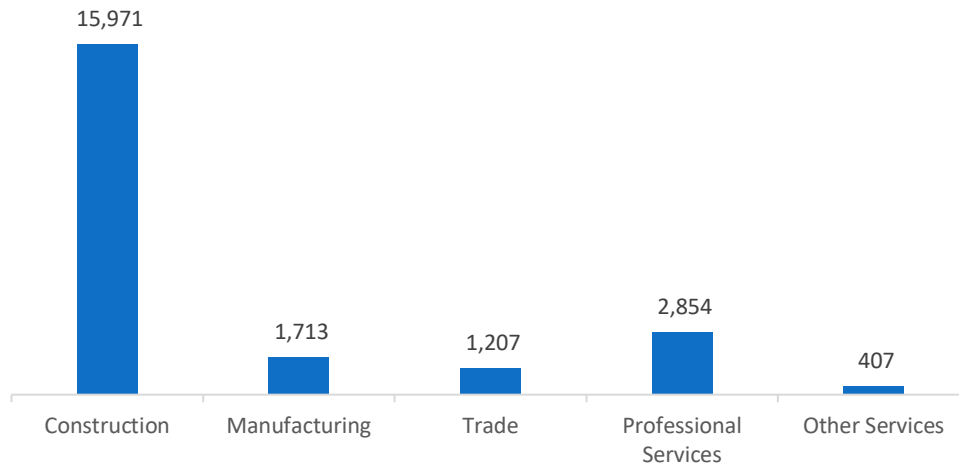
The 22,152 Energy Efficiency jobs in Louisiana represent 1.0 percent of all U.S. Energy Efficiency jobs, adding 1,312 jobs (6.3 percent) since last year. The largest number of these employees work in traditional HVAC firms, followed by ENERGY STAR and efficient lighting.

Figure LA-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

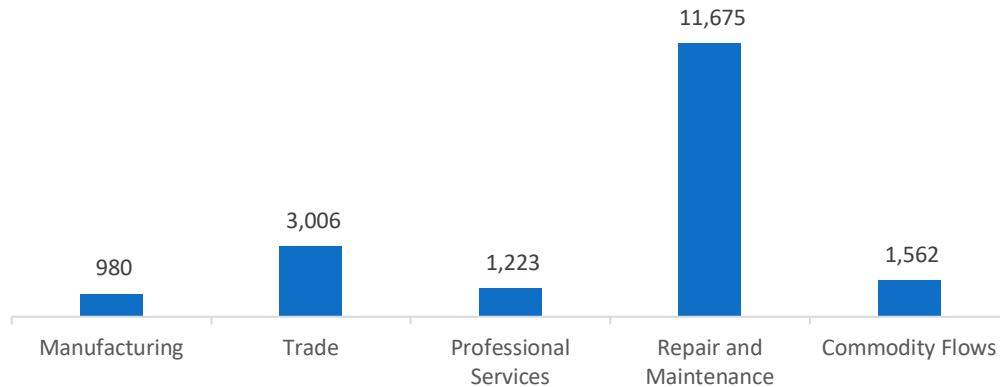
Figure LA-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 18,446 jobs in Louisiana, down 66 jobs over the past year (-0.4 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure LA-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in Louisiana are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (5.1 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 2,475 jobs in Energy Efficiency (11.2 percent) and Motor Vehicles employers expect to add 365 jobs (2.0 percent) over the next year.

Table LA-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	8.4	7.1
Electric Power Transmission, Distribution and Storage	4.3	3.2
Energy Efficiency	11.2	7.8
Fuels	5.2	3.0
Motor Vehicles	2.0	2.2

Hiring Difficulty

Over the last year, 52.8 percent of energy-related employers in Louisiana hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Energy Efficiency.

Table LA-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	16.7	20.7	50.0	54.8
Electric Power Transmission, Distribution and Storage	36.4	21.9	27.3	46.1
Energy Efficiency	50.0	21.3	16.7	48.1
Fuels	28.6	37.9	14.3	43.0
Motor Vehicles	16.7	30.0	50.0	46.4

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

1. Lack of experience, training, or technical skills
2. Insufficient non-technical skills (work ethic, dependability, critical thinking)
3. Insufficient qualifications (certifications or education)

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

1. Electrician/construction laborers – \$23.07 median hourly wage
2. Technician or mechanical support – \$19.94 median hourly wage
3. Sales, marketing, or customer service – \$29.58 median hourly wage

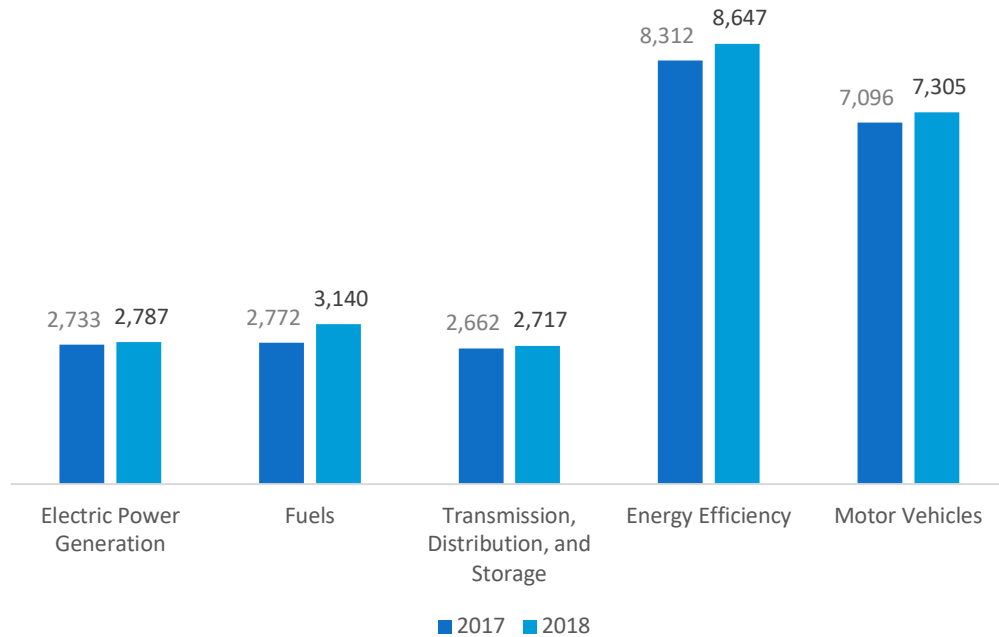
Maine

ENERGY AND EMPLOYMENT — 2019

Overview

Maine has a low concentration of energy employment, with 8,643 Traditional Energy workers statewide (representing 0.3 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 2,787 are in Electric Power Generation, 3,140 are in Fuels, and 2,717 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Maine is 1.4 percent of total state employment (compared to 2.3 percent of national employment). Maine has an additional 8,647 jobs in Energy Efficiency (0.4 percent of all U.S. Energy Efficiency jobs) and 7,305 jobs in Motor Vehicles (0.3 percent of all U.S. Motor Vehicle jobs).

Figure ME-1.
Employment by Major Energy Technology Application



Overall, Traditional Energy jobs grew by 5.8 percent since the 2018 report, increasing by 476 jobs over the period. Energy Efficiency jobs added 335 jobs (4.0 percent) and motor vehicles added 210 jobs (3.0 percent).

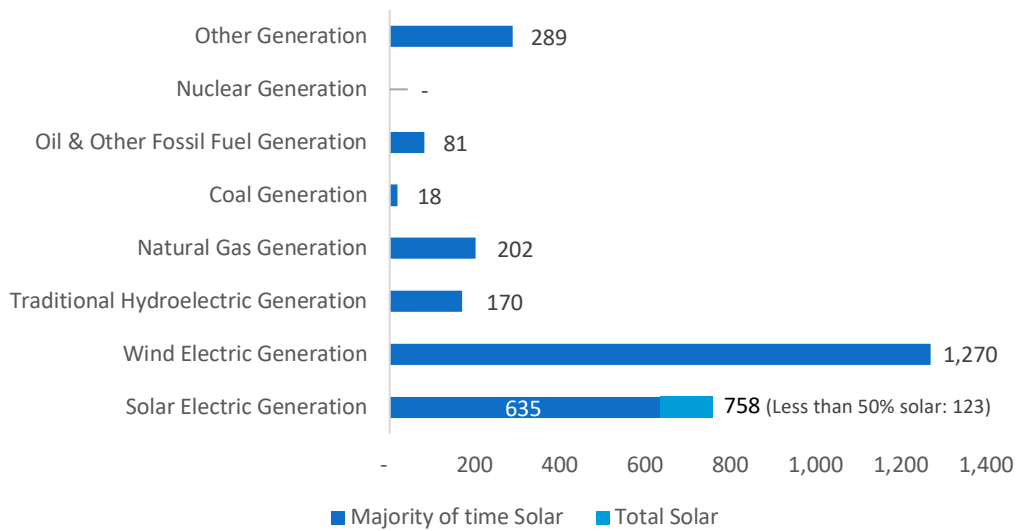
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 2,787 workers in Maine, 0.3 percent of the national total and adding 53 jobs over the past year (2.0 percent). Wind makes up the largest segment of employment related to Electric Power Generation, with 1,270 jobs (up 0.1 percent), followed by solar at 758 jobs (down 1.6 percent).

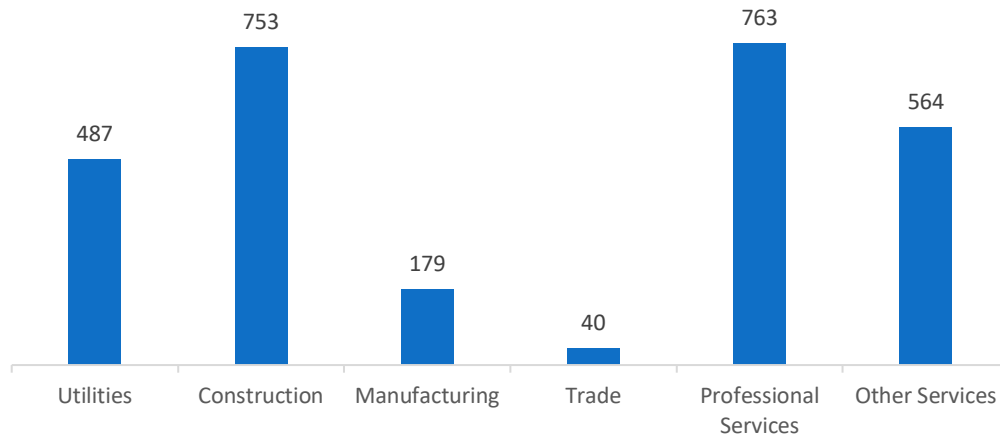
Figure ME-2.

Electric Power Generation Employment by Detailed Technology Application



Professional and business services are the largest industry sector in Electric Power Generation, with 27.4 percent of jobs. Construction is next with 27.0 percent.

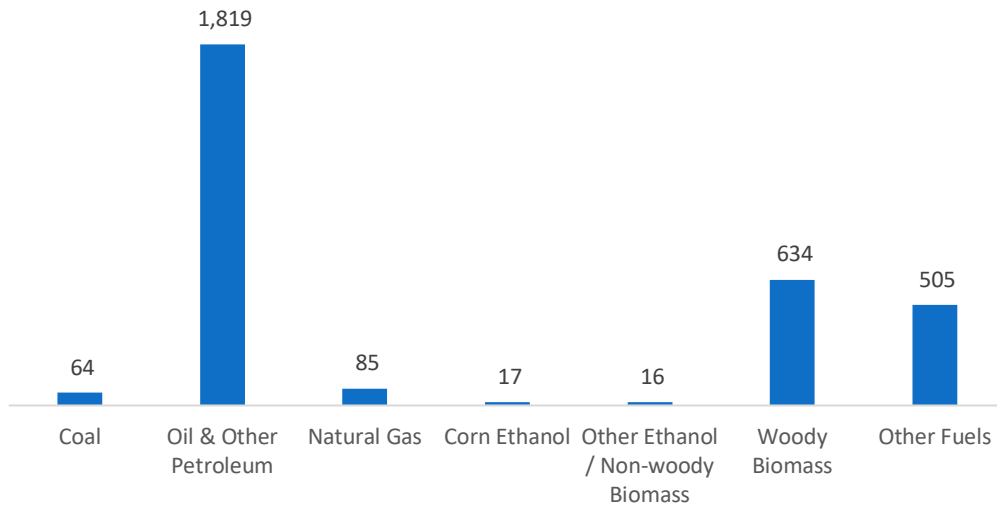
Figure ME-3.



Fuels

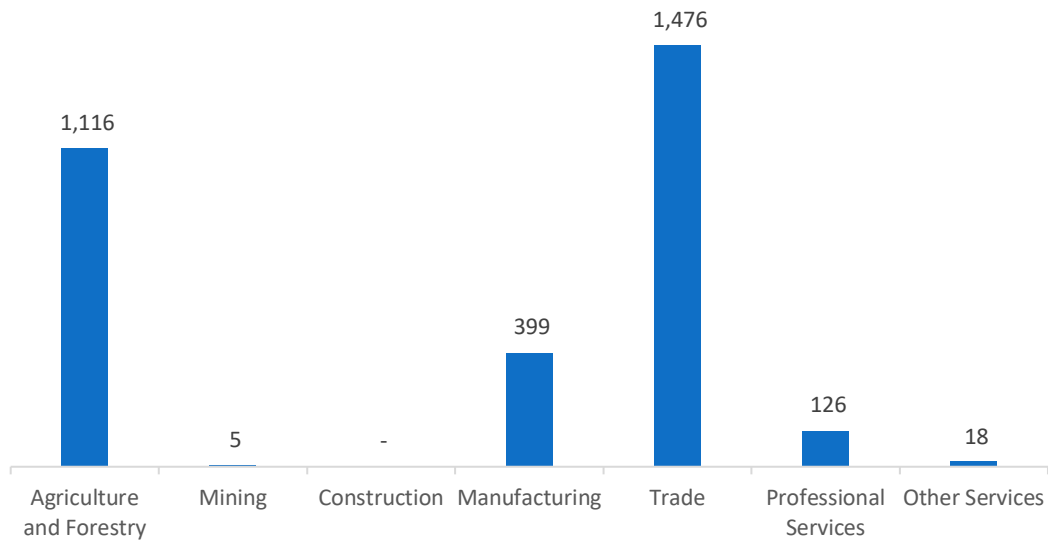
Fuels employs 3,140 workers in Maine, 0.3 percent of the national total, up 13.3 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure ME-4.
Fuels Employment by Detailed Technology Application



Wholesale trade jobs represent 47.0 percent of Fuels jobs in Maine.

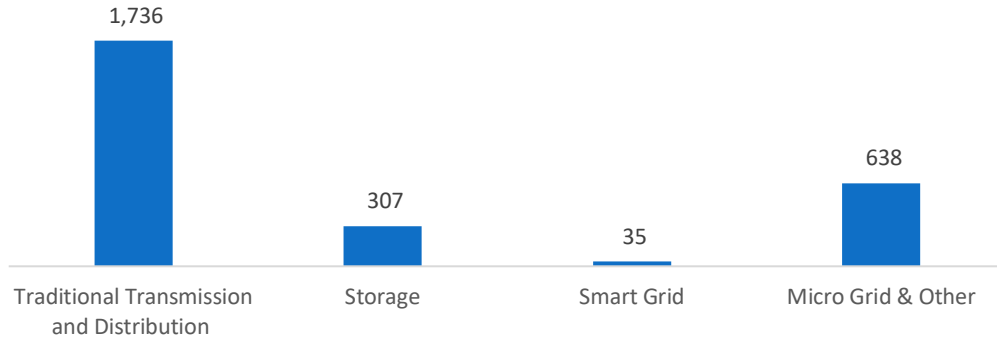
Figure ME-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

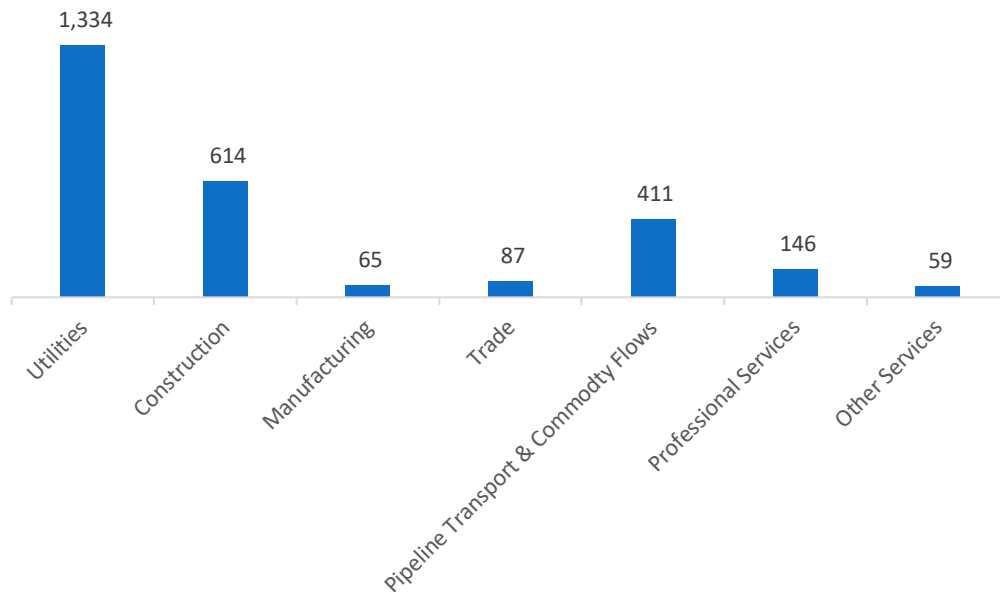
Transmission, Distribution, and Storage employs 2,717 workers in Maine, 0.2 percent of the national total, up 2.0 percent or 54 jobs since the 2018 report.

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



Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Maine, with 49.1 percent of such jobs statewide.

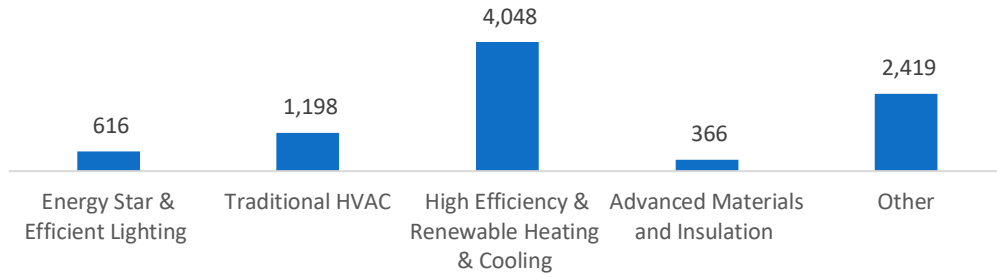
Figure ME-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

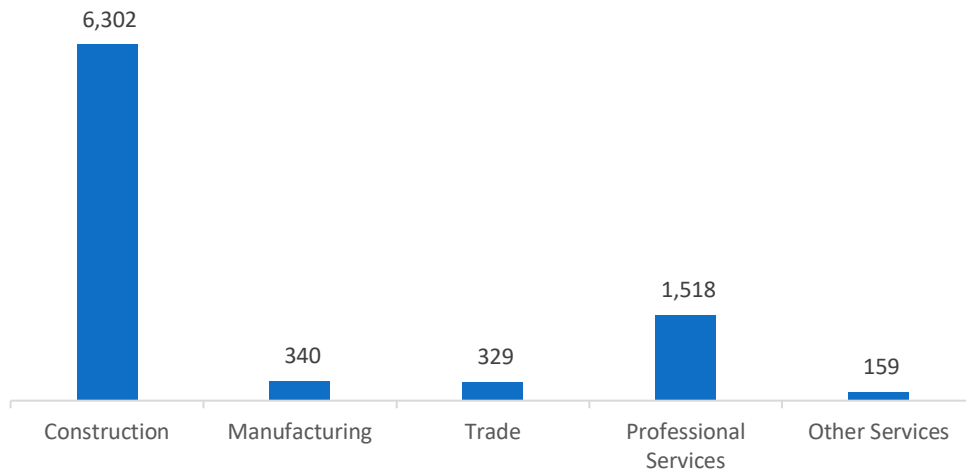
The 8,647 Energy Efficiency jobs in Maine represent 0.4 percent of all U.S. Energy Efficiency jobs, adding 335 jobs (4.0 percent) since last year. The largest number of these employees work in high efficiency HVAC and renewable heating and cooling firms, followed by other energy efficiency products and services.

Figure ME-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

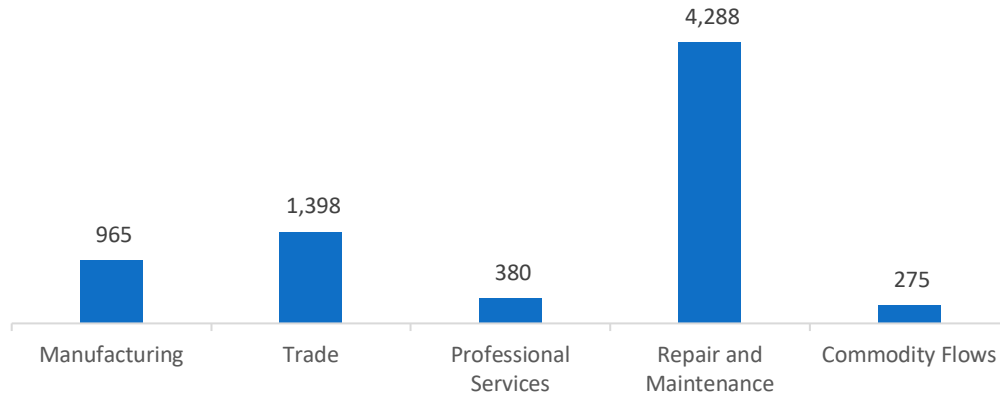
Figure ME-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 7,305 jobs in Maine, up 210 jobs over the past year (3.0 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure ME-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in Maine are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (6.6 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 450 jobs in Energy Efficiency (5.2 percent) and Motor Vehicles employers expect to add 145 jobs (2.0 percent) over the next year.

Table ME-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	7.4	7.1
Electric Power Transmission, Distribution and Storage	7.0	3.2
Energy Efficiency	5.2	7.8
Fuels	5.4	3.0
Motor Vehicles	2.0	2.2

Hiring Difficulty

Over the last year, 50.0 percent of energy-related employers in Maine hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Motor Vehicles.

Table ME-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	57.1	20.7	42.9	54.8
Electric Power Transmission, Distribution and Storage	--	21.9	100.0	46.1
Energy Efficiency	50.0	21.3	25.0	48.1
Fuels	50.0	37.9	50.0	43.0
Motor Vehicles	100.0	30.0	--	46.4

Employers in Maine 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. Location

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

1. Electrician/construction laborers – \$23.56 median hourly wage
2. Technician or mechanical support – \$24.17 median hourly wage
3. Management (directors, supervisors, vice presidents) – \$43.38 median hourly wage

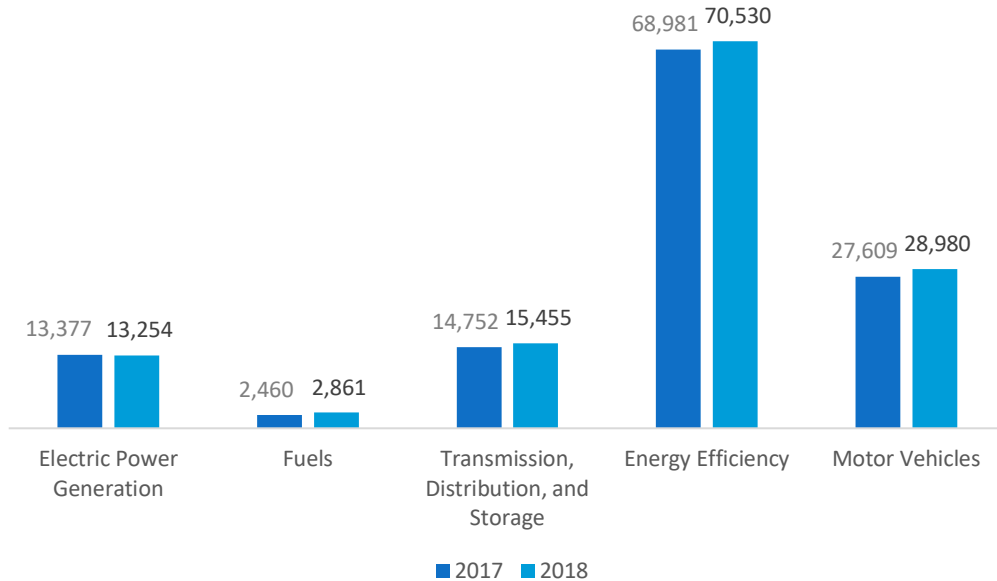
Maryland

ENERGY AND EMPLOYMENT — 2019

Overview

Maryland has a low concentration of energy employment, with 31,571 Traditional Energy workers statewide (representing 0.9 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 13,254 are in Electric Power Generation, 2,861 are in Fuels, and 15,455 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Maryland is 1.2 percent of total state employment (compared to 2.3 percent of national employment). Maryland has an additional 70,530 jobs in Energy Efficiency (3.0 percent of all U.S. Energy Efficiency jobs) and 28,980 jobs in Motor Vehicles (1.1 percent of all U.S. Motor Vehicle jobs).

Figure MD-1.
Employment by Major Energy Technology Application



Overall, Traditional Energy jobs grew by 3.2 percent since the 2018 report, increasing by 981 jobs over the period. Energy Efficiency jobs added 1,549 jobs (2.2 percent) and motor vehicles added 1,371 jobs (5.0 percent).

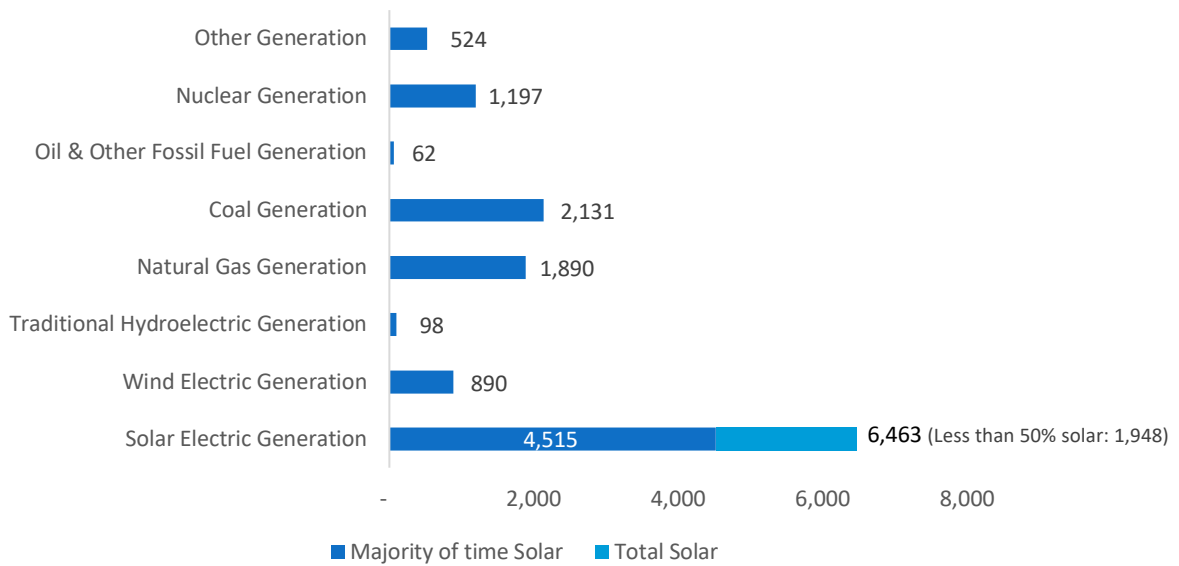
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 13,254 workers in Maryland, 1.5 percent of the national total and losing 123 jobs over the past year (-0.9 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 6,463 jobs (down 6.1 percent), followed by traditional fossil fuel generation at 4,083 jobs (down 0.8 percent).

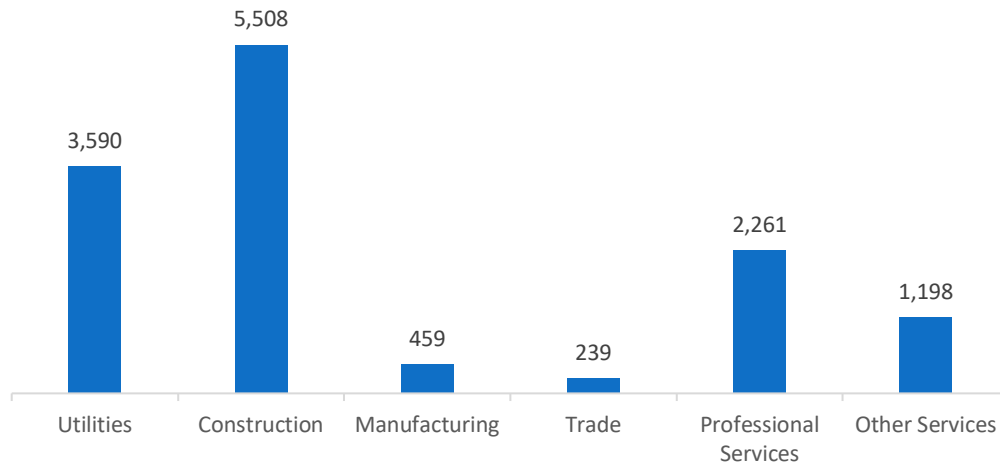
Figure MD-2.

Electric Power Generation Employment by Detailed Technology Application



Construction is the largest industry sector in Electric Power Generation, with 41.6 percent of jobs. Utilities are next with 27.1 percent.

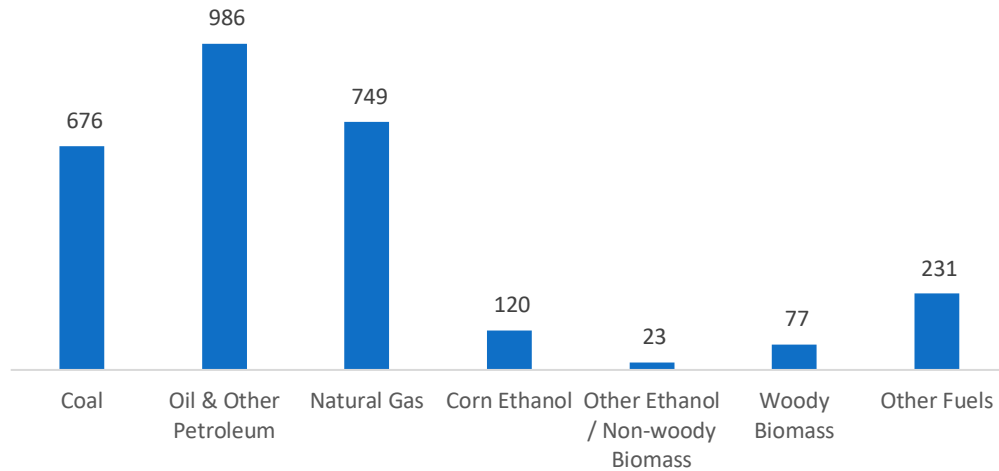
Figure MD-3.



Fuels

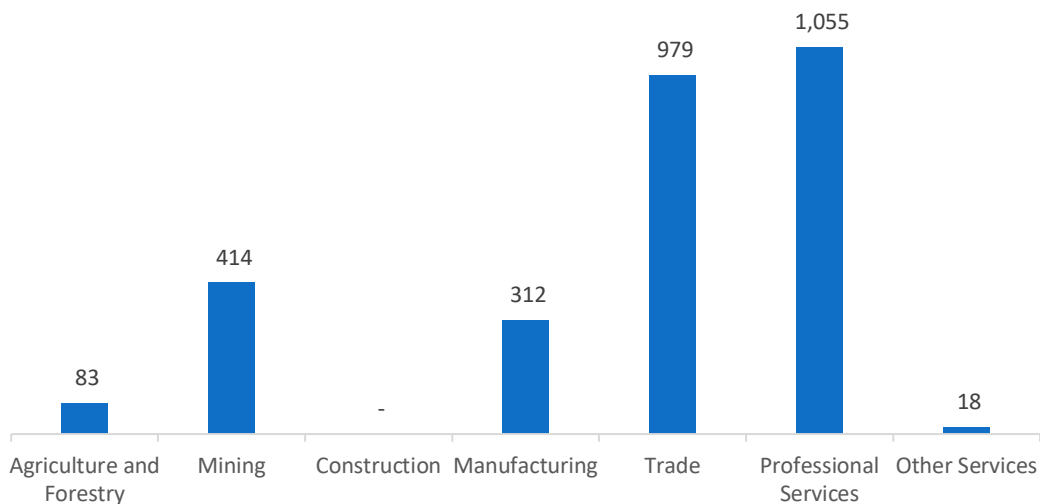
Fuels employs 2,861 workers in Maryland, 0.3 percent of the national total, up 16.3 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure MD-4.
Fuels Employment by Detailed Technology Application



Professional and business services jobs represent 36.9 percent of Fuels jobs in Maryland.

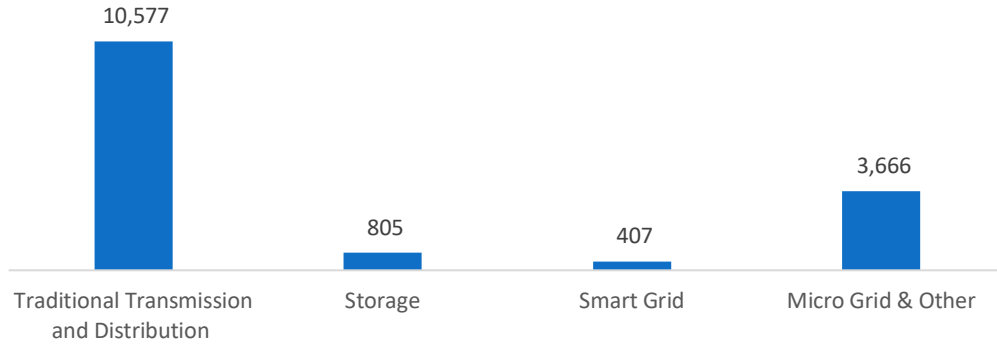
Figure MD-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

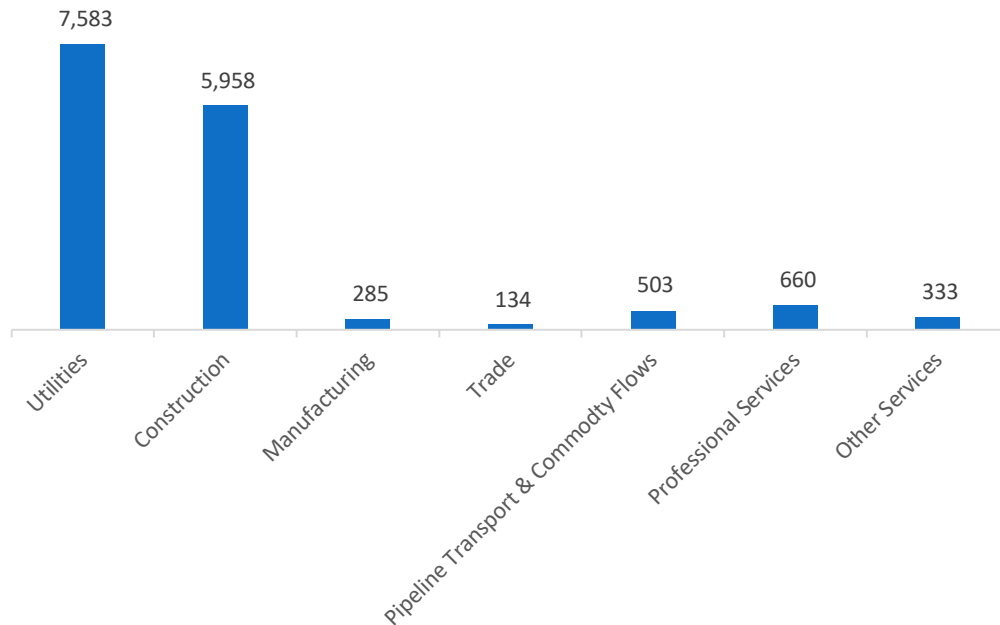
Transmission, Distribution, and Storage employs 15,455 workers in Maryland, 1.1 percent of the national total, up 4.8 percent or 703 jobs since the 2018 report.

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



Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Maryland, with 49.1 percent of such jobs statewide.

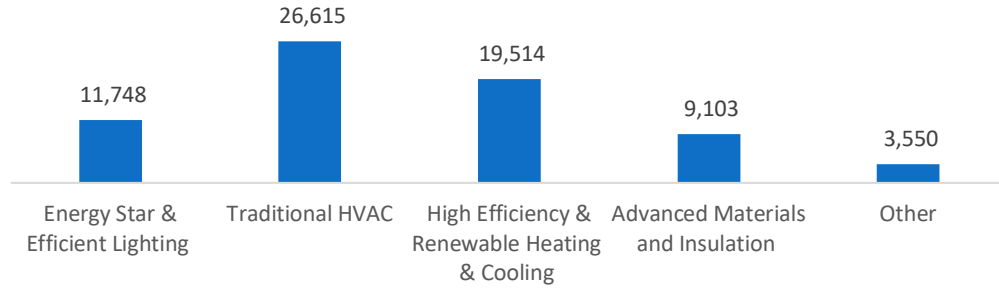
Figure MD-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

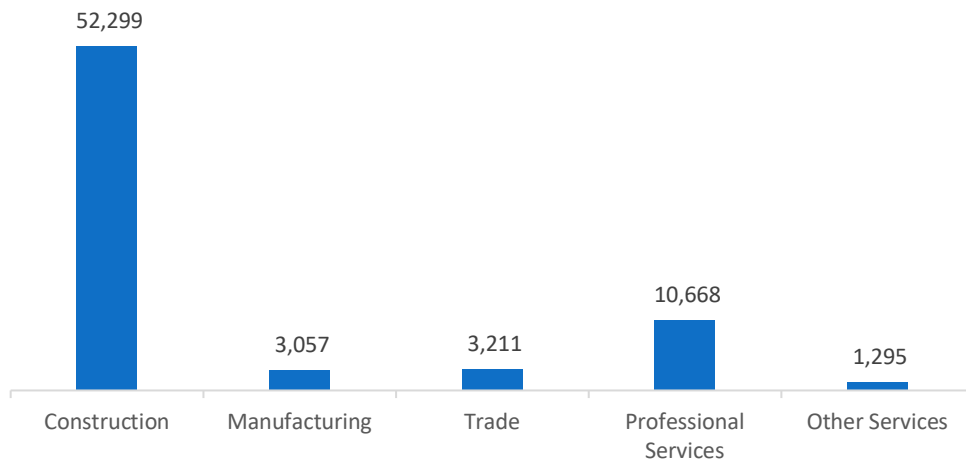
The 70,530 Energy Efficiency jobs in Maryland represent 3.0 percent of all U.S. Energy Efficiency jobs, adding 1,549 jobs (2.2 percent) since last year. The largest number of these employees work in traditional HVAC firms, followed by high efficiency HVAC and renewable heating and cooling.

Figure MD-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

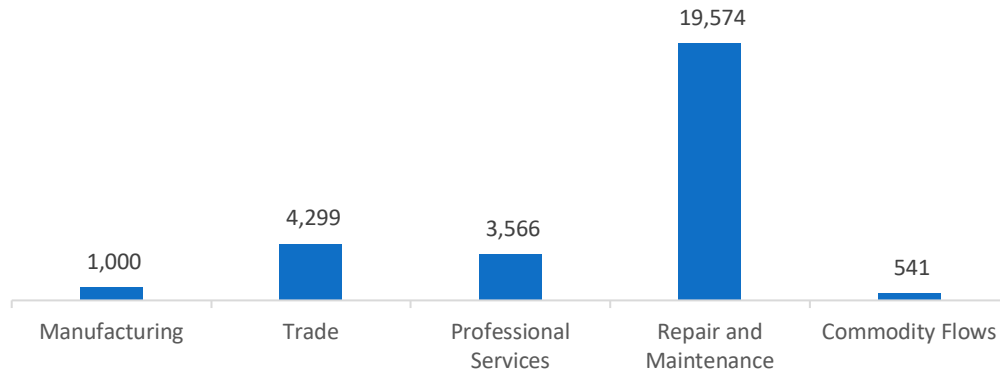
Figure MD-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 28,980 jobs in Maryland, up 1,371 jobs over the past year (5.0 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure MD-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in Maryland are less optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (2.8 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 5,511 jobs in Energy Efficiency (7.8 percent) and Motor Vehicles employers expect to add 574 jobs (2.0 percent) over the next year.

Table MD-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	4.8	7.1
Electric Power Transmission, Distribution and Storage	1.7	3.2
Energy Efficiency	7.8	7.8
Fuels	--	3.0
Motor Vehicles	2.0	2.2

Hiring Difficulty

Over the last year, 47.8 percent of energy-related employers in Maryland hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Motor Vehicles.

Table MD-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	39.1	20.7	43.5	54.8
Electric Power Transmission, Distribution and Storage	33.3	21.9	33.3	46.1
Energy Efficiency	33.3	21.3	66.7	48.1
Fuels	--	37.9	--	43.0
Motor Vehicles	75.0	30.0	25.0	46.4

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

1. Lack of experience, training, or technical skills
2. Difficulty finding industry-specific knowledge, skills, and interest
3. Insufficient non-technical skills (work ethic, dependability, critical thinking)

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

1. Management (directors, supervisors, vice presidents) – \$37.80 median hourly wage
2. Technician or mechanical support – \$18.01 median hourly wage
3. Electrician/construction laborers – \$17.43 median hourly wage

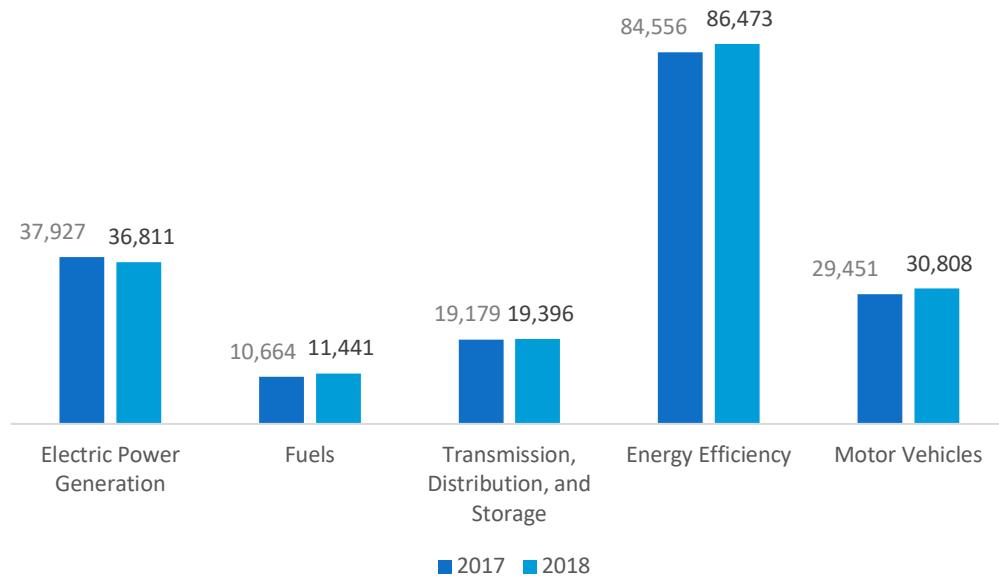
Massachusetts

ENERGY AND EMPLOYMENT – 2019

Overview

Massachusetts has a low concentration of energy employment, with 67,648 Traditional Energy workers statewide (representing 2.0 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 36,811 are in Electric Power Generation, 11,441 are in Fuels, and 19,396 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Massachusetts is 1.9 percent of total state employment (compared to 2.3 percent of national employment). Massachusetts has an additional 86,473 jobs in Energy Efficiency (3.7 percent of all U.S. Energy Efficiency jobs) and 30,808 jobs in Motor Vehicles (1.2 percent of all U.S. Motor Vehicle jobs).

Figure MA-1.
Employment by Major Energy Technology Application



Overall, Traditional Energy jobs declined by 0.2 percent since the 2018 report, decreasing by 123 jobs over the period. Energy Efficiency jobs added 1,917 jobs (2.3 percent) and motor vehicles added 1,357 jobs (4.6 percent).

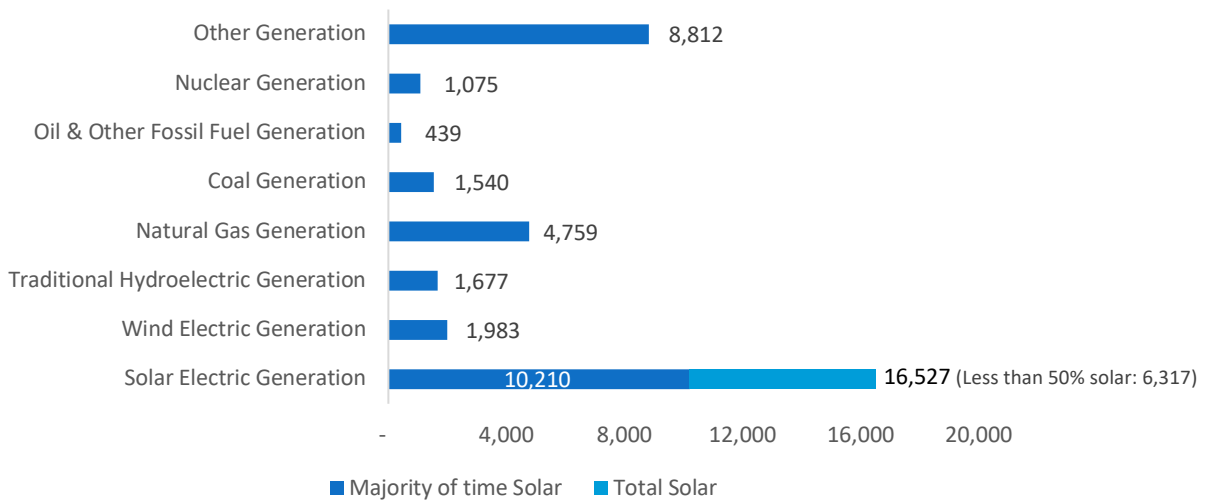
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 36,811 workers in Massachusetts, 4.2 percent of the national total and losing 1,116 jobs over the past year (-2.9 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 16,527 jobs (down 7.5 percent), followed by traditional fossil fuel generation at 6,738 jobs (up 2.9 percent).

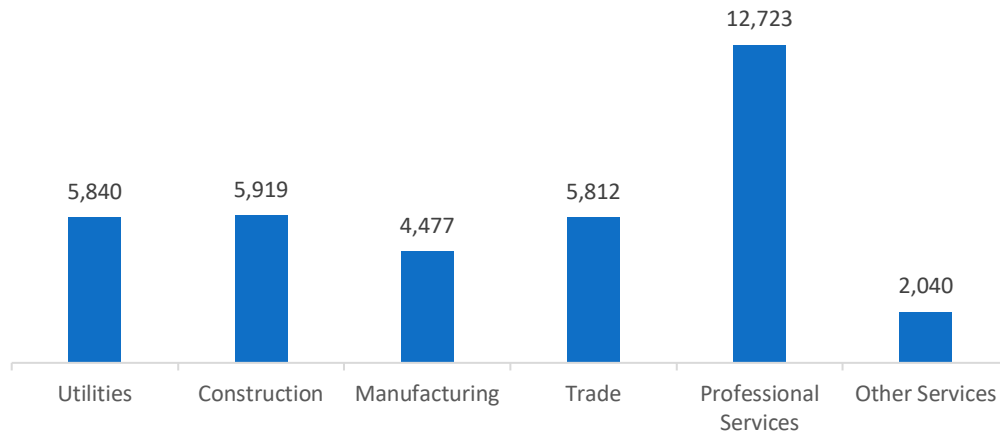
Figure MA-2.

Electric Power Generation Employment by Detailed Technology Application



Professional and business services are the largest industry sector in Electric Power Generation, with 34.6 percent of jobs. Construction is next with 16.1 percent.

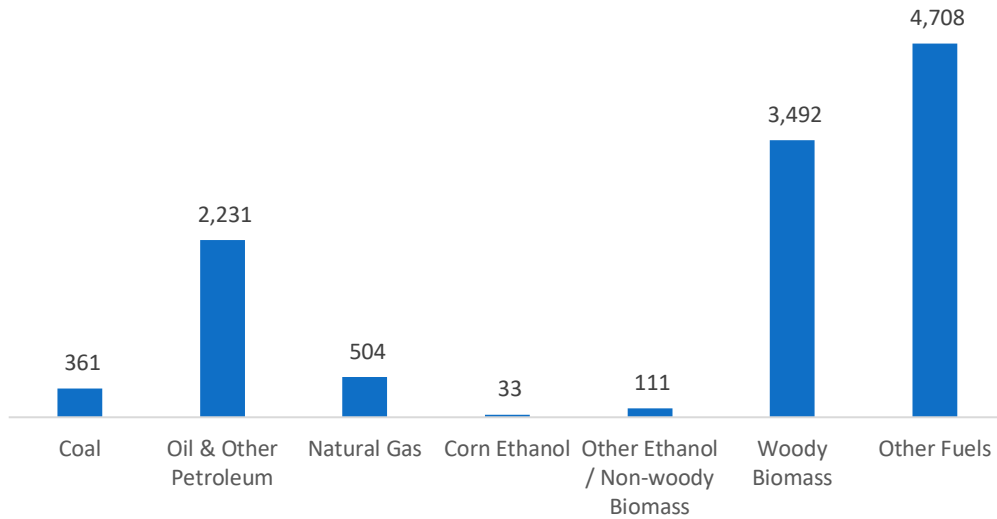
Figure MA-3.



Fuels

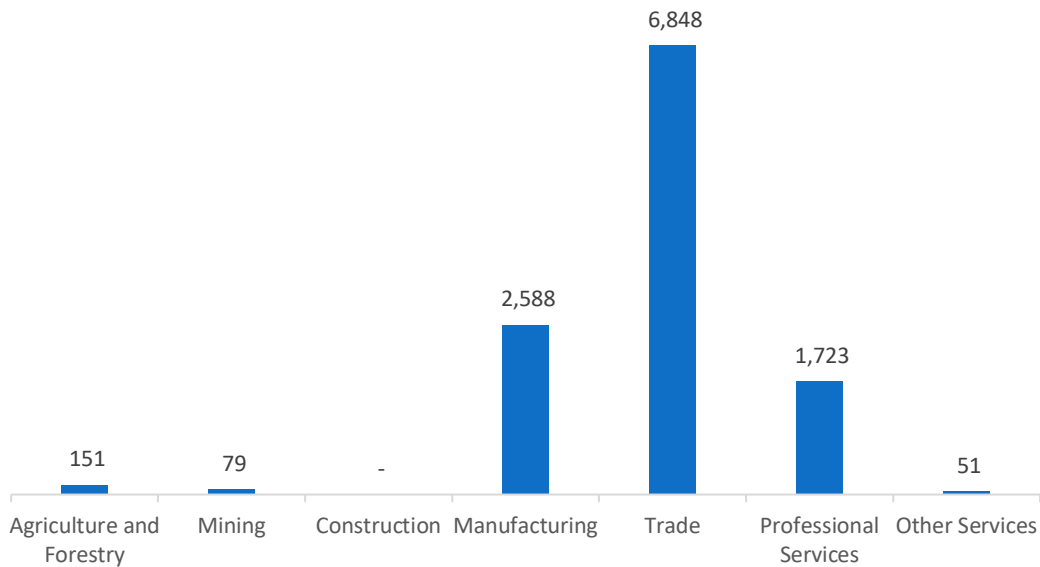
Fuels employs 11,441 workers in Massachusetts, 1.0 percent of the national total, up 7.3 percent over the past year. Other fuels makes up the largest segment of employment related to Fuels.

Figure MA-4.
Fuels Employment by Detailed Technology Application



Wholesale trade jobs represent 59.9 percent of Fuels jobs in Massachusetts.

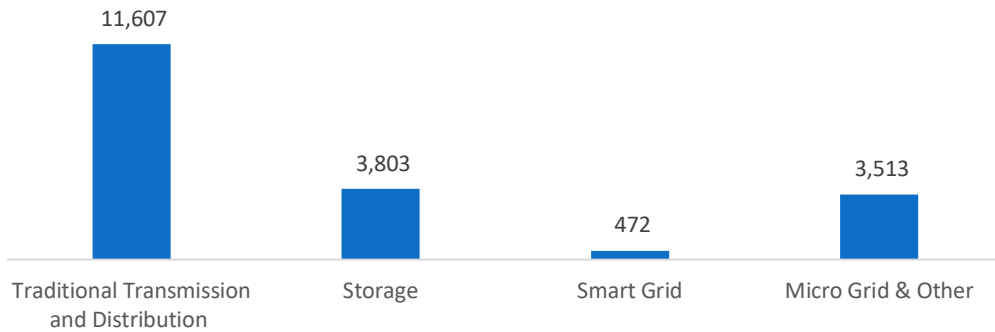
Figure MA-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

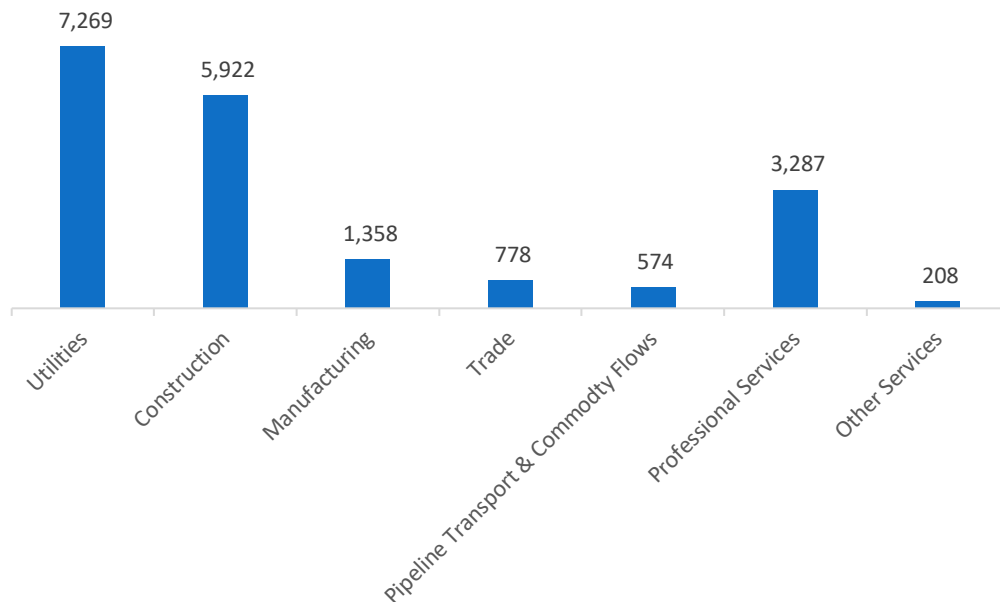
Transmission, Distribution, and Storage employs 19,396 workers in Massachusetts, 1.4 percent of the national total, up 1.1 percent or 216 jobs since the 2018 report.

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



Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Massachusetts, with 37.5 percent of such jobs statewide.

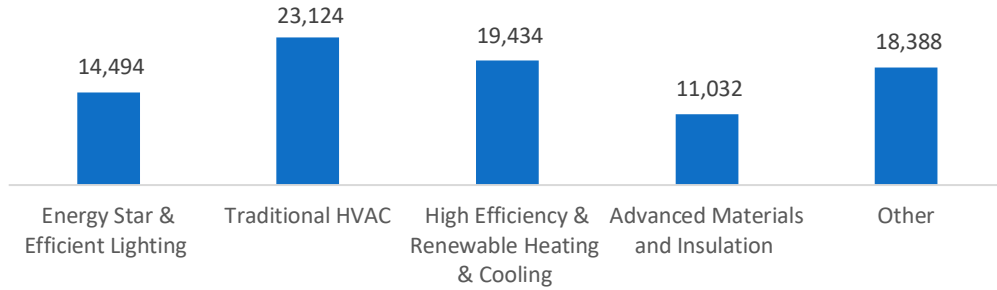
Figure MA-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

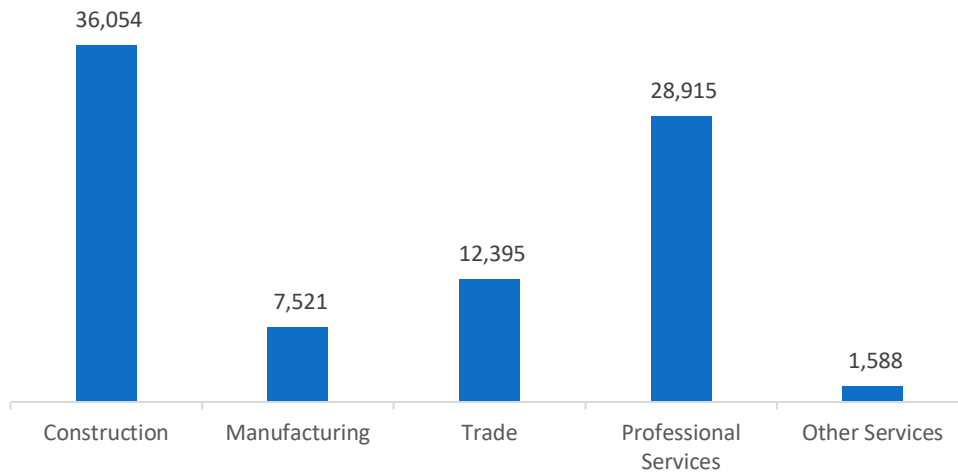
The 86,473 Energy Efficiency jobs in Massachusetts represent 3.7 percent of all U.S. Energy Efficiency jobs, adding 1,917 jobs (2.3 percent) since last year. The largest number of these employees work in traditional HVAC firms, followed by high efficiency HVAC and renewable heating and cooling.

Figure MA-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

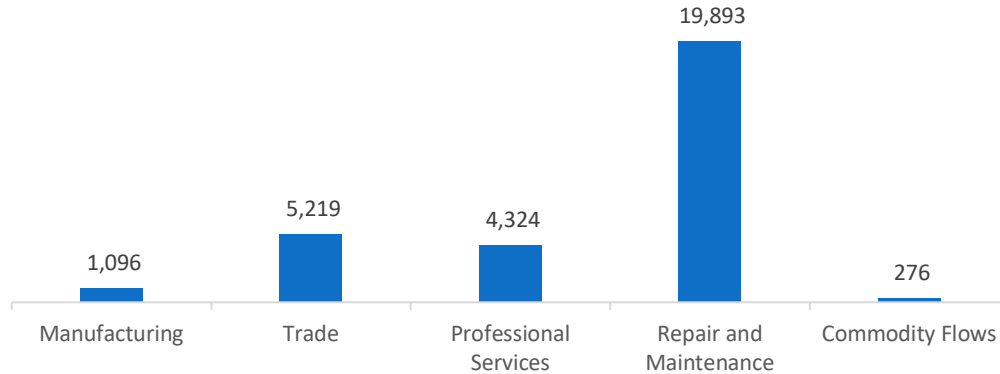
Figure MA-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 30,808 jobs in Massachusetts, up 1,357 jobs over the past year (4.6 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure MA-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in Massachusetts are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (4.9 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 1,534 jobs in Energy Efficiency (1.8 percent) and Motor Vehicles employers expect to add 918 jobs (3.0 percent) over the next year.

Table MA-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	7.6	7.1
Electric Power Transmission, Distribution and Storage	0.1	3.2
Energy Efficiency	1.8	7.8
Fuels	4.2	3.0
Motor Vehicles	3.0	2.2

Hiring Difficulty

Over the last year, 46.2 percent of energy-related employers in Massachusetts hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Fuels.

Table MA-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	23.4	20.7	61.7	54.8
Electric Power Transmission, Distribution and Storage	20.0	21.9	40.0	46.1
Energy Efficiency	18.8	21.3	68.8	48.1
Fuels	75.0	37.9	25.0	43.0
Motor Vehicles	--	30.0	80.0	46.4

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

1. Lack of experience, training, or technical skills
2. Insufficient qualifications (certifications or education)
3. Difficulty finding industry-specific knowledge, skills, and interest

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

1. Management (directors, supervisors, vice presidents) – \$47.98 median hourly wage
2. Sales, marketing, or customer service – \$58.71 median hourly wage
3. Electrician/construction laborers – \$29.11 median hourly wage

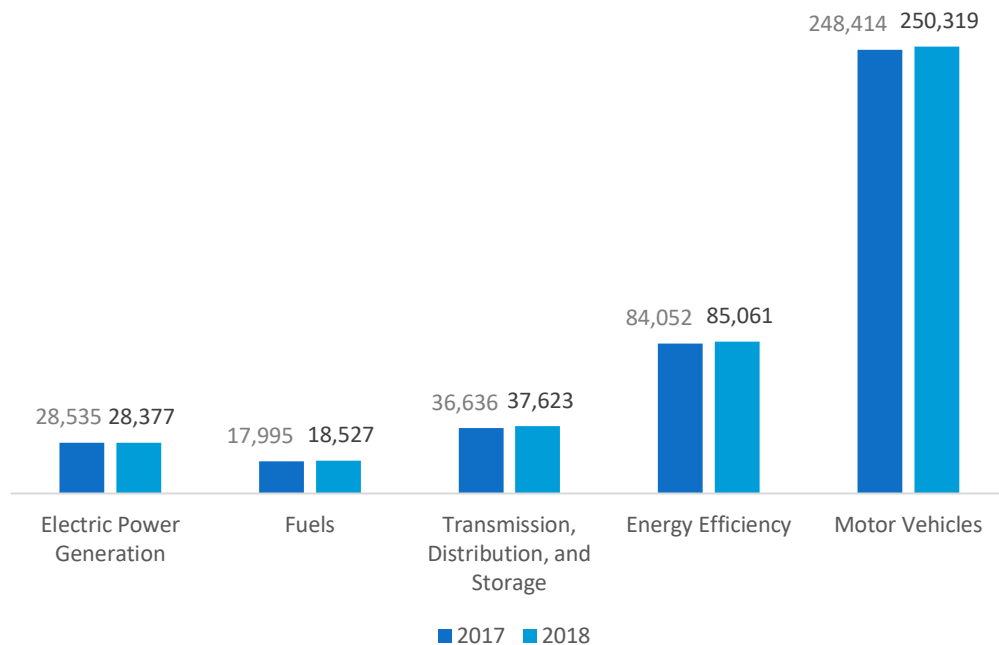
Michigan

ENERGY AND EMPLOYMENT — 2019

Overview

Michigan has a low concentration of energy employment, with 84,528 Traditional Energy workers statewide (representing 2.5 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 28,377 are in Electric Power Generation, 18,527 are in Fuels, and 37,623 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Michigan is 1.9 percent of total state employment (compared to 2.3 percent of national employment). Michigan has an additional 85,061 jobs in Energy Efficiency (3.7 percent of all U.S. Energy Efficiency jobs) and 250,319 jobs in Motor Vehicles (9.9 percent of all U.S. Motor Vehicle jobs).

Figure MI-1.
Employment by Major Energy Technology Application



Overall, Traditional Energy jobs grew by 1.6 percent since the 2018 report, increasing by 1,362 jobs over the period. Energy Efficiency jobs added 1,009 jobs (1.2 percent) and motor vehicles added 1,905 jobs (0.8 percent).

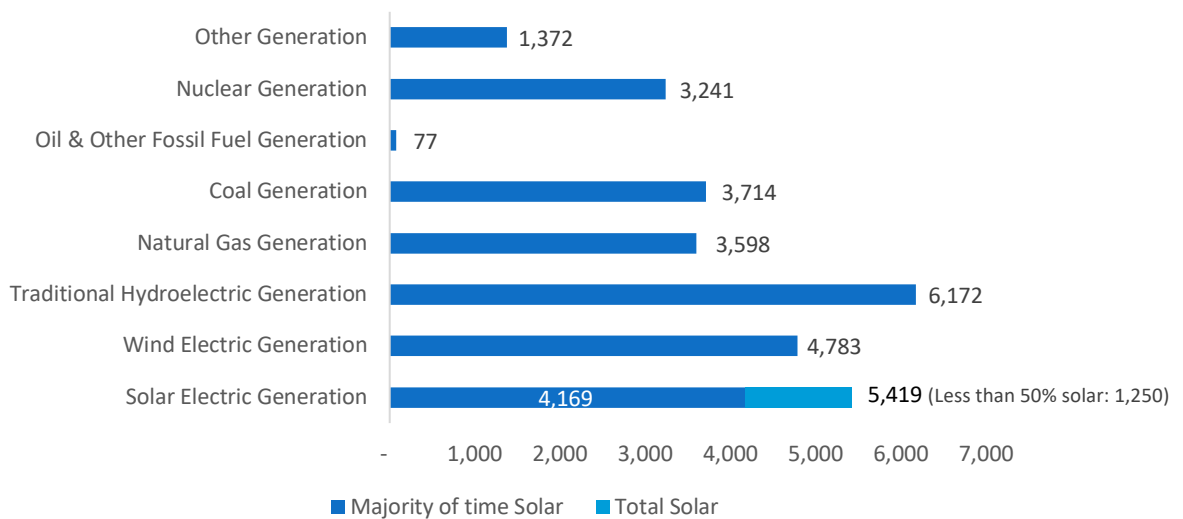
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 28,377 workers in Michigan, 3.2 percent of the national total and losing 158 jobs over the past year (-0.6 percent). Traditional fossil fuel generation makes up the largest segment of employment related to Electric Power Generation, with 7,390 jobs (down 0.2 percent), followed by traditional hydroelectric generation at 6,172 jobs (down 4.8 percent).

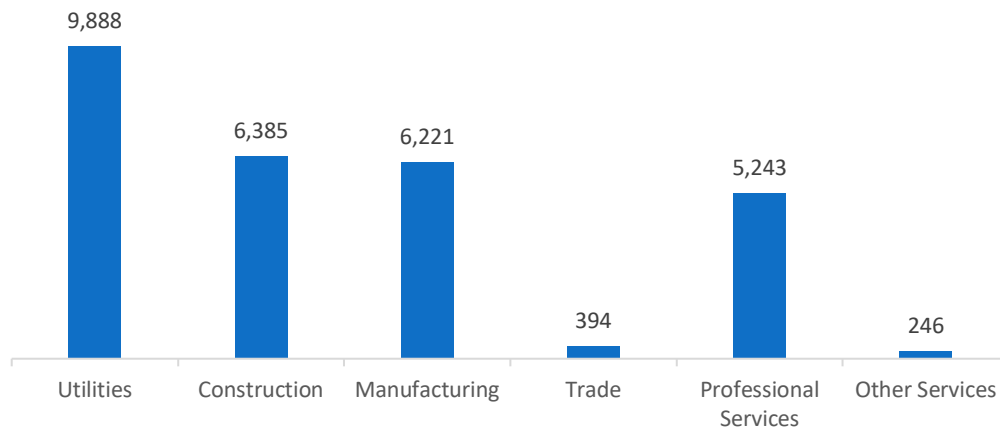
Figure MI-2.

Electric Power Generation Employment by Detailed Technology Application



Utilities are the largest industry sector in Electric Power Generation, with 34.8 percent of jobs. Construction is next with 22.5 percent.

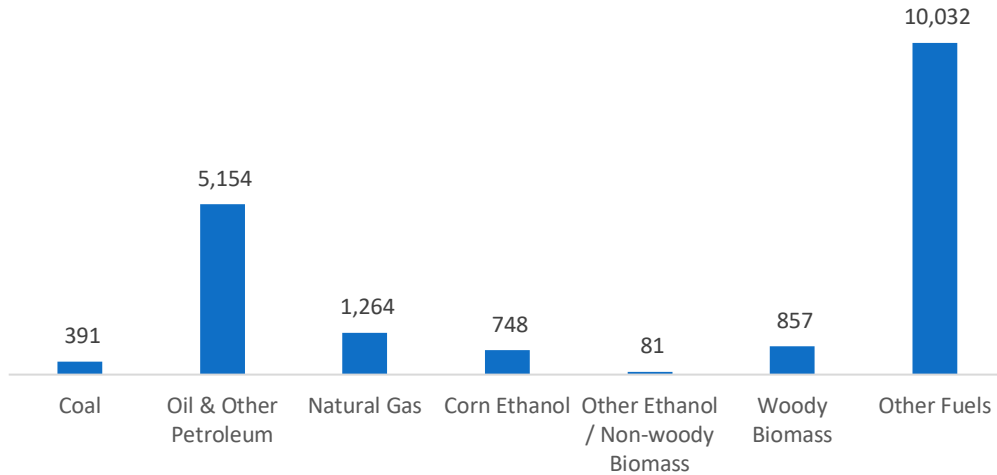
Figure MI-3.



Fuels

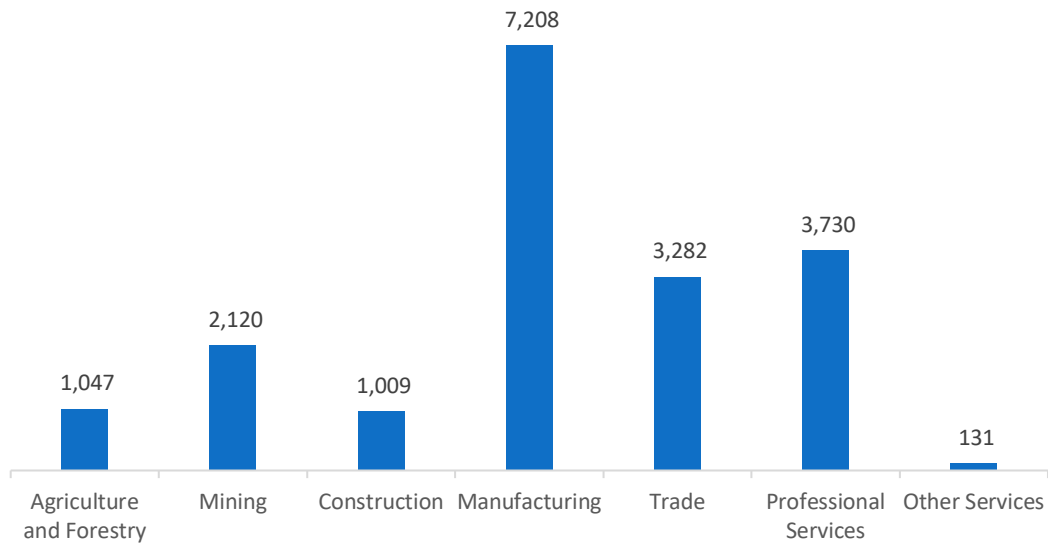
Fuels employs 18,527 workers in Michigan, 1.6 percent of the national total, up 3.0 percent over the past year. Other fuels makes up the largest segment of employment related to Fuels.

Figure MI-4.
Fuels Employment by Detailed Technology Application



Manufacturing jobs represent 38.9 percent of Fuels jobs in Michigan.

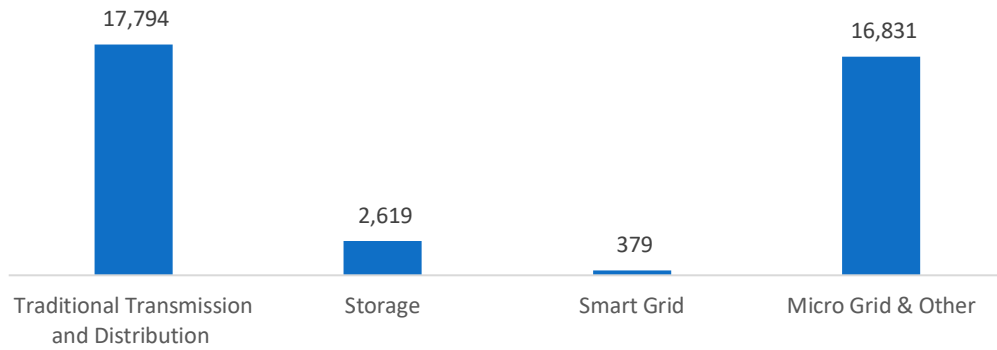
Figure MI-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

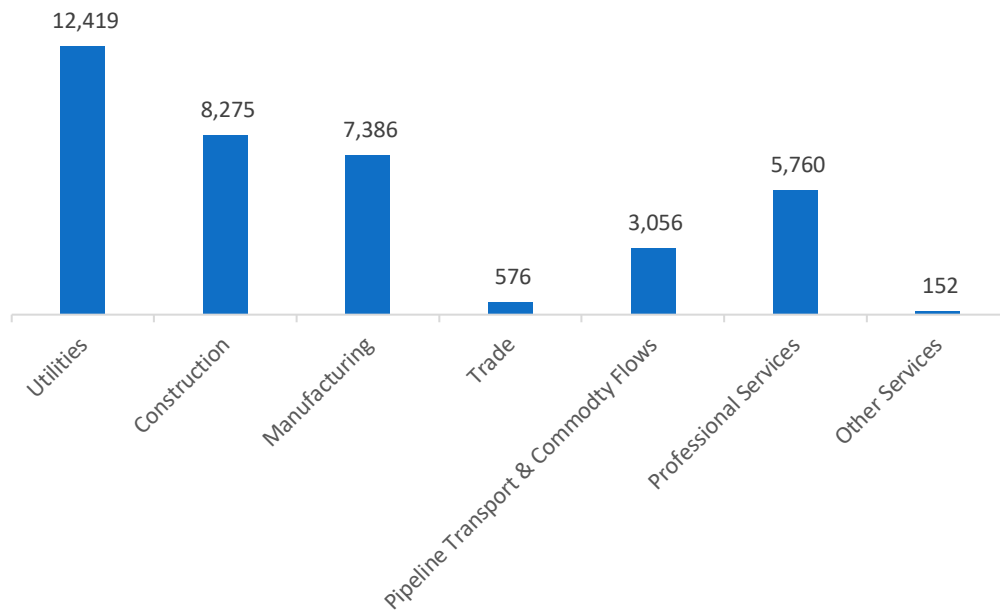
Transmission, Distribution, and Storage employs 37,623 workers in Michigan, 2.8 percent of the national total, up 2.7 percent or 987 jobs since the 2018 report.

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



Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Michigan, with 33.0 percent of such jobs statewide.

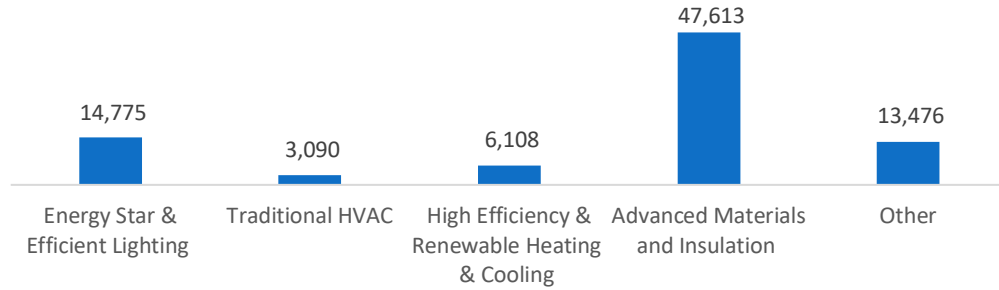
Figure MI-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

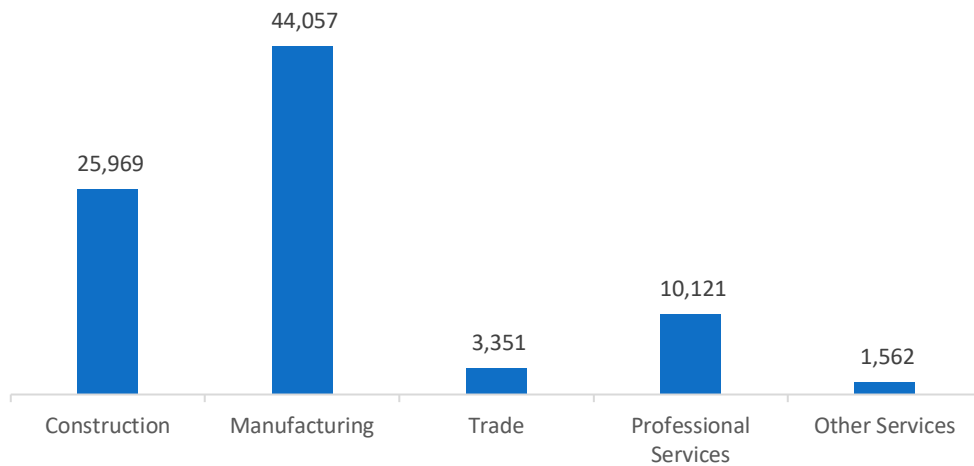
The 85,061 Energy Efficiency jobs in Michigan represent 3.7 percent of all U.S. Energy Efficiency jobs, adding 1,009 jobs (1.2 percent) since last year. The largest number of these employees work in advanced materials and insulation firms, followed by ENERGY STAR and efficient lighting.

Figure MI-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the manufacturing industry.

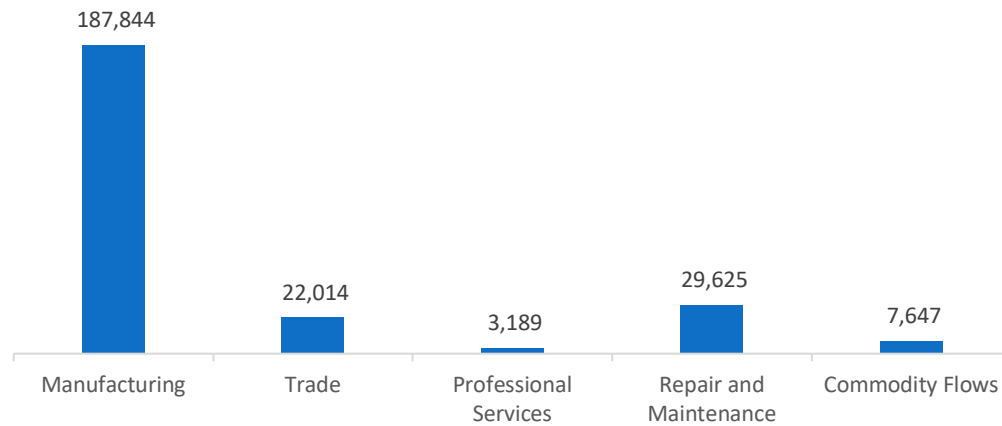
Figure MI-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 250,319 jobs in Michigan, up 1,905 jobs over the past year (0.8 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is manufacturing.

Figure MI-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in Michigan are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (6.0 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 6,969 jobs in Energy Efficiency (8.2 percent) and Motor Vehicles employers expect to add 5,567 jobs (2.2 percent) over the next year.

Table MI-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	9.3	7.1
Electric Power Transmission, Distribution and Storage	4.8	3.2
Energy Efficiency	8.2	7.8
Fuels	3.2	3.0
Motor Vehicles	2.2	2.2

Hiring Difficulty

Over the last year, 67.7 percent of energy-related employers in Michigan hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Energy Efficiency.

Table MI-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	14.3	20.7	50.0	54.8
Electric Power Transmission, Distribution and Storage	12.5	21.9	62.5	46.1
Energy Efficiency	30.0	21.3	60.0	48.1
Fuels	50.0	37.9	--	43.0
Motor Vehicles	25.0	30.0	41.7	46.4

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

1. Lack of experience, training, or technical skills
2. Insufficient non-technical skills (work ethic, dependability, critical thinking)
3. Competition/ small applicant pool

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

1. Technician or mechanical support – \$23.95 median hourly wage
2. Electrician/construction laborers – \$21.67 median hourly wage
3. Sales, marketing, or customer service – \$34.01 median hourly wage

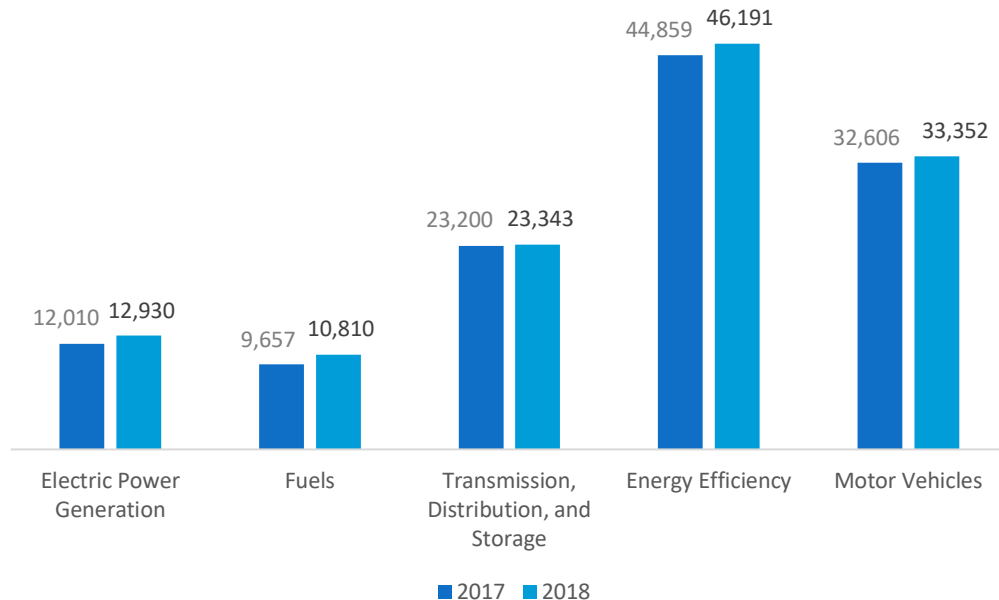
Minnesota

ENERGY AND EMPLOYMENT — 2019

Overview

Minnesota has a low concentration of energy employment, with 47,083 Traditional Energy workers statewide (representing 1.4 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 12,930 are in Electric Power Generation, 10,810 are in Fuels, and 23,343 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Minnesota is 1.6 percent of total state employment (compared to 2.3 percent of national employment). Minnesota has an additional 46,191 jobs in Energy Efficiency (2.0 percent of all U.S. Energy Efficiency jobs) and 33,352 jobs in Motor Vehicles (1.3 percent of all U.S. Motor Vehicle jobs).

Figure MN-1.
Employment by Major Energy Technology Application



Overall, Traditional Energy jobs grew by 3.8 percent since the 2018 report, increasing by 1,736 jobs over the period. Energy Efficiency jobs added 1,332 jobs (3.0 percent) and motor vehicles added 746 jobs (2.3 percent).

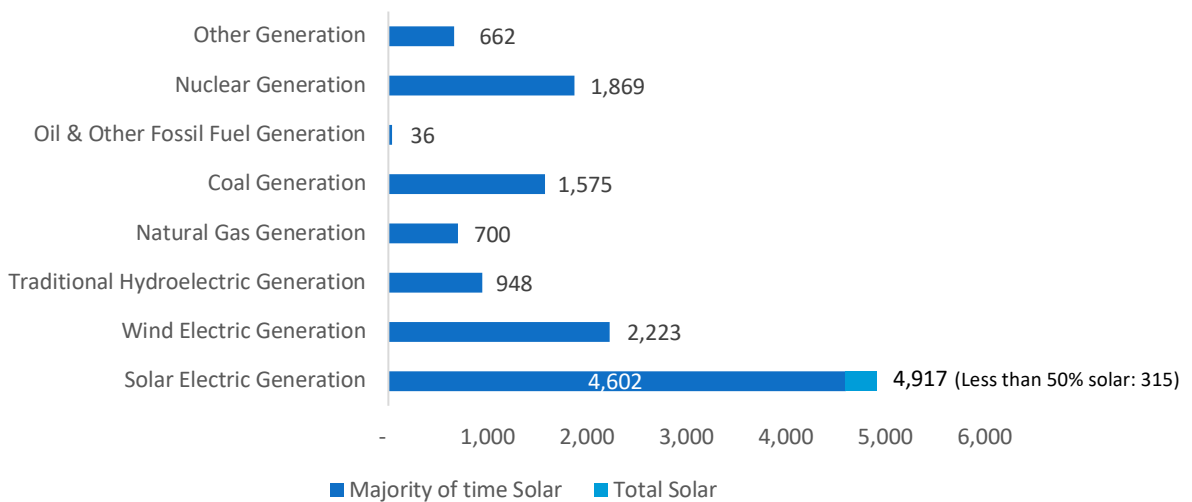
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 12,930 workers in Minnesota, 1.5 percent of the national total and adding 440 jobs over the past year (3.5 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 4,917 jobs (up 9.4 percent), followed by traditional fossil fuel generation at 2,311 jobs (up 0.1 percent).

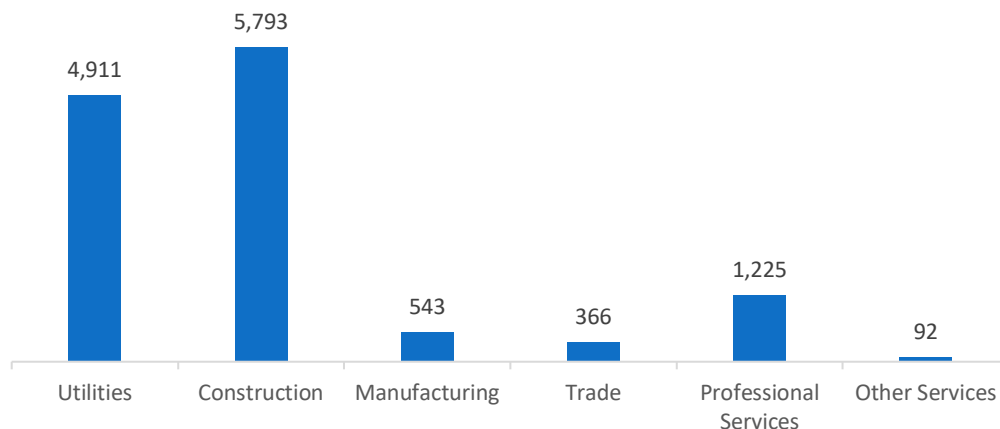
Figure MN-2.

Electric Power Generation Employment by Detailed Technology Application



Construction is the largest industry sector in Electric Power Generation, with 44.8 percent of jobs. Utilities are next with 38.0 percent.

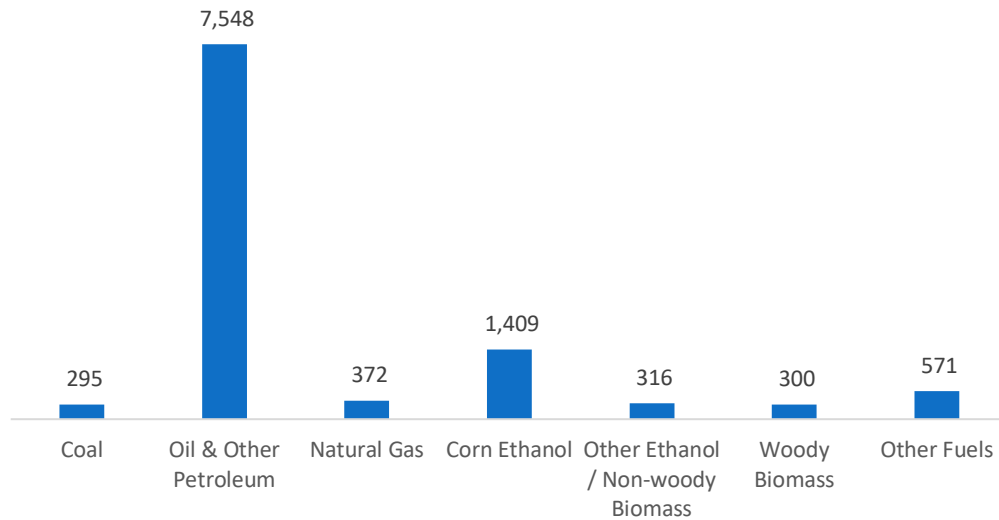
Figure MN-3.



Fuels

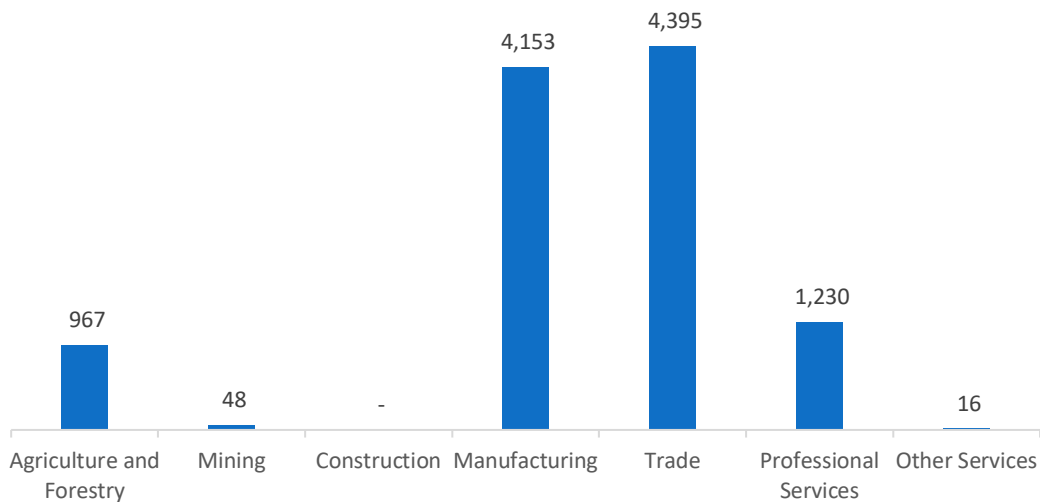
Fuels employs 10,810 workers in Minnesota, 1.0 percent of the national total, up 11.9 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure MN-4.
Fuels Employment by Detailed Technology Application



Wholesale trade jobs represent 40.7 percent of Fuels jobs in Minnesota.

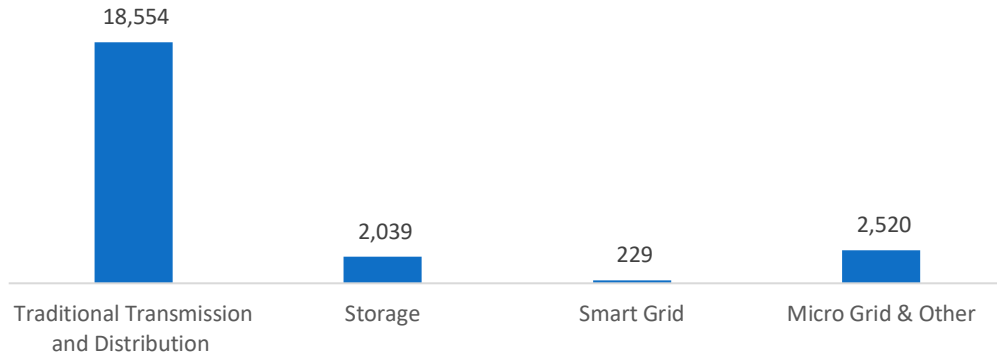
Figure MN-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

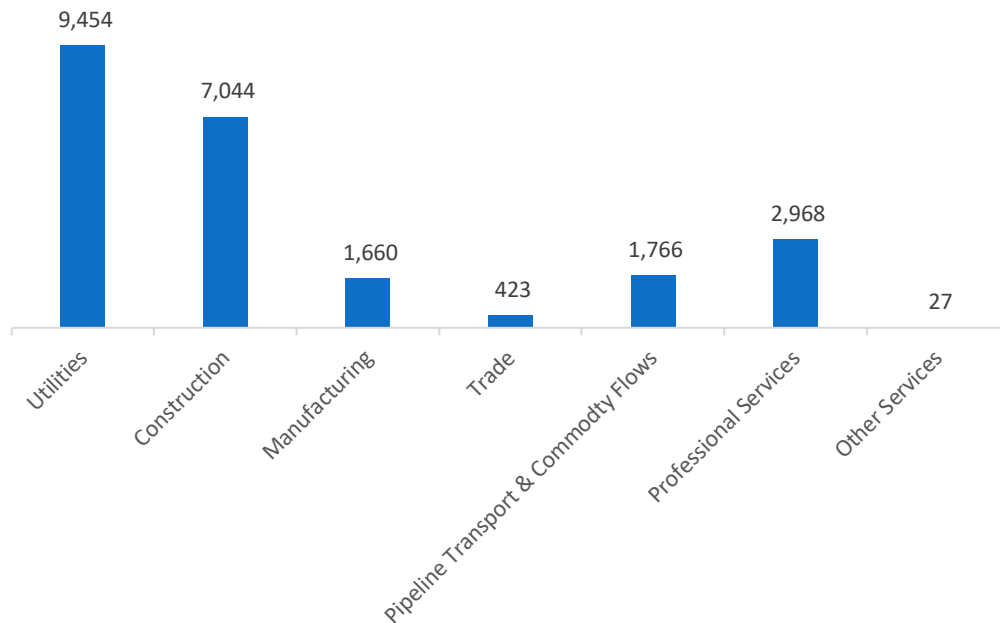
Transmission, Distribution, and Storage employs 23,343 workers in Minnesota, 1.7 percent of the national total, up 0.6 percent or 143 jobs since the 2018 report.

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



Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Minnesota, with 40.5 percent of such jobs statewide.

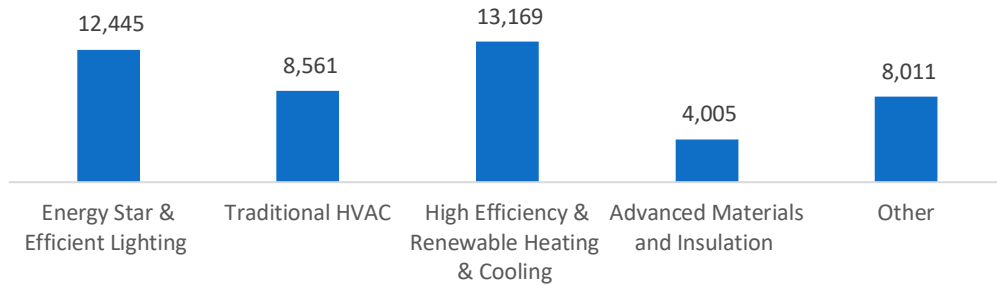
Figure MN-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

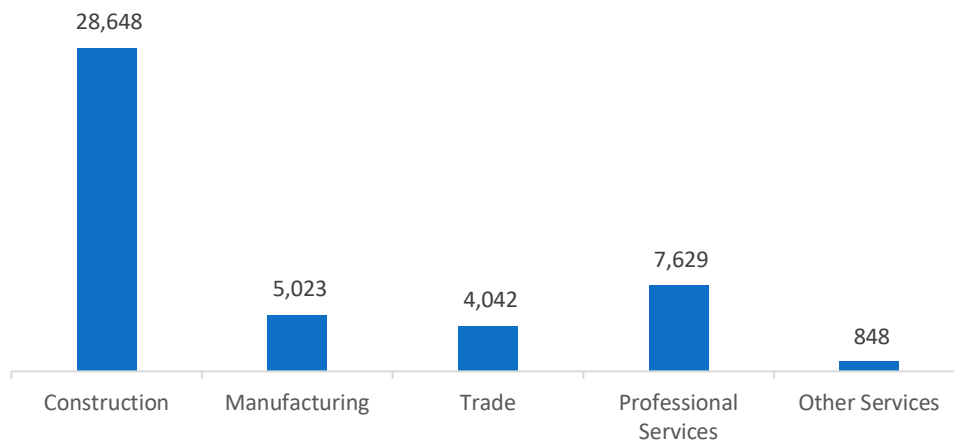
The 46,191 Energy Efficiency jobs in Minnesota represent 2.0 percent of all U.S. Energy Efficiency jobs, adding 1,332 jobs (3.0 percent) since last year. The largest number of these employees work in high efficiency HVAC and renewable heating and cooling firms, followed by ENERGY STAR and efficient lighting.

Figure MN-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

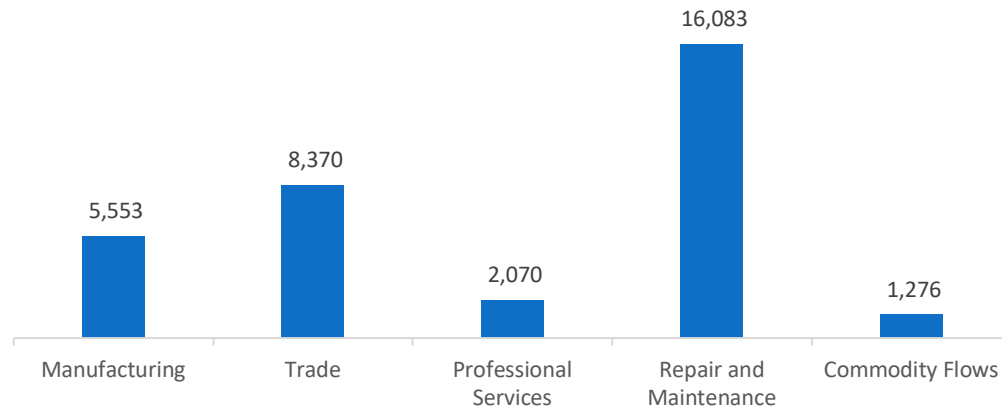
Figure MN-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 33,352 jobs in Minnesota, up 746 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 MN-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in Minnesota are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (5.3 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 3,647 jobs in Energy Efficiency (7.9 percent) and Motor Vehicles employers expect to add 1,062 jobs (3.2 percent) over the next year.

Table MN-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	7.3	7.1
Electric Power Transmission, Distribution and Storage	5.0	3.2
Energy Efficiency	7.9	7.8
Fuels	3.7	3.0
Motor Vehicles	3.2	2.2

Hiring Difficulty

Over the last year, 51.6 percent of energy-related employers in Minnesota hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Fuels.

Table MN-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	40.0	20.7	40.0	54.8
Electric Power Transmission, Distribution and Storage	33.3	21.9	33.3	46.1
Energy Efficiency	47.1	21.3	41.2	48.1
Fuels	--	37.9	100.0	43.0
Motor Vehicles	22.2	30.0	55.6	46.4

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

1. Lack of experience, training, or technical skills
2. Insufficient non-technical skills (work ethic, dependability, critical thinking)
3. Competition/ small applicant pool

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

1. Technician or mechanical support – \$24.51 median hourly wage
2. Electrician/construction laborers – \$25.47 median hourly wage
3. Management (directors, supervisors, vice presidents) – \$38.56 median hourly wage

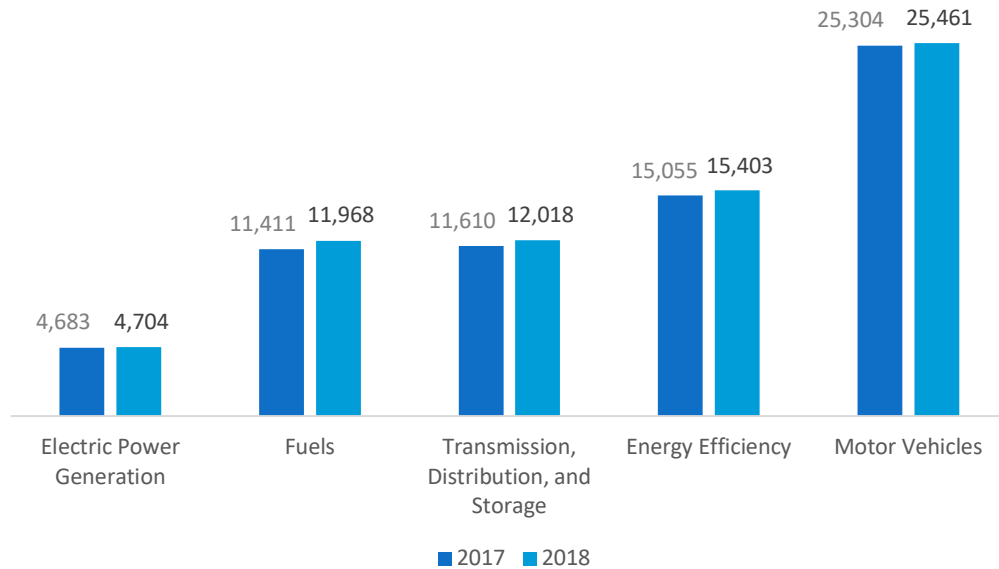
Mississippi

ENERGY AND EMPLOYMENT — 2019

Overview

Mississippi has an average concentration of energy employment, with 28,691 Traditional Energy workers statewide (representing 0.9 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 4,704 are in Electric Power Generation, 11,968 are in Fuels, and 12,018 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Mississippi is 2.5 percent of total state employment (compared to 2.3 percent of national employment). Mississippi has an additional 15,403 jobs in Energy Efficiency (0.7 percent of all U.S. Energy Efficiency jobs) and 25,461 jobs in Motor Vehicles (1.0 percent of all U.S. Motor Vehicle jobs).

Figure MS-1.
Employment by Major Energy Technology Application



Overall, Traditional Energy jobs grew by 3.6 percent since the 2018 report, increasing by 987 jobs over the period. Energy Efficiency jobs added 347 jobs (2.3 percent) and motor vehicles added 158 jobs (0.6 percent).

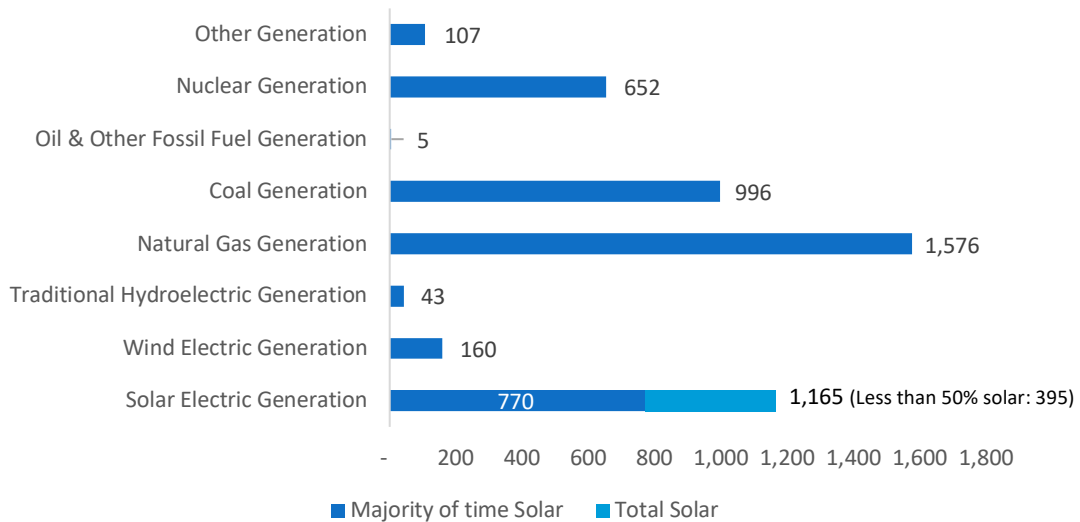
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 4,704 workers in Mississippi, 0.5 percent of the national total and adding 21 jobs over the past year (0.5 percent). Traditional fossil fuel generation makes up the largest segment of employment related to Electric Power Generation, with 2,577 jobs (down 1.4 percent), followed by solar at 1,165 jobs (down 2.6 percent).

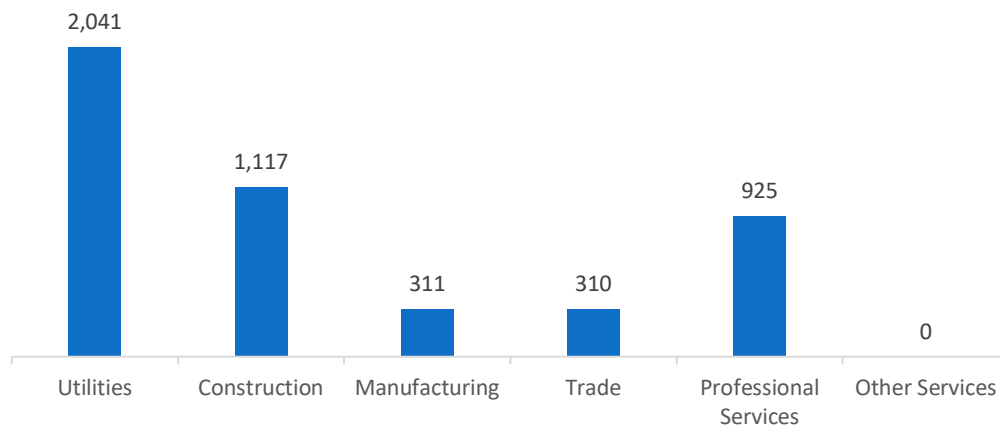
Figure MS-2.

Electric Power Generation Employment by Detailed Technology Application



Utilities are the largest industry sector in Electric Power Generation, with 43.4 percent of jobs. Construction is next with 23.8 percent.

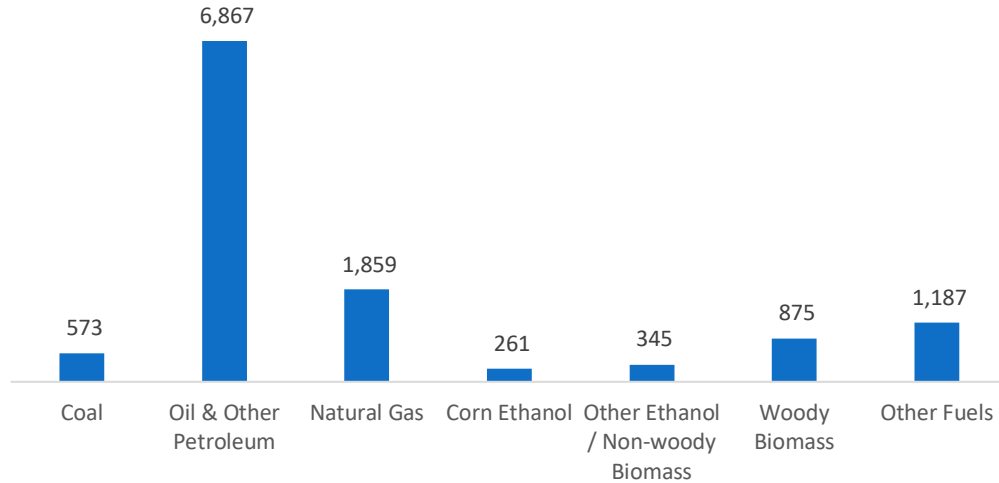
Figure MS-3.



Fuels

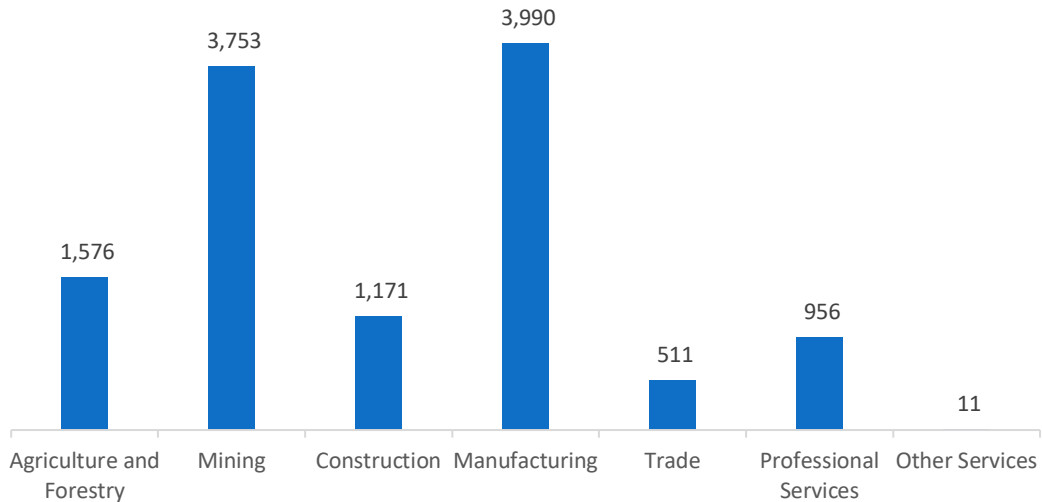
Fuels employs 11,968 workers in Mississippi, 1.1 percent of the national total, up 4.9 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure MS-4.
Fuels Employment by Detailed Technology Application



Manufacturing jobs represent 33.3 percent of Fuels jobs in Mississippi.

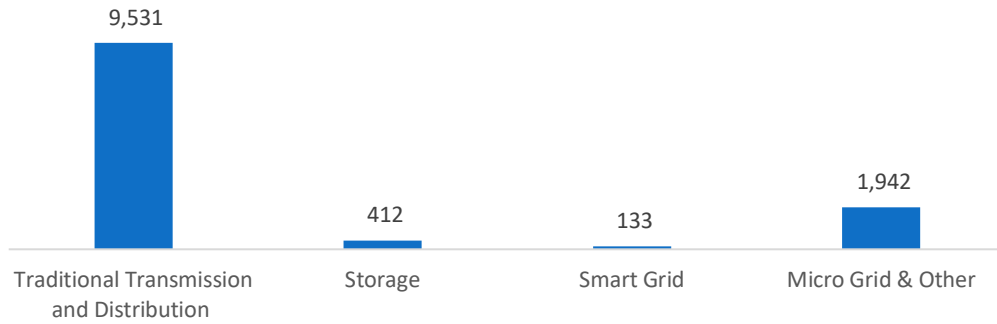
Figure MS-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

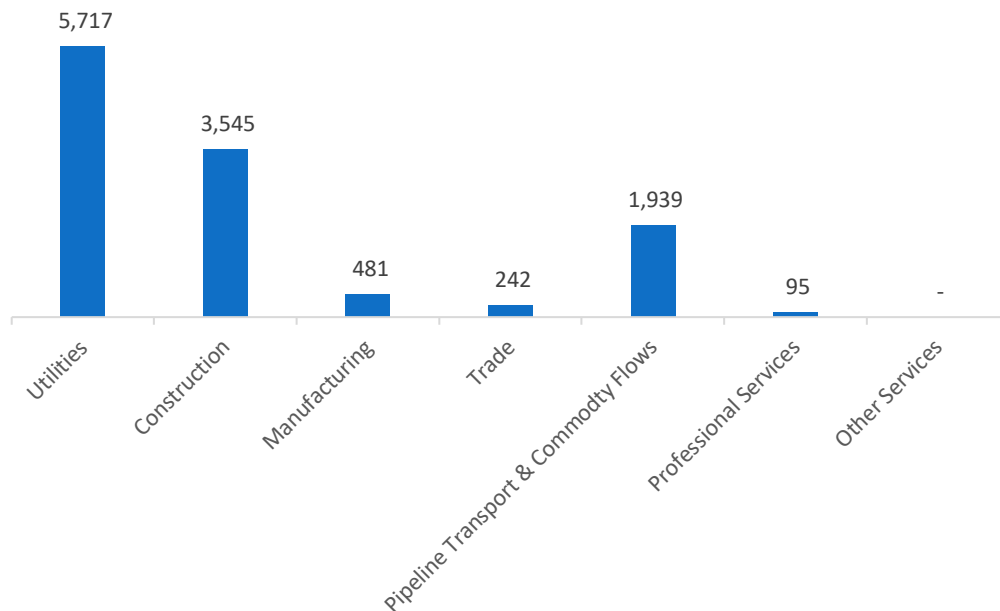
Transmission, Distribution, and Storage employs 12,018 workers in Mississippi, 0.9 percent of the national total, up 3.5 percent or 408 jobs since the 2018 report.

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



Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Mississippi, with 47.6 percent of such jobs statewide.

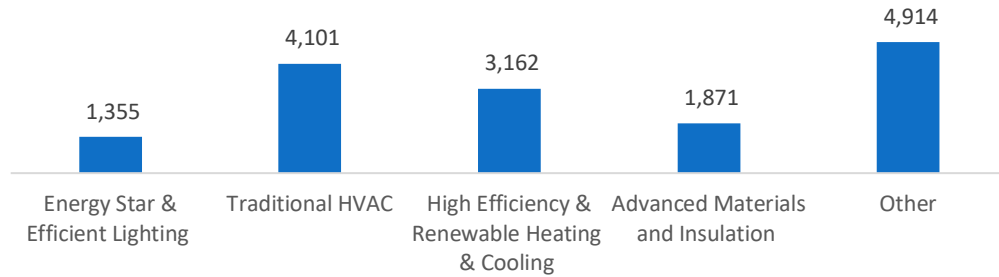
Figure MS-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

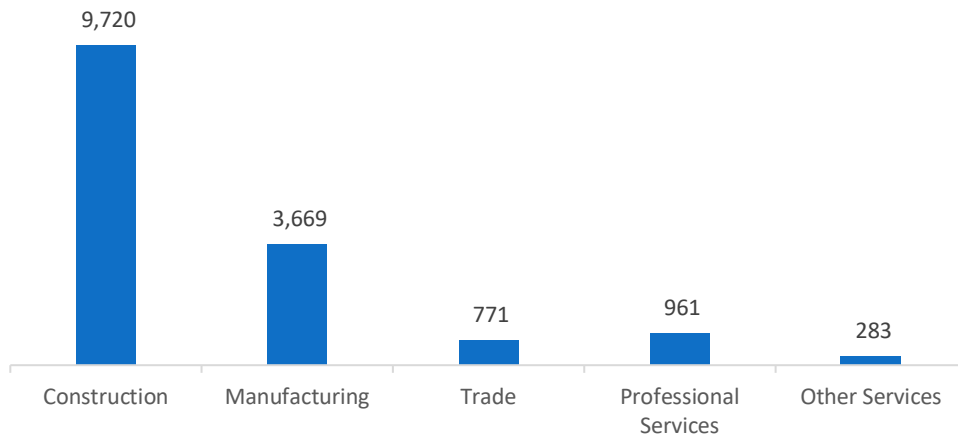
The 15,403 Energy Efficiency jobs in Mississippi represent 0.7 percent of all U.S. Energy Efficiency jobs, adding 347 jobs (2.3 percent) since last year. The largest number of these employees work in other energy efficiency products and services firms, followed by traditional HVAC.

Figure MS-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

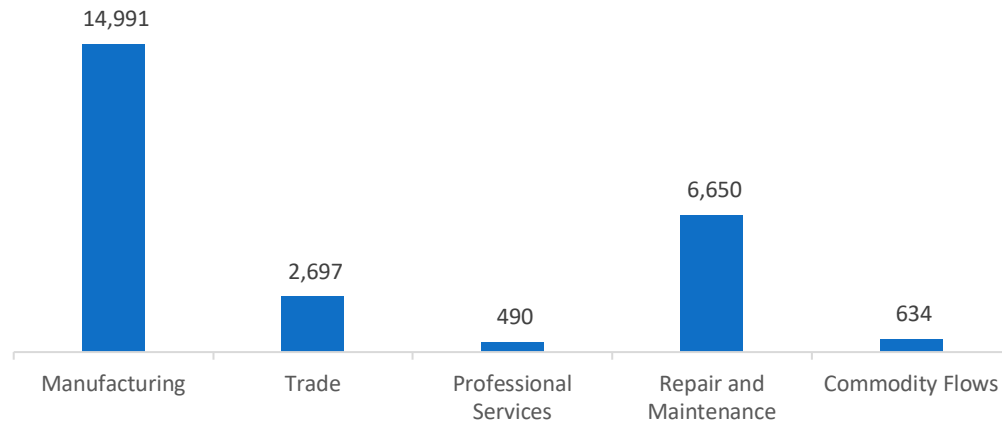
Figure MS-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 25,461 jobs in Mississippi, up 158 jobs over the past year (0.6 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is manufacturing.

Figure MS-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in Mississippi are less optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (1.5 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 1,398 jobs in Energy Efficiency (9.1 percent) and Motor Vehicles employers expect to add 504 jobs (2.0 percent) over the next year.

Table MS-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	9.1	7.1
Electric Power Transmission, Distribution and Storage	--	3.2
Energy Efficiency	9.1	7.8
Fuels	--	3.0
Motor Vehicles	2.0	2.2

Hiring Difficulty

Over the last year, 57.7 percent of energy-related employers in Mississippi hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Fuels.

Table MS-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	20.0	20.7	80.0	54.8
Electric Power Transmission, Distribution and Storage	--	21.9	60.0	46.1
Energy Efficiency	47.4	21.3	26.3	48.1
Fuels	40.0	37.9	60.0	43.0
Motor Vehicles	33.3	30.0	33.3	46.4

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

1. Lack of experience, training, or technical skills
2. Insufficient non-technical skills (work ethic, dependability, critical thinking)
3. Competition/ small applicant pool

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

1. Technician or mechanical support – \$20.14 median hourly wage
2. Installation workers – \$17.33 median hourly wage
3. Electrician/construction laborers – \$21.07 median hourly wage

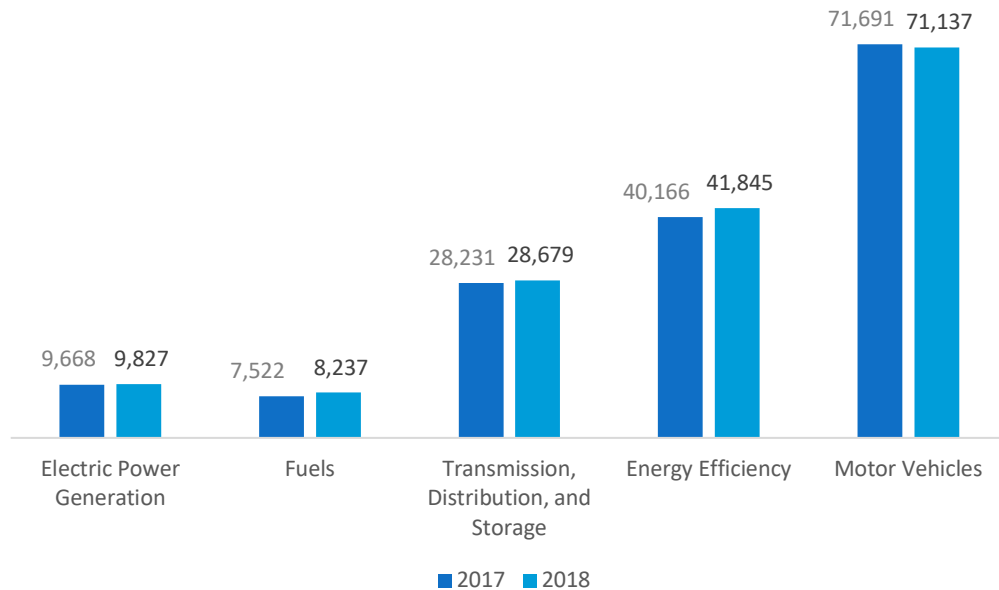
Missouri

ENERGY AND EMPLOYMENT — 2019

Overview

Missouri has a low concentration of energy employment, with 46,743 Traditional Energy workers statewide (representing 1.4 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 9,827 are in Electric Power Generation, 8,237 are in Fuels, and 28,679 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Missouri is 1.7 percent of total state employment (compared to 2.3 percent of national employment). Missouri has an additional 41,845 jobs in Energy Efficiency (1.8 percent of all U.S. Energy Efficiency jobs) and 71,137 jobs in Motor Vehicles (2.8 percent of all U.S. Motor Vehicle jobs).

Figure MO-1.
Employment by Major Energy Technology Application



Overall, Traditional Energy jobs grew by 2.9 percent since the 2018 report, increasing by 1,322 jobs over the period. Energy Efficiency jobs added 1,679 jobs (4.2 percent) and motor vehicles lost 553 jobs (-0.8 percent).

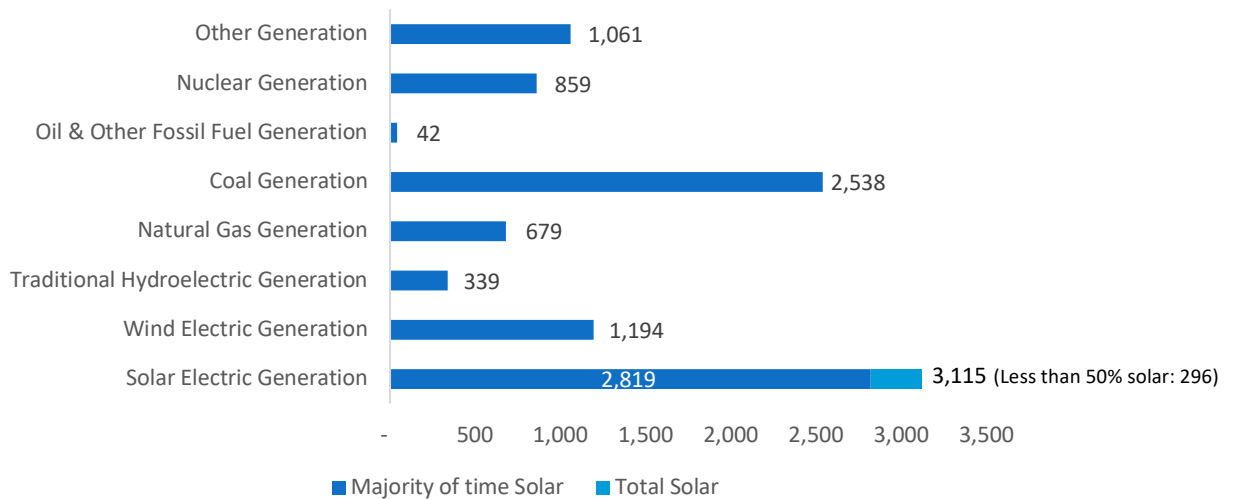
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 9,827 workers in Missouri, 1.1 percent of the national total and adding 159 jobs over the past year (1.6 percent). Traditional fossil fuel generation makes up the largest segment of employment related to Electric Power Generation, with 3,259 jobs (down 2.6 percent), followed by solar at 3,115 jobs (up 1.5 percent).

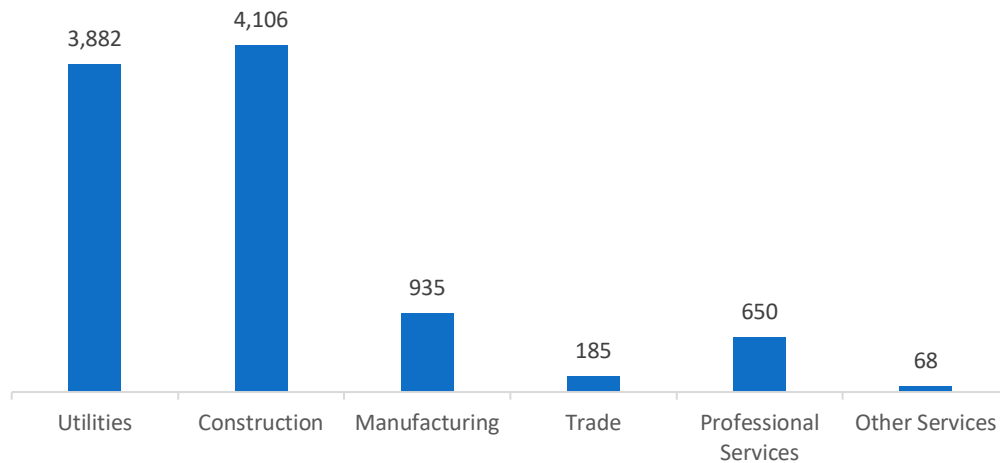
Figure MO-2.

Electric Power Generation Employment by Detailed Technology Application



Construction is the largest industry sector in Electric Power Generation, with 41.8 percent of jobs. Utilities are next with 39.5 percent.

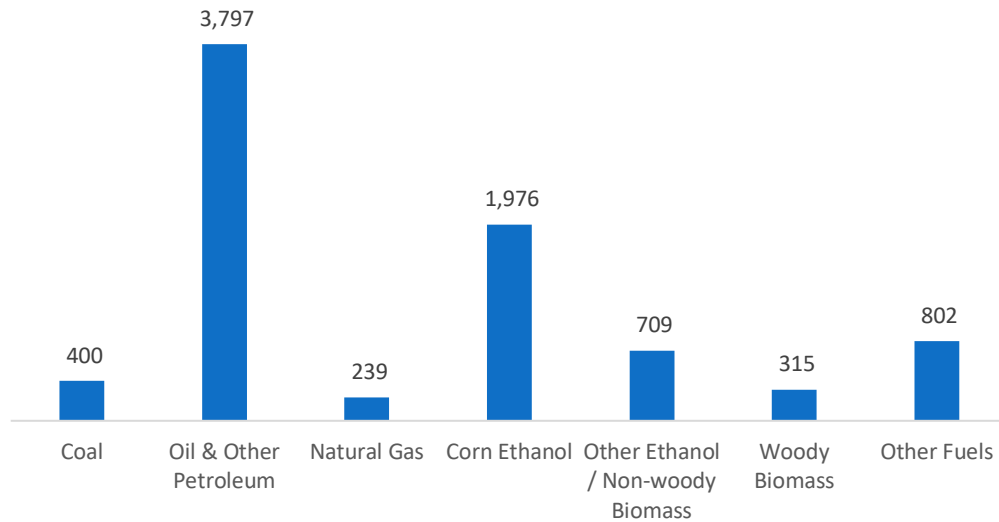
Figure MO-3.



Fuels

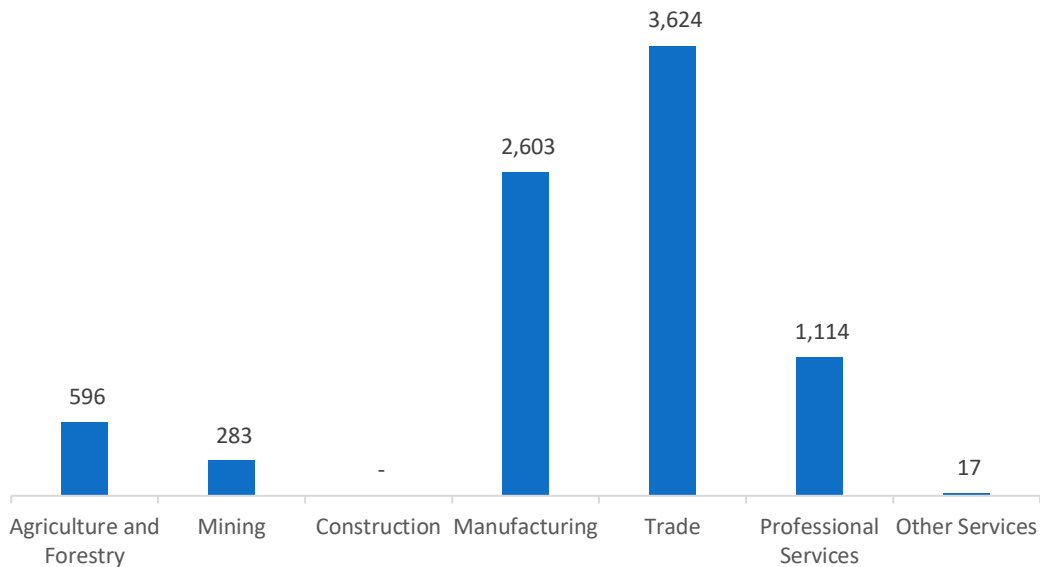
Fuels employs 8,237 workers in Missouri, 0.7 percent of the national total, up 9.5 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure MO-4.
Fuels Employment by Detailed Technology Application



Wholesale trade jobs represent 44.0 percent of Fuels jobs in Missouri.

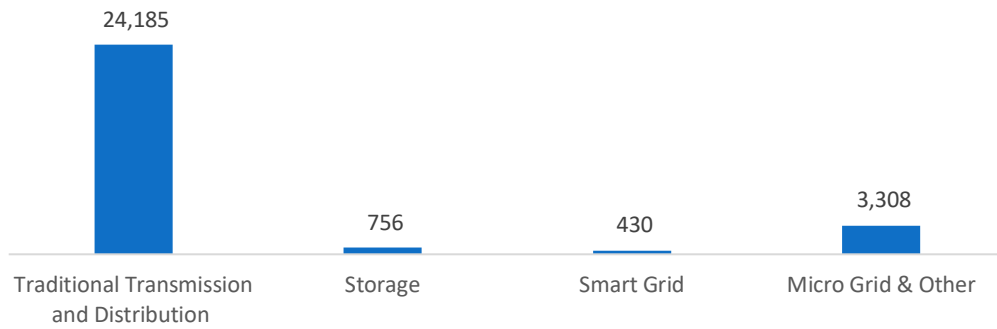
Figure MO-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

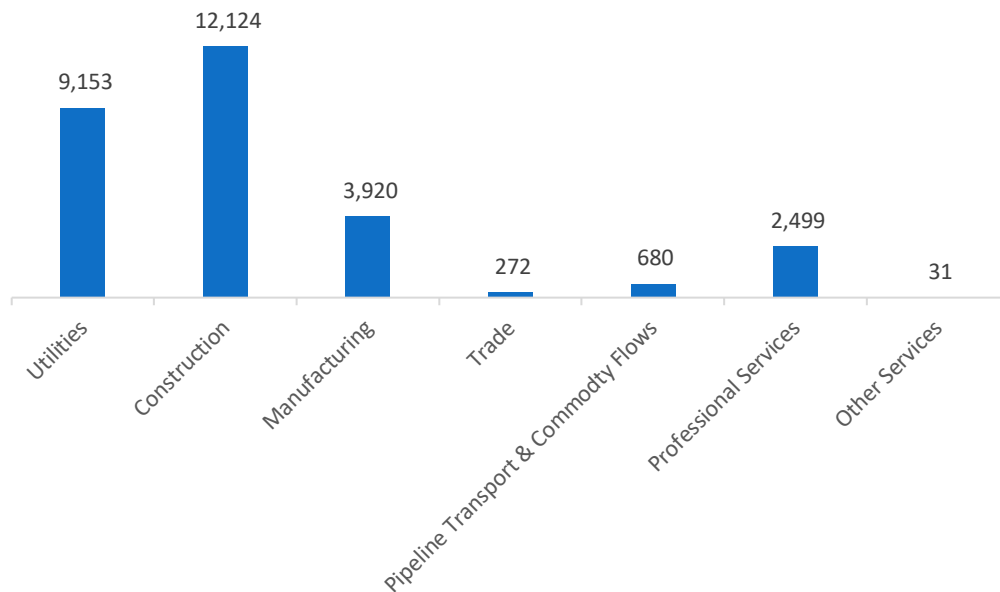
Transmission, Distribution, and Storage employs 28,679 workers in Missouri, 2.1 percent of the national total, up 1.6 percent or 448 jobs since the 2018 report.

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



Construction is responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Missouri, with 42.3 percent of such jobs statewide.

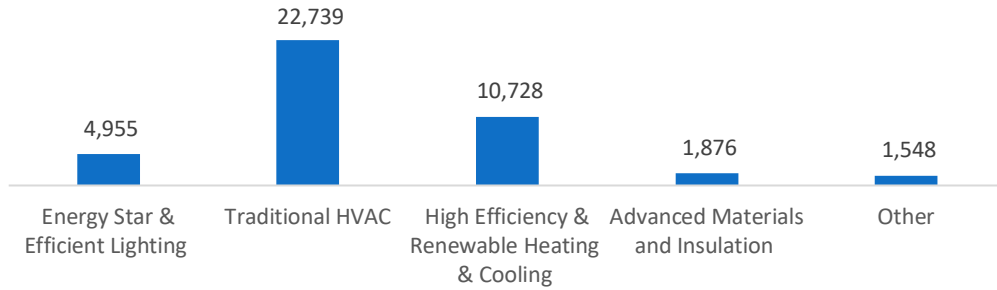
Figure MO-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

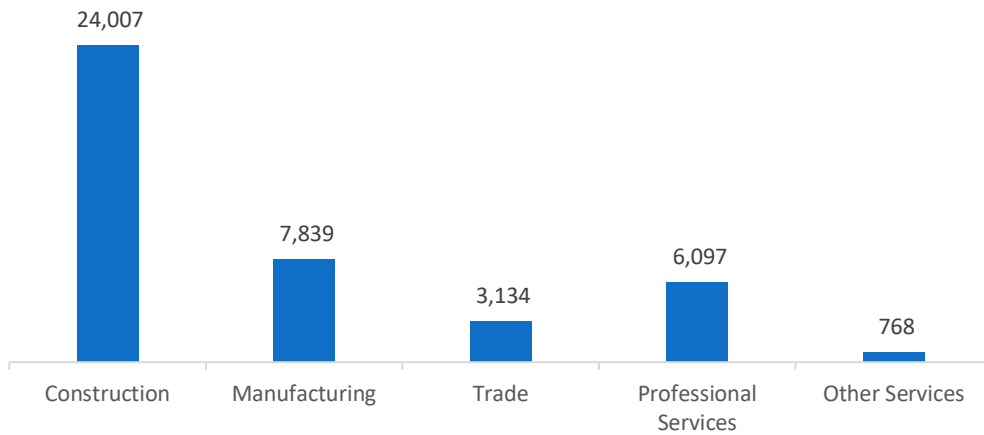
The 41,845 Energy Efficiency jobs in Missouri represent 1.8 percent of all U.S. Energy Efficiency jobs, adding 1,679 jobs (4.2 percent) since last year. The largest number of these employees work in traditional HVAC firms, followed by high efficiency HVAC and renewable heating and cooling.

Figure MO-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

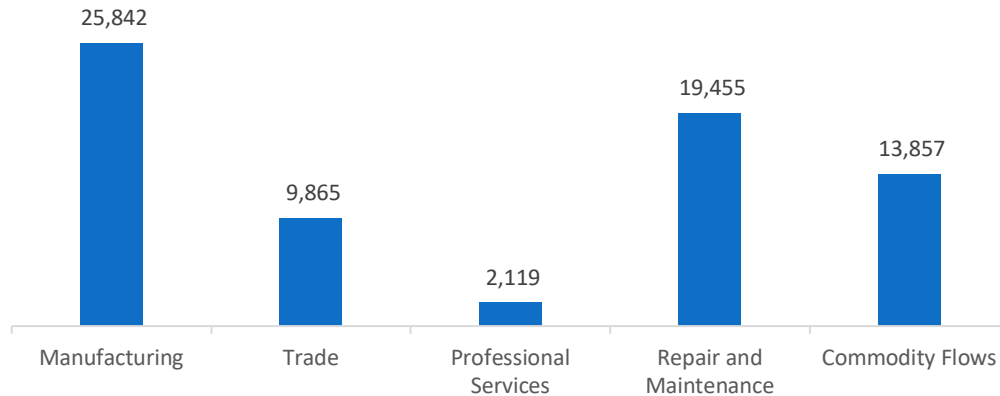
Figure MO-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 71,137 jobs in Missouri, down 553 jobs over the past year (-0.8 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is manufacturing.

Figure MO-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in Missouri are less optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (2.6 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 2,799 jobs in Energy Efficiency (6.7 percent) and Motor Vehicles employers expect to add 1,409 jobs (2.0 percent) over the next year.

Table MO-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	7.9	7.1
Electric Power Transmission, Distribution and Storage	--	3.2
Energy Efficiency	6.7	7.8
Fuels	5.5	3.0
Motor Vehicles	2.0	2.2

Hiring Difficulty

Over the last year, 53.8 percent of energy-related employers in Missouri hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Fuels.

Table MO-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	11.8	20.7	64.7	54.8
Electric Power Transmission, Distribution and Storage	10.0	21.9	60.0	46.1
Energy Efficiency	38.5	21.3	38.5	48.1
Fuels	20.0	37.9	80.0	43.0
Motor Vehicles	33.3	30.0	33.3	46.4

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

1. Lack of experience, training, or technical skills
2. Location
3. Competition/ small applicant pool

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

1. Technician or mechanical support – \$22.93 median hourly wage
2. Management (directors, supervisors, vice presidents) – \$37.37 median hourly wage
3. Sales, marketing, or customer service – \$31.12 median hourly wage

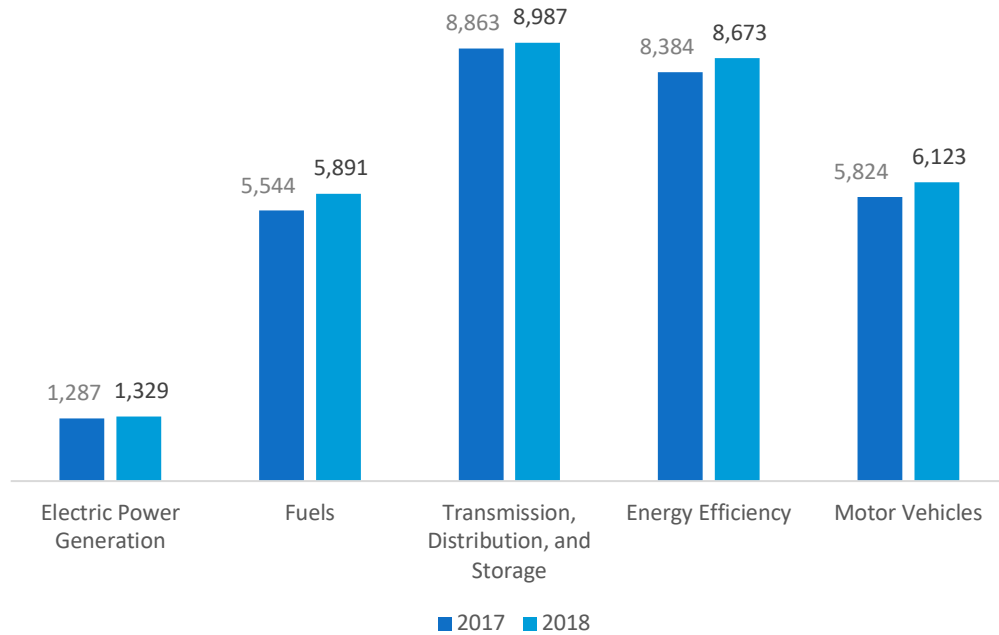
Montana

ENERGY AND EMPLOYMENT – 2019

Overview

Montana has a high concentration of energy employment, with 16,207 Traditional Energy workers statewide (representing 0.5 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 1,329 are in Electric Power Generation, 5,891 are in Fuels, and 8,987 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Montana is 3.4 percent of total state employment (compared to 2.3 percent of national employment). Montana has an additional 8,673 jobs in Energy Efficiency (0.4 percent of all U.S. Energy Efficiency jobs) and 6,123 jobs in Motor Vehicles (0.2 percent of all U.S. Motor Vehicle jobs).

Figure MT-1.
Employment by Major Energy Technology Application



Overall, Traditional Energy jobs grew by 3.3 percent since the 2018 report, increasing by 513 jobs over the period. Energy Efficiency jobs added 290 jobs (3.5 percent) and motor vehicles added 299 jobs (5.1 percent).

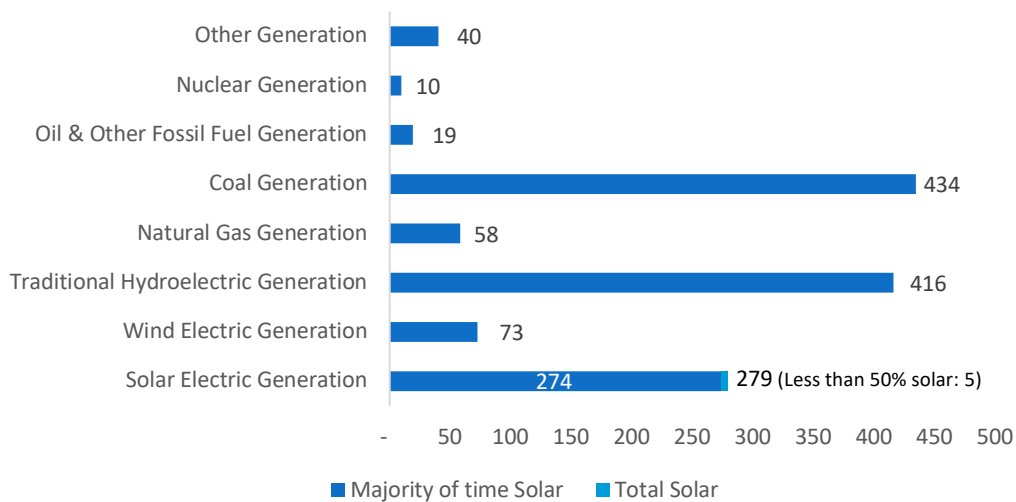
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 1,329 workers in Montana, 0.2 percent of the national total and adding 42 jobs over the past year (3.2 percent). Traditional fossil fuel generation makes up the largest segment of employment related to Electric Power Generation, with 512 jobs (down 3.2 percent), followed by traditional hydroelectric generation at 416 jobs (down 1.8 percent).

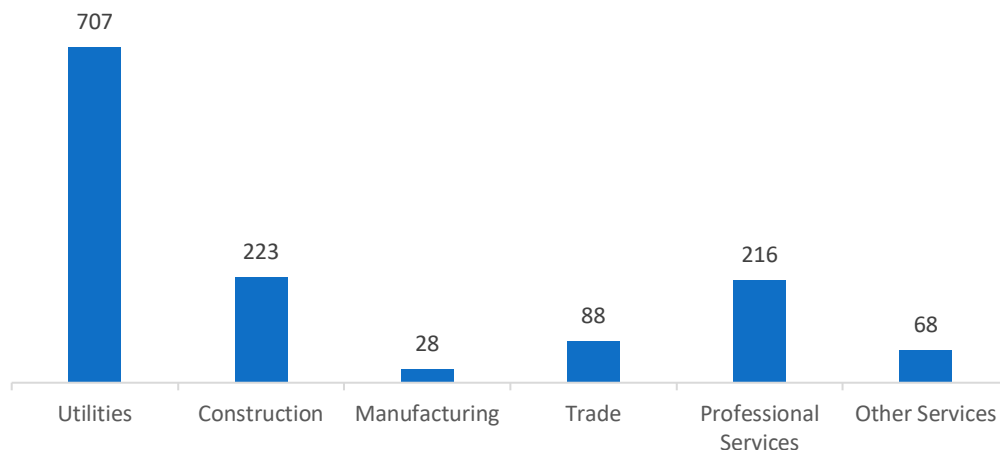
Figure MT-2.

Electric Power Generation Employment by Detailed Technology Application



Utilities are the largest industry sector in Electric Power Generation, with 53.2 percent of jobs. Construction is next with 16.8 percent.

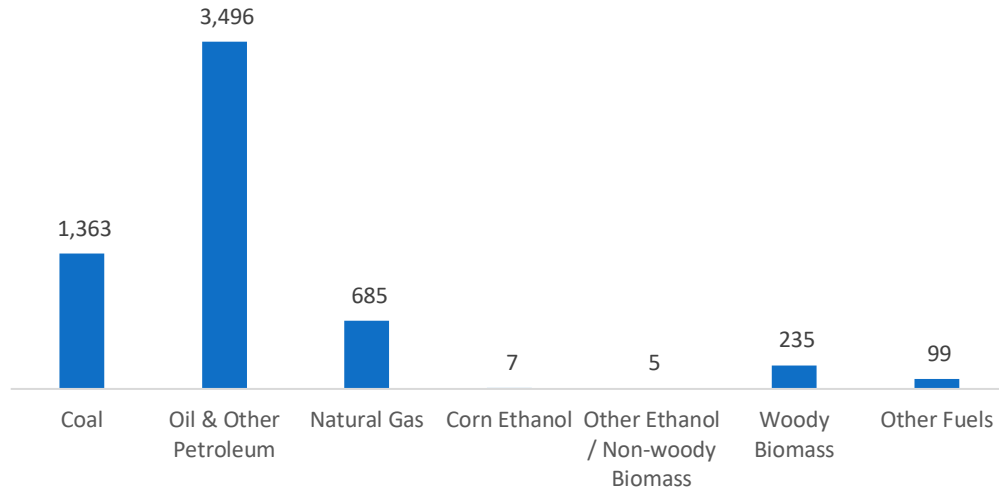
Figure MT-3.



Fuels

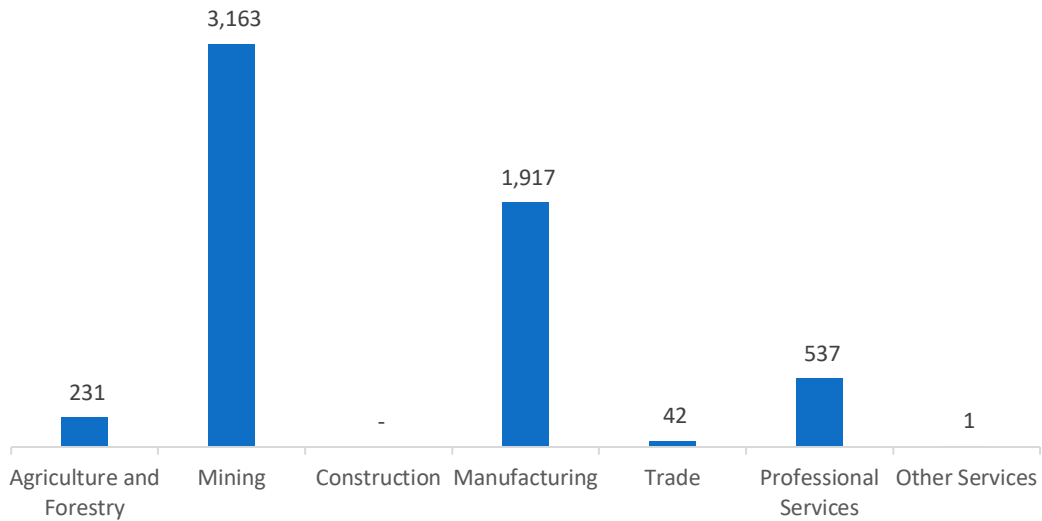
Fuels employs 5,891 workers in Montana, 0.5 percent of the national total, up 6.3 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure MT-4.
Fuels Employment by Detailed Technology Application



Mining and extraction jobs represent 53.7 percent of Fuels jobs in Montana.

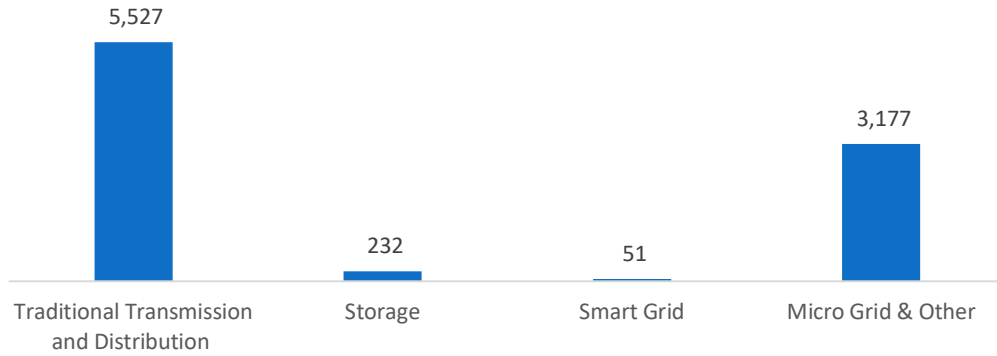
Figure MT-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

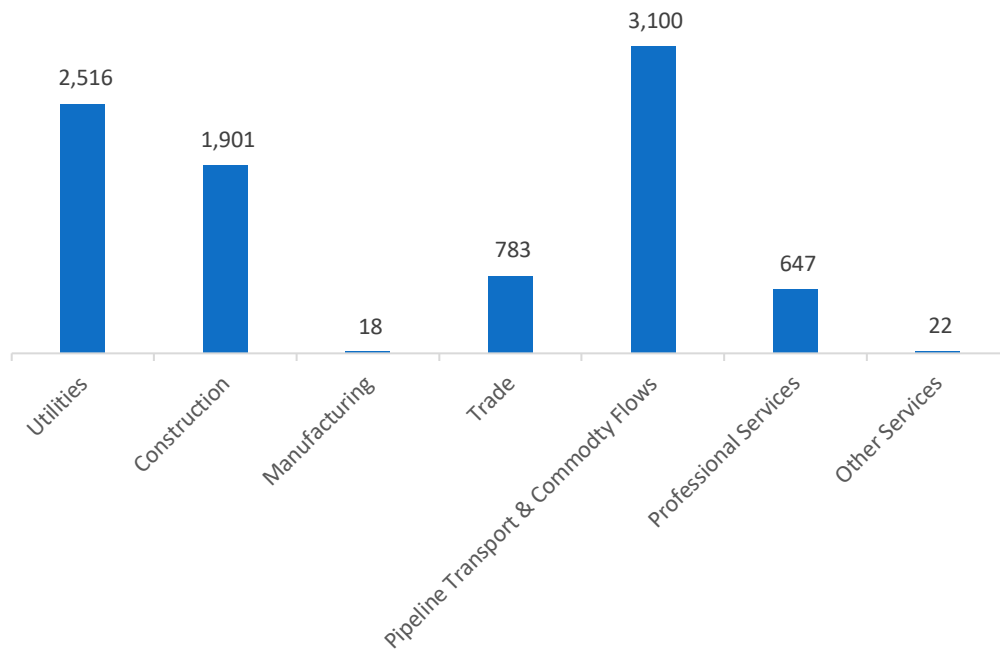
Transmission, Distribution, and Storage employs 8,987 workers in Montana, 0.7 percent of the national total, up 1.4 percent or 124 jobs since the 2018 report.

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



Pipeline transport and commodity flows are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Montana, with 34.5 percent of such jobs statewide.

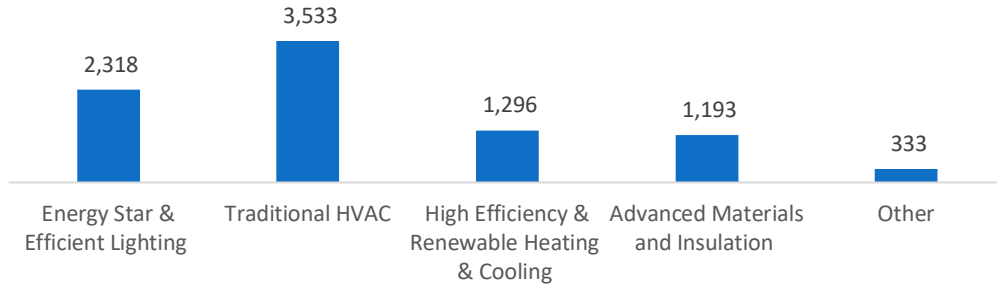
Figure MT-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

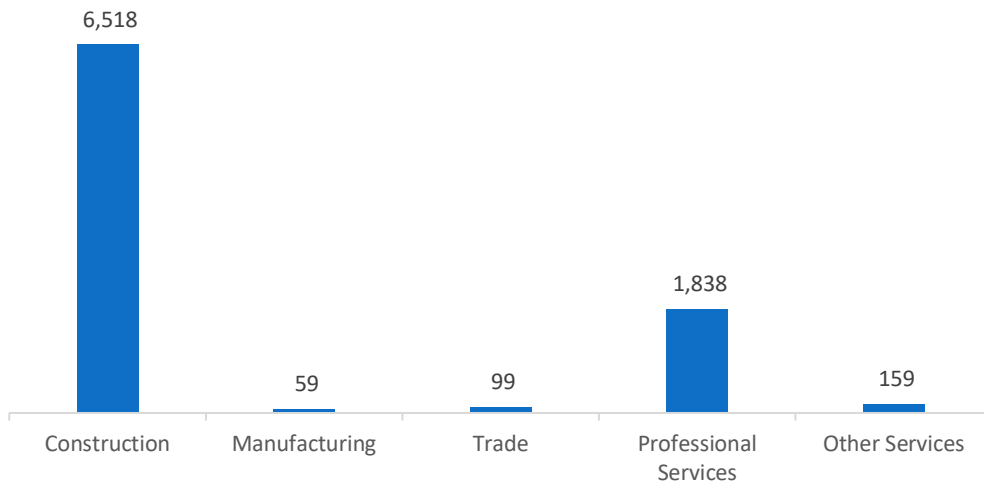
The 8,673 Energy Efficiency jobs in Montana represent 0.4 percent of all U.S. Energy Efficiency jobs, adding 290 jobs (3.5 percent) since last year. The largest number of these employees work in traditional HVAC firms, followed by ENERGY STAR and efficient lighting.

Figure MT-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

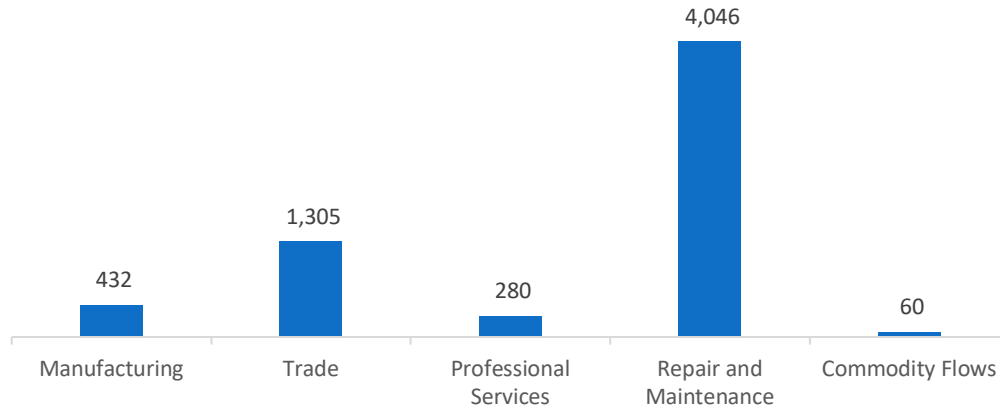
Figure MT-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 6,123 jobs in Montana, up 299 jobs over the past year (5.1 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure MT-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in Montana are less optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (0.5 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 321 jobs in Energy Efficiency (3.7 percent) and Motor Vehicles employers expect to add 121 jobs (2.0 percent) over the next year.

Table MT-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	6.7	7.1
Electric Power Transmission, Distribution and Storage	--	3.2
Energy Efficiency	3.7	7.8
Fuels	--	3.0
Motor Vehicles	2.0	2.2

Hiring Difficulty

Over the last year, 52.6 percent of energy-related employers in Montana hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Motor Vehicles.

Table MT-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	66.7	20.7	--	54.8
Electric Power Transmission, Distribution and Storage	33.3	21.9	33.3	46.1
Energy Efficiency	--	21.3	50.0	48.1
Fuels	50.0	37.9	--	43.0
Motor Vehicles	50.0	30.0	50.0	46.4

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

1. Competition/ small applicant pool
2. Location
3. Lack of experience, training, or technical skills

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

1. Electrician/construction laborers – \$27.57 median hourly wage
2. Technician or mechanical support – \$22.92 median hourly wage
3. Sales, marketing, or customer service – \$32.00 median hourly wage

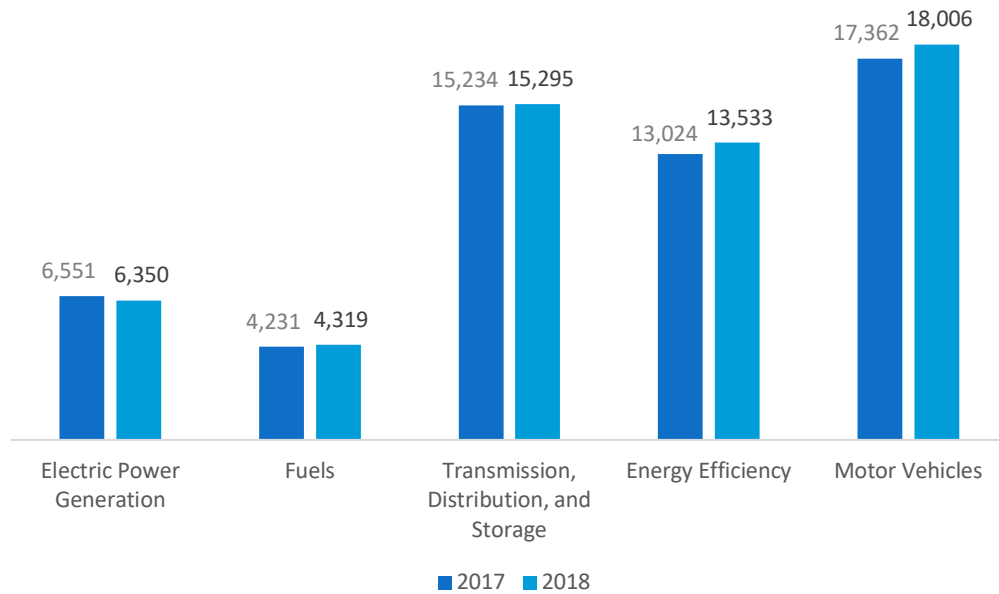
Nebraska

ENERGY AND EMPLOYMENT — 2019

Overview

Nebraska has an average concentration of energy employment, with 25,965 Traditional Energy workers statewide (representing 0.8 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 6,350 are in Electric Power Generation, 4,319 are in Fuels, and 15,295 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Nebraska is 2.6 percent of total state employment (compared to 2.3 percent of national employment). Nebraska has an additional 13,533 jobs in Energy Efficiency (0.6 percent of all U.S. Energy Efficiency jobs) and 18,006 jobs in Motor Vehicles (0.7 percent of all U.S. Motor Vehicle jobs).

Figure NE-1.
Employment by Major Energy Technology Application



Overall, Traditional Energy jobs declined by 0.2 percent since the 2018 report, decreasing by 51 jobs over the period. Energy Efficiency jobs added 508 jobs (3.9 percent) and motor vehicles added 644 jobs (3.7 percent).

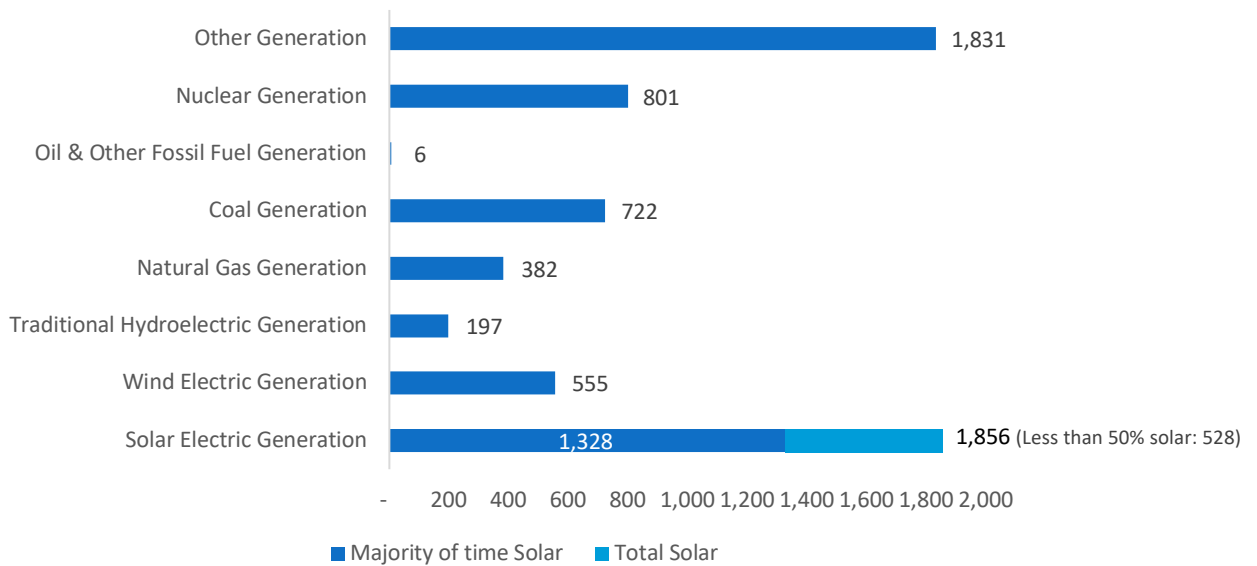
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 6,350 workers in Nebraska, 0.7 percent of the national total and losing 201 jobs over the past year (-3.1 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 1,856 jobs (down 4.4 percent), followed by traditional fossil fuel generation at 1,110 jobs (down 1.6 percent).

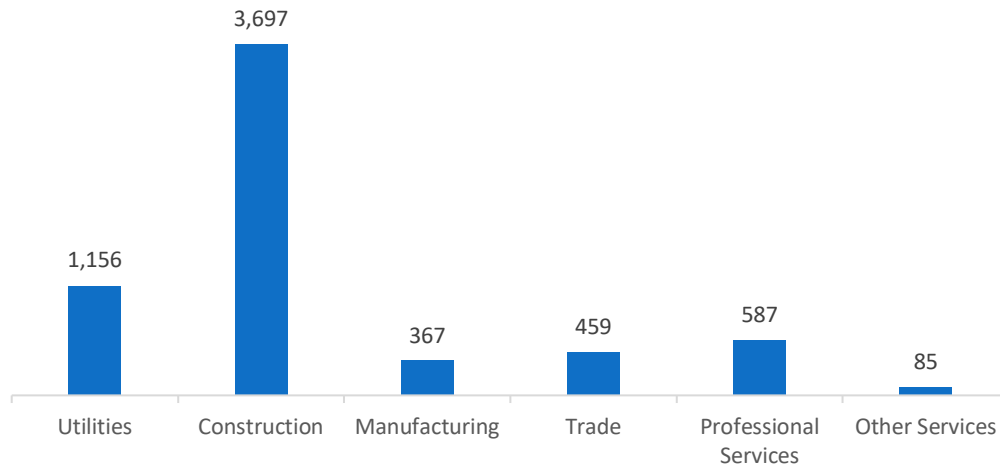
Figure NE-2.

Electric Power Generation Employment by Detailed Technology Application



Construction is the largest industry sector in Electric Power Generation, with 58.2 percent of jobs. Utilities are next with 18.2 percent.

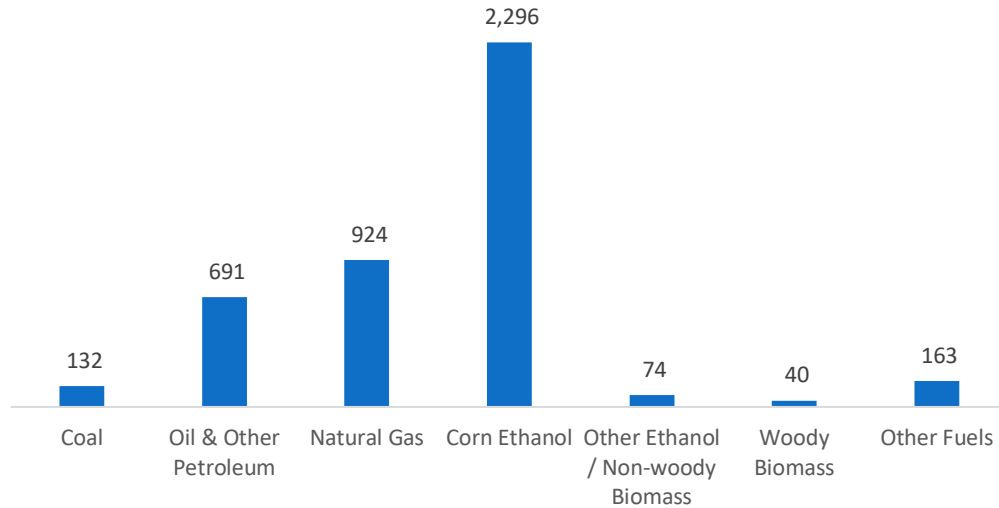
Figure NE-3.



Fuels

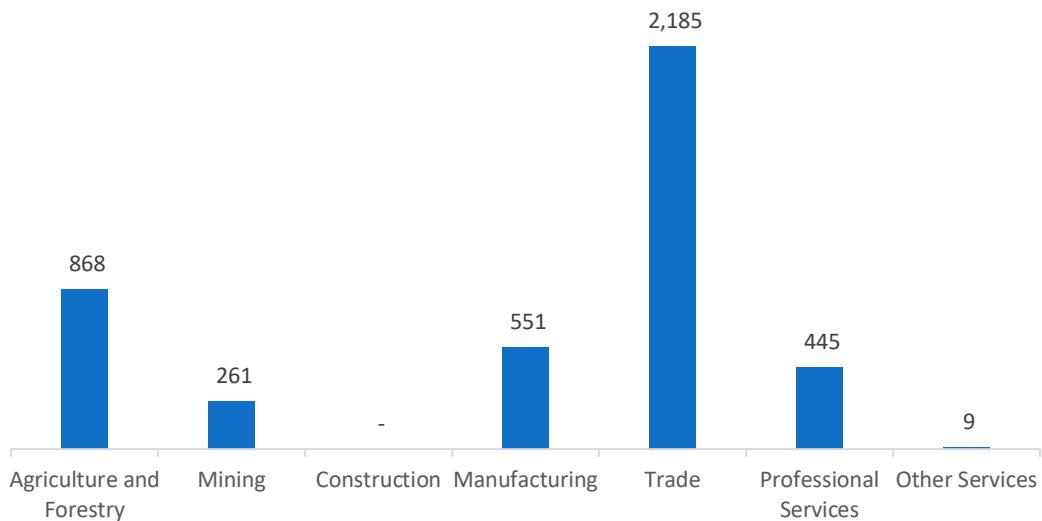
Fuels employs 4,319 workers in Nebraska, 0.4 percent of the national total, up 2.1 percent over the past year. Corn ethanol makes up the largest segment of employment related to Fuels.

Figure NE-4.
Fuels Employment by Detailed Technology Application



Wholesale trade jobs represent 50.6 percent of Fuels jobs in Nebraska.

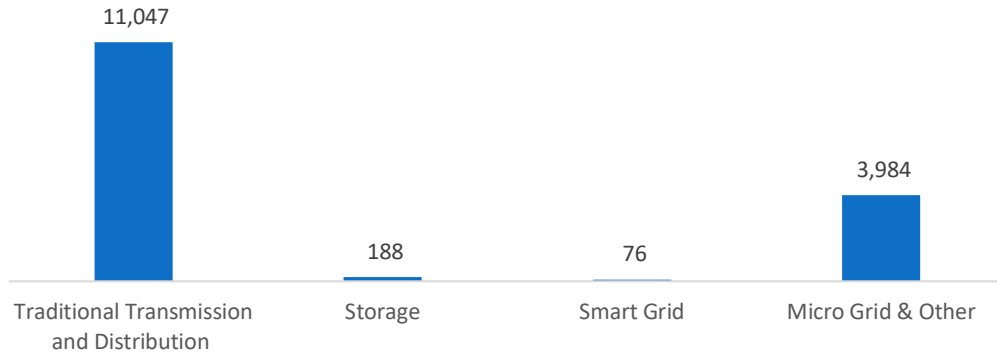
Figure NE-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

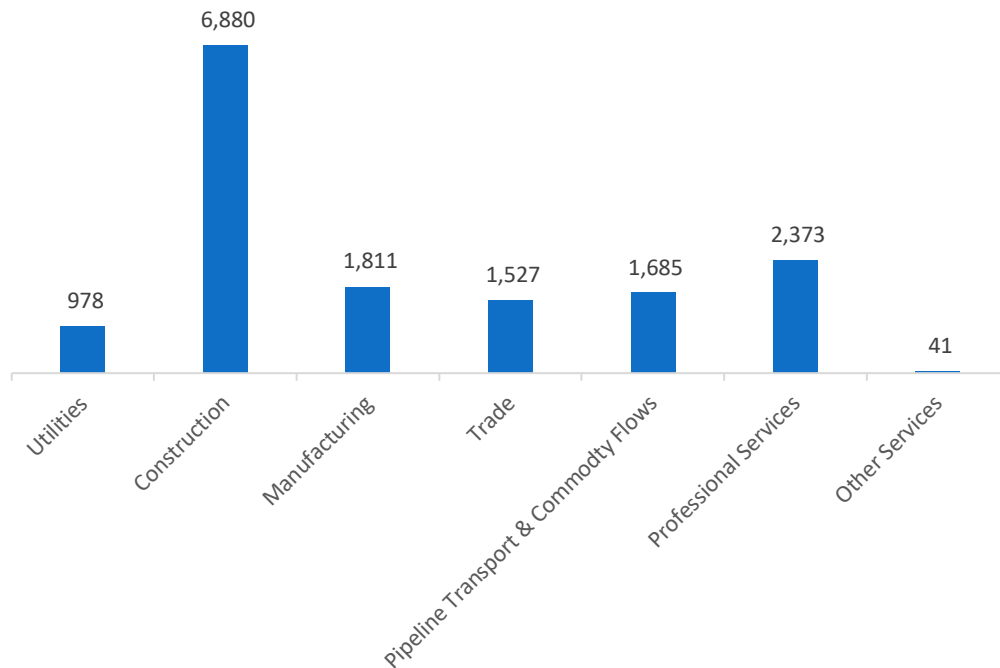
Transmission, Distribution, and Storage employs 15,295 workers in Nebraska, 1.1 percent of the national total, up 0.4 percent or 61 jobs since the 2018 report.

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



Construction is responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Nebraska, with 45.0 percent of such jobs statewide.

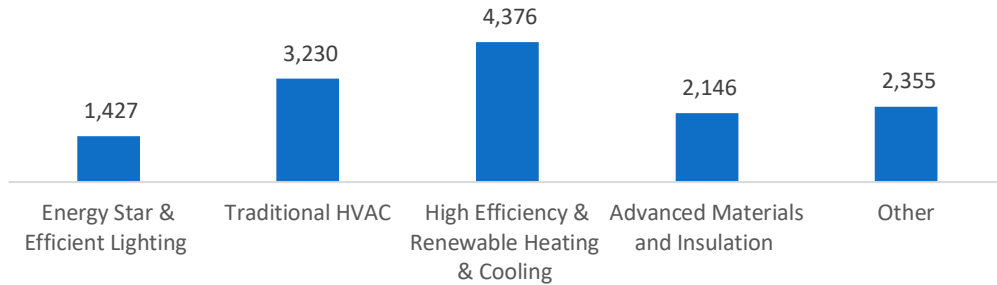
Figure NE-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

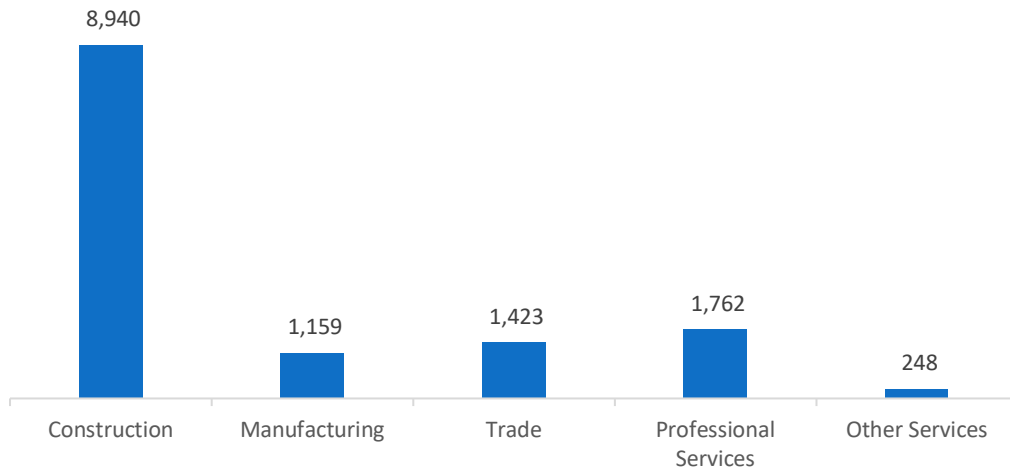
The 13,533 Energy Efficiency jobs in Nebraska represent 0.6 percent of all U.S. Energy Efficiency jobs, adding 508 jobs (3.9 percent) since last year. The largest number of these employees work in high efficiency HVAC and renewable heating and cooling firms, followed by traditional HVAC.

Figure NE-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

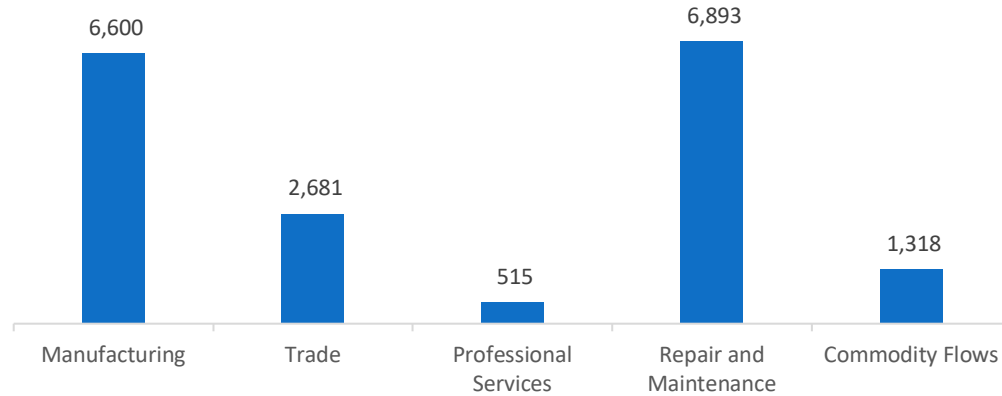
Figure NE-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 18,006 jobs in Nebraska, up 644 jobs over the past year (3.7 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure NE-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in Nebraska are less optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (2.6 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 1,064 jobs in Energy Efficiency (7.9 percent) and Motor Vehicles employers expect to add 657 jobs (3.6 percent) over the next year.

Table NE-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	8.6	7.1
Electric Power Transmission, Distribution and Storage	--	3.2
Energy Efficiency	7.9	7.8
Fuels	2.9	3.0
Motor Vehicles	3.6	2.2

Hiring Difficulty

Over the last year, 54.5 percent of energy-related employers in Nebraska hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Motor Vehicles.

Table NE-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	--	20.7	60.0	54.8
Electric Power Transmission, Distribution and Storage	12.5	21.9	50.0	46.1
Energy Efficiency	66.7	21.3	16.7	48.1
Fuels	40.0	37.9	40.0	43.0
Motor Vehicles	33.3	30.0	66.7	46.4

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

1. Lack of experience, training, or technical skills
2. Location
3. Insufficient non-technical skills (work ethic, dependability, critical thinking)

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

1. Technician or mechanical support – \$22.92 median hourly wage
2. Electrician/construction laborers – \$23.43 median hourly wage
3. Installation workers – \$20.48 median hourly wage

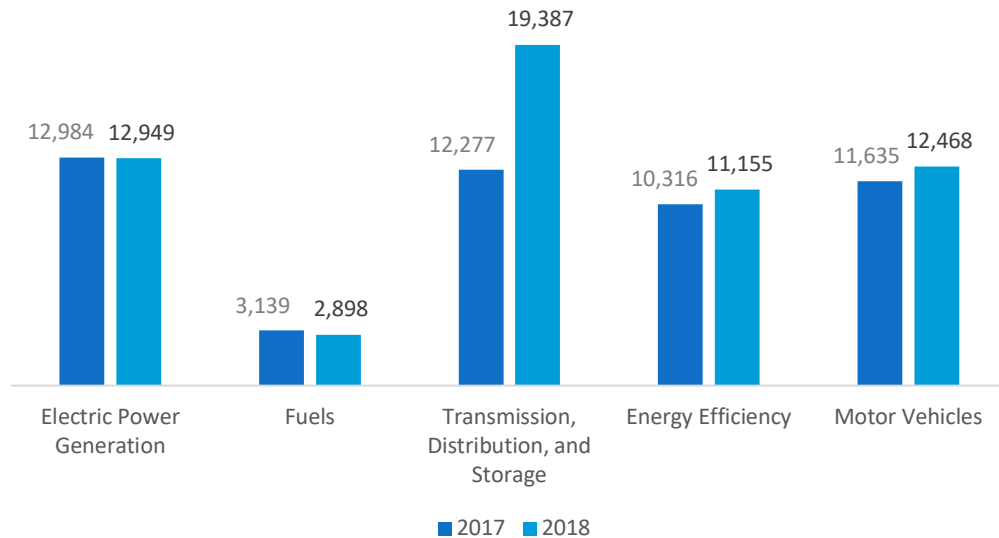
Nevada

ENERGY AND EMPLOYMENT — 2019

Overview

Nevada has an average concentration of energy employment, with 35,234 Traditional Energy workers statewide (representing 1.0 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 12,949 are in Electric Power Generation, 2,898 are in Fuels, and 19,387 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Nevada is 2.6 percent of total state employment (compared to 2.3 percent of national employment). Nevada has an additional 11,155 jobs in Energy Efficiency (0.5 percent of all U.S. Energy Efficiency jobs) and 12,468 jobs in Motor Vehicles (0.5 percent of all U.S. Motor Vehicle jobs).

Figure NV-1.
Employment by Major Energy Technology Application



Overall, Traditional Energy jobs grew by 24.1 percent since the 2018 report, increasing by 6,834 jobs over the period. Energy Efficiency jobs added 839 jobs (8.1 percent) and motor vehicles added 834 jobs (7.2 percent).

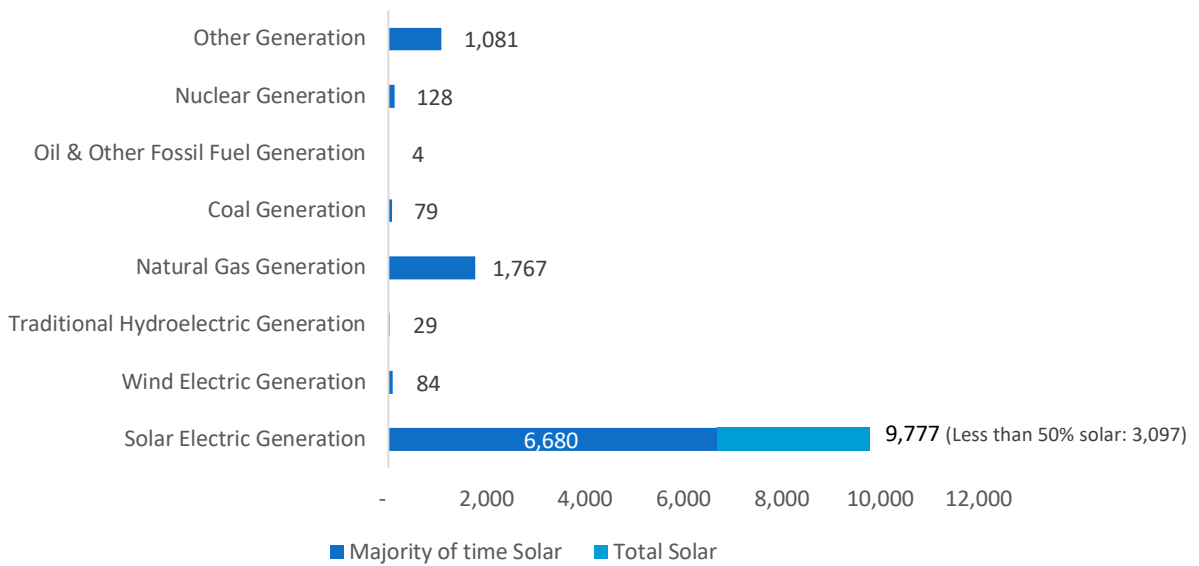
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 12,949 workers in Nevada, 1.5 percent of the national total and losing 35 jobs over the past year (-0.3 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 9,777 jobs (down 1.9 percent), followed by traditional fossil fuel generation at 1,850 jobs (up 3.7 percent).

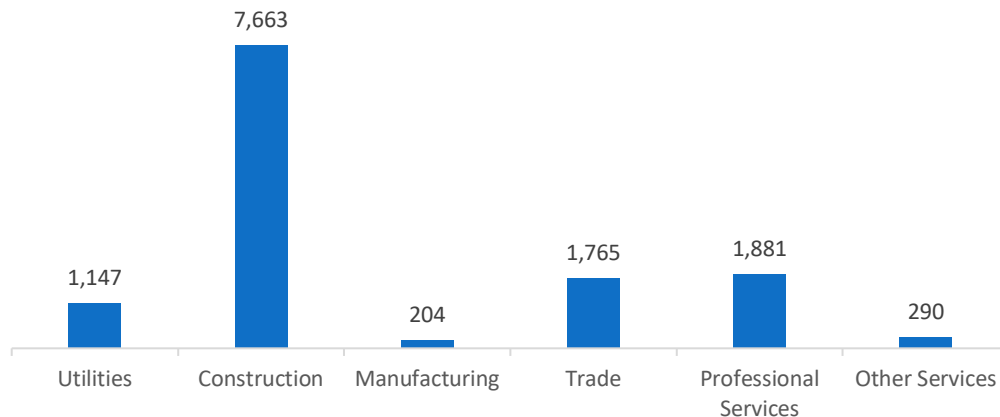
Figure NV-2.

Electric Power Generation Employment by Detailed Technology Application



Construction is the largest industry sector in Electric Power Generation, with 59.2 percent of jobs. Professional and business services are next with 14.5 percent.

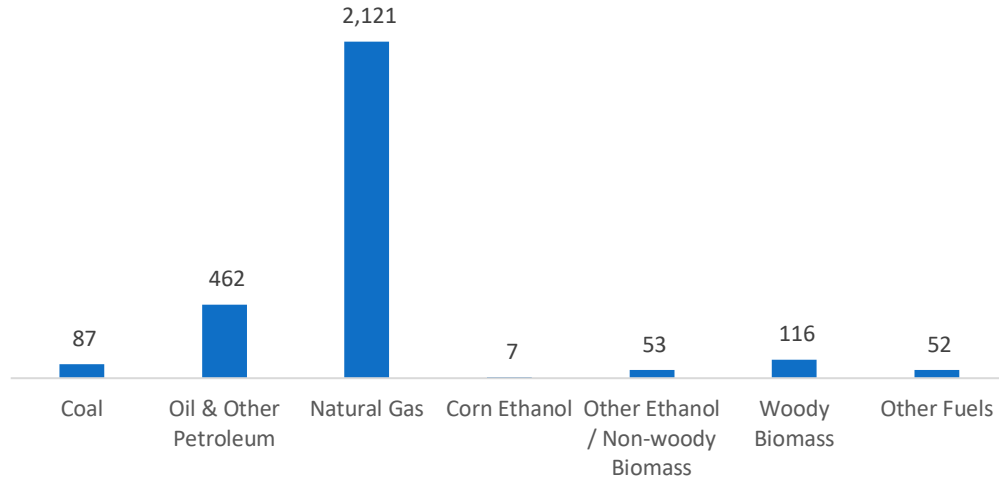
Figure NV-3.



Fuels

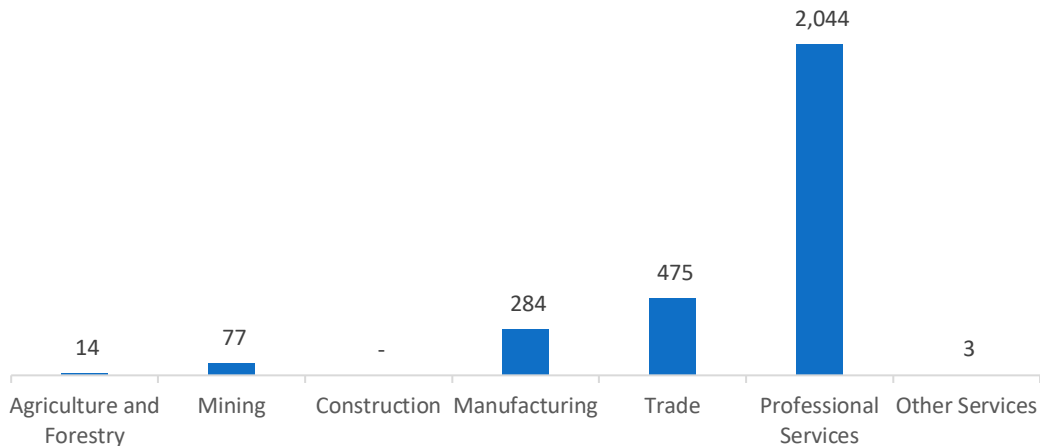
Fuels employs 2,898 workers in Nevada, 0.3 percent of the national total, down 7.7 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure NV-4.
Fuels Employment by Detailed Technology Application



Professional and business services jobs represent 70.5 percent of Fuels jobs in Nevada.

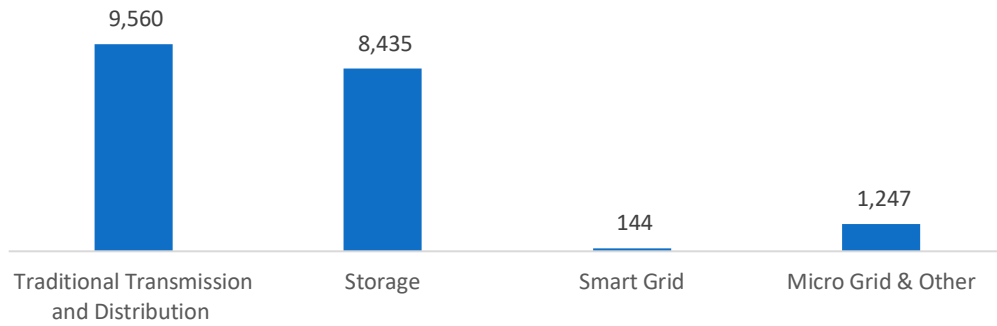
Figure NV-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

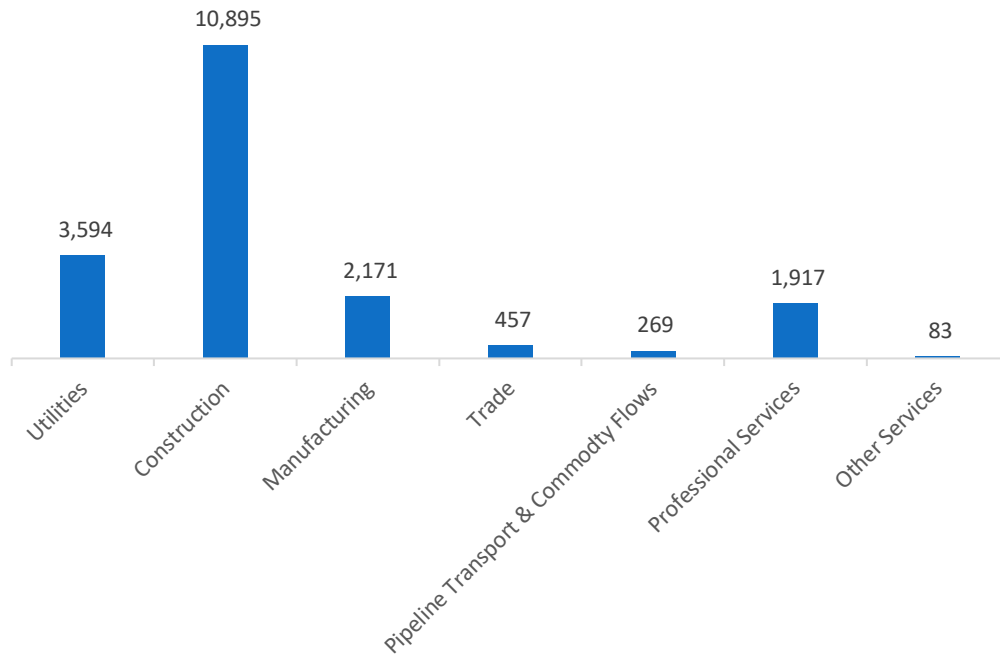
Transmission, Distribution, and Storage employs 19,387 workers in Nevada, 1.4 percent of the national total, up 57.9 percent or 7,110 jobs since the 2018 report.

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



Construction is responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Nevada, with 56.2 percent of such jobs statewide.

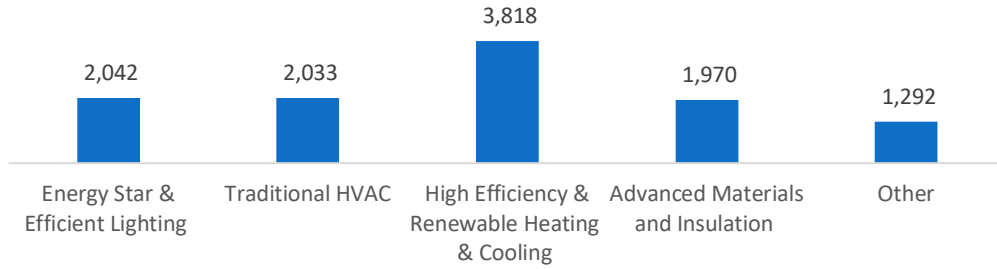
Figure NV-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

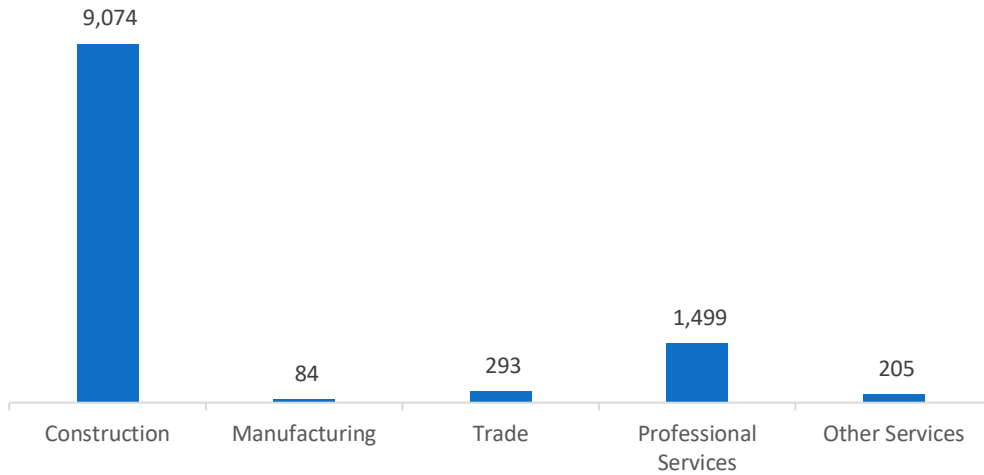
The 11,155 Energy Efficiency jobs in Nevada represent 0.5 percent of all U.S. Energy Efficiency jobs, adding 839 jobs (8.1 percent) since last year. The largest number of these employees work in high efficiency HVAC and renewable heating and cooling firms, followed by ENERGY STAR and efficient lighting.

Figure NV-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

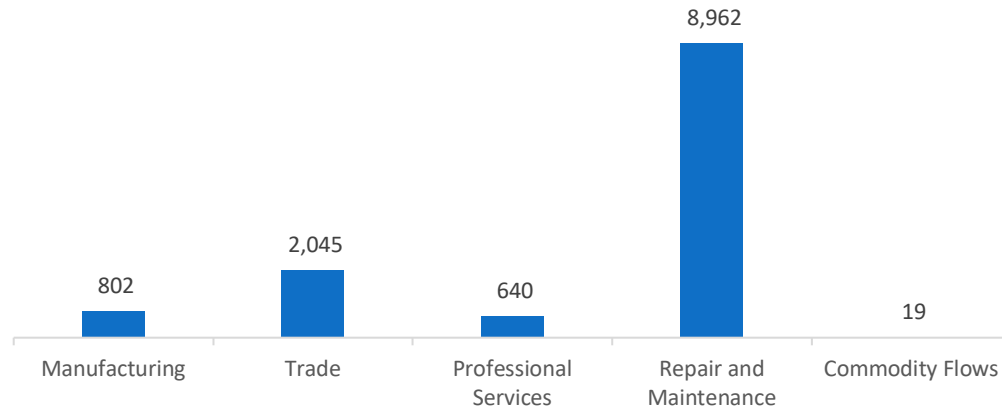
Figure NV-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 12,468 jobs in Nevada, up 834 jobs over the past year (7.2 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure NV-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in Nevada are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (5.4 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 964 jobs in Energy Efficiency (8.6 percent) and Motor Vehicles employers expect to add 247 jobs (2.0 percent) over the next year.

Table NV-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	12.3	7.1
Electric Power Transmission, Distribution and Storage	1.6	3.2
Energy Efficiency	8.6	7.8
Fuels	--	3.0
Motor Vehicles	2.0	2.2

Hiring Difficulty

Over the last year, 39.5 percent of energy-related employers in Nevada hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Energy Efficiency.

Table NV-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	14.3	20.7	71.4	54.8
Electric Power Transmission, Distribution and Storage	--	21.9	75.0	46.1
Energy Efficiency	50.0	21.3	50.0	48.1
Fuels	--	37.9	--	43.0
Motor Vehicles	--	30.0	--	46.4

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

1. Lack of experience, training, or technical skills
2. Insufficient non-technical skills (work ethic, dependability, critical thinking)
3. Competition/ small applicant pool

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

1. Technician or mechanical support – \$23.51 median hourly wage
2. Engineers/scientists – \$36.42 median hourly wage
3. Electrician/construction laborers – \$25.20 median hourly wage

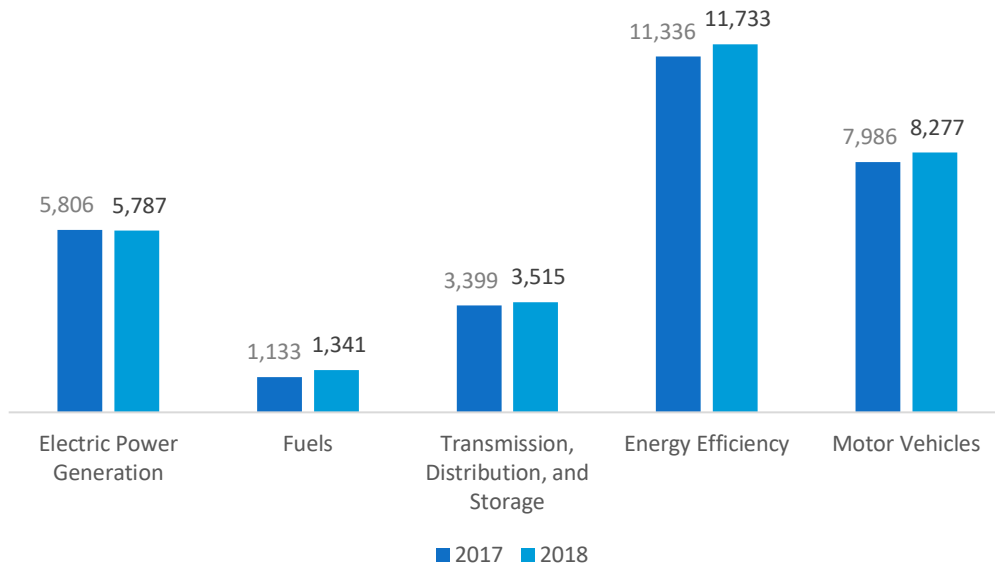
New Hampshire

ENERGY AND EMPLOYMENT – 2019

Overview

New Hampshire has a low concentration of energy employment, with 10,643 Traditional Energy workers statewide (representing 0.3 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 5,787 are in Electric Power Generation, 1,341 are in Fuels, and 3,515 are in Transmission, Distribution, and Storage. The Traditional Energy sector in New Hampshire is 1.6 percent of total state employment (compared to 2.3 percent of national employment). New Hampshire has an additional 11,733 jobs in Energy Efficiency (0.5 percent of all U.S. Energy Efficiency jobs) and 8,277 jobs in Motor Vehicles (0.3 percent of all U.S. Motor Vehicle jobs).

Figure NH-1.
Employment by Major Energy Technology Application



Overall, Traditional Energy jobs grew by 3.0 percent since the 2018 report, increasing by 306 jobs over the period. Energy Efficiency jobs added 397 jobs (3.5 percent) and motor vehicles added 291 jobs (3.6 percent).

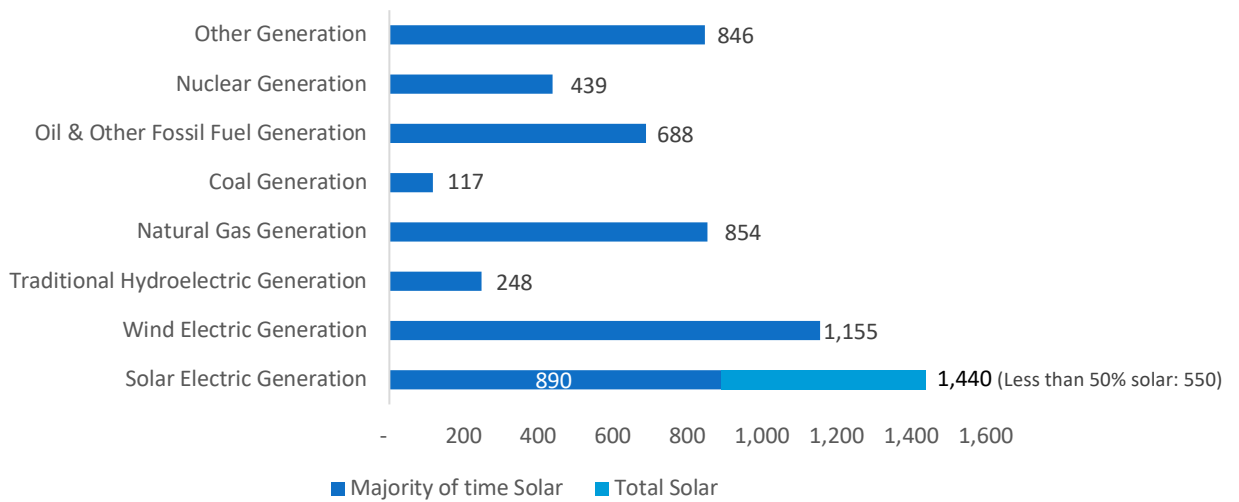
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 5,787 workers in New Hampshire, 0.7 percent of the national total and losing 18 jobs over the past year (-0.3 percent). Traditional fossil fuel generation makes up the largest segment of employment related to Electric Power Generation, with 1,659 jobs (down -0.0 percent), followed by solar at 1,440 jobs (down 2.6 percent).

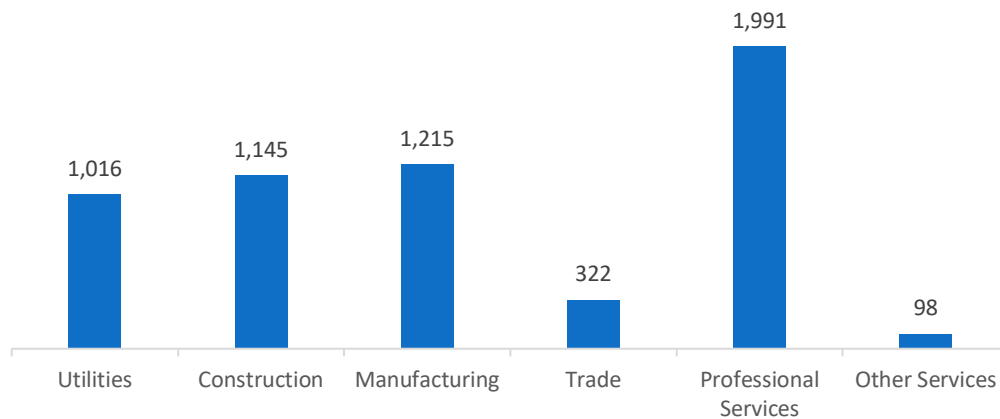
Figure NH-2.

Electric Power Generation Employment by Detailed Technology Application



Professional and business services are the largest industry sector in Electric Power Generation, with 34.4 percent of jobs. Manufacturing is next with 21.0 percent.

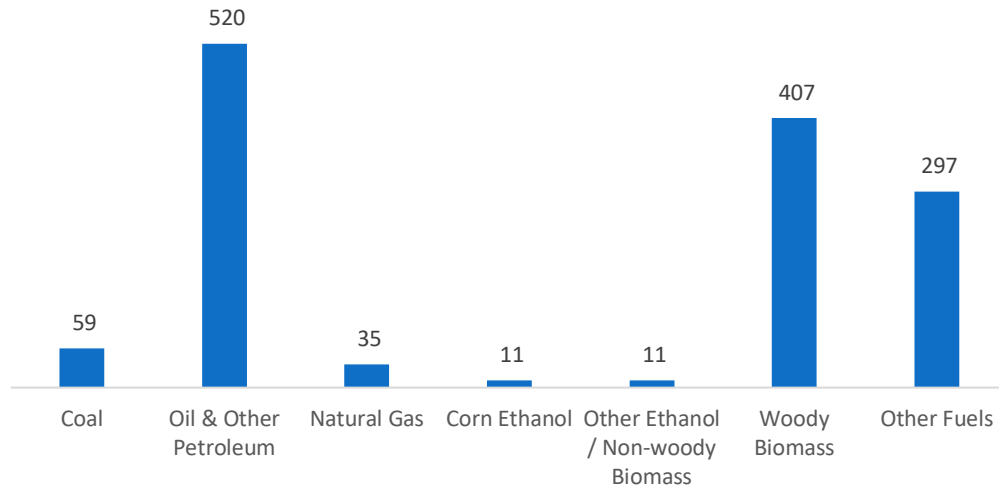
Figure NH-3.



Fuels

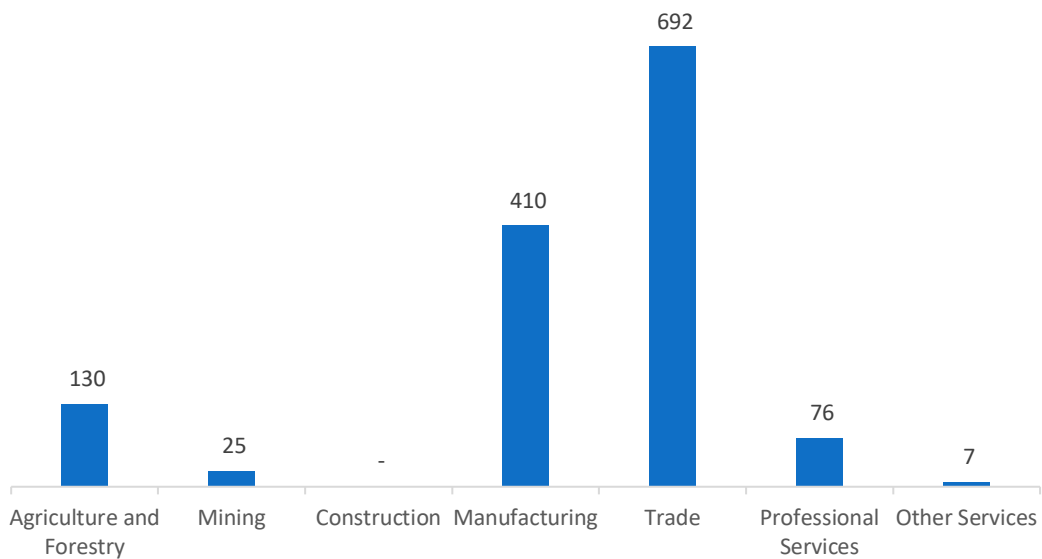
Fuels employs 1,341 workers in New Hampshire, 0.1 percent of the national total, up 18.4 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure NH-4.
Fuels Employment by Detailed Technology Application



Wholesale trade jobs represent 51.6 percent of Fuels jobs in New Hampshire.

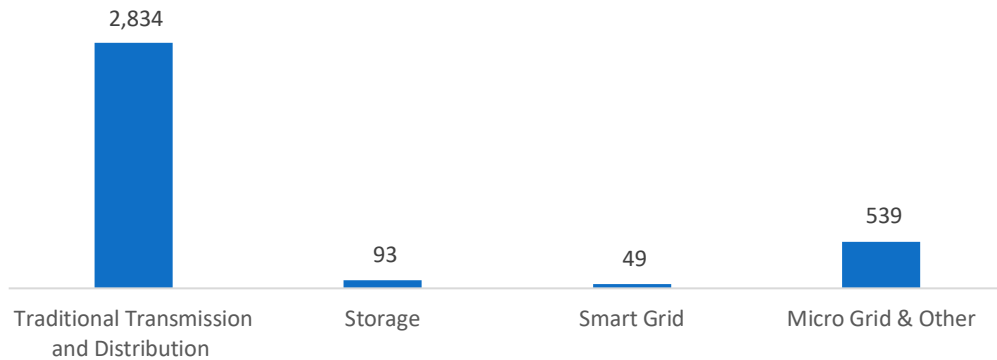
Figure NH-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

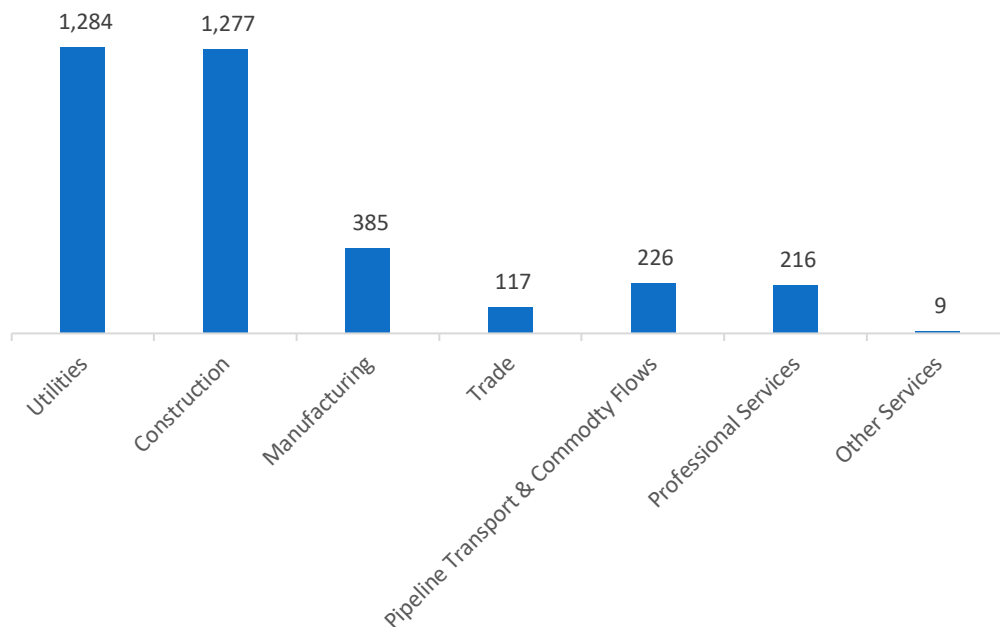
Transmission, Distribution, and Storage employs 3,515 workers in New Hampshire, 0.3 percent of the national total, up 3.4 percent or 116 jobs since the 2018 report.

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



Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in New Hampshire, with 36.5 percent of such jobs statewide.

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

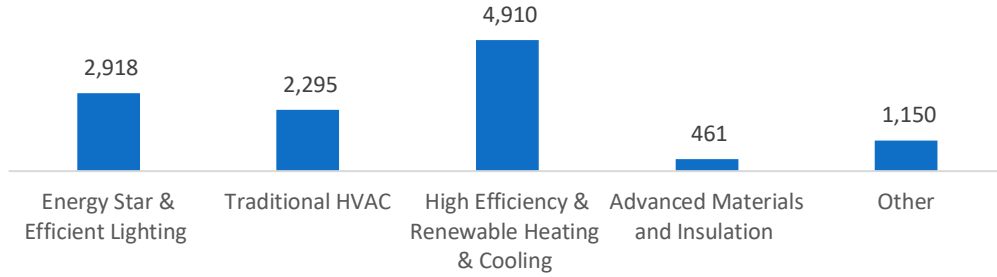


Energy Efficiency

The 11,733 Energy Efficiency jobs in New Hampshire represent 0.5 percent of all U.S. Energy Efficiency jobs, adding 397 jobs (3.5 percent) since last year. The largest number of these employees work in high efficiency HVAC and renewable heating and cooling firms, followed by ENERGY STAR and efficient lighting.

Figure NH-8.

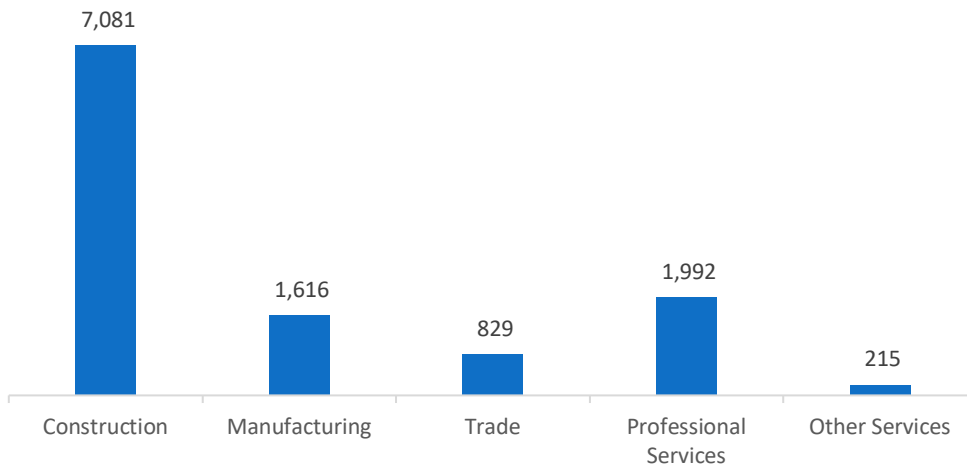
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

Figure NH-9.

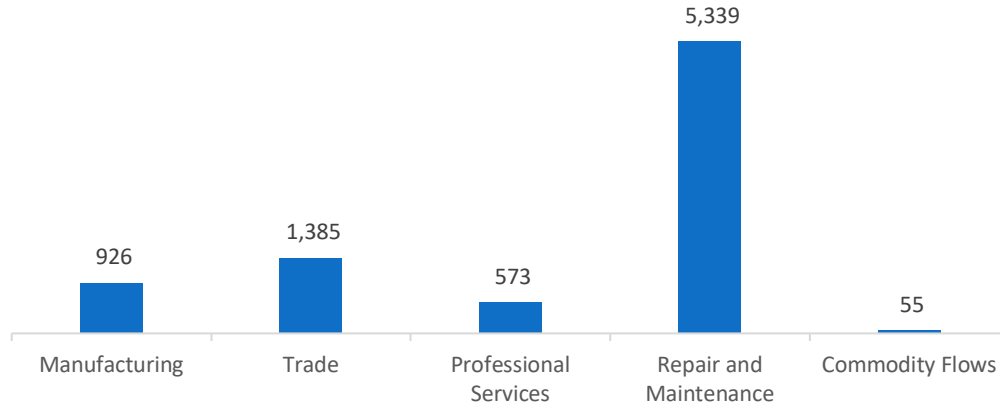
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 8,277 jobs in New Hampshire, up 291 jobs over the past year (3.6 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure NH-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in New Hampshire are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (5.3 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 254 jobs in Energy Efficiency (2.2 percent) and Motor Vehicles employers expect to add 578 jobs (7.0 percent) over the next year.

Table NH-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	8.8	7.1
Electric Power Transmission, Distribution and Storage	--	3.2
Energy Efficiency	2.2	7.8
Fuels	4.1	3.0
Motor Vehicles	7.0	2.2

Hiring Difficulty

Over the last year, 40.3 percent of energy-related employers in New Hampshire hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Energy Efficiency.

Table NH-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	20.0	20.7	80.0	54.8
Electric Power Transmission, Distribution and Storage	33.3	21.9	33.3	46.1
Energy Efficiency	87.5	21.3	12.5	48.1
Fuels	66.7	37.9	33.3	43.0
Motor Vehicles	40.0	30.0	40.0	46.4

Employers in New Hampshire 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. Insufficient qualifications (certifications or education)

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

1. Technician or mechanical support – \$25.24 median hourly wage
2. Electrician/construction laborers – \$27.32 median hourly wage
3. Management (directors, supervisors, vice presidents) – \$45.22 median hourly wage

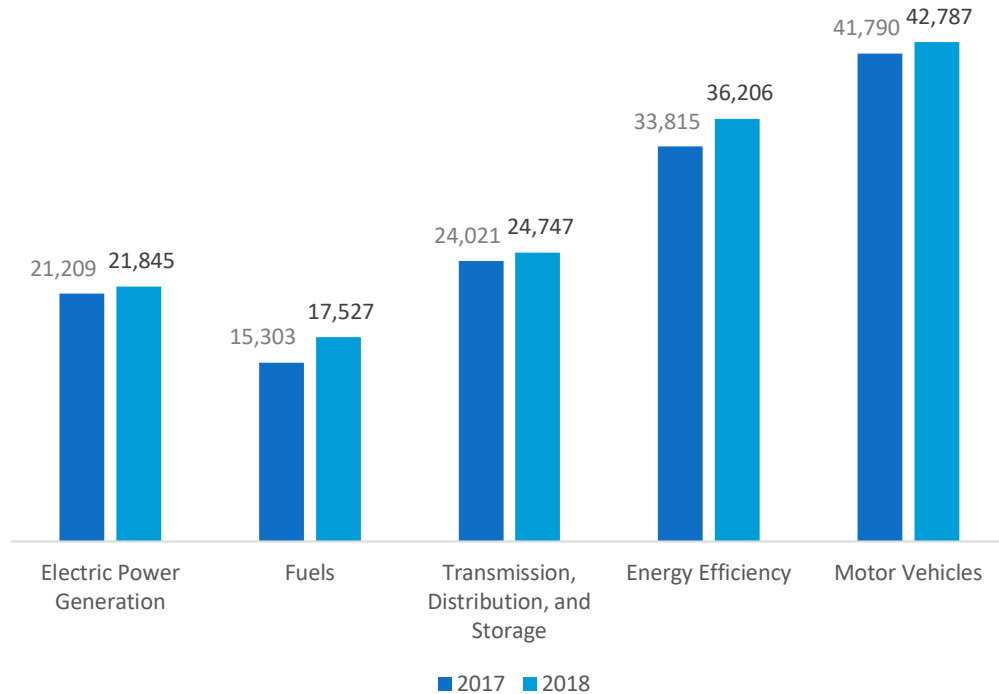
New Jersey

ENERGY AND EMPLOYMENT – 2019

Overview

New Jersey has a low concentration of energy employment, with 64,118 Traditional Energy workers statewide (representing 1.9 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 21,845 are in Electric Power Generation, 17,527 are in Fuels, and 24,747 are in Transmission, Distribution, and Storage. The Traditional Energy sector in New Jersey is 1.5 percent of total state employment (compared to 2.3 percent of national employment). New Jersey has an additional 36,206 jobs in Energy Efficiency (1.6 percent of all U.S. Energy Efficiency jobs) and 42,787 jobs in Motor Vehicles (1.7 percent of all U.S. Motor Vehicle jobs).

Figure NJ-1.
Employment by Major Energy Technology Application



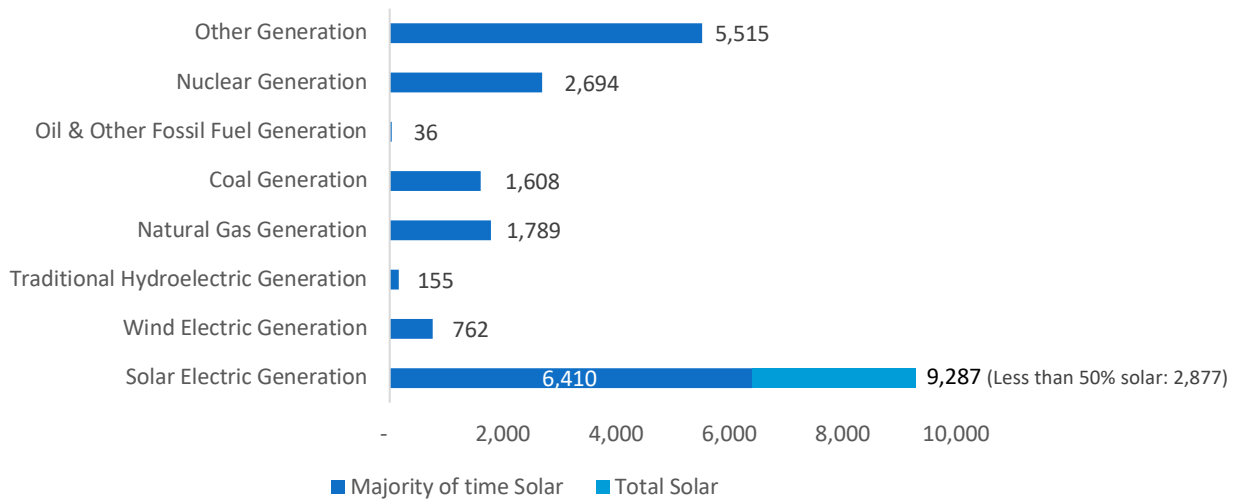
Overall, Traditional Energy jobs grew by 5.9 percent since the 2018 report, increasing by 3,585 jobs over the period. Energy Efficiency jobs added 2,391 jobs (7.1 percent) and motor vehicles added 997 jobs (2.4 percent).

Breakdown by Technology Applications

Electric Power Generation

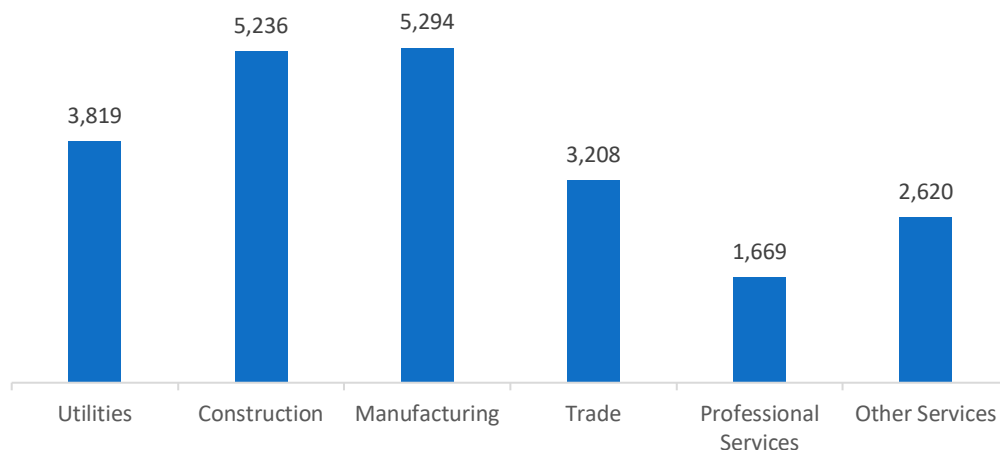
Electric Power Generation employs 21,845 workers in New Jersey, 2.5 percent of the national total and adding 637 jobs over the past year (3.0 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 9,287 jobs (up 5.3 percent), followed by traditional fossil fuel generation at 3,433 jobs (down 0.3 percent).

Figure NJ-2.
Electric Power Generation Employment by Detailed Technology Application



Manufacturing is the largest industry sector in Electric Power Generation, with 24.2 percent of jobs. Construction is next with 24.0 percent.

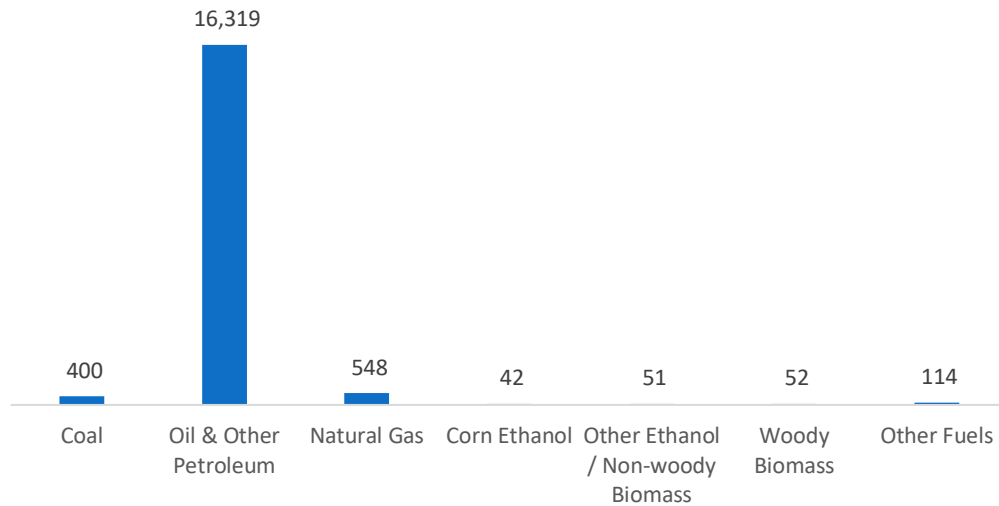
Figure NJ-3.



Fuels

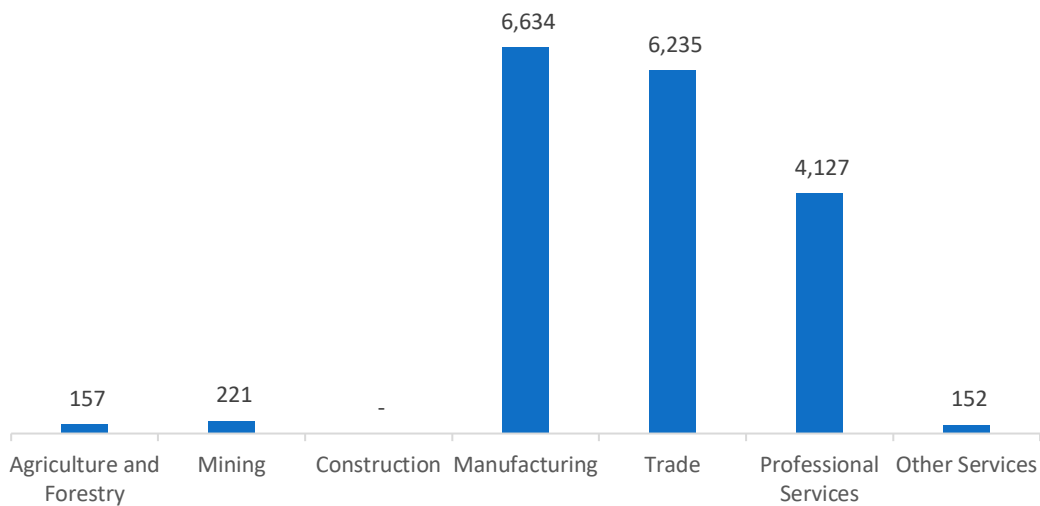
Fuels employs 17,527 workers in New Jersey, 1.6 percent of the national total, up 14.5 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure NJ-4.
Fuels Employment by Detailed Technology Application



Manufacturing jobs represent 37.9 percent of Fuels jobs in New Jersey.

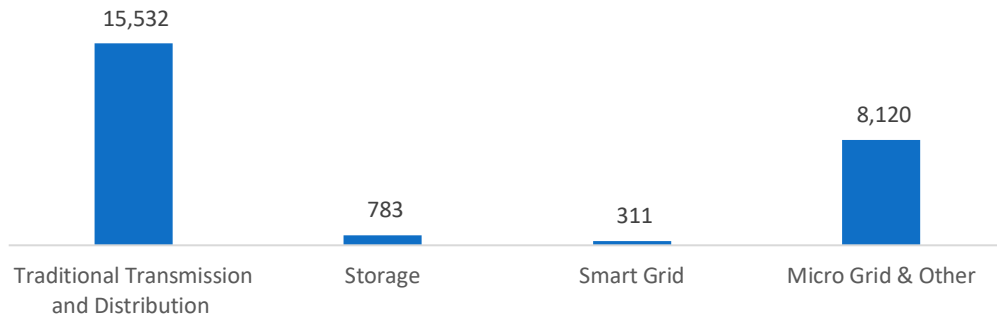
Figure NJ-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

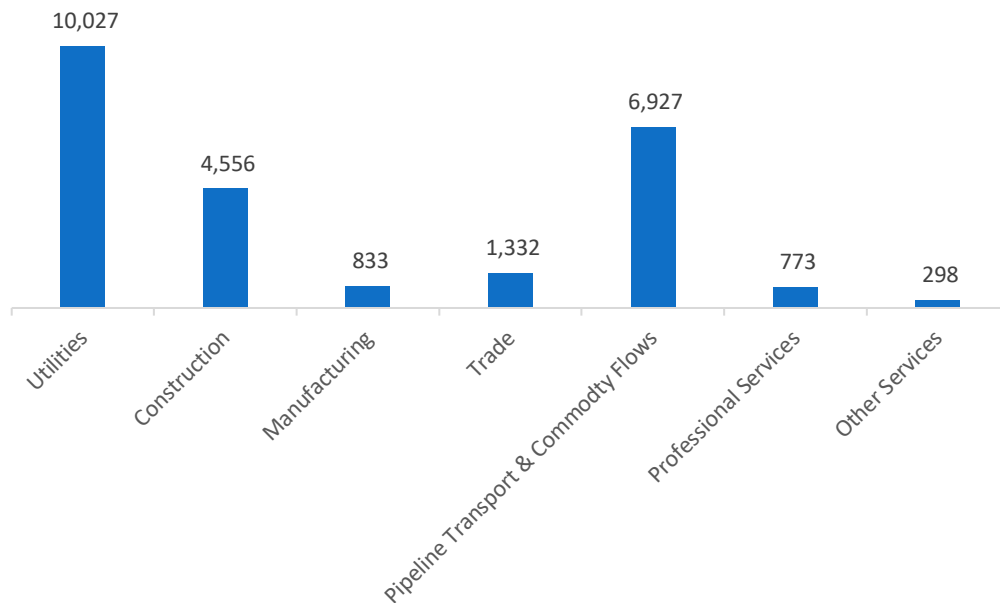
Transmission, Distribution, and Storage employs 24,747 workers in New Jersey, 1.8 percent of the national total, up 3.0 percent or 726 jobs since the 2018 report.

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



Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in New Jersey, with 40.5 percent of such jobs statewide.

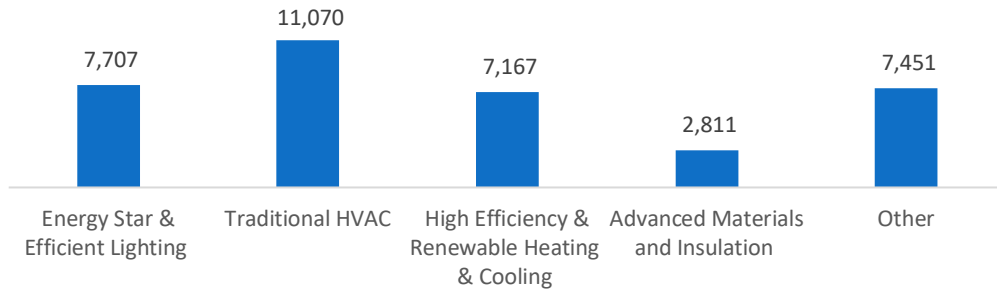
Figure NJ-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

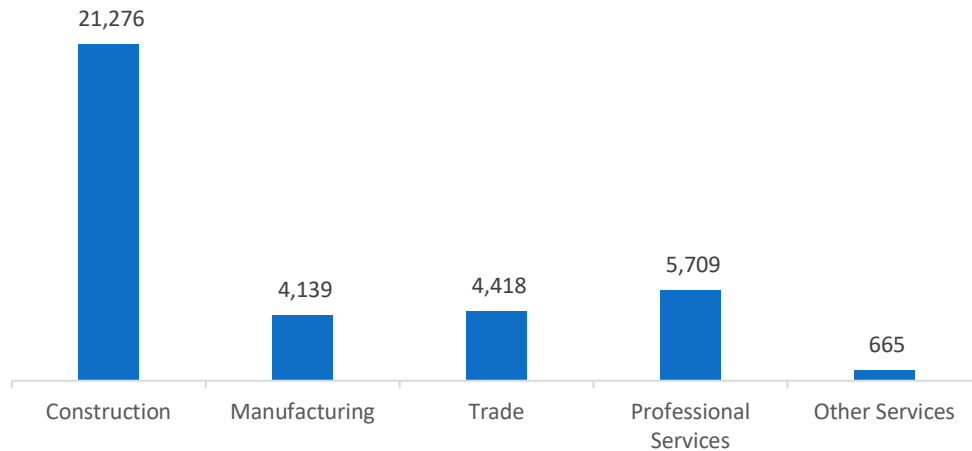
The 36,206 Energy Efficiency jobs in New Jersey represent 1.6 percent of all U.S. Energy Efficiency jobs, adding 2,391 jobs (7.1 percent) since last year. The largest number of these employees work in traditional HVAC firms, followed by ENERGY STAR and efficient lighting.

Figure NJ-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

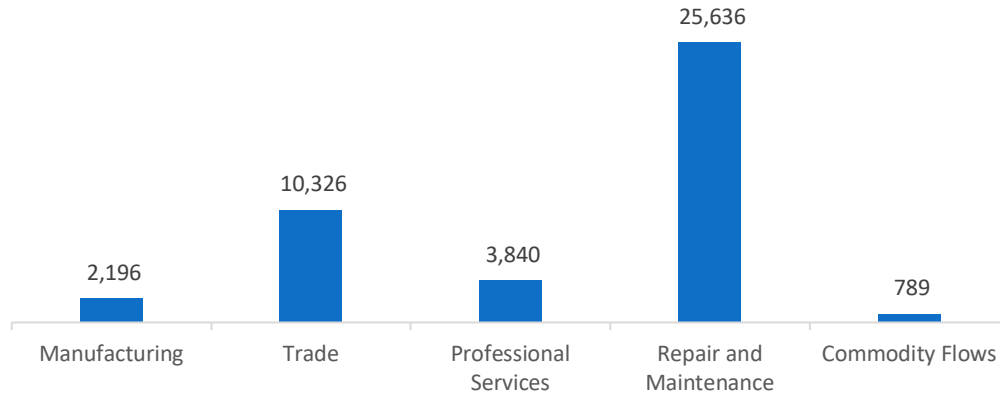
Figure NJ-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 42,787 jobs in New Jersey, up 997 jobs over the past year (2.4 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure NJ-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in New Jersey are less optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (3.6 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 429 jobs in Energy Efficiency (1.2 percent) and Motor Vehicles employers expect to add 847 jobs (2.0 percent) over the next year.

Table NJ-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	8.1	7.1
Electric Power Transmission, Distribution and Storage	--	3.2
Energy Efficiency	1.2	7.8
Fuels	3.1	3.0
Motor Vehicles	2.0	2.2

Hiring Difficulty

Over the last year, 42.3 percent of energy-related employers in New Jersey hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Energy Efficiency.

Table NJ-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	21.2	20.7	51.5	54.8
Electric Power Transmission, Distribution and Storage	--	21.9	--	46.1
Energy Efficiency	41.7	21.3	50.0	48.1
Fuels	--	37.9	66.7	43.0
Motor Vehicles	--	30.0	--	46.4

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

1. Lack of experience, training, or technical skills
2. Insufficient qualifications (certifications or education)
3. Insufficient non-technical skills (work ethic, dependability, critical thinking)

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

1. Technician or mechanical support – \$25.77 median hourly wage
2. Management (directors, supervisors, vice presidents) – \$47.35 median hourly wage
3. Electrician/construction laborers – \$25.36 median hourly wage

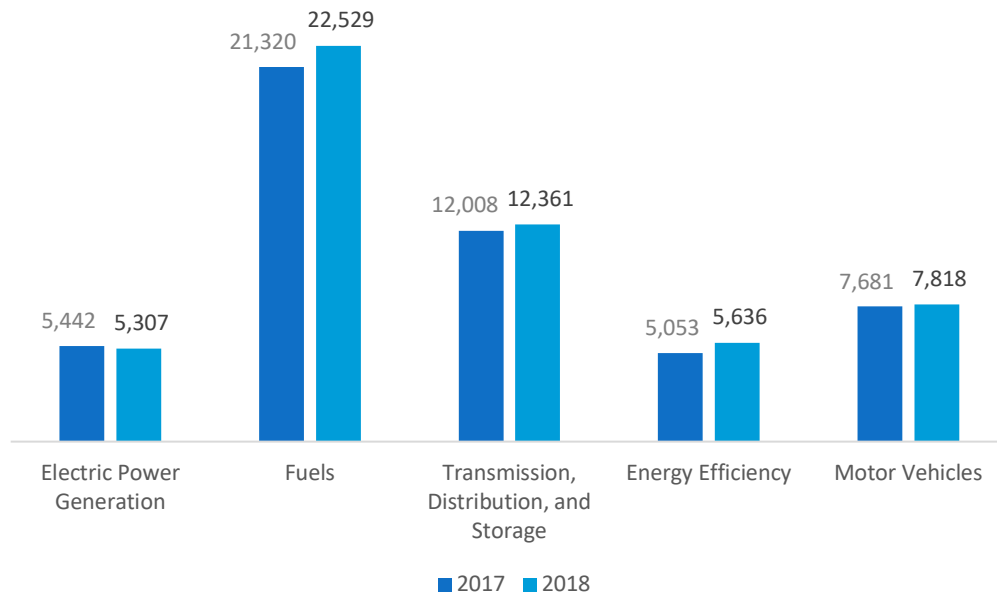
New Mexico

ENERGY AND EMPLOYMENT — 2019

Overview

New Mexico has a high concentration of energy employment, with 40,197 Traditional Energy workers statewide (representing 1.2 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 5,307 are in Electric Power Generation, 22,529 are in Fuels, and 12,361 are in Transmission, Distribution, and Storage. The Traditional Energy sector in New Mexico is 4.9 percent of total state employment (compared to 2.3 percent of national employment). New Mexico has an additional 5,636 jobs in Energy Efficiency (0.2 percent of all U.S. Energy Efficiency jobs) and 7,818 jobs in Motor Vehicles (0.3 percent of all U.S. Motor Vehicle jobs).

Figure NM-1.
Employment by Major Energy Technology Application



Overall, Traditional Energy jobs grew by 3.7 percent since the 2018 report, increasing by 1,427 jobs over the period. Energy Efficiency jobs added 584 jobs (11.6 percent) and motor vehicles added 137 jobs (1.8 percent).

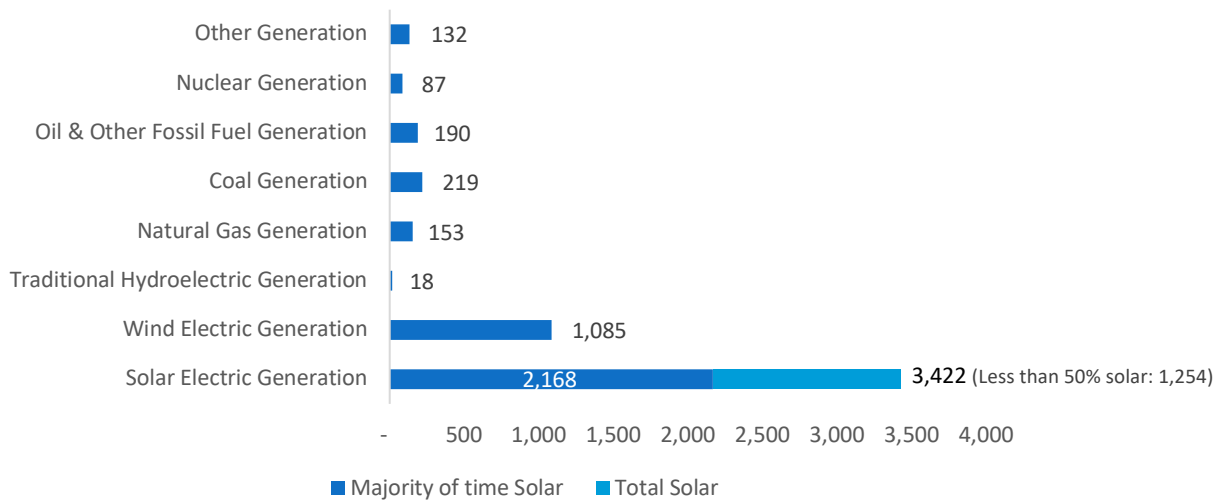
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 5,307 workers in New Mexico, 0.6 percent of the national total and losing 136 jobs over the past year (-2.5 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 3,422 jobs (down 5.4 percent), followed by wind at 1,085 jobs (up 0.9 percent).

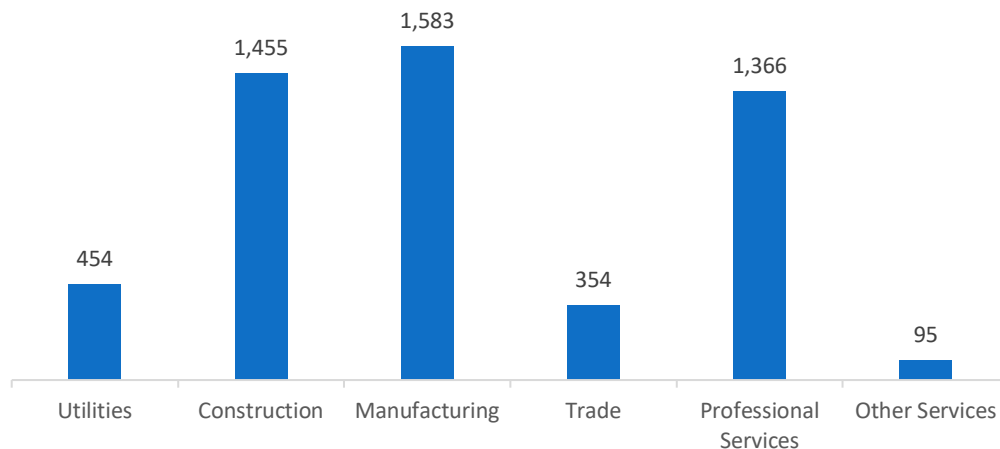
Figure NM-2.

Electric Power Generation Employment by Detailed Technology Application



Manufacturing is the largest industry sector in Electric Power Generation, with 29.8 percent of jobs. Construction is next with 27.4 percent.

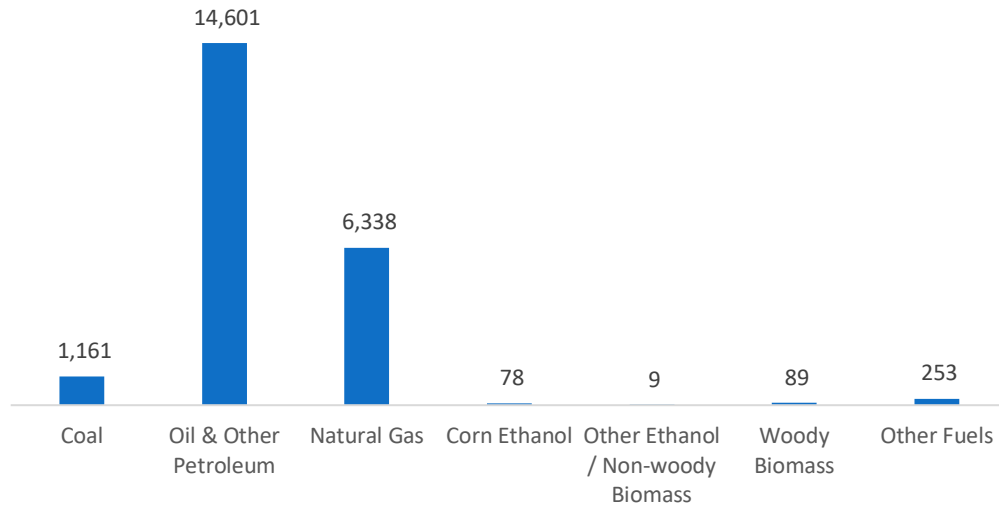
Figure NM-3.



Fuels

Fuels employs 22,529 workers in New Mexico, 2.0 percent of the national total, up 5.7 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure NM-4.
Fuels Employment by Detailed Technology Application



Mining and extraction jobs represent 90.8 percent of Fuels jobs in New Mexico.

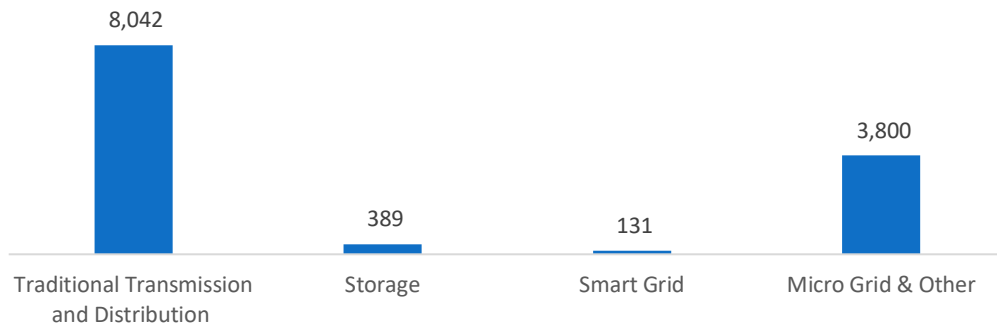
Figure NM-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

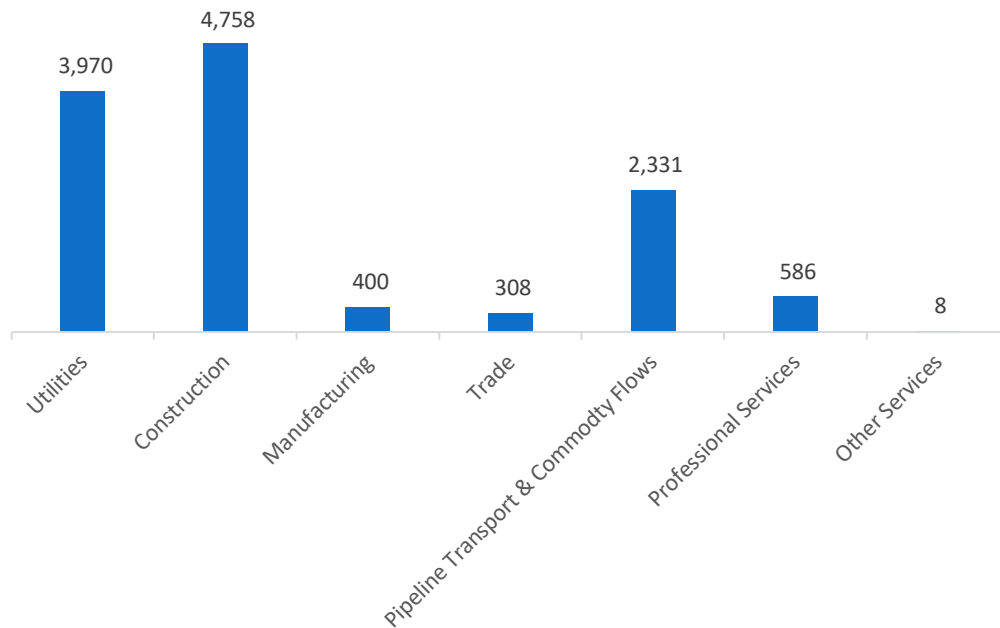
Transmission, Distribution, and Storage employs 12,361 workers in New Mexico, 0.9 percent of the national total, up 2.9 percent or 353 jobs since the 2018 report.

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



Construction is responsible for the largest percentage of Transmission, Distribution, and Storage jobs in New Mexico, with 38.5 percent of such jobs statewide.

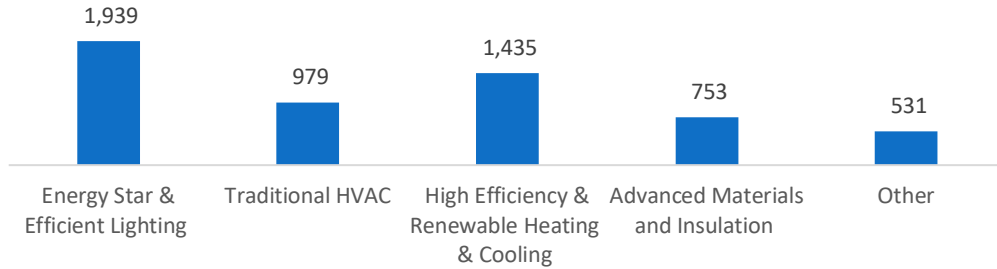
Figure NM-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

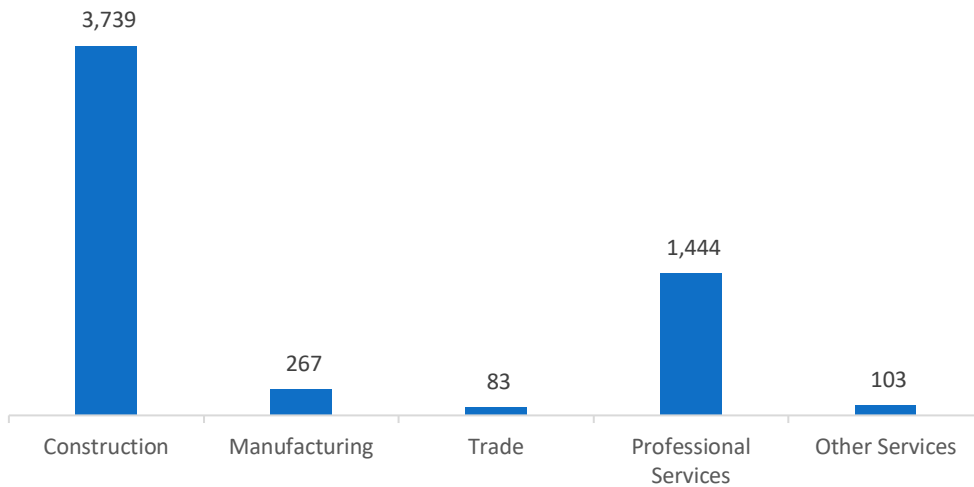
The 5,636 Energy Efficiency jobs in New Mexico represent 0.2 percent of all U.S. Energy Efficiency jobs, adding 584 jobs (11.6 percent) since last year. The largest number of these employees work in ENERGY STAR and efficient lighting firms, followed by high efficiency HVAC and renewable heating and cooling.

Figure NM-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

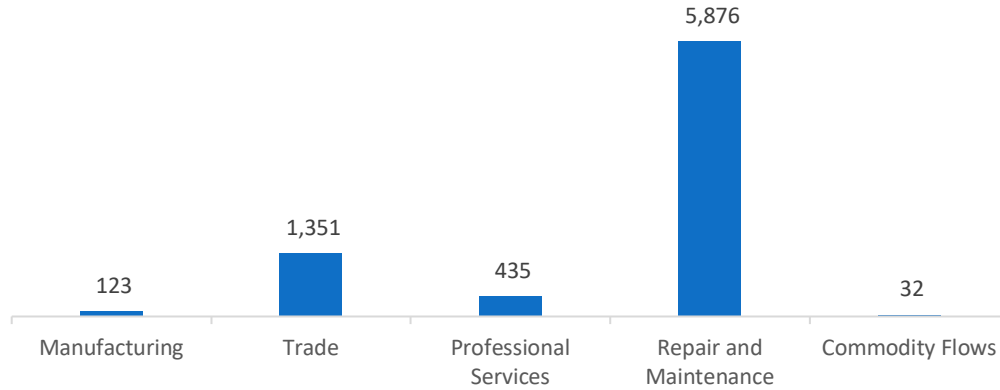
Figure NM-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 7,818 jobs in New Mexico, up 137 jobs over the past year (1.8 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure NM-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in New Mexico are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (6.1 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 481 jobs in Energy Efficiency (8.5 percent) and Motor Vehicles employers expect to add 155 jobs (2.0 percent) over the next year.

Table NM-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	9.1	7.1
Electric Power Transmission, Distribution and Storage	3.3	3.2
Energy Efficiency	8.5	7.8
Fuels	6.9	3.0
Motor Vehicles	2.0	2.2

Hiring Difficulty

Over the last year, 50.8 percent of energy-related employers in New Mexico hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Motor Vehicles.

Table NM-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	25.0	20.7	62.5	54.8
Electric Power Transmission, Distribution and Storage	--	21.9	60.0	46.1
Energy Efficiency	--	21.3	66.7	48.1
Fuels	37.5	37.9	12.5	43.0
Motor Vehicles	66.7	30.0	33.3	46.4

Employers in New Mexico 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. Insufficient non-technical skills (work ethic, dependability, critical thinking)

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

1. Technician or mechanical support – \$22.07 median hourly wage
2. Sales, marketing, or customer service – \$30.45 median hourly wage
3. Management (directors, supervisors, vice presidents) – \$39.17 median hourly wage

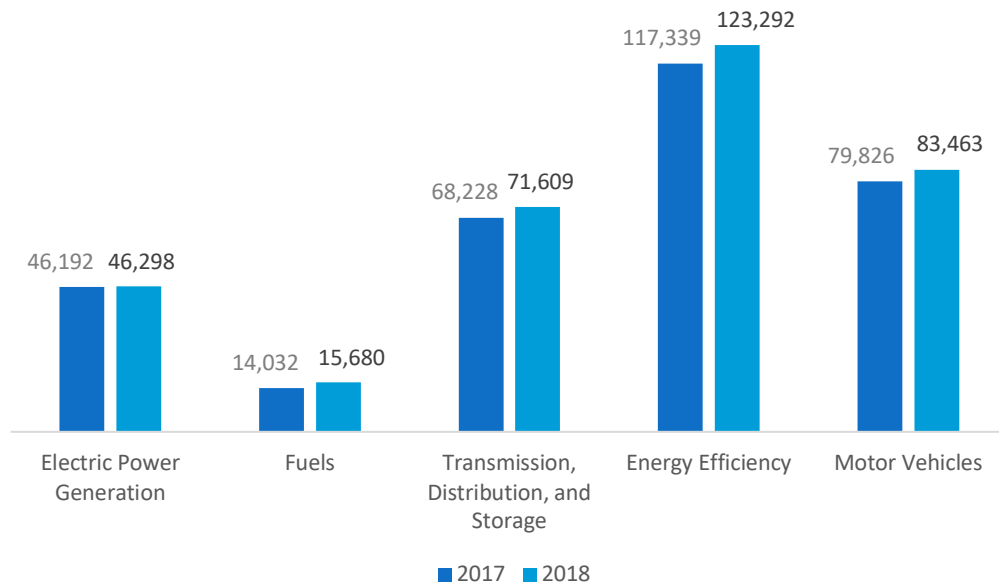
New York

ENERGY AND EMPLOYMENT — 2019

Overview

New York has a low concentration of energy employment, with 133,588 Traditional Energy workers statewide (representing 4.0 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 46,298 are in Electric Power Generation, 15,680 are in Fuels, and 71,609 are in Transmission, Distribution, and Storage. The Traditional Energy sector in New York is 1.4 percent of total state employment (compared to 2.3 percent of national employment). New York has an additional 123,292 jobs in Energy Efficiency (5.3 percent of all U.S. Energy Efficiency jobs) and 83,463 jobs in Motor Vehicles (3.3 percent of all U.S. Motor Vehicle jobs).

Figure NY-1.
Employment by Major Energy Technology Application



Overall, Traditional Energy jobs grew by 4.0 percent since the 2018 report, increasing by 5,136 jobs over the period. Energy Efficiency jobs added 5,953 jobs (5.1 percent) and motor vehicles added 3,637 jobs (4.6 percent).

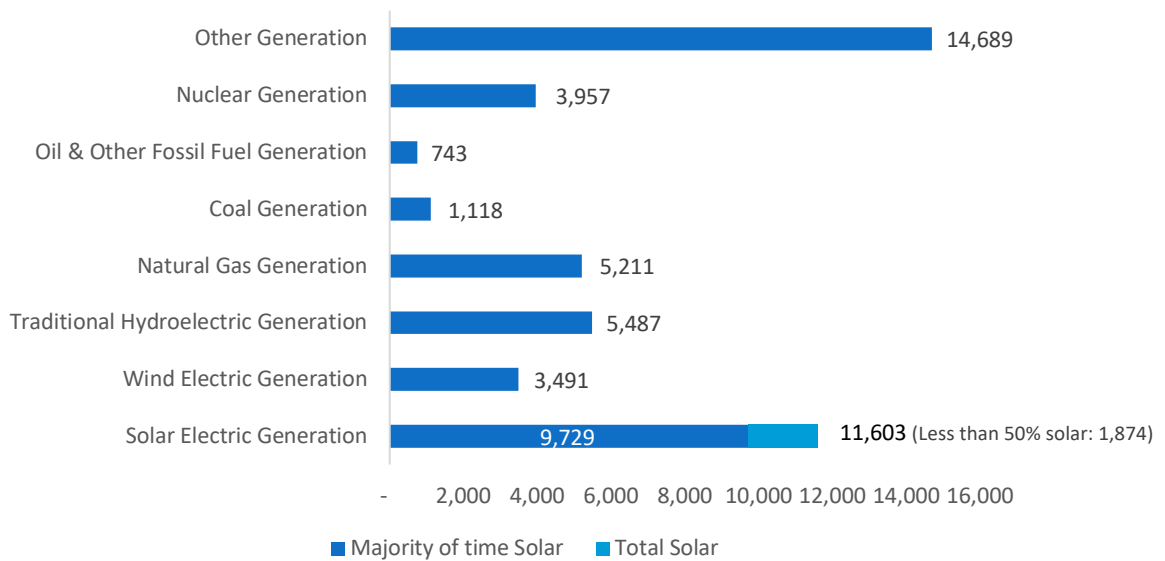
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 46,298 workers in New York, 5.3 percent of the national total and adding 106 jobs over the past year (0.2 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 11,603 jobs (down 2.2 percent), followed by traditional fossil fuel generation at 7,071 jobs (up 4.4 percent).

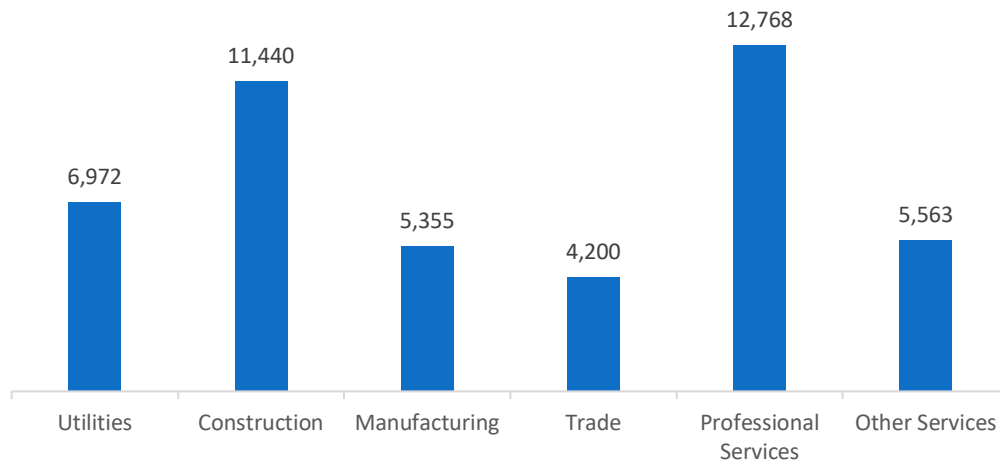
Figure NY-2.

Electric Power Generation Employment by Detailed Technology Application



Professional and business services are the largest industry sector in Electric Power Generation, with 27.6 percent of jobs. Construction is next with 24.7 percent.

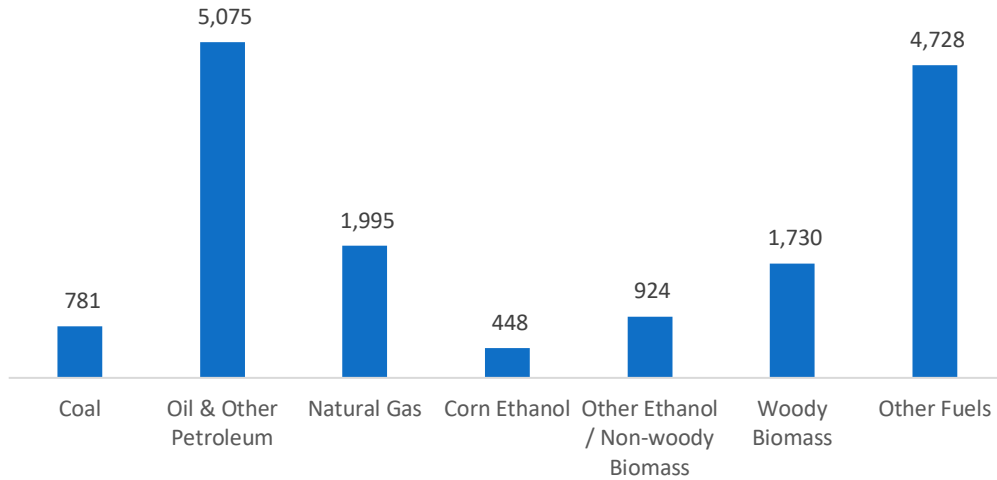
Figure NY-3.



Fuels

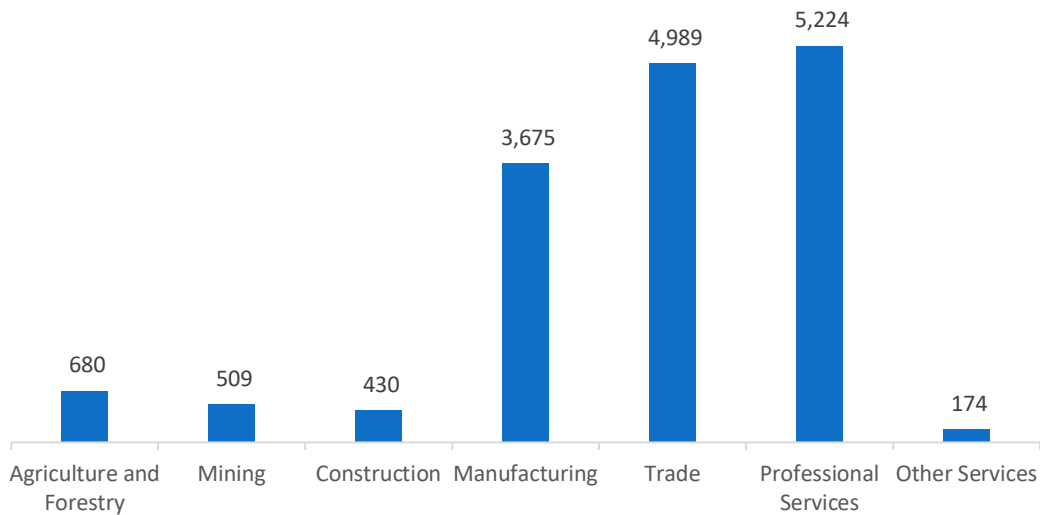
Fuels employs 15,680 workers in New York, 1.4 percent of the national total, up 11.7 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure NY-4.
Fuels Employment by Detailed Technology Application



Professional and business services jobs represent 33.3 percent of Fuels jobs in New York.

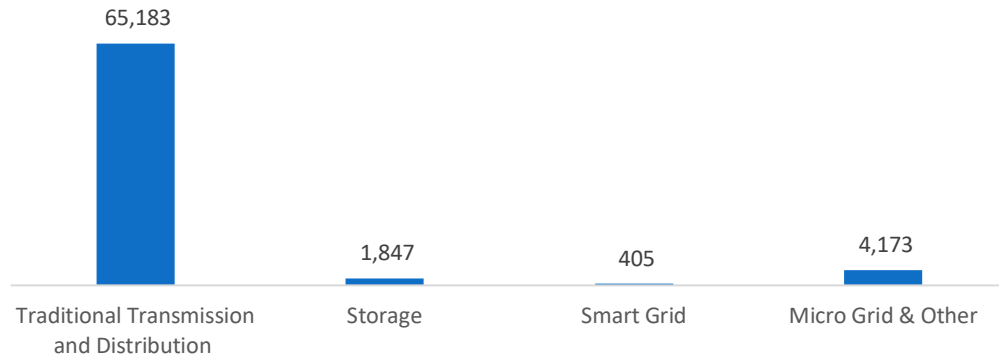
Figure NY-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

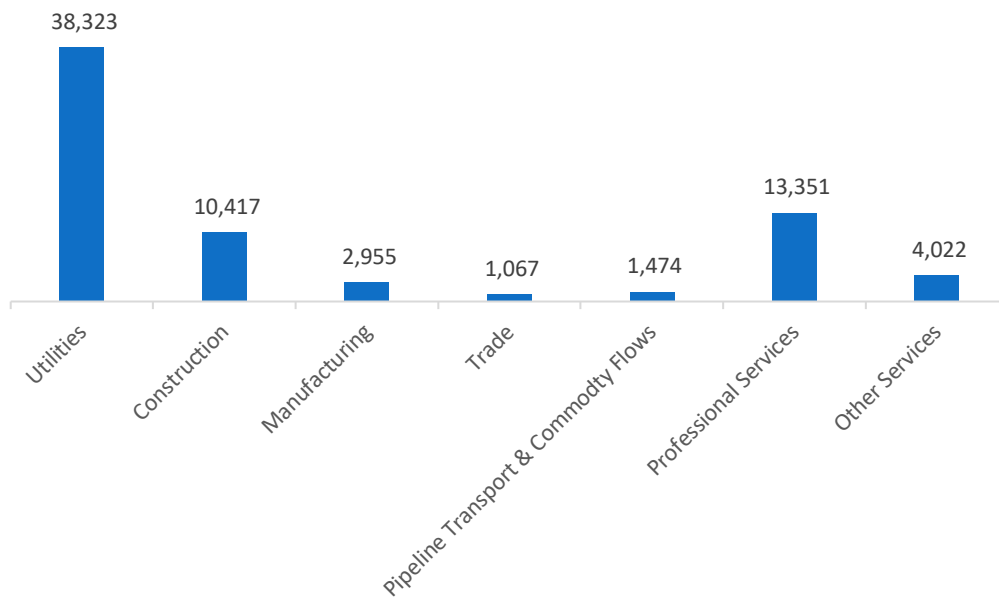
Transmission, Distribution, and Storage employs 71,609 workers in New York, 5.2 percent of the national total, up 5.0 percent or 3,382 jobs since the 2018 report.

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



Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in New York, with 53.5 percent of such jobs statewide.

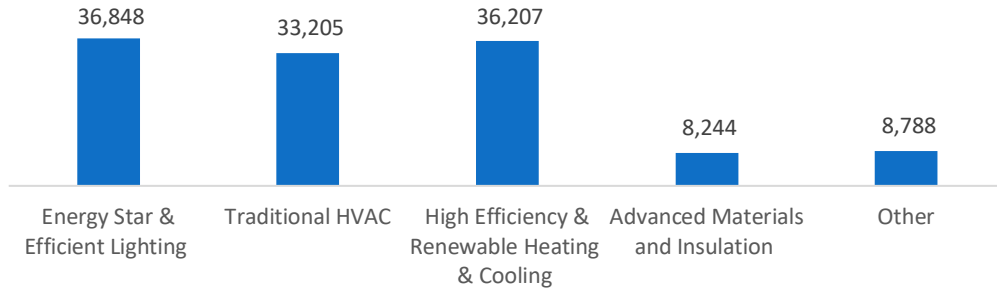
Figure NY-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

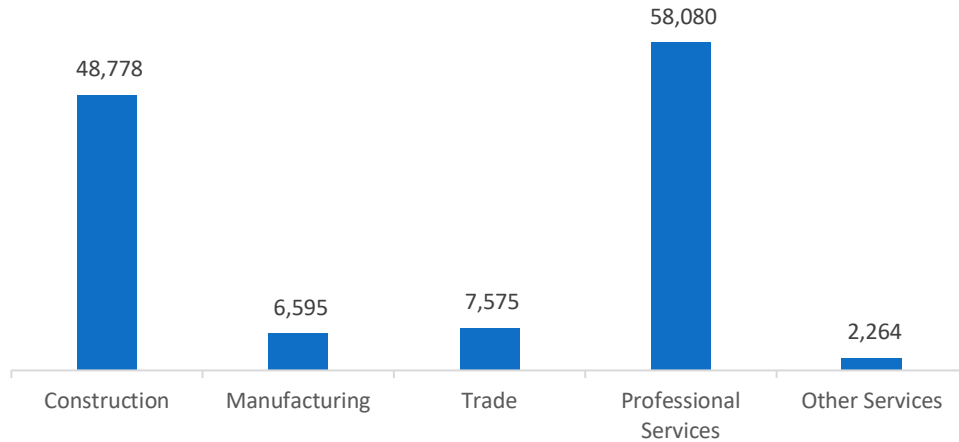
The 123,292 Energy Efficiency jobs in New York represent 5.3 percent of all U.S. Energy Efficiency jobs, adding 5,953 jobs (5.1 percent) since last year. The largest number of these employees work in ENERGY STAR and efficient lighting firms, followed by high efficiency HVAC and renewable heating and cooling.

Figure NY-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the professional and business services industry.

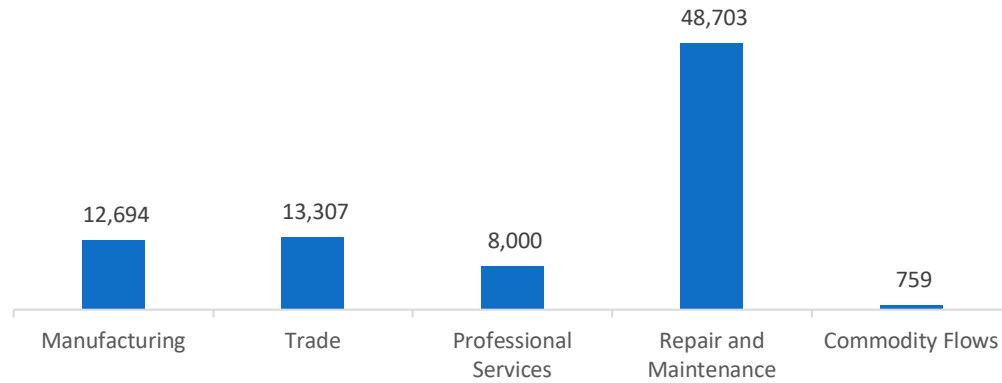
Figure NY-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 83,463 jobs in New York, up 3,637 jobs over the past year (4.6 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure NY-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in New York are less optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (3.3 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 9,854 jobs in Energy Efficiency (8.0 percent) and Motor Vehicles employers expect to add 4,435 jobs (5.3 percent) over the next year.

Table NY-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	8.3	7.1
Electric Power Transmission, Distribution and Storage	0.0	3.2
Energy Efficiency	8.0	7.8
Fuels	3.4	3.0
Motor Vehicles	5.3	2.2

Hiring Difficulty

Over the last year, 42.4 percent of energy-related employers in New York hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Fuels.

Table NY-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	29.1	20.7	52.7	54.8
Electric Power Transmission, Distribution and Storage	--	21.9	80.0	46.1
Energy Efficiency	36.8	21.3	36.8	48.1
Fuels	60.0	37.9	40.0	43.0
Motor Vehicles	7.1	30.0	71.4	46.4

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

1. Lack of experience, training, or technical skills
2. Difficulty finding industry-specific knowledge, skills, and interest
3. Insufficient non-technical skills (work ethic, dependability, critical thinking)

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

1. Technician or mechanical support – \$26.17 median hourly wage
2. Sales, marketing, or customer service – \$31.84 median hourly wage
3. Management (directors, supervisors, vice presidents) – \$45.46 median hourly wage

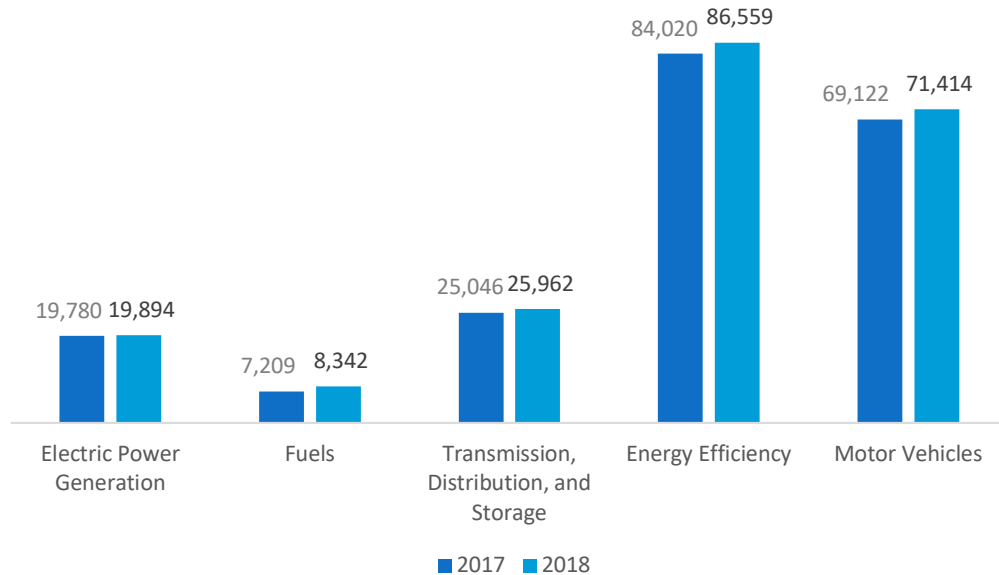
North Carolina

ENERGY AND EMPLOYMENT — 2019

Overview

North Carolina has a low concentration of energy employment, with 54,198 Traditional Energy workers statewide (representing 1.6 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 19,894 are in Electric Power Generation, 8,342 are in Fuels, and 25,962 are in Transmission, Distribution, and Storage. The Traditional Energy sector in North Carolina is 1.2 percent of total state employment (compared to 2.3 percent of national employment). North Carolina has an additional 86,559 jobs in Energy Efficiency (3.7 percent of all U.S. Energy Efficiency jobs) and 71,414 jobs in Motor Vehicles (2.8 percent of all U.S. Motor Vehicle jobs).

Figure NC-1.
Employment by Major Energy Technology Application



Overall, Traditional Energy jobs grew by 4.2 percent since the 2018 report, increasing by 2,164 jobs over the period. Energy Efficiency jobs added 2,539 jobs (3.0 percent) and motor vehicles added 2,292 jobs (3.3 percent).

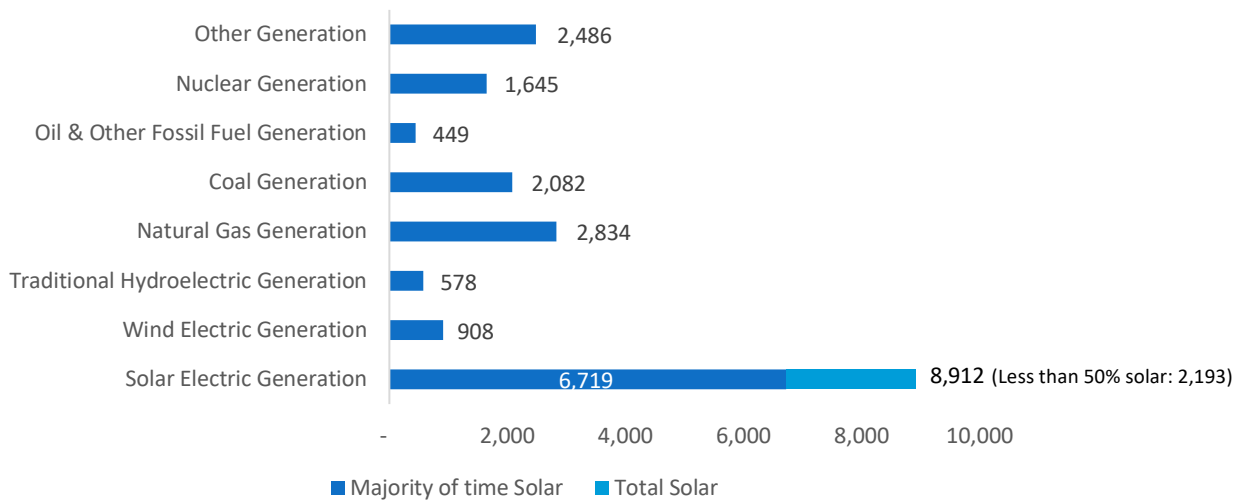
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 19,894 workers in North Carolina, 2.3 percent of the national total and adding 115 jobs over the past year (0.6 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 8,912 jobs (down 2.8 percent), followed by traditional fossil fuel generation at 5,365 jobs (up 0.8 percent).

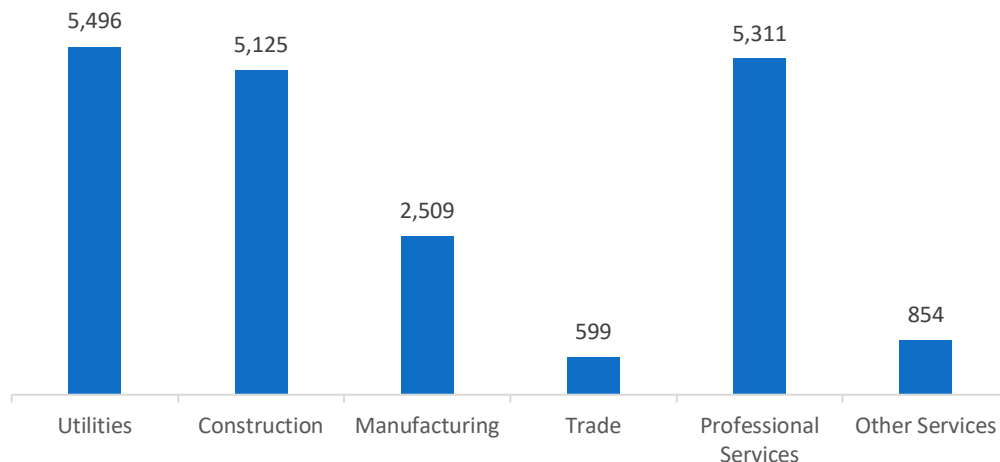
Figure NC-2.

Electric Power Generation Employment by Detailed Technology Application



Utilities are the largest industry sector in Electric Power Generation, with 27.6 percent of jobs. Professional and business services are next with 26.7 percent.

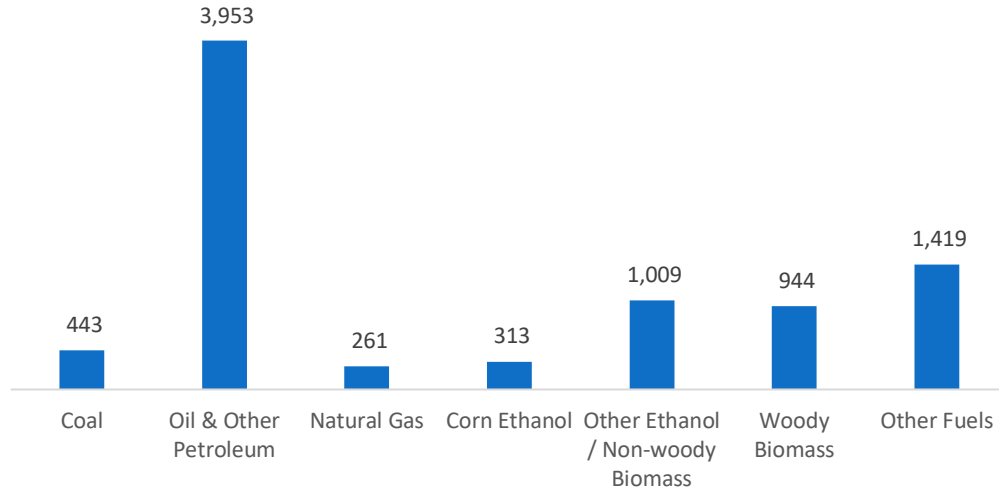
Figure NC-3.



Fuels

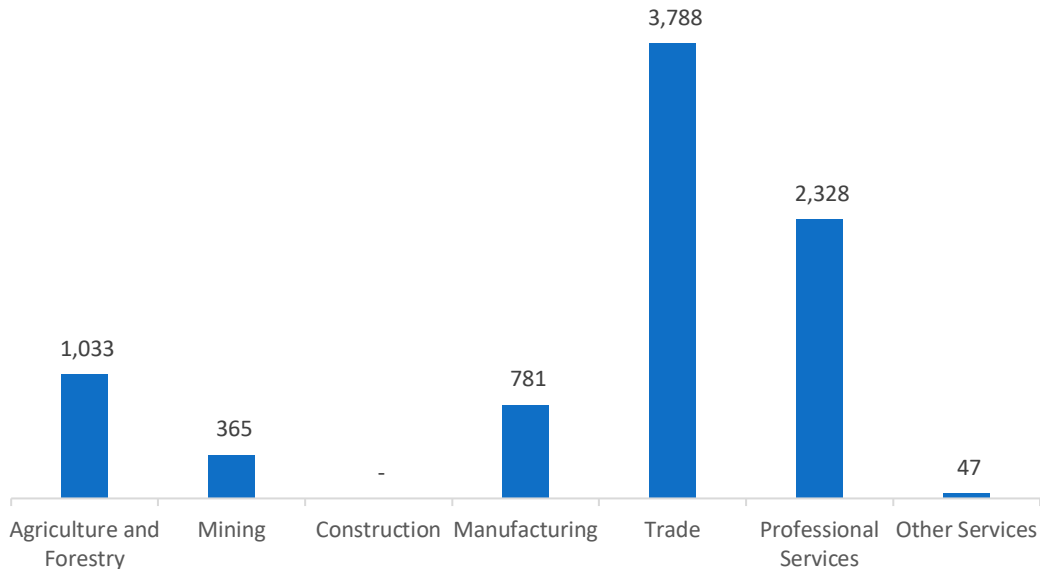
Fuels employs 8,342 workers in North Carolina, 0.7 percent of the national total, up 15.7 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure NC-4.
Fuels Employment by Detailed Technology Application



Wholesale trade jobs represent 45.4 percent of Fuels jobs in North Carolina.

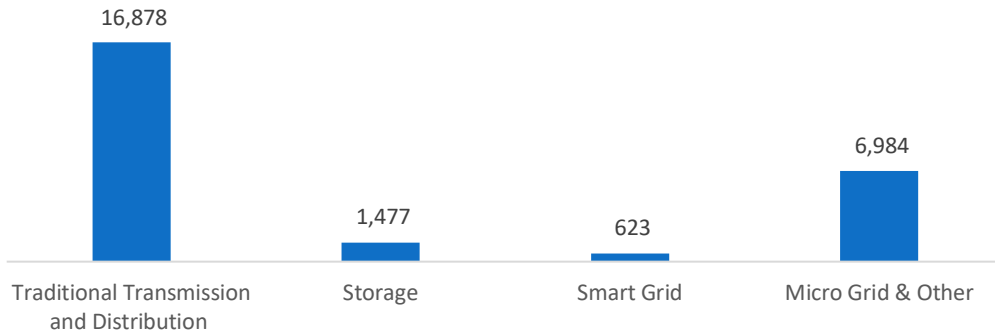
Figure NC-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

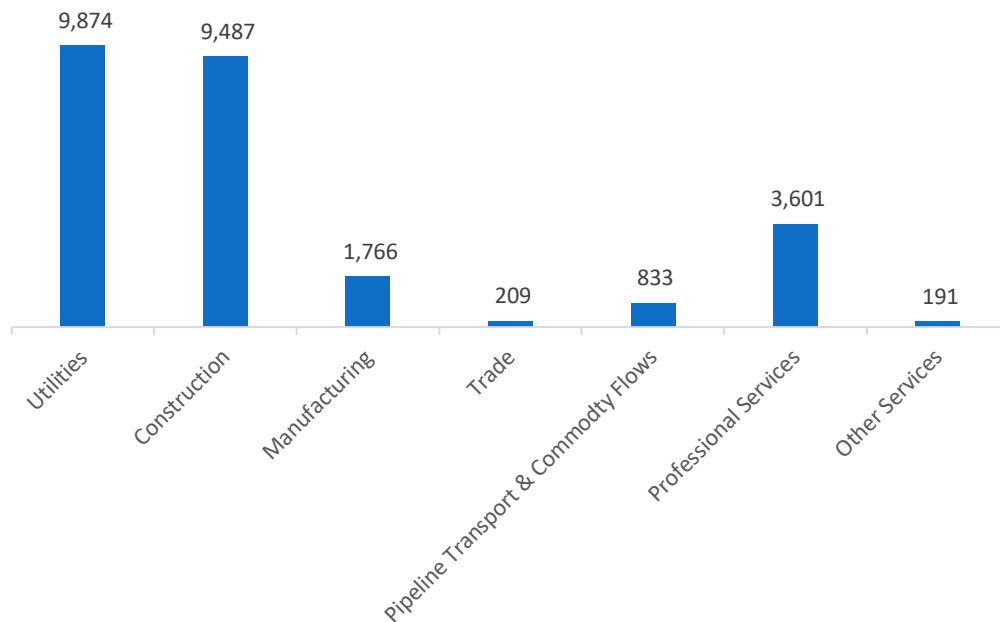
Transmission, Distribution, and Storage employs 25,962 workers in North Carolina, 1.9 percent of the national total, up 3.7 percent or 916 jobs since the 2018 report.

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



Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in North Carolina, with 38.0 percent of such jobs statewide.

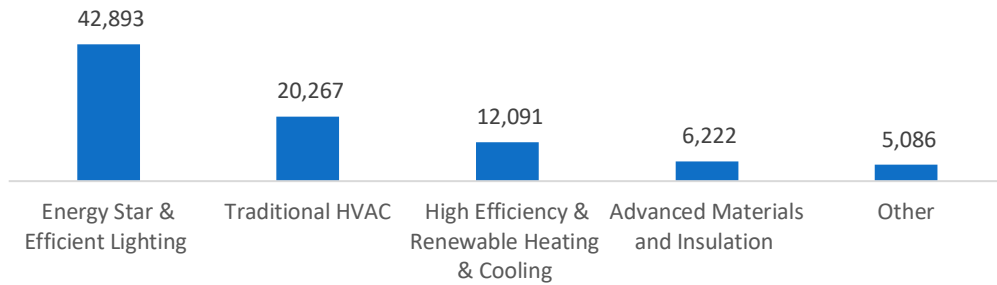
Figure NC-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

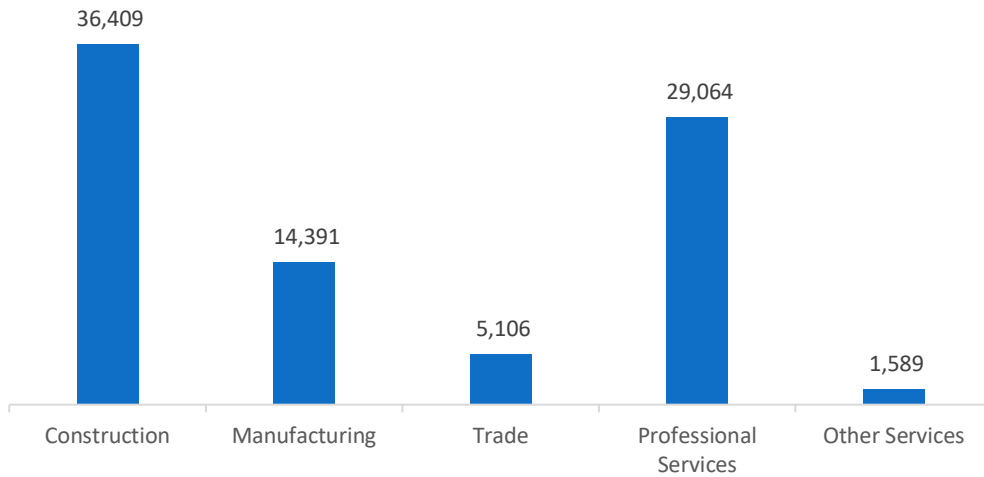
The 86,559 Energy Efficiency jobs in North Carolina represent 3.7 percent of all U.S. Energy Efficiency jobs, adding 2,539 jobs (3.0 percent) since last year. The largest number of these employees work in ENERGY STAR and efficient lighting firms, followed by traditional HVAC.

Figure NC-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

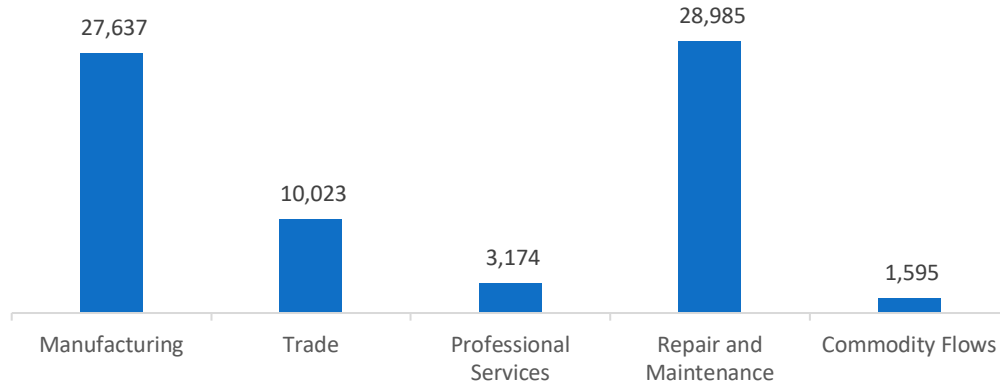
Figure NC-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 71,414 jobs in North Carolina, up 2,292 jobs over the past year (3.3 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure NC-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in North Carolina are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (5.0 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 7,162 jobs in Energy Efficiency (8.3 percent) and Motor Vehicles employers expect to add 1,414 jobs (2.0 percent) over the next year.

Table NC-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	7.5	7.1
Electric Power Transmission, Distribution and Storage	3.4	3.2
Energy Efficiency	8.3	7.8
Fuels	4.3	3.0
Motor Vehicles	2.0	2.2

Hiring Difficulty

Over the last year, 27.3 percent of energy-related employers in North Carolina hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Energy Efficiency.

Table NC-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	17.9	20.7	64.3	54.8
Electric Power Transmission, Distribution and Storage	14.3	21.9	28.6	46.1
Energy Efficiency	60.0	21.3	26.7	48.1
Fuels	--	37.9	50.0	43.0
Motor Vehicles	12.5	30.0	62.5	46.4

Employers in North Carolina 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. Insufficient non-technical skills (work ethic, dependability, critical thinking)

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

1. Technician or mechanical support – \$16.06 median hourly wage
2. Management (directors, supervisors, vice presidents) – \$37.29 median hourly wage
3. Sales, marketing, or customer service – \$30.48 median hourly wage

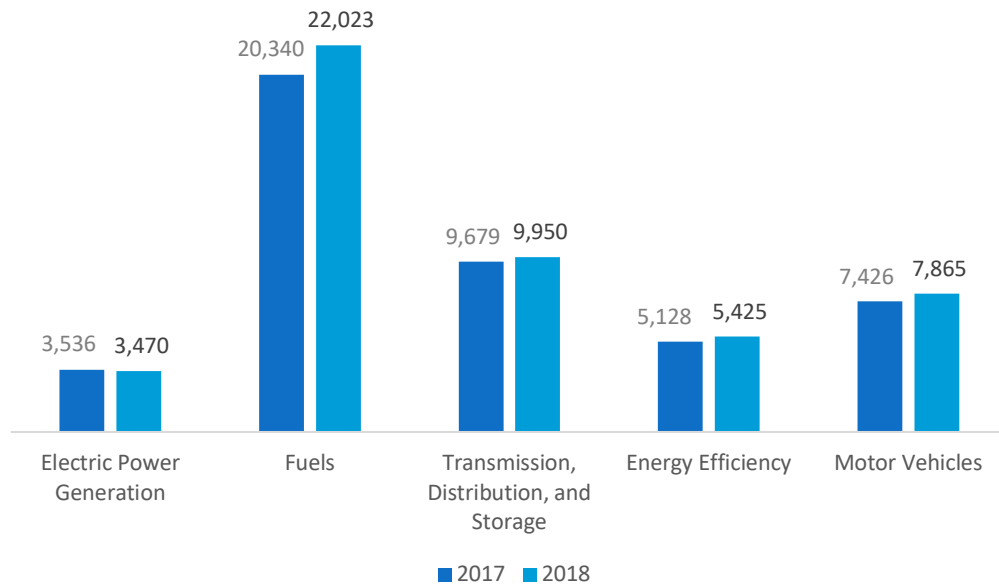
North Dakota

ENERGY AND EMPLOYMENT – 2019

Overview

North Dakota has a high concentration of energy employment, with 35,443 Traditional Energy workers statewide (representing 1.1 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 3,470 are in Electric Power Generation, 22,023 are in Fuels, and 9,950 are in Transmission, Distribution, and Storage. The Traditional Energy sector in North Dakota is 8.3 percent of total state employment (compared to 2.3 percent of national employment). North Dakota has an additional 5,425 jobs in Energy Efficiency (0.2 percent of all U.S. Energy Efficiency jobs) and 7,865 jobs in Motor Vehicles (0.3 percent of all U.S. Motor Vehicle jobs).

Figure ND-1.
Employment by Major Energy Technology Application



Overall, Traditional Energy jobs grew by 5.6 percent since the 2018 report, increasing by 1,888 jobs over the period. Energy Efficiency jobs added 297 jobs (5.8 percent) and motor vehicles added 439 jobs (5.9 percent).

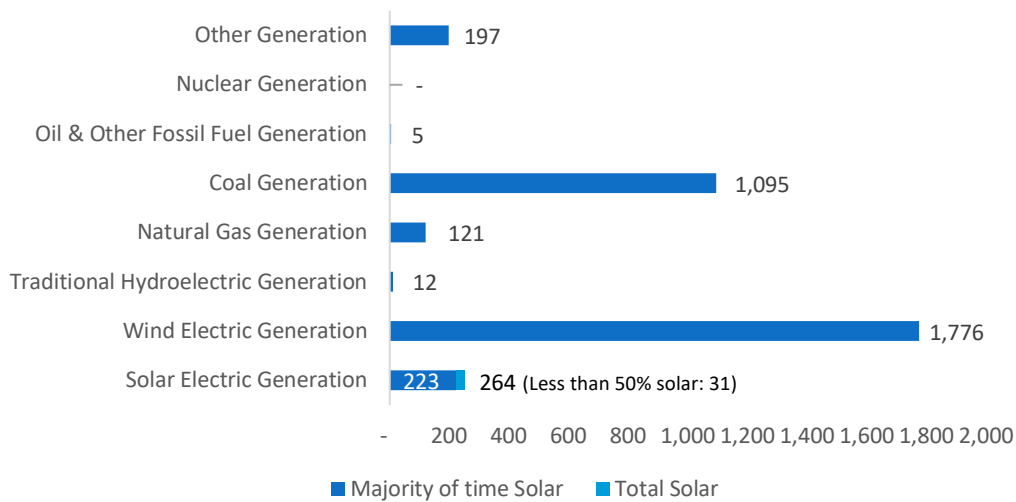
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 3,470 workers in North Dakota, 0.4 percent of the national total and losing 66 jobs over the past year (-1.9 percent). Wind makes up the largest segment of employment related to Electric Power Generation, with 1,776 jobs (down 0.3 percent), followed by traditional fossil fuel generation at 1,221 jobs (down 5.1 percent).

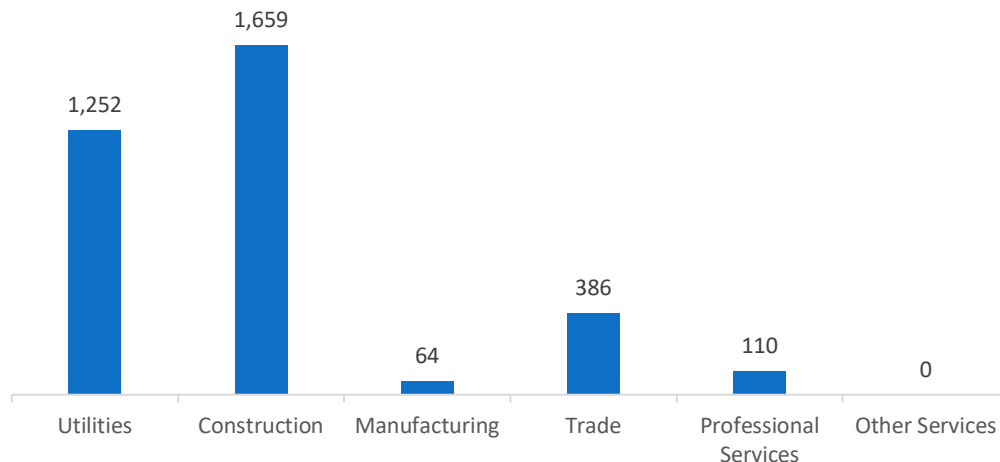
Figure ND-2.

Electric Power Generation Employment by Detailed Technology Application



Construction is the largest industry sector in Electric Power Generation, with 47.8 percent of jobs. Utilities are next with 36.1 percent.

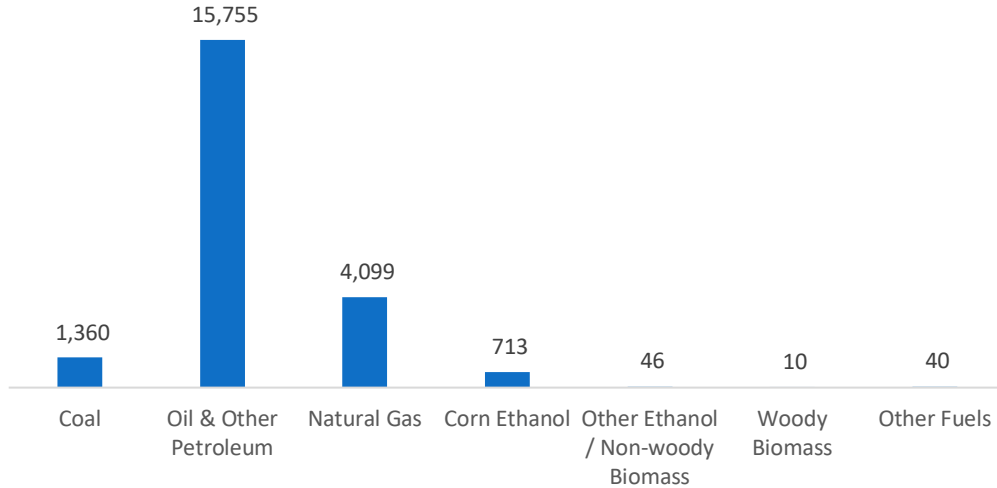
Figure ND-3.



Fuels

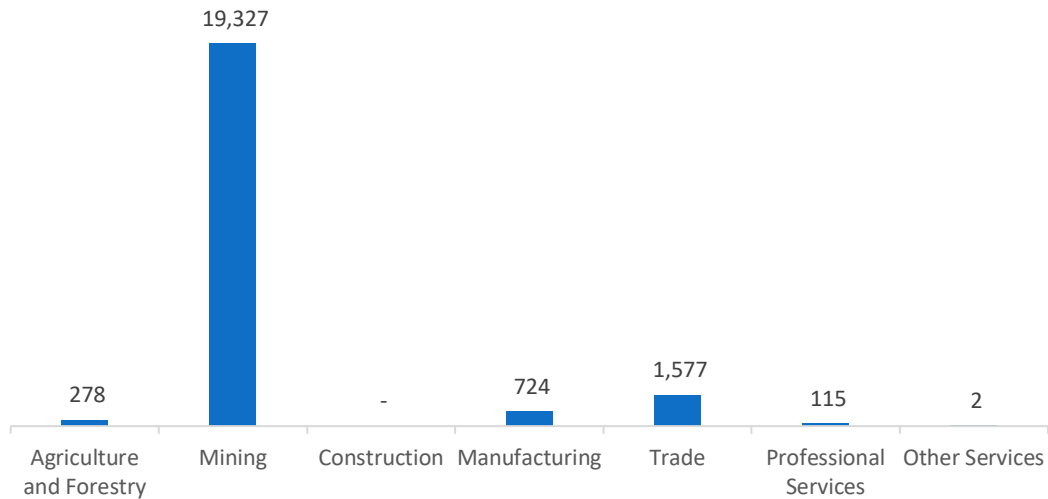
Fuels employs 22,023 workers in North Dakota, 2.0 percent of the national total, up 8.3 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure ND-4.
Fuels Employment by Detailed Technology Application



Mining and extraction jobs represent 87.8 percent of Fuels jobs in North Dakota.

Figure ND-5.
Fuels Employment by Industry Sector

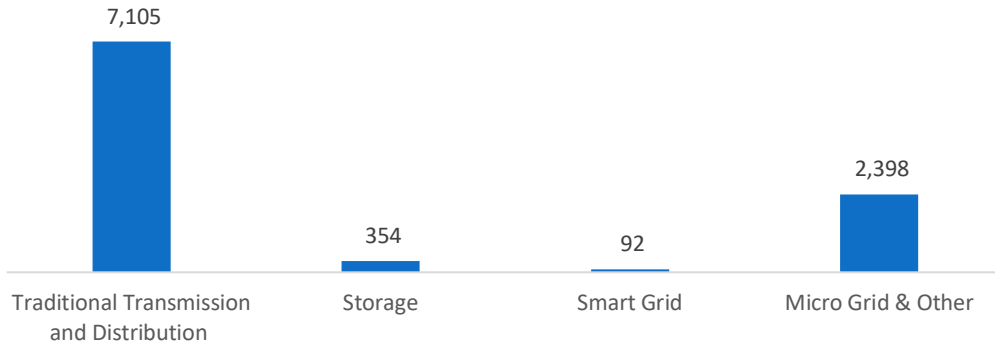


Transmission, Distribution and Storage

Transmission, Distribution, and Storage employs 9,950 workers in North Dakota, 0.7 percent of the national total, up 2.8 percent or 270 jobs since the 2018 report.

Figure ND-6.

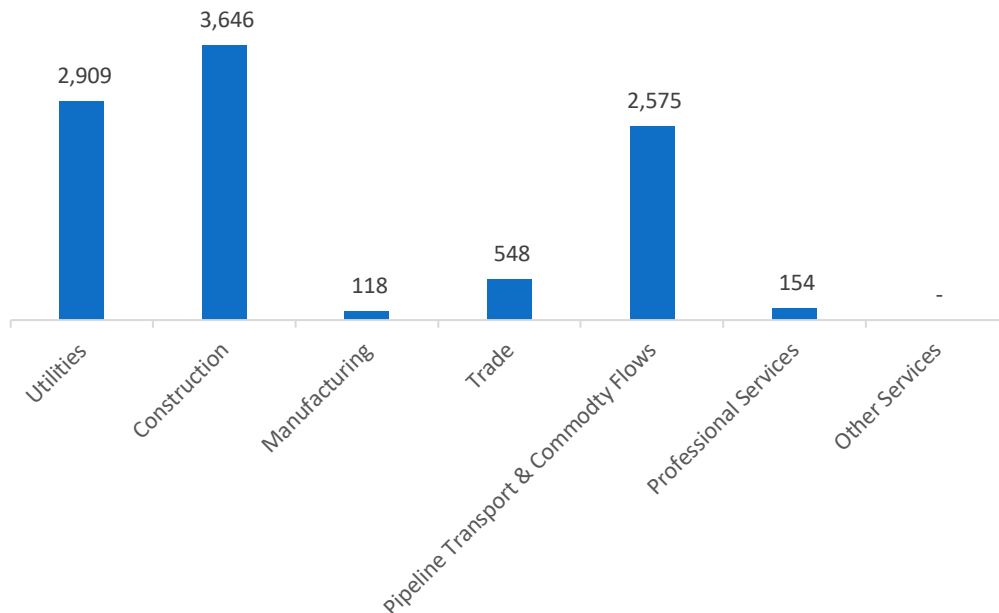
Transmission, Distribution and Storage Employment by Detailed Technology



Construction is responsible for the largest percentage of Transmission, Distribution, and Storage jobs in North Dakota, with 36.6 percent of such jobs statewide.

Figure ND-7.

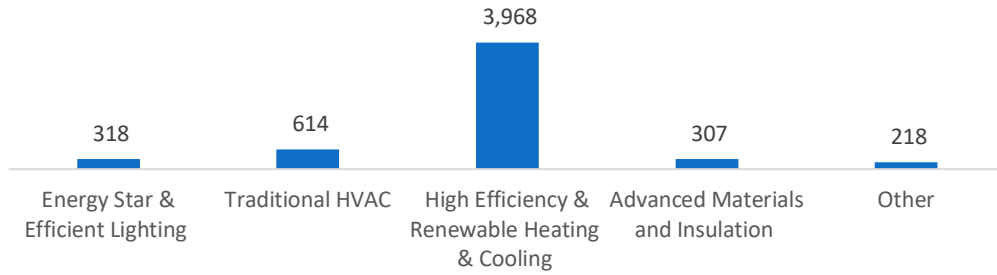
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

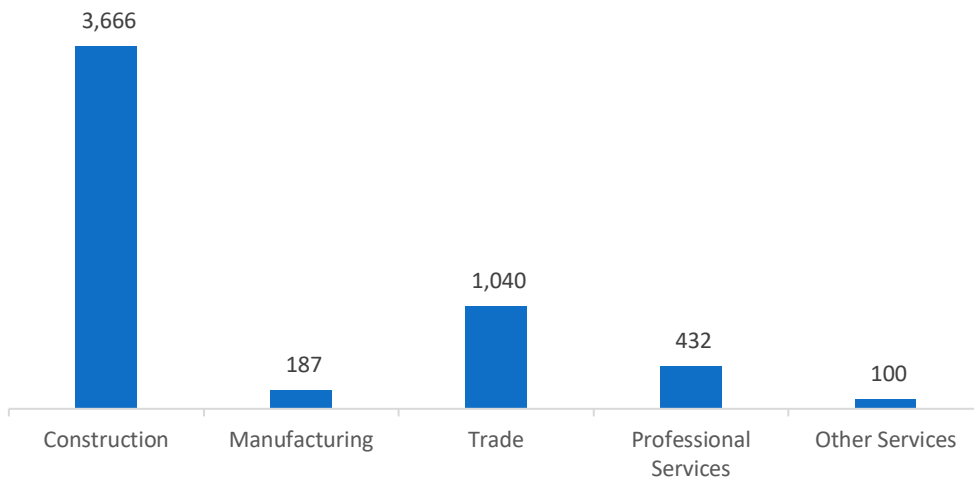
The 5,425 Energy Efficiency jobs in North Dakota represent 0.2 percent of all U.S. Energy Efficiency jobs, adding 297 jobs (5.8 percent) since last year. The largest number of these employees work in high efficiency HVAC and renewable heating and cooling firms, followed by traditional HVAC.

Figure ND-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

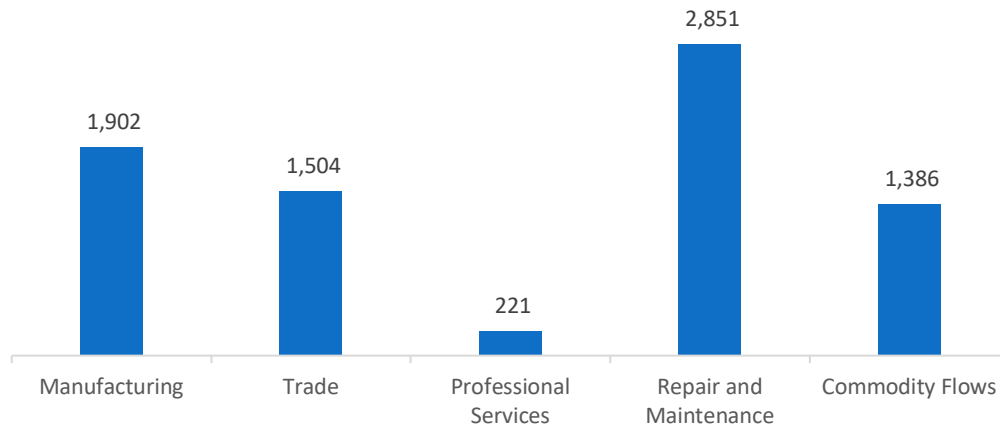
Figure ND-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 7,865 jobs in North Dakota, up 439 jobs over the past year (5.9 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure ND-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in North Dakota are less optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (0.7 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 471 jobs in Energy Efficiency (8.7 percent) and Motor Vehicles employers expect to add 156 jobs (2.0 percent) over the next year.

Table ND-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	7.2	7.1
Electric Power Transmission, Distribution and Storage	--	3.2
Energy Efficiency	8.7	7.8
Fuels	--	3.0
Motor Vehicles	2.0	2.2

Hiring Difficulty

Over the last year, 63.3 percent of energy-related employers in North Dakota hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Energy Efficiency.

Table ND-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	100.0	20.7	--	54.8
Electric Power Transmission, Distribution and Storage	--	21.9	75.0	46.1
Energy Efficiency	100.0	21.3	--	48.1
Fuels	25.0	37.9	62.5	43.0
Motor Vehicles	66.7	30.0	--	46.4

Employers in North Dakota 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. Cannot provide competitive wages

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

1. Electrician/construction laborers – \$27.58 median hourly wage
2. Drivers/dispatchers – \$19.42 median hourly wage
3. Technician or mechanical support – \$24.04 median hourly wage

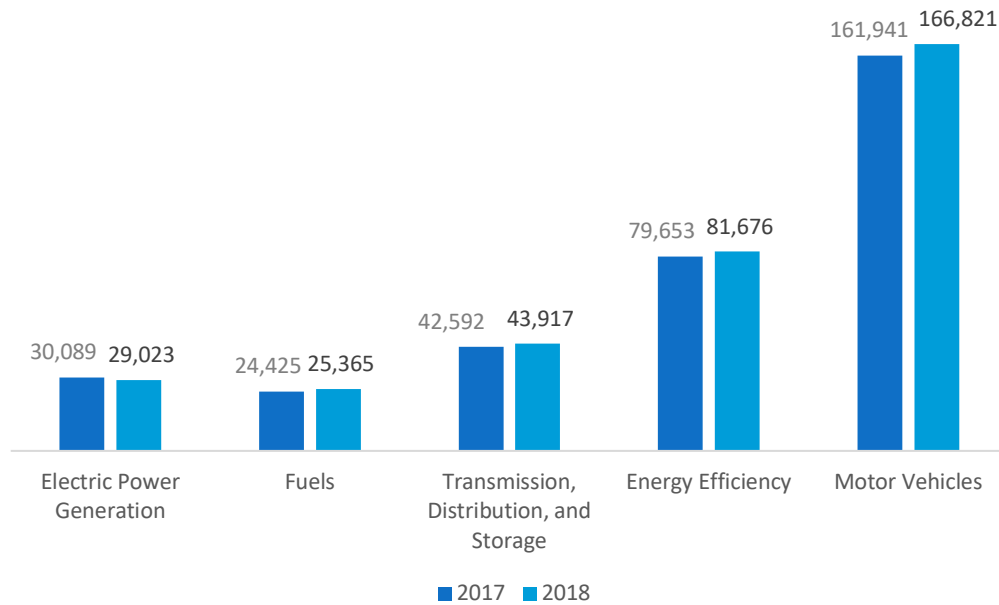
Ohio

ENERGY AND EMPLOYMENT — 2019

Overview

Ohio has a low concentration of energy employment, with 98,305 Traditional Energy workers statewide (representing 2.9 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 29,023 are in Electric Power Generation, 25,365 are in Fuels, and 43,917 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Ohio is 1.8 percent of total state employment (compared to 2.3 percent of national employment). Ohio has an additional 81,676 jobs in Energy Efficiency (3.5 percent of all U.S. Energy Efficiency jobs) and 166,821 jobs in Motor Vehicles (6.6 percent of all U.S. Motor Vehicle jobs).

Figure OH-1.
Employment by Major Energy Technology Application



Overall, Traditional Energy jobs grew by 1.2 percent since the 2018 report, increasing by 1,199 jobs over the period. Energy Efficiency jobs added 2,023 jobs (2.5 percent) and motor vehicles added 4,880 jobs (3.0 percent).

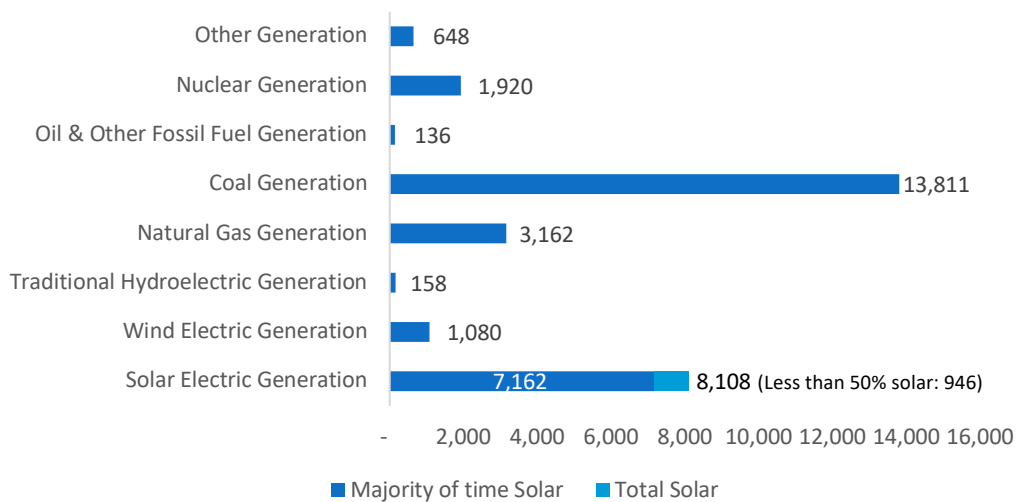
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 29,023 workers in Ohio, 3.3 percent of the national total and losing 1,066 jobs over the past year (-3.5 percent). Traditional fossil fuel generation makes up the largest segment of employment related to Electric Power Generation, with 17,109 jobs (down 8.0 percent), followed by solar at 8,108 jobs (up 0.2 percent).

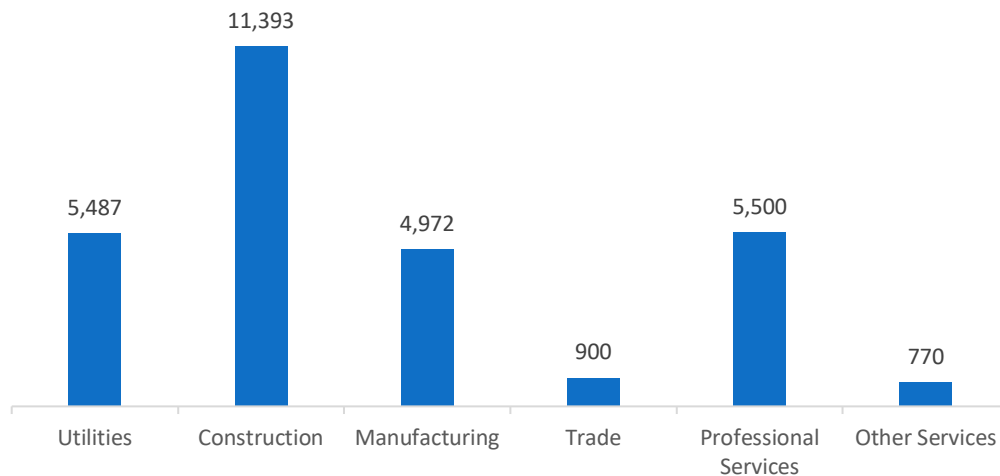
Figure OH-2.

Electric Power Generation Employment by Detailed Technology Application



Construction is the largest industry sector in Electric Power Generation, with 39.3 percent of jobs. Professional and business services are next with 19.0 percent.

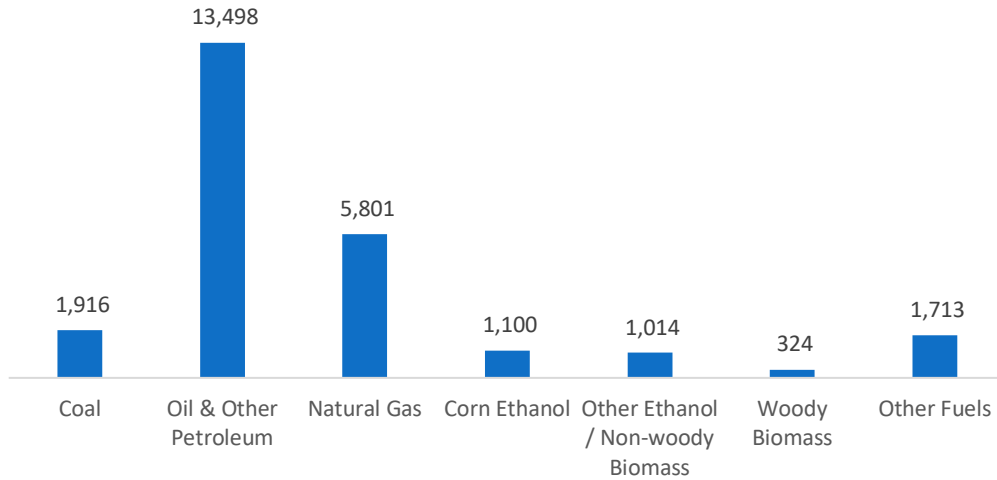
Figure OH-3.



Fuels

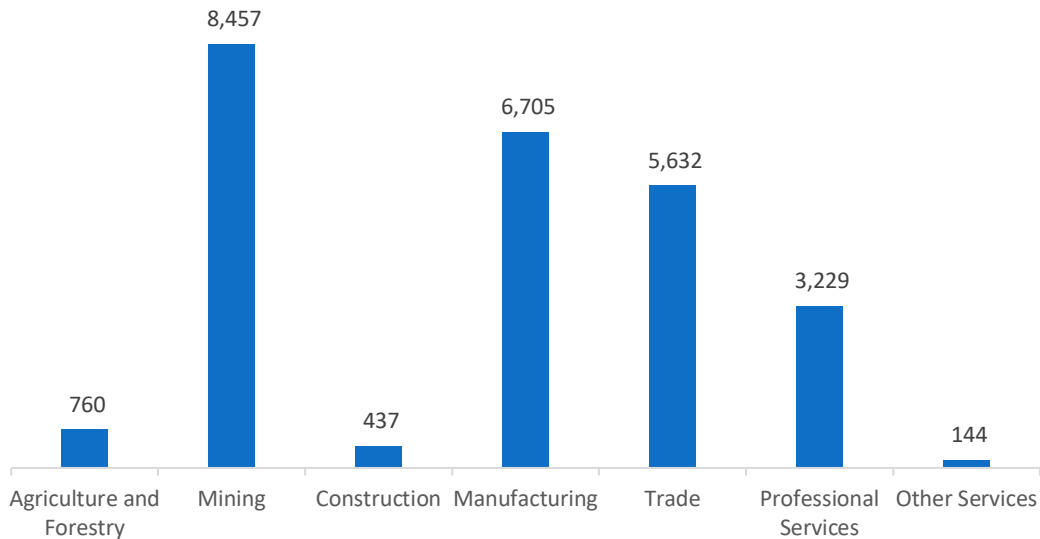
Fuels employs 25,365 workers in Ohio, 2.2 percent of the national total, up 3.9 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure OH-4.
Fuels Employment by Detailed Technology Application



Mining and extraction jobs represent 33.3 percent of Fuels jobs in Ohio.

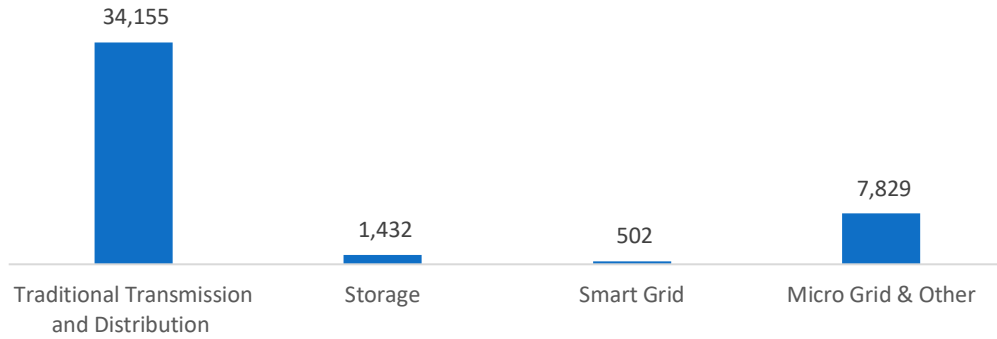
Figure OH-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

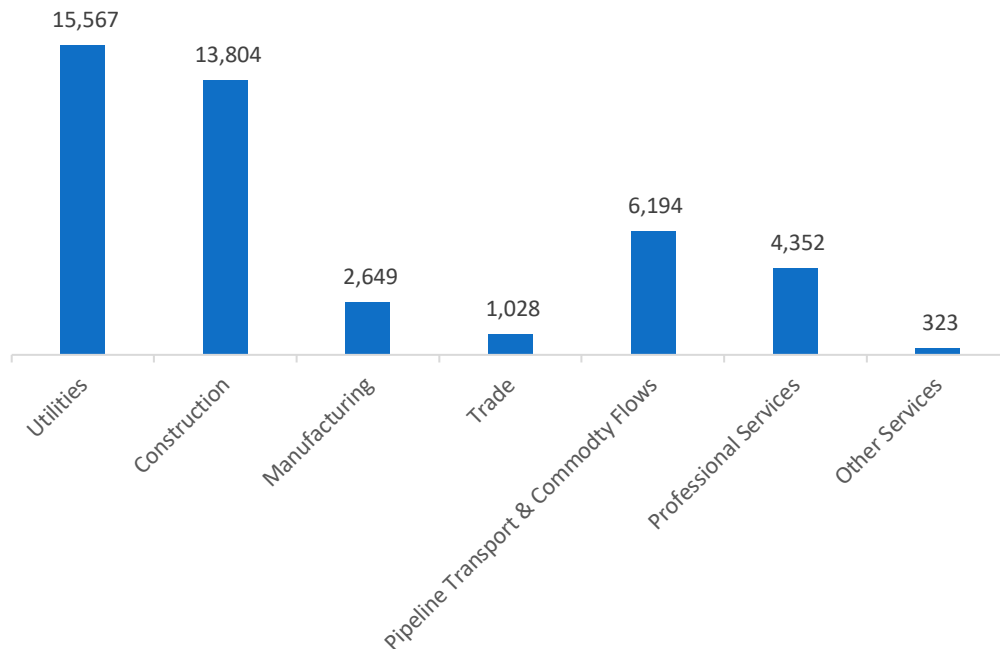
Transmission, Distribution, and Storage employs 43,917 workers in Ohio, 3.2 percent of the national total, up 3.1 percent or 1,325 jobs since the 2018 report.

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



Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Ohio, with 35.4 percent of such jobs statewide.

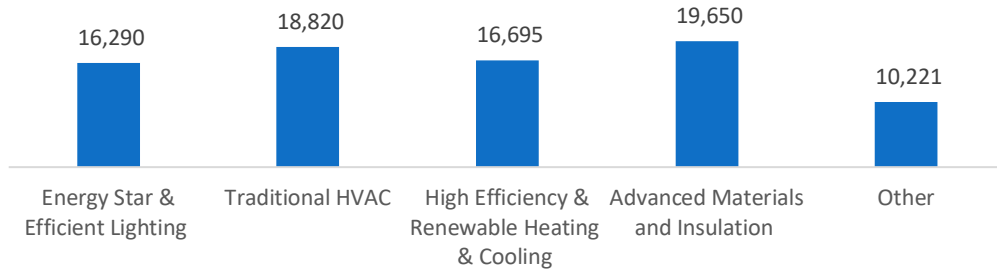
Figure OH-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

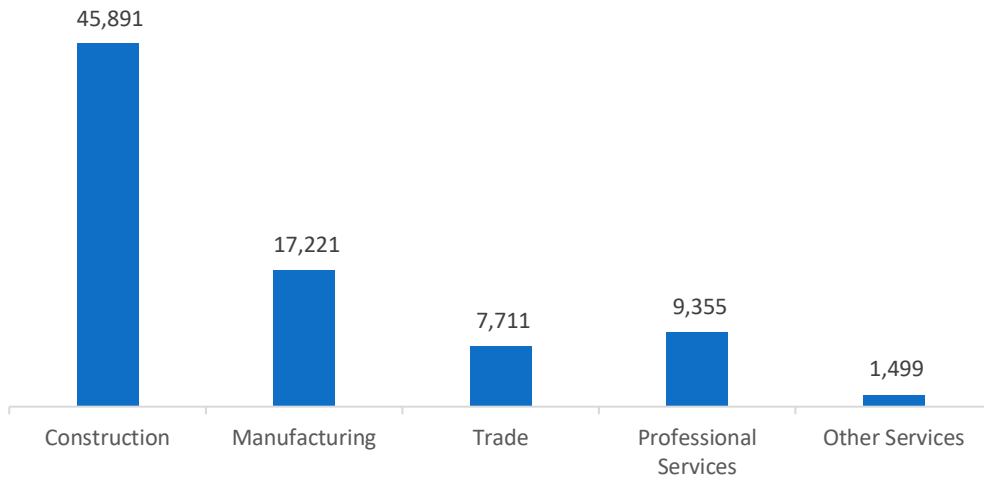
The 81,676 Energy Efficiency jobs in Ohio represent 3.5 percent of all U.S. Energy Efficiency jobs, adding 2,023 jobs (2.5 percent) since last year. The largest number of these employees work in advanced materials and insulation firms, followed by traditional HVAC.

Figure OH-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

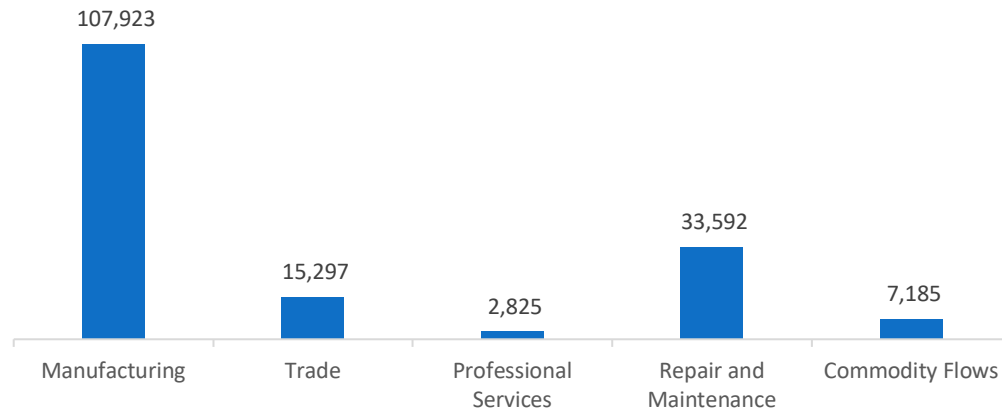
Figure OH-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 166,821 jobs in Ohio, up 4,880 jobs over the past year (3.0 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is manufacturing.

Figure OH-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in Ohio 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 4.1 percent nationally). Energy Efficiency employers expect to add 4,417 jobs in Energy Efficiency (5.4 percent) and Motor Vehicles employers expect to add 493 jobs (0.3 percent) over the next year.

Table OH-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	8.5	7.1
Electric Power Transmission, Distribution and Storage	3.3	3.2
Energy Efficiency	5.4	7.8
Fuels	4.8	3.0
Motor Vehicles	0.3	2.2

Hiring Difficulty

Over the last year, 60.1 percent of energy-related employers in Ohio hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Electric Power Transmission, Distribution, and Storage.

Table OH-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	44.4	20.7	38.9	54.8
Electric Power Transmission, Distribution and Storage	--	21.9	90.9	46.1
Energy Efficiency	30.0	21.3	40.0	48.1
Fuels	22.2	37.9	55.6	43.0
Motor Vehicles	20.0	30.0	60.0	46.4

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

1. Lack of experience, training, or technical skills
2. Insufficient non-technical skills (work ethic, dependability, critical thinking)
3. Competition/ small applicant pool

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

1. Technician or mechanical support – \$23.77 median hourly wage
2. Electrician/construction laborers – \$22.66 median hourly wage
3. Sales, marketing, or customer service – \$32.79 median hourly wage

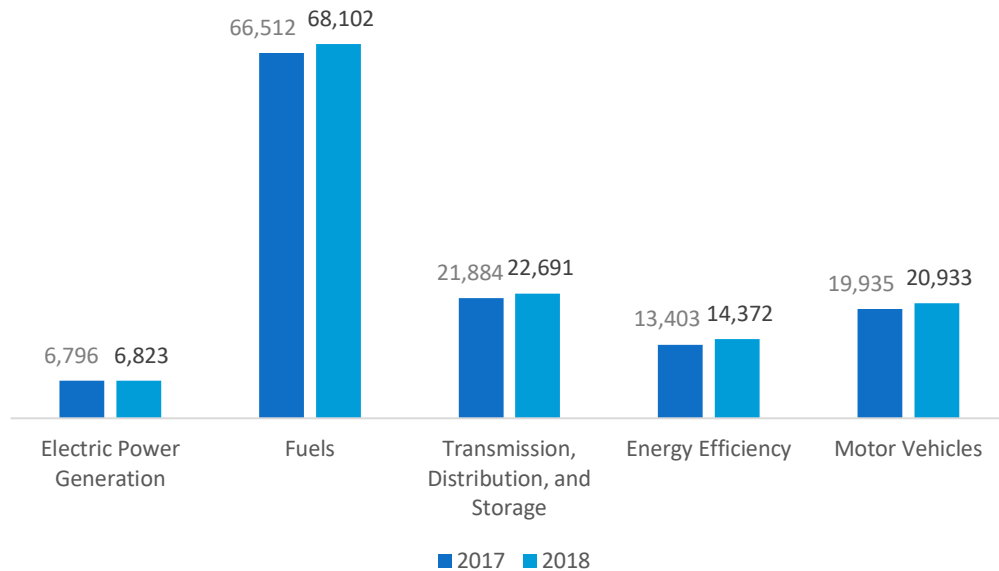
Oklahoma

ENERGY AND EMPLOYMENT — 2019

Overview

Oklahoma has a high concentration of energy employment, with 97,616 Traditional Energy workers statewide (representing 2.9 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 6,823 are in Electric Power Generation, 68,102 are in Fuels, and 22,691 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Oklahoma is 6.1 percent of total state employment (compared to 2.3 percent of national employment). Oklahoma has an additional 14,372 jobs in Energy Efficiency (0.6 percent of all U.S. Energy Efficiency jobs) and 20,933 jobs in Motor Vehicles (0.8 percent of all U.S. Motor Vehicle jobs).

Figure OK-1.
Employment by Major Energy Technology Application



Overall, Traditional Energy jobs grew by 2.5 percent since the 2018 report, increasing by 2,424 jobs over the period. Energy Efficiency jobs added 969 jobs (7.2 percent) and motor vehicles added 998 jobs (5.0 percent).

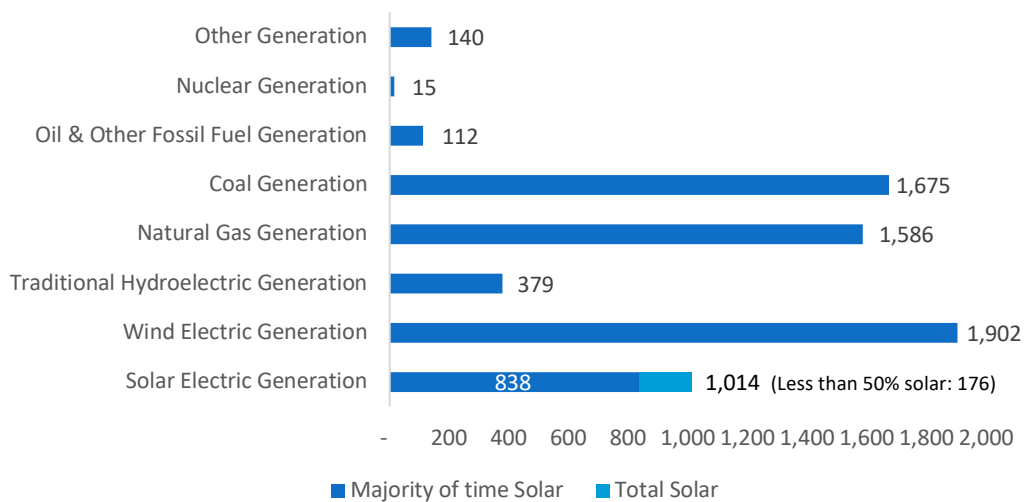
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 6,823 workers in Oklahoma, 0.8 percent of the national total and adding 26 jobs over the past year (0.4 percent). Traditional fossil fuel generation makes up the largest segment of employment related to Electric Power Generation, with 3,373 jobs (down 1.7 percent), followed by wind at 1,902 jobs (up 1.4 percent).

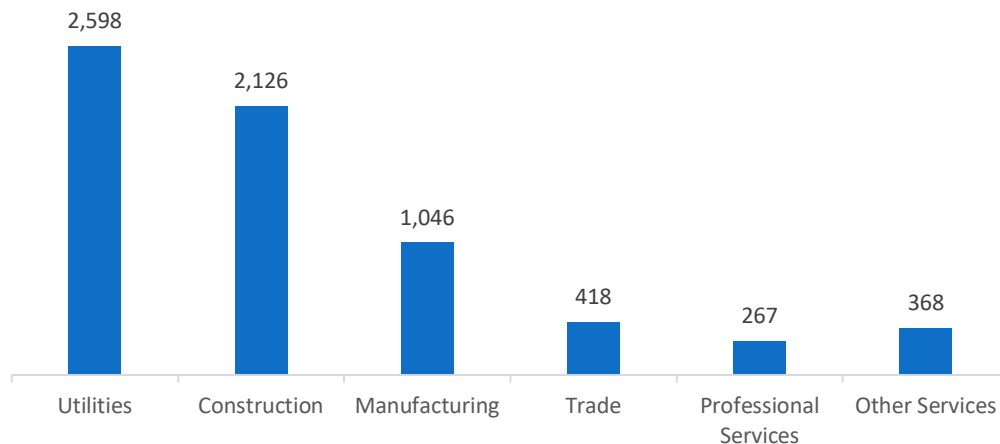
Figure OK-2.

Electric Power Generation Employment by Detailed Technology Application



Utilities are the largest industry sector in Electric Power Generation, with 38.1 percent of jobs. Construction is next with 31.2 percent.

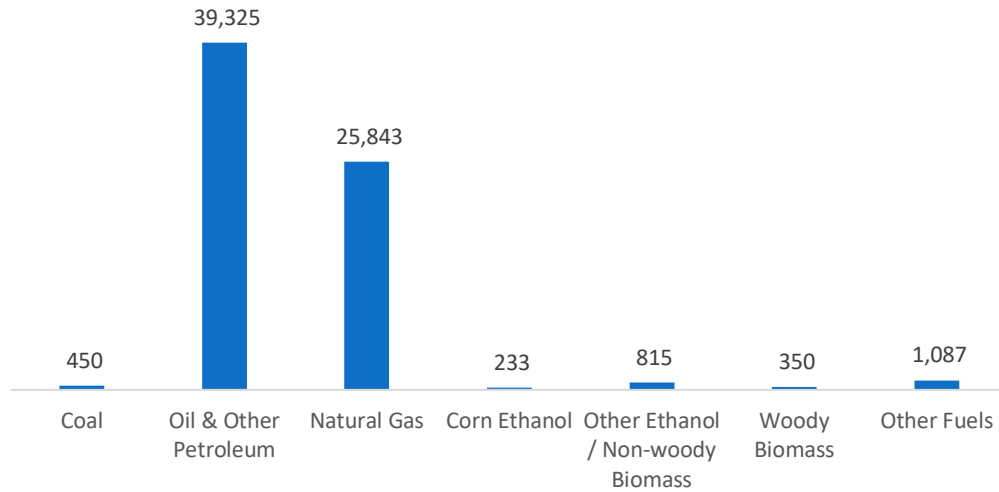
Figure OK-3.



Fuels

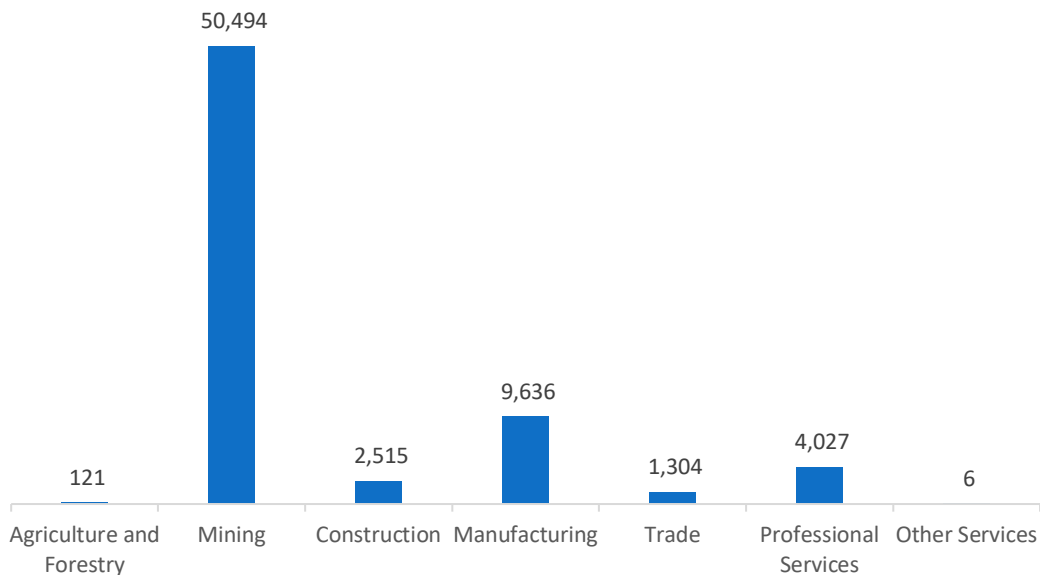
Fuels employs 68,102 workers in Oklahoma, 6.0 percent of the national total, up 2.4 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure OK-4.
Fuels Employment by Detailed Technology Application



Mining and extraction jobs represent 74.1 percent of Fuels jobs in Oklahoma.

Figure OK-5.
Fuels Employment by Industry Sector

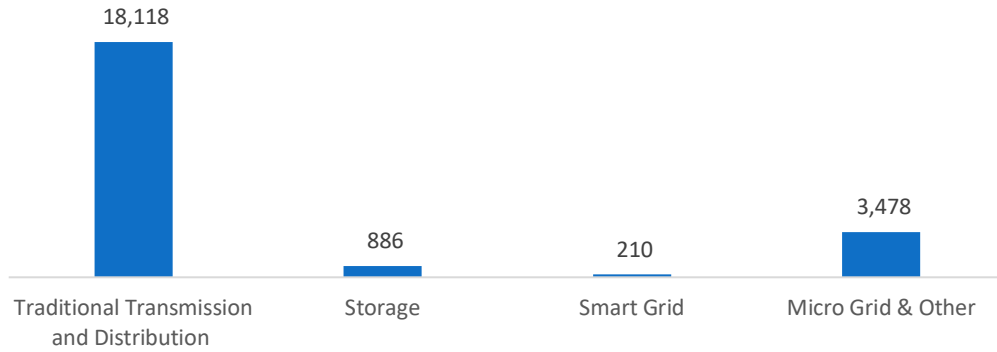


Transmission, Distribution and Storage

Transmission, Distribution, and Storage employs 22,691 workers in Oklahoma, 1.7 percent of the national total, up 3.7 percent or 808 jobs since the 2018 report.

Figure OK-6.

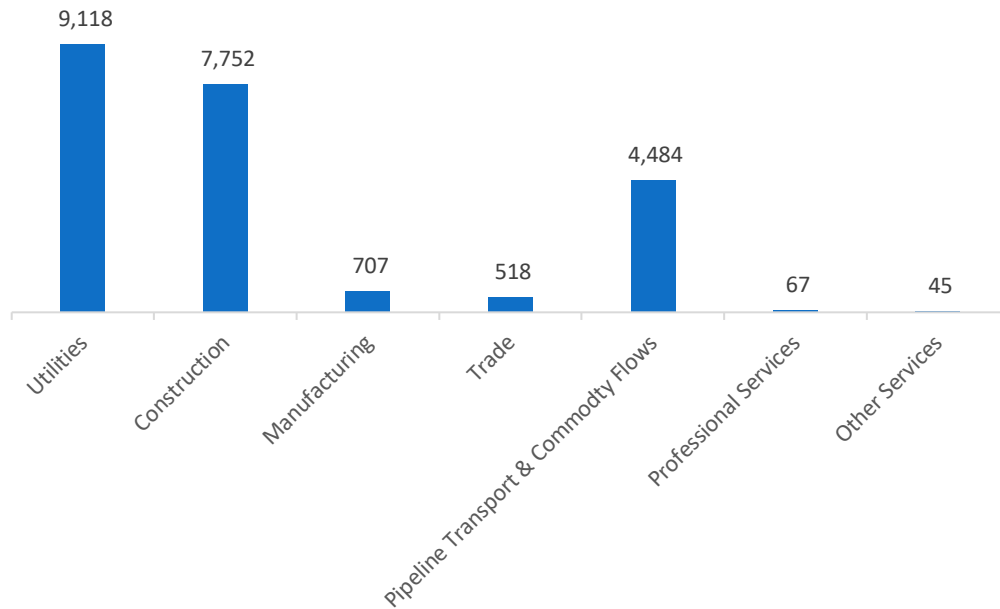
Transmission, Distribution and Storage Employment by Detailed Technology



Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Oklahoma, with 40.2 percent of such jobs statewide.

Figure OK-7.

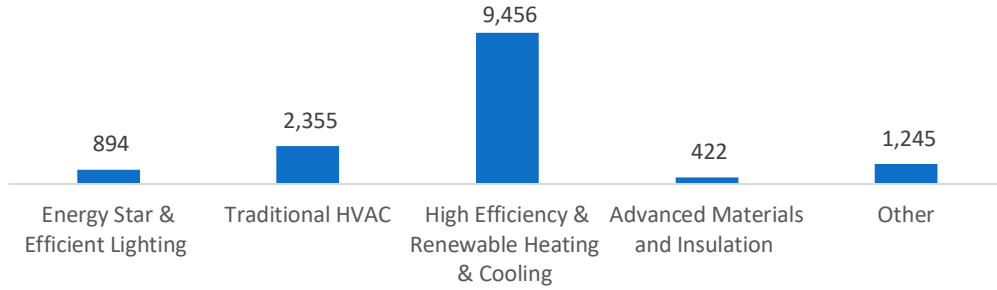
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

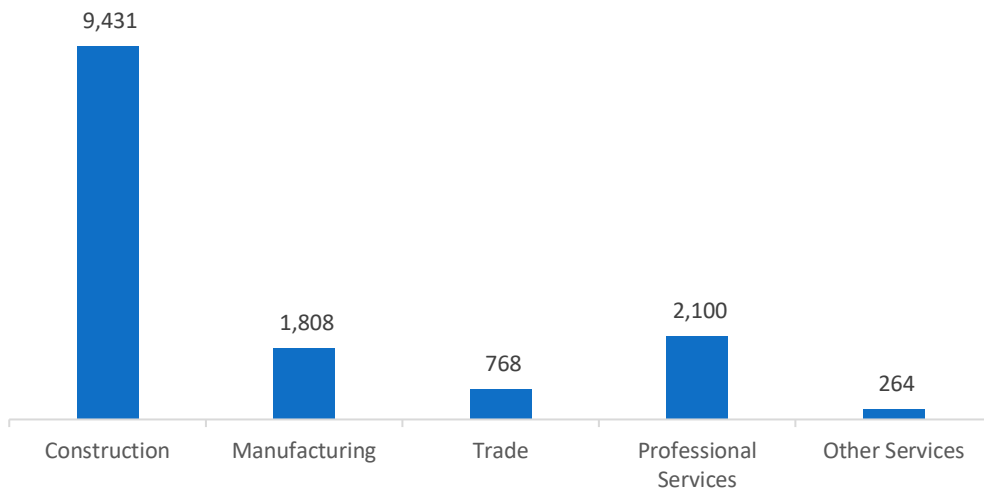
The 14,372 Energy Efficiency jobs in Oklahoma represent 0.6 percent of all U.S. Energy Efficiency jobs, adding 969 jobs (7.2 percent) since last year. The largest number of these employees work in high efficiency HVAC and renewable heating and cooling firms, followed by traditional HVAC.

Figure OK-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

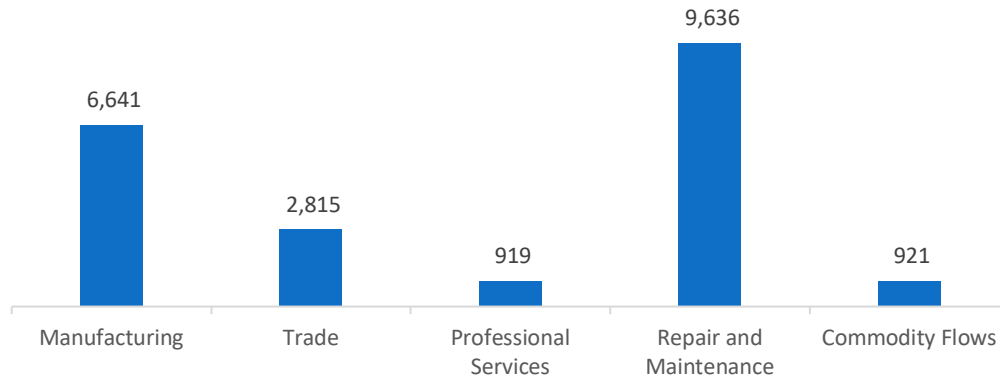
Figure OK-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 20,933 jobs in Oklahoma, up 998 jobs over the past year (5.0 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure OK-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in Oklahoma are less optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (1.8 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 1,289 jobs in Energy Efficiency (9.0 percent) and Motor Vehicles employers expect to add 414 jobs (2.0 percent) over the next year.

Table OK-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	6.7	7.1
Electric Power Transmission, Distribution and Storage	2.5	3.2
Energy Efficiency	9.0	7.8
Fuels	1.1	3.0
Motor Vehicles	2.0	2.2

Hiring Difficulty

Over the last year, 50.5 percent of energy-related employers in Oklahoma hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Motor Vehicles.

Table OK-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	--	20.7	--	54.8
Electric Power Transmission, Distribution and Storage	11.1	21.9	44.4	46.1
Energy Efficiency	33.3	21.3	33.3	48.1
Fuels	20.0	37.9	40.0	43.0
Motor Vehicles	42.9	30.0	28.6	46.4

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

1. Lack of experience, training, or technical skills
2. Cannot pass employment screening
3. Insufficient non-technical skills (work ethic, dependability, critical thinking)

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

1. Technician or mechanical support – \$18.88 median hourly wage
2. Electrician/construction laborers – \$22.53 median hourly wage
3. Sales, marketing, or customer service – \$28.31 median hourly wage

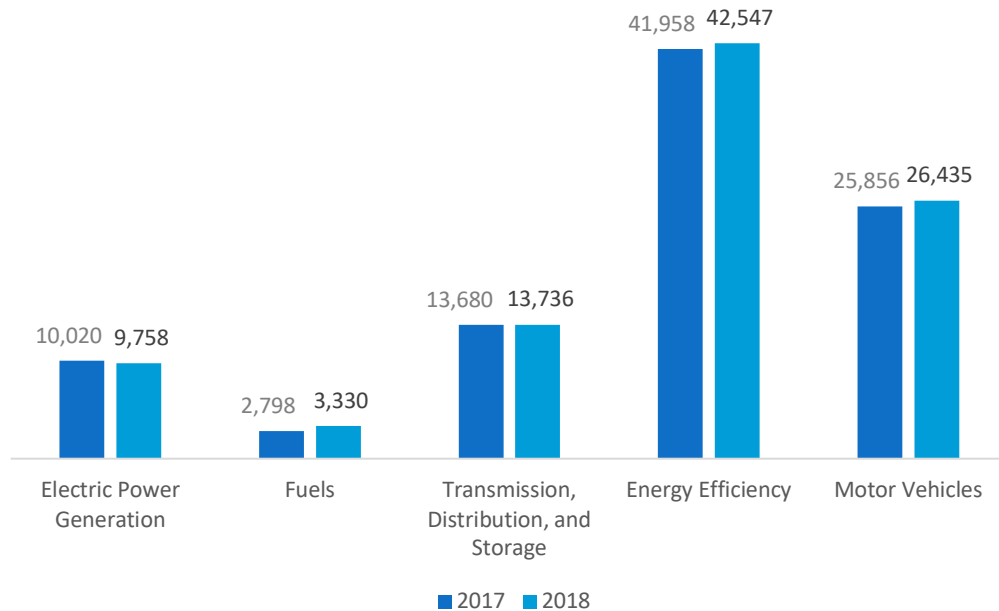
Oregon

ENERGY AND EMPLOYMENT — 2019

Overview

Oregon has a low concentration of energy employment, with 26,825 Traditional Energy workers statewide (representing 0.8 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 9,758 are in Electric Power Generation, 3,330 are in Fuels, and 13,736 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Oregon is 1.4 percent of total state employment (compared to 2.3 percent of national employment). Oregon has an additional 42,547 jobs in Energy Efficiency (1.8 percent of all U.S. Energy Efficiency jobs) and 26,435 jobs in Motor Vehicles (1.0 percent of all U.S. Motor Vehicle jobs).

Figure OR-1.
Employment by Major Energy Technology Application



Overall, Traditional Energy jobs grew by 1.2 percent since the 2018 report, increasing by 326 jobs over the period. Energy Efficiency jobs added 589 jobs (1.4 percent) and motor vehicles added 579 jobs (2.2 percent).

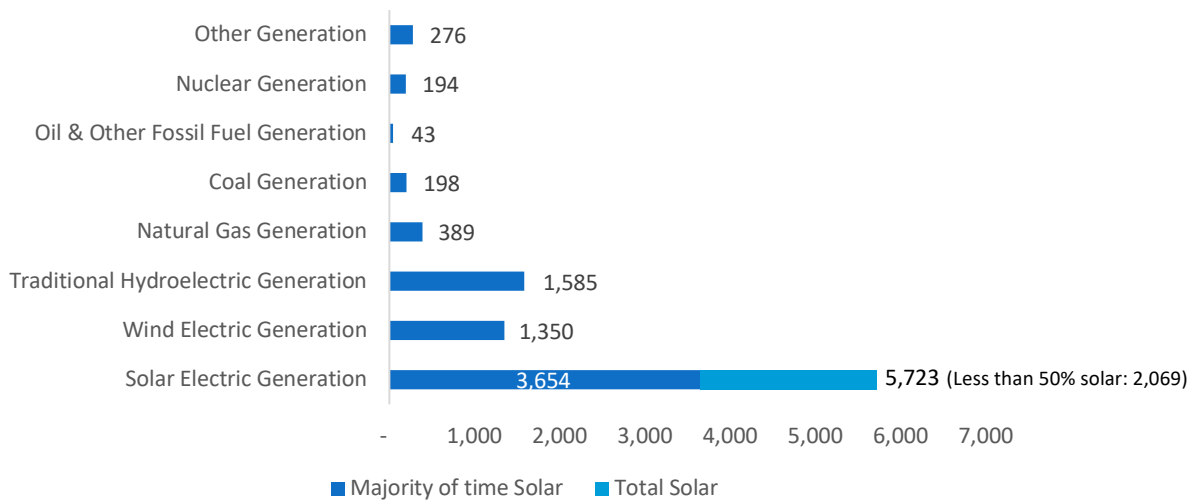
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 9,758 workers in Oregon, 1.1 percent of the national total and losing 262 jobs over the past year (-2.6 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 5,723 jobs (down 7.9 percent), followed by traditional hydroelectric generation at 1,585 jobs (up 0.6 percent).

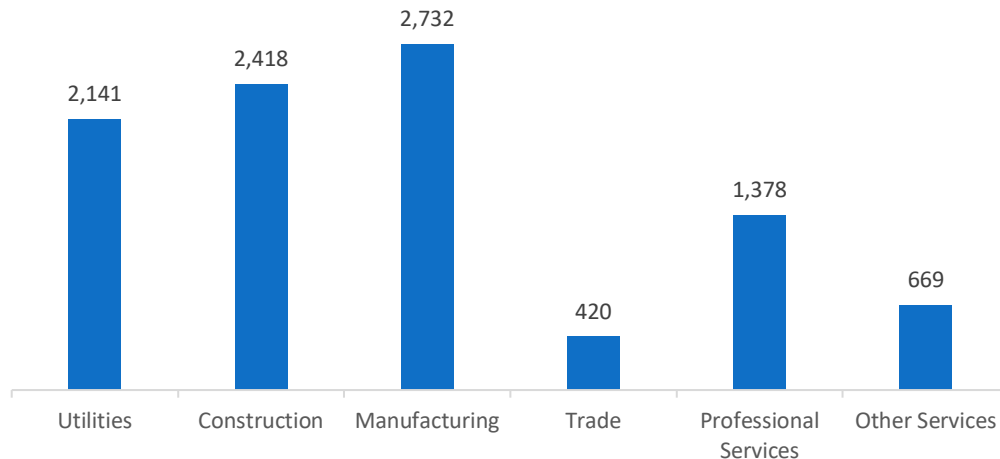
Figure OR-2.

Electric Power Generation Employment by Detailed Technology Application



Manufacturing is the largest industry sector in Electric Power Generation, with 28.0 percent of jobs. Construction is next with 24.8 percent.

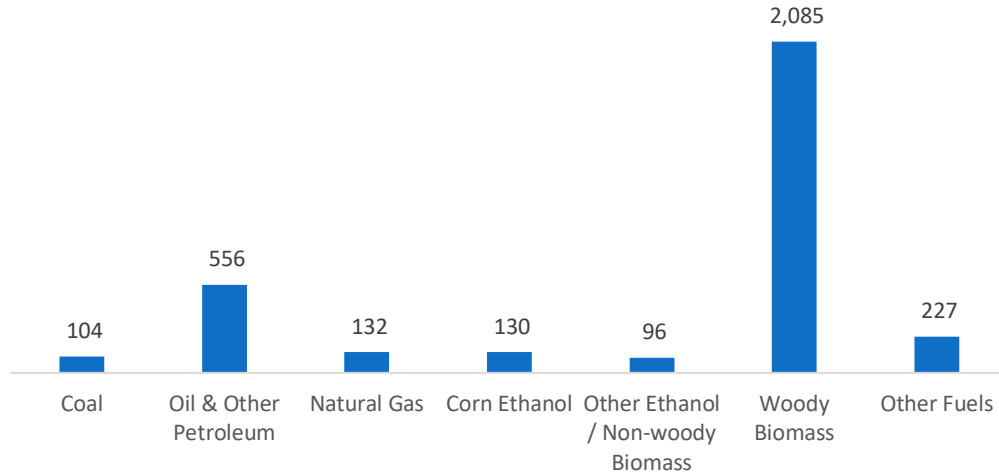
Figure OR-3.



Fuels

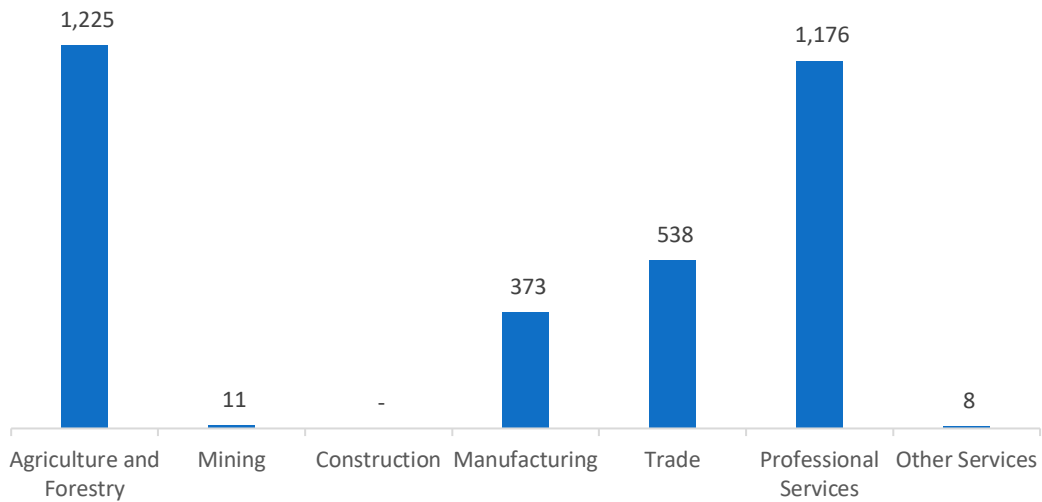
Fuels employs 3,330 workers in Oregon, 0.3 percent of the national total, up 19.0 percent over the past year. Woody biomass makes up the largest segment of employment related to Fuels.

Figure OR-4.
Fuels Employment by Detailed Technology Application



Agriculture jobs represent 36.8 percent of Fuels jobs in Oregon.

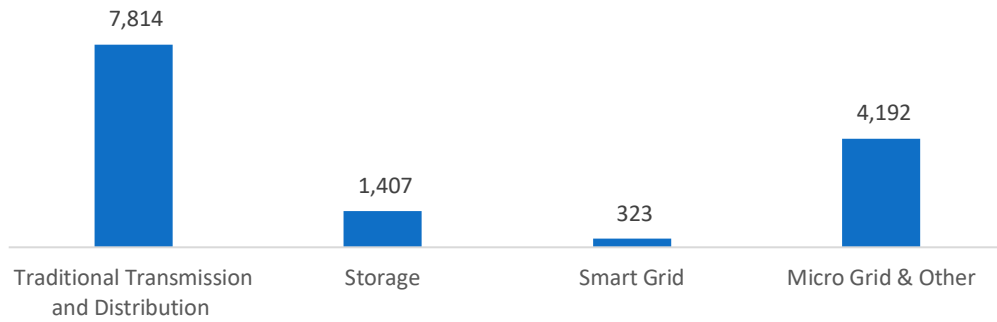
Figure OR-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

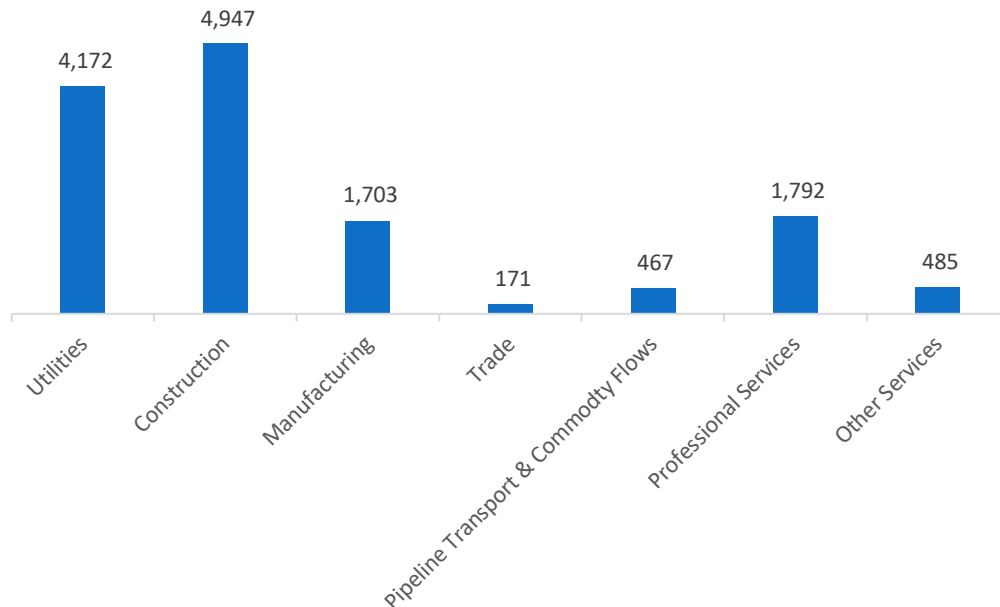
Transmission, Distribution, and Storage employs 13,736 workers in Oregon, 1.0 percent of the national total, up 0.4 percent or 56 jobs since the 2018 report.

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



Construction is responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Oregon, with 36.0 percent of such jobs statewide.

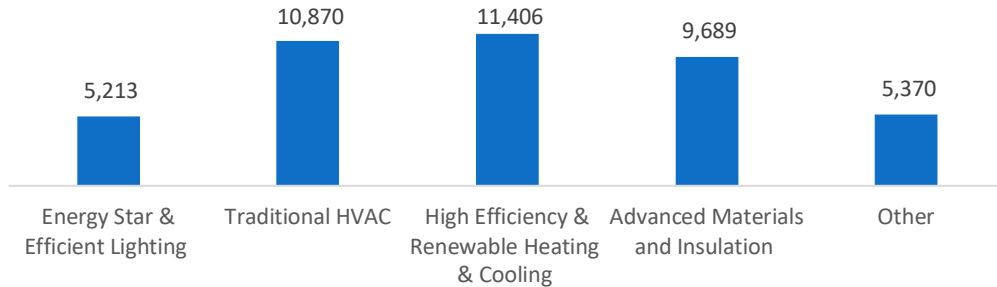
Figure OR-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

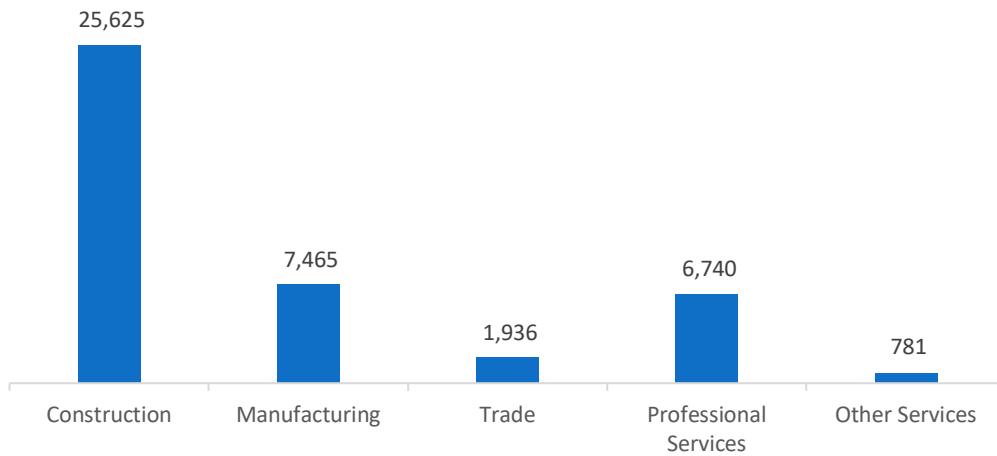
The 42,547 Energy Efficiency jobs in Oregon represent 1.8 percent of all U.S. Energy Efficiency jobs, adding 589 jobs (1.4 percent) since last year. The largest number of these employees work in high efficiency HVAC and renewable heating and cooling firms, followed by traditional HVAC.

Figure OR-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

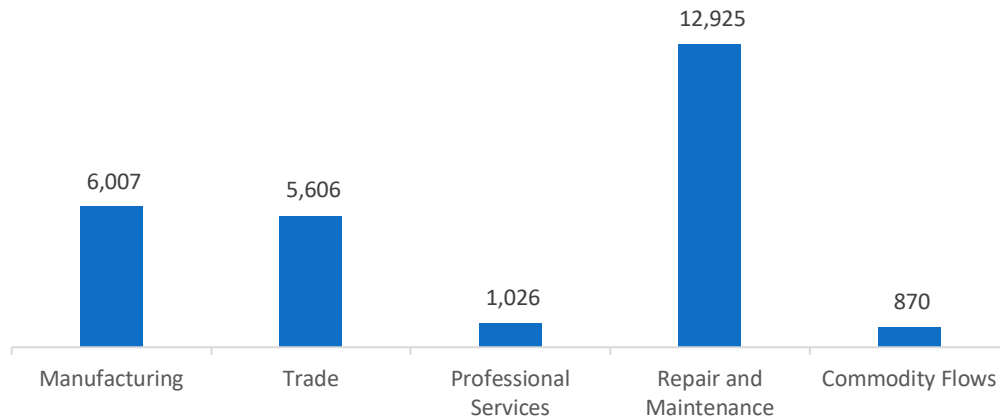
Figure OR-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 26,435 jobs in Oregon, up 579 jobs over the past year (2.2 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure OR-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in Oregon are similarly optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (4.1 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 2,070 jobs in Energy Efficiency (4.9 percent) and Motor Vehicles employers expect to add 523 jobs (2.0 percent) over the next year.

Table OR-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	5.9	7.1
Electric Power Transmission, Distribution and Storage	3.6	3.2
Energy Efficiency	4.9	7.8
Fuels	1.0	3.0
Motor Vehicles	2.0	2.2

Hiring Difficulty

Over the last year, 37.8 percent of energy-related employers in Oregon hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Motor Vehicles.

Table OR-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	20.0	20.7	53.3	54.8
Electric Power Transmission, Distribution and Storage	33.3	21.9	66.7	46.1
Energy Efficiency	50.0	21.3	40.0	48.1
Fuels	--	37.9	50.0	43.0
Motor Vehicles	50.0	30.0	50.0	46.4

Employers in Oregon 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. Insufficient non-technical skills (work ethic, dependability, critical thinking)

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

1. Technician or mechanical support – \$17.73 median hourly wage
2. Electrician/construction laborers – \$15.24 median hourly wage
3. Management (directors, supervisors, vice presidents) – \$37.04 median hourly wage

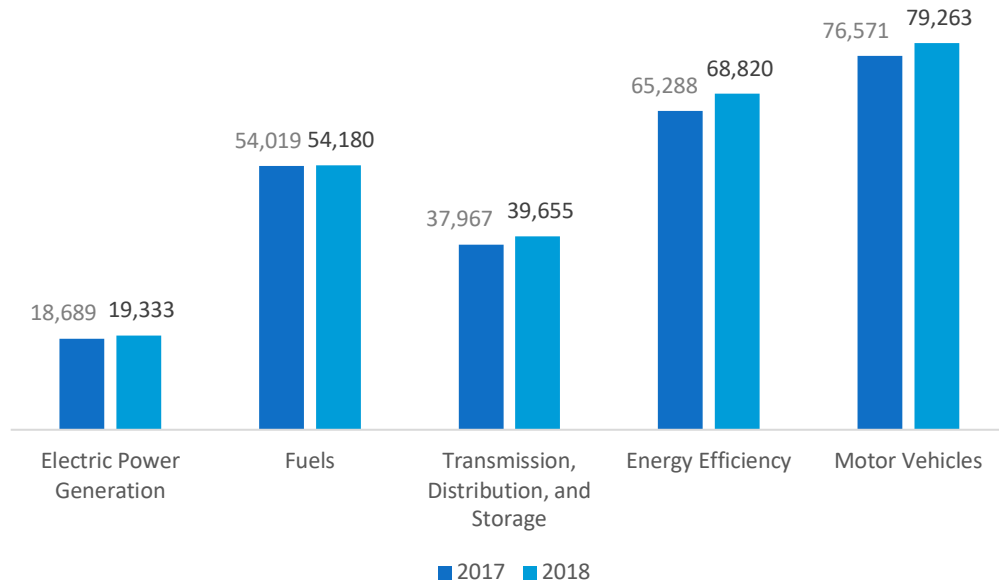
Pennsylvania

ENERGY AND EMPLOYMENT — 2019

Overview

Pennsylvania has a low concentration of energy employment, with 113,168 Traditional Energy workers statewide (representing 3.4 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 19,333 are in Electric Power Generation, 54,180 are in Fuels, and 39,655 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Pennsylvania is 1.9 percent of total state employment (compared to 2.3 percent of national employment). Pennsylvania has an additional 68,820 jobs in Energy Efficiency (3.0 percent of all U.S. Energy Efficiency jobs) and 79,263 jobs in Motor Vehicles (3.1 percent of all U.S. Motor Vehicle jobs).

Figure PA-1.
Employment by Major Energy Technology Application



Overall, Traditional Energy jobs grew by 2.3 percent since the 2018 report, increasing by 2,493 jobs over the period. Energy Efficiency jobs added 3,532 jobs (5.4 percent) and motor vehicles added 2,692 jobs (3.5 percent).

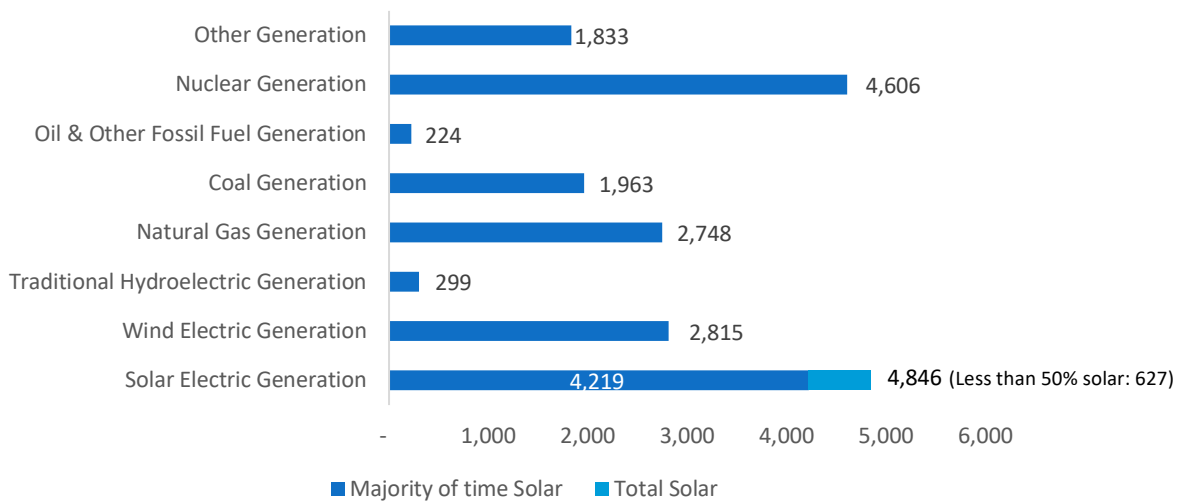
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 19,333 workers in Pennsylvania, 2.2 percent of the national total and adding 644 jobs over the past year (3.4 percent). Traditional fossil fuel generation makes up the largest segment of employment related to Electric Power Generation, with 4,935 jobs (up 1.8 percent), followed by solar at 4,846 jobs (up 1.4 percent).

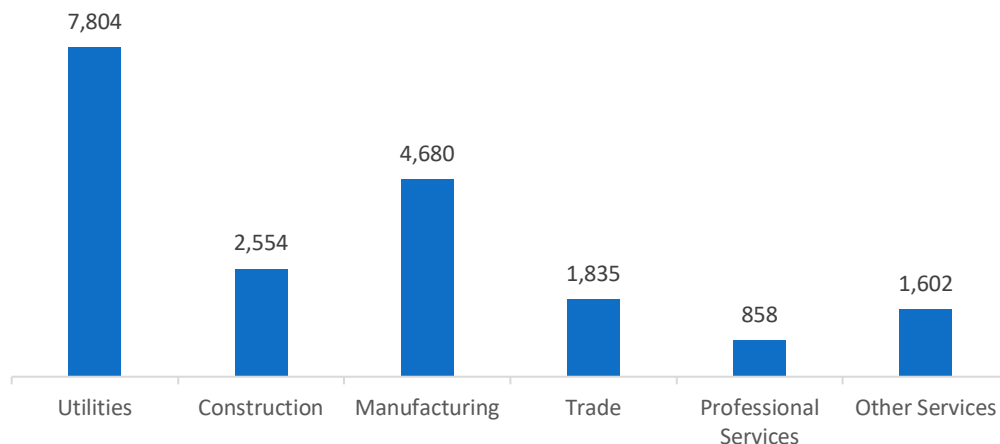
Figure PA-2.

Electric Power Generation Employment by Detailed Technology Application



Utilities are the largest industry sector in Electric Power Generation, with 40.4 percent of jobs. Manufacturing is next with 24.2 percent.

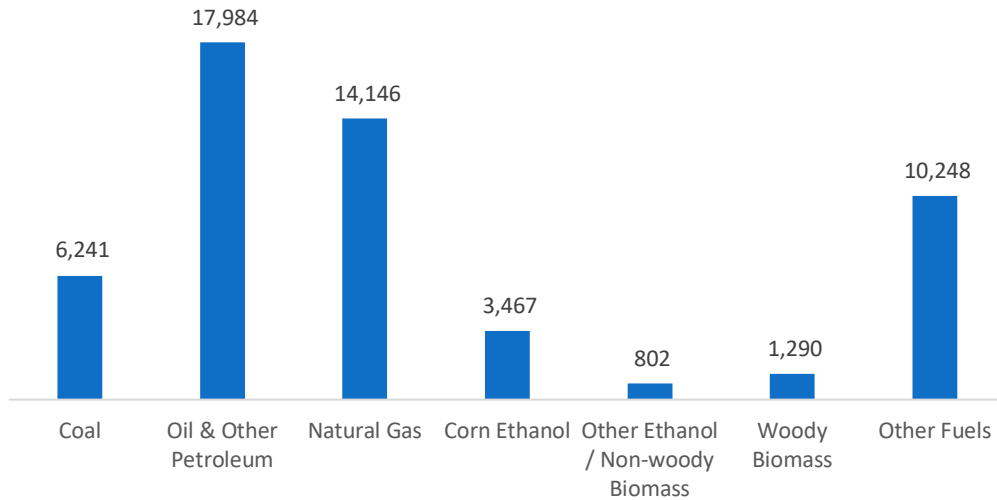
Figure PA-3.



Fuels

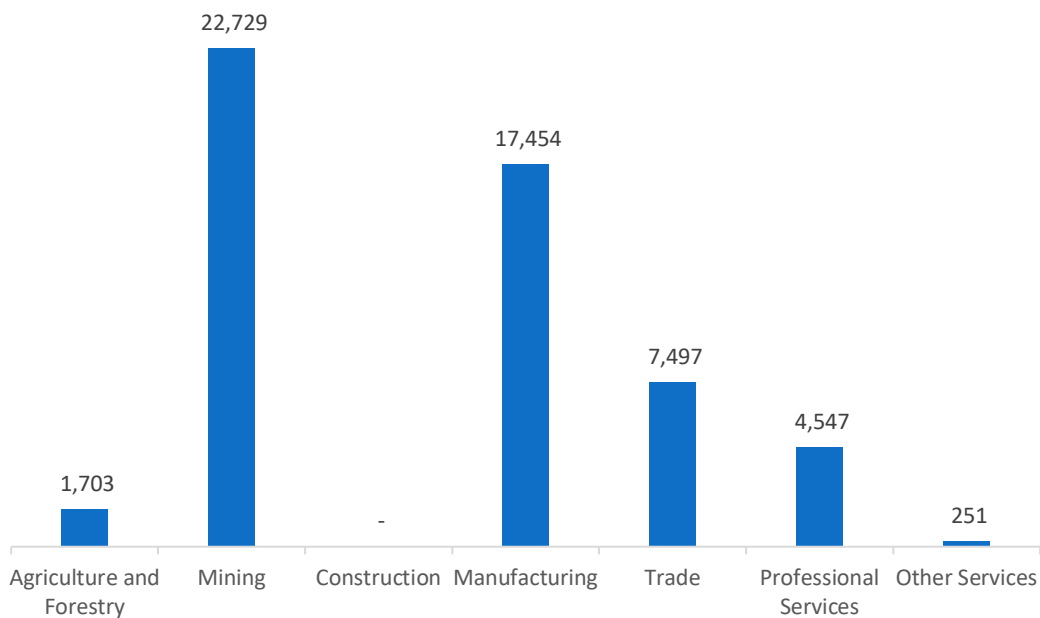
Fuels employs 54,180 workers in Pennsylvania, 4.8 percent of the national total, up 0.3 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure PA-4.
Fuels Employment by Detailed Technology Application



Mining and extraction jobs represent 42.0 percent of Fuels jobs in Pennsylvania.

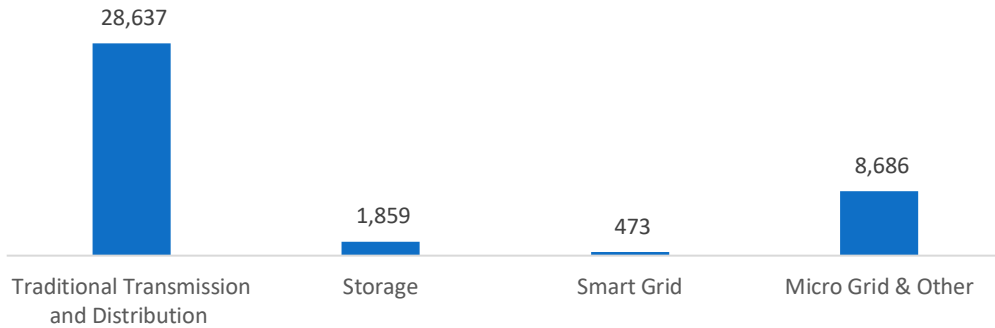
Figure PA-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

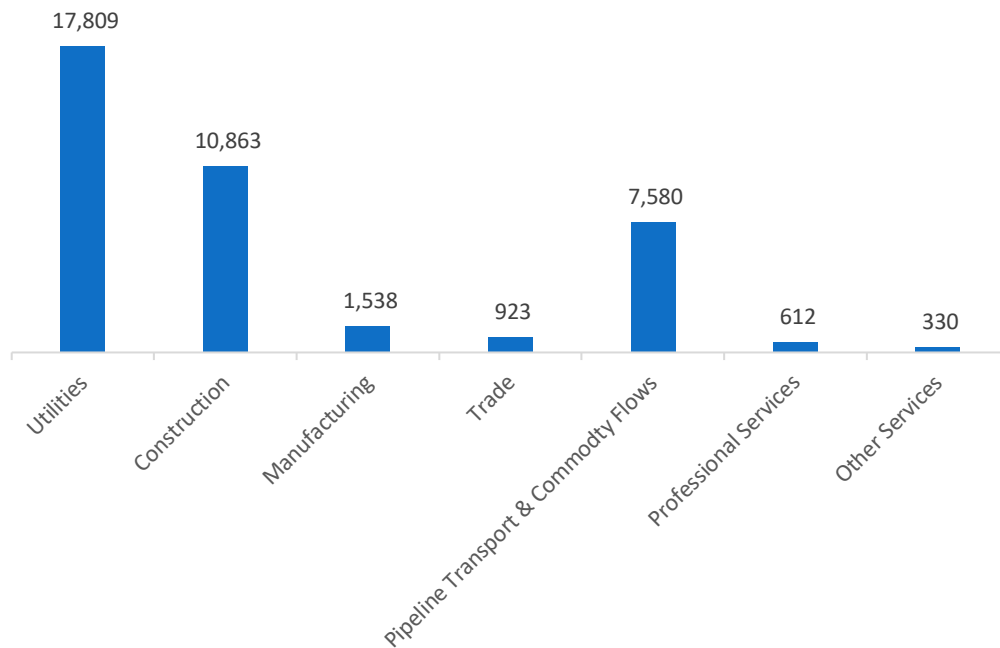
Transmission, Distribution, and Storage employs 39,655 workers in Pennsylvania, 2.9 percent of the national total, up 4.4 percent or 1,688 jobs since the 2018 report.

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



Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Pennsylvania, with 44.9 percent of such jobs statewide.

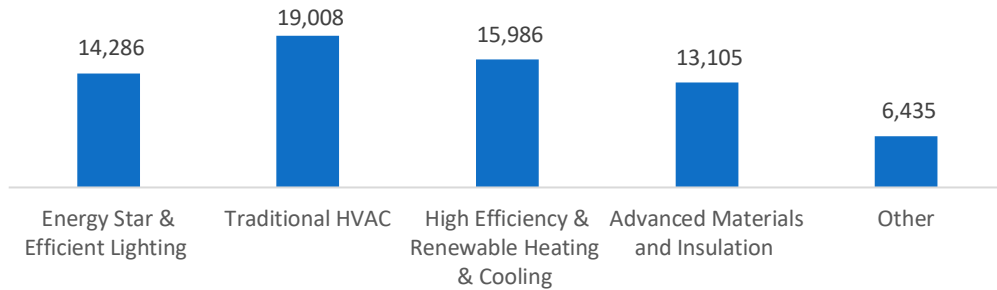
Figure PA-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

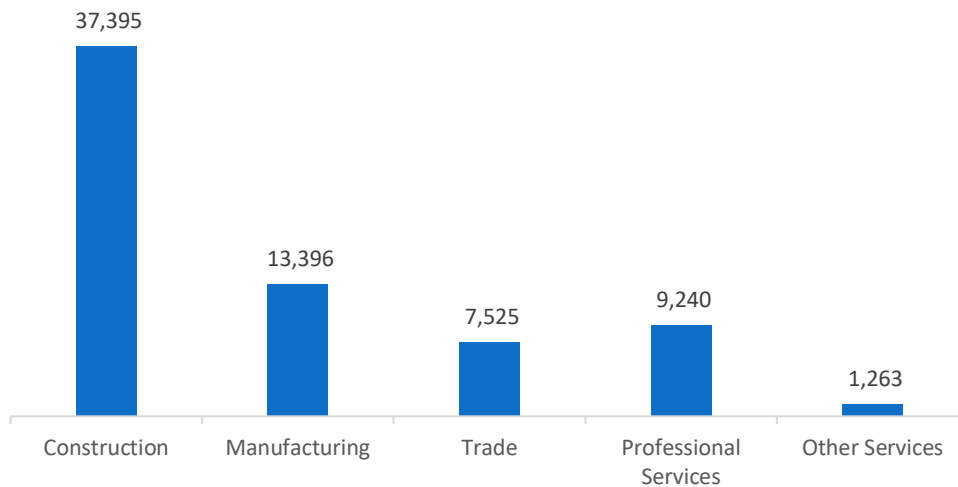
The 68,820 Energy Efficiency jobs in Pennsylvania represent 3.0 percent of all U.S. Energy Efficiency jobs, adding 3,532 jobs (5.4 percent) since last year. The largest number of these employees work in traditional HVAC firms, followed by high efficiency HVAC and renewable heating and cooling.

Figure PA-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

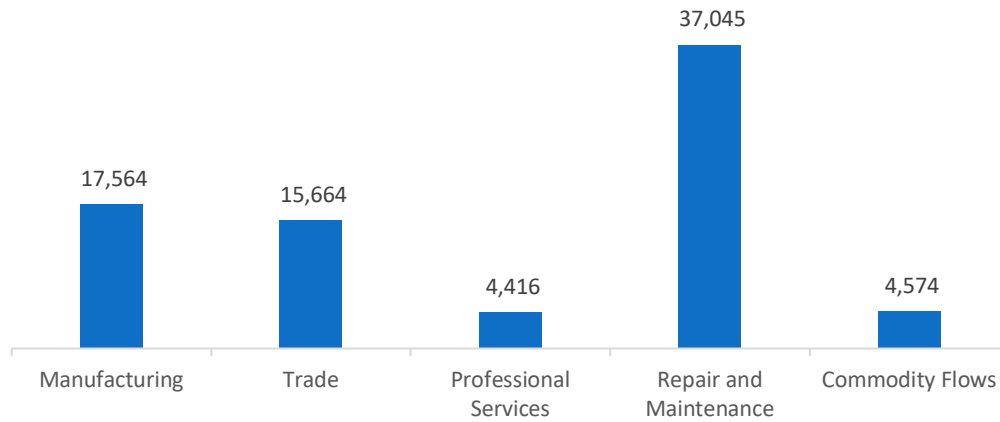
Figure PA-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 79,263 jobs in Pennsylvania, up 2,692 jobs over the past year (3.5 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure PA-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in Pennsylvania are less optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (2.0 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 3,657 jobs in Energy Efficiency (5.3 percent) and Motor Vehicles employers expect to add 1,569 jobs (2.0 percent) over the next year.

Table PA-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	8.1	7.1
Electric Power Transmission, Distribution and Storage	1.9	3.2
Energy Efficiency	5.3	7.8
Fuels	--	3.0
Motor Vehicles	2.0	2.2

Hiring Difficulty

Over the last year, 48.3 percent of energy-related employers in Pennsylvania hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Motor Vehicles.

Table PA-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	31.8	20.7	45.5	54.8
Electric Power Transmission, Distribution and Storage	25.0	21.9	50.0	46.1
Energy Efficiency	38.5	21.3	38.5	48.1
Fuels	16.7	37.9	58.3	43.0
Motor Vehicles	33.3	30.0	46.7	46.4

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

1. Lack of experience, training, or technical skills
2. Insufficient non-technical skills (work ethic, dependability, critical thinking)
3. Difficulty finding industry-specific knowledge, skills, and interest

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

1. Technician or mechanical support – \$24.47 median hourly wage
2. Electrician/construction laborers – \$22.89 median hourly wage
3. Sales, marketing, or customer service – \$31.68 median hourly wage

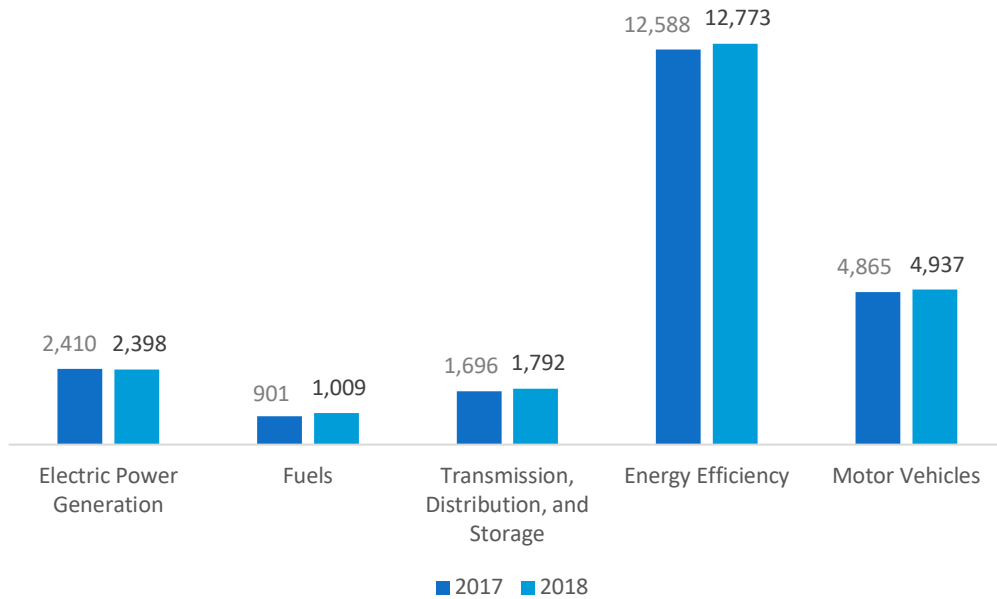
Rhode Island

ENERGY AND EMPLOYMENT – 2019

Overview

Rhode Island has a low concentration of energy employment, with 5,198 Traditional Energy workers statewide (representing 0.2 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 2,398 are in Electric Power Generation, 1,009 are in Fuels, and 1,792 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Rhode Island is 1.1 percent of total state employment (compared to 2.3 percent of national employment). Rhode Island has an additional 12,773 jobs in Energy Efficiency (0.5 percent of all U.S. Energy Efficiency jobs) and 4,937 jobs in Motor Vehicles (0.2 percent of all U.S. Motor Vehicle jobs).

Figure RI-1.
Employment by Major Energy Technology Application



Overall, Traditional Energy jobs grew by 3.8 percent since the 2018 report, increasing by 191 jobs over the period. Energy Efficiency jobs added 184 jobs (1.5 percent) and motor vehicles added 72 jobs (1.5 percent).

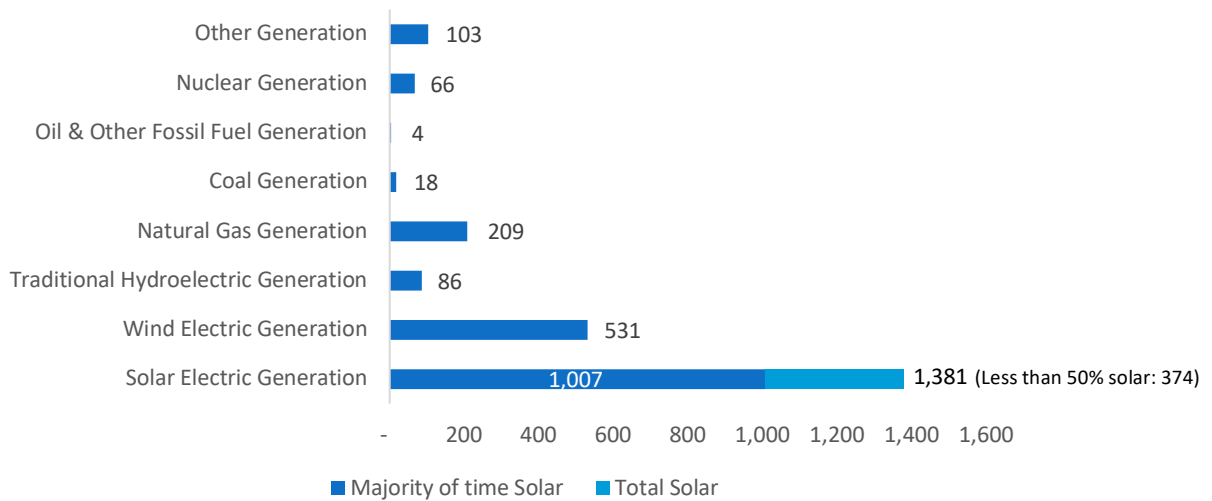
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 2,398 workers in Rhode Island, 0.3 percent of the national total and losing 12 jobs over the past year (-0.5 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 1,381 jobs (down 5.0 percent), followed by wind at 531 jobs (up 1.7 percent).

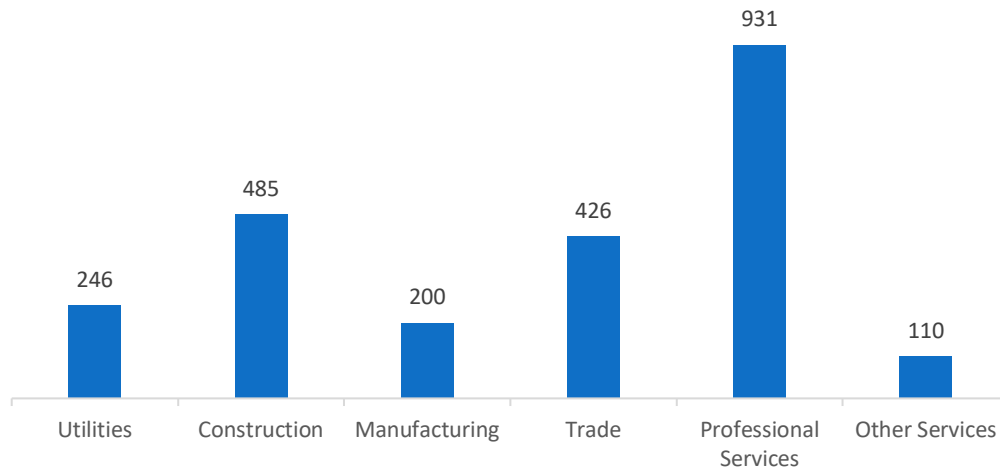
Figure RI-2.

Electric Power Generation Employment by Detailed Technology Application



Professional and business services are the largest industry sector in Electric Power Generation, with 38.8 percent of jobs. Construction is next with 20.2 percent.

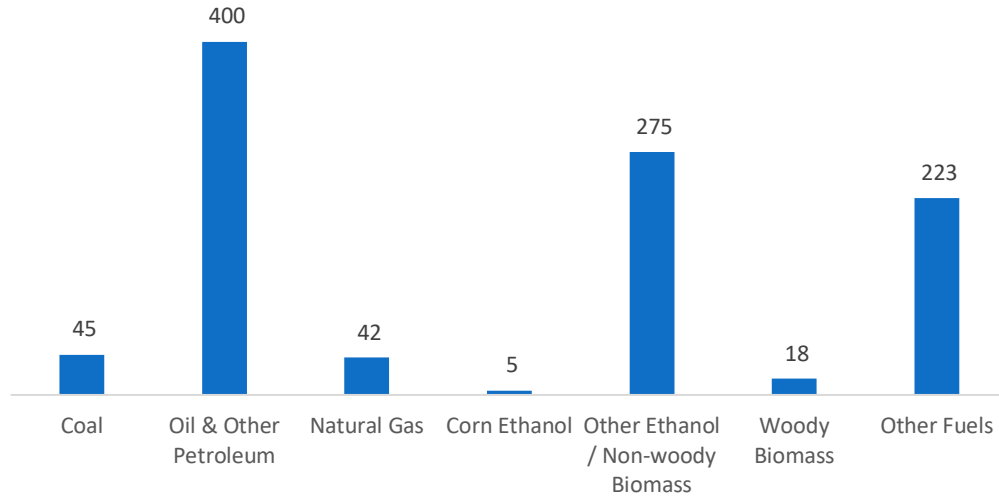
Figure RI-3.



Fuels

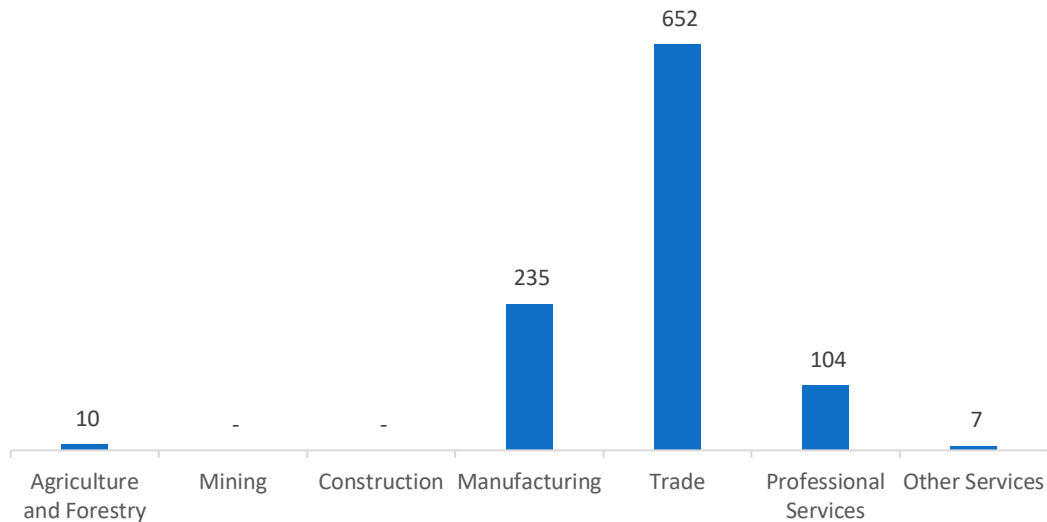
Fuels employs 1,009 workers in Rhode Island, 0.1 percent of the national total, up 12.0 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure RI-4.
Fuels Employment by Detailed Technology Application



Wholesale trade jobs represent 64.6 percent of Fuels jobs in Rhode Island.

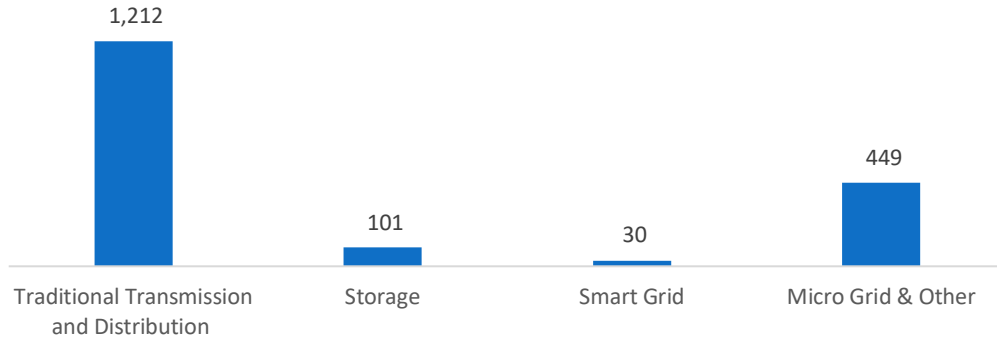
Figure RI-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

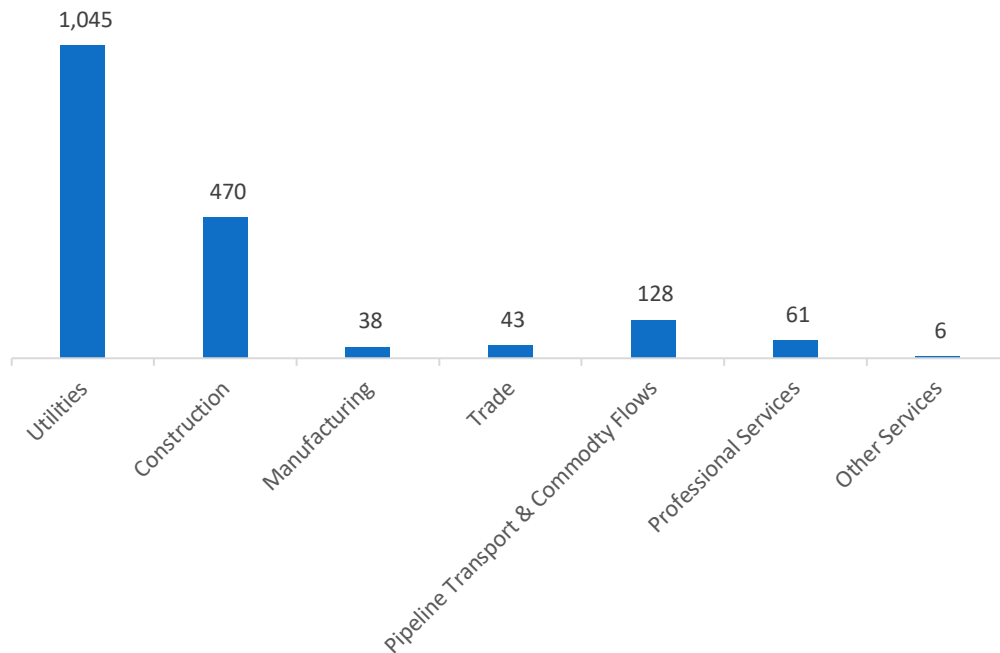
Transmission, Distribution, and Storage employs 1,792 workers in Rhode Island, 0.1 percent of the national total, up 5.6 percent or 95 jobs since the 2018 report.

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



Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Rhode Island, with 58.3 percent of such jobs statewide.

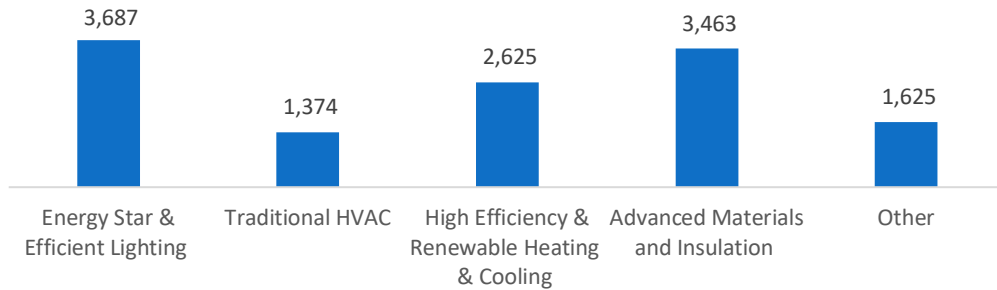
Figure RI-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

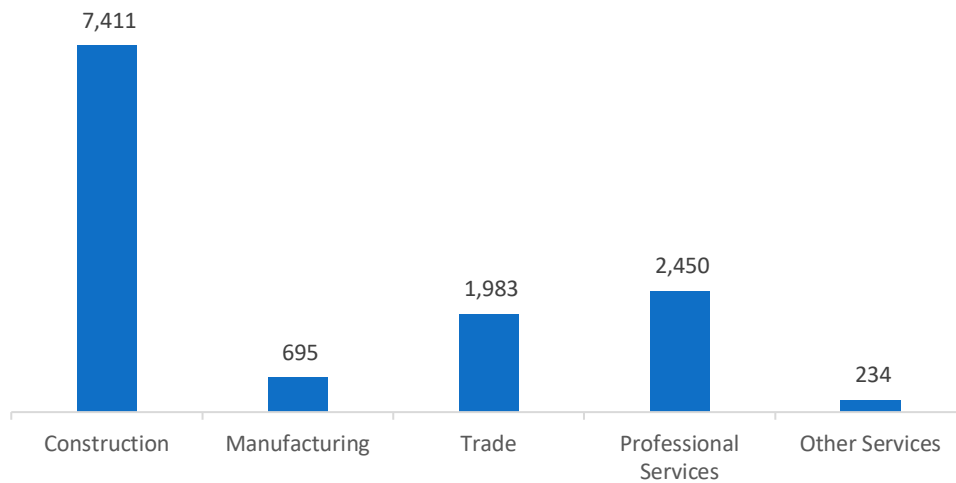
The 12,773 Energy Efficiency jobs in Rhode Island represent 0.5 percent of all U.S. Energy Efficiency jobs, adding 184 jobs (1.5 percent) since last year. The largest number of these employees work in ENERGY STAR and efficient lighting firms, followed by advanced materials and insulation.

Figure RI-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

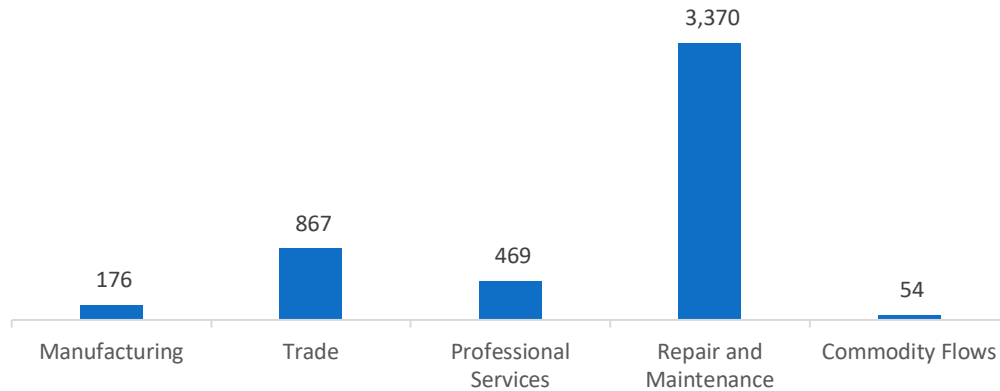
Figure RI-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 4,937 jobs in Rhode Island, up 72 jobs over the past year (1.5 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure RI-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in Rhode Island are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (7.4 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 914 jobs in Energy Efficiency (7.2 percent) and Motor Vehicles employers expect to add 196 jobs (4.0 percent) over the next year.

Table RI-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	10.6	7.1
Electric Power Transmission, Distribution and Storage	7.2	3.2
Energy Efficiency	7.2	7.8
Fuels	--	3.0
Motor Vehicles	4.0	2.2

Hiring Difficulty

Over the last year, 31.3 percent of energy-related employers in Rhode Island hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Electric Power Generation.

Table RI-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	--	20.7	100.0	54.8
Electric Power Transmission, Distribution and Storage	--	21.9	100.0	46.1
Energy Efficiency	42.9	21.3	28.6	48.1
Fuels	--	37.9	--	43.0
Motor Vehicles	--	30.0	100.0	46.4

Employers in Rhode Island 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. Insufficient qualifications (certifications or education)

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

1. Technician or mechanical support – \$25.08 median hourly wage
2. Electrician/construction laborers – \$26.85 median hourly wage
3. Sales, marketing, or customer service – \$57.74 median hourly wage

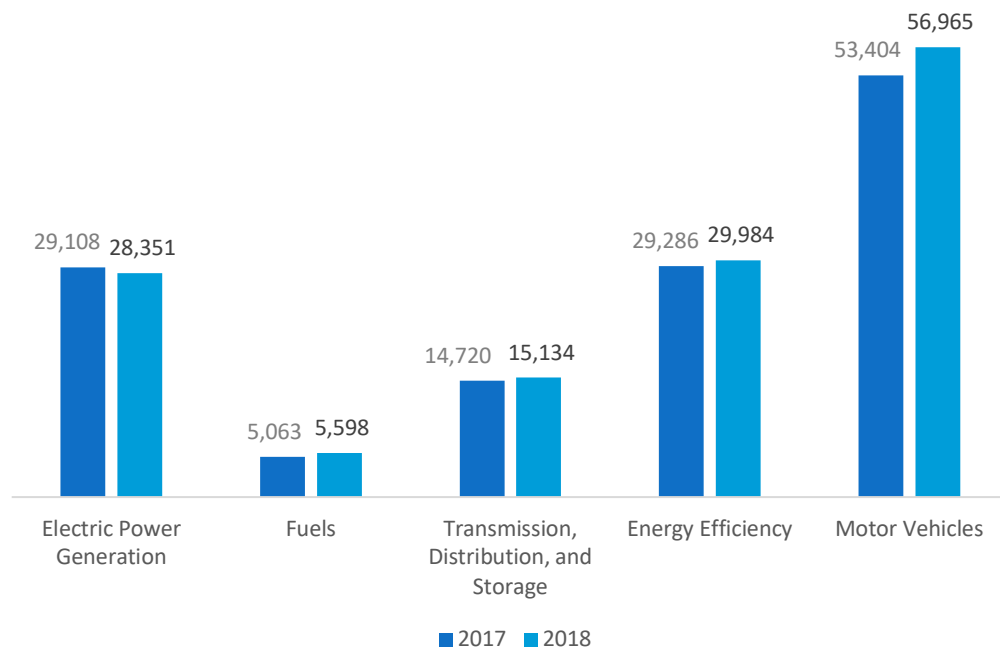
South Carolina

ENERGY AND EMPLOYMENT — 2019

Overview

South Carolina has an average concentration of energy employment, with 49,083 Traditional Energy workers statewide (representing 1.5 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 28,351 are in Electric Power Generation, 5,598 are in Fuels, and 15,134 are in Transmission, Distribution, and Storage. The Traditional Energy sector in South Carolina is 2.3 percent of total state employment (compared to 2.3 percent of national employment). South Carolina has an additional 29,984 jobs in Energy Efficiency (1.3 percent of all U.S. Energy Efficiency jobs) and 56,965 jobs in Motor Vehicles (2.2 percent of all U.S. Motor Vehicle jobs).

Figure SC-1.
Employment by Major Energy Technology Application



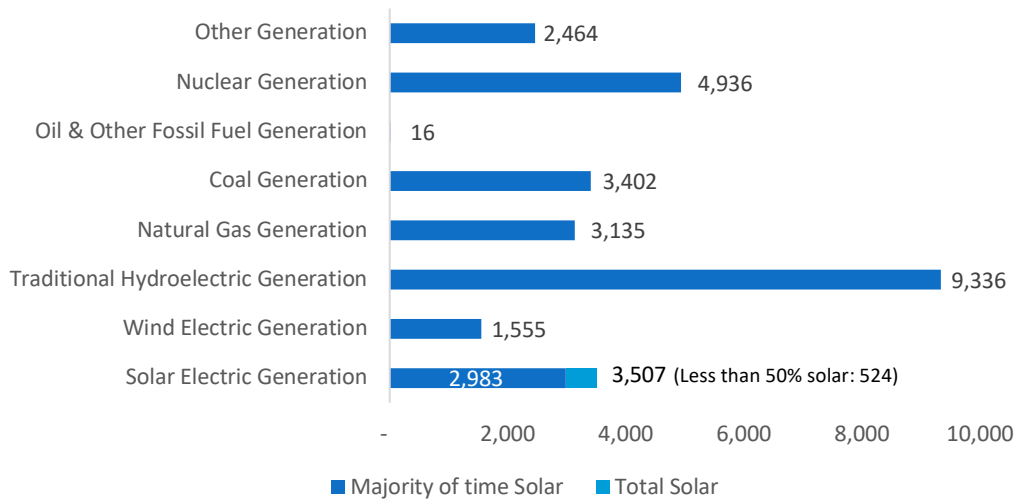
Overall, Traditional Energy jobs grew by 0.4 percent since the 2018 report, increasing by 192 jobs over the period. Energy Efficiency jobs added 699 jobs (2.4 percent) and motor vehicles added 3,562 jobs (6.7 percent).

Breakdown by Technology Applications

Electric Power Generation

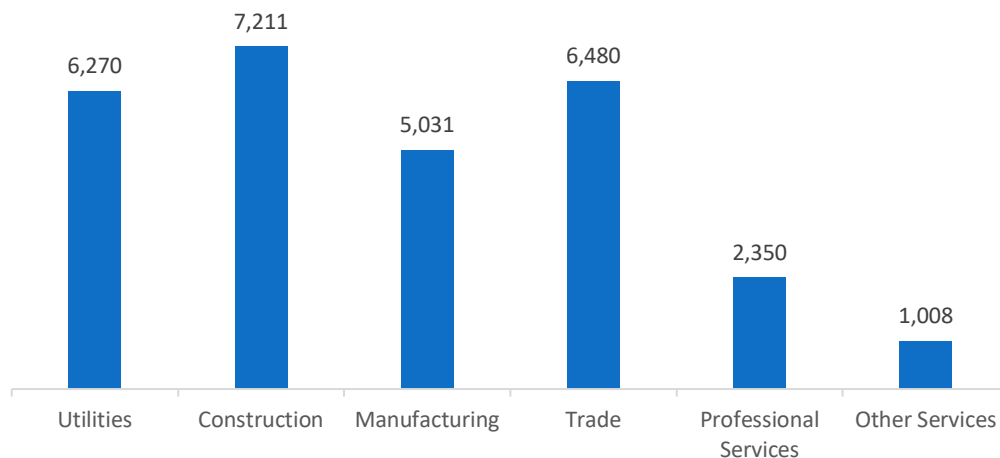
Electric Power Generation employs 28,351 workers in South Carolina, 3.2 percent of the national total and losing 757 jobs over the past year (-2.6 percent). Traditional hydroelectric generation makes up the largest segment of employment related to Electric Power Generation, with 9,336 jobs (down 5.4 percent), followed by traditional fossil fuel generation at 6,553 jobs (down 4.9 percent).

Figure SC-2.
Electric Power Generation Employment by Detailed Technology Application



Construction is the largest industry sector in Electric Power Generation, with 25.4 percent of jobs. Wholesale trade is next with 22.9 percent.

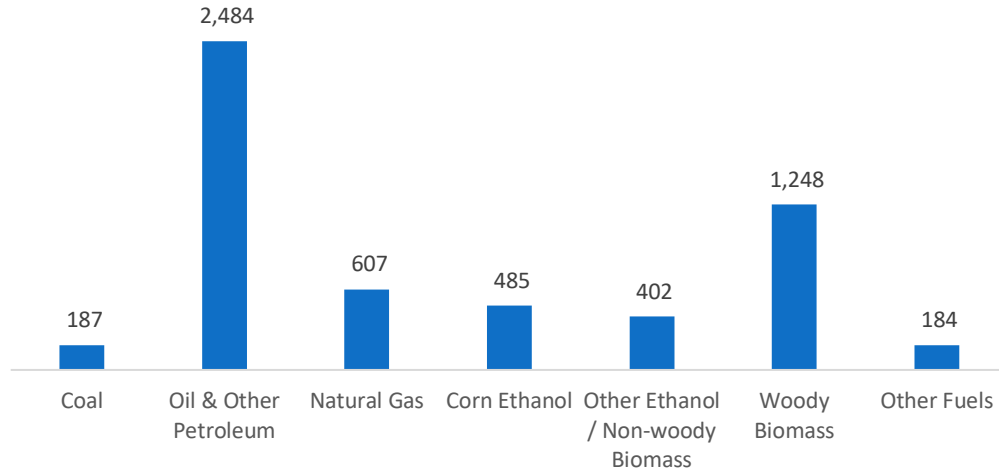
Figure SC-3.



Fuels

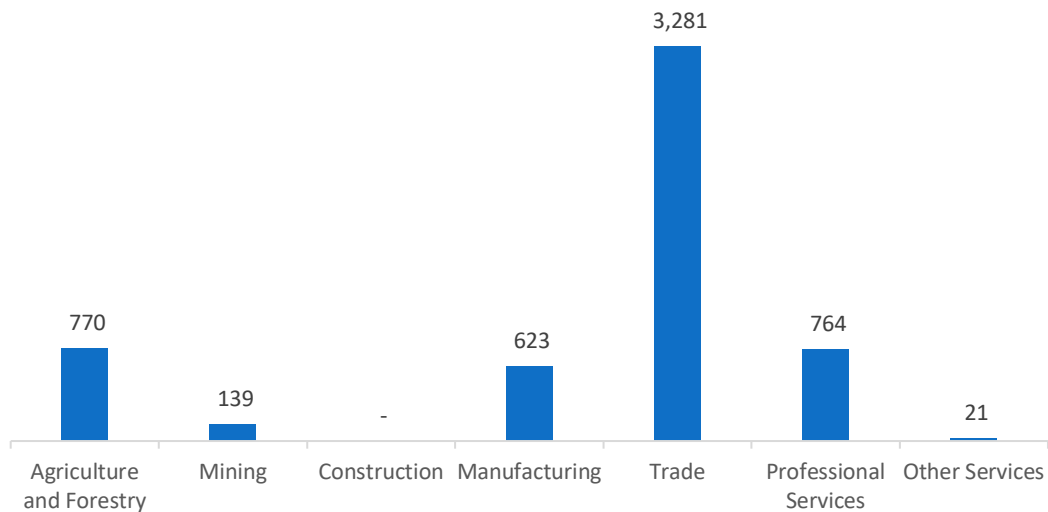
Fuels employs 5,598 workers in South Carolina, 0.5 percent of the national total, up 10.6 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure SC-4.
Fuels Employment by Detailed Technology Application



Wholesale trade jobs represent 58.6 percent of Fuels jobs in South Carolina.

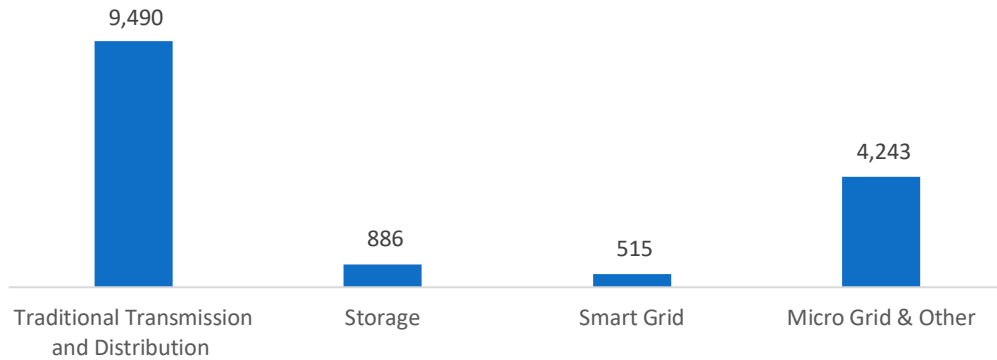
Figure SC-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

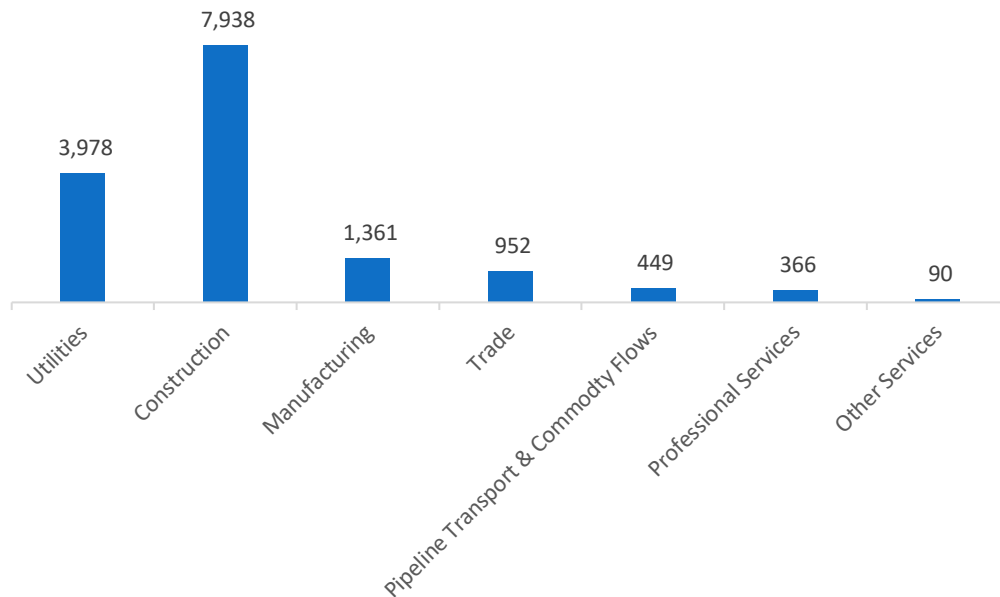
Transmission, Distribution, and Storage employs 15,134 workers in South Carolina, 1.1 percent of the national total, up 2.8 percent or 414 jobs since the 2018 report.

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



Construction is responsible for the largest percentage of Transmission, Distribution, and Storage jobs in South Carolina, with 52.5 percent of such jobs statewide.

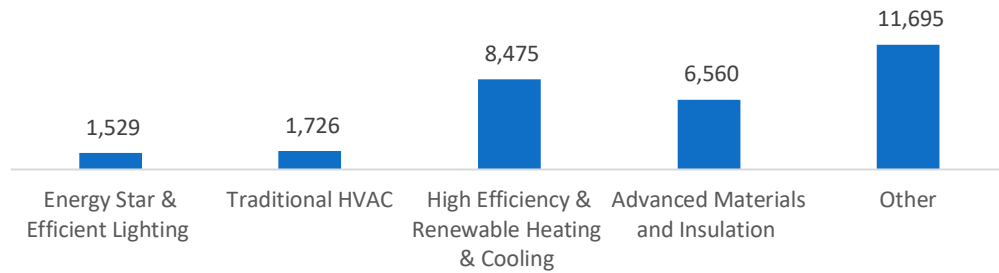
Figure SC-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

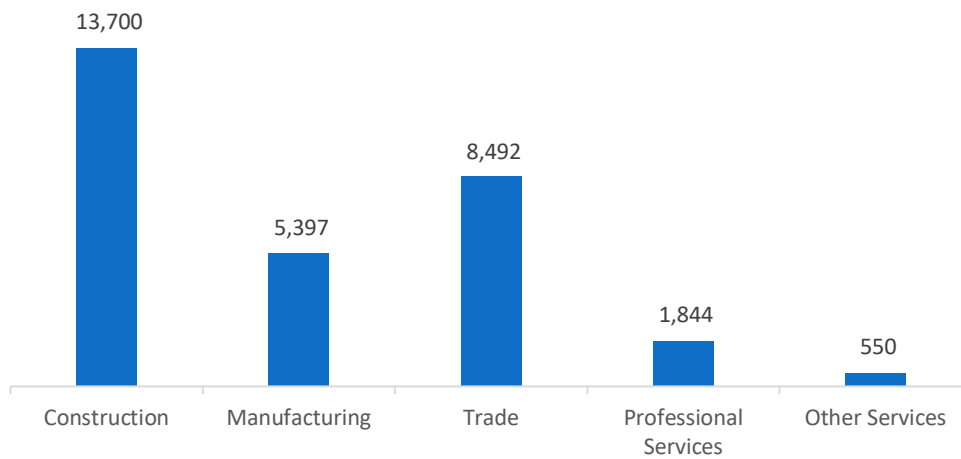
The 29,984 Energy Efficiency jobs in South Carolina represent 1.3 percent of all U.S. Energy Efficiency jobs, adding 699 jobs (2.4 percent) since last year. The largest number of these employees work in other energy efficiency products and services firms, followed by high efficiency HVAC and renewable heating and cooling.

Figure SC-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

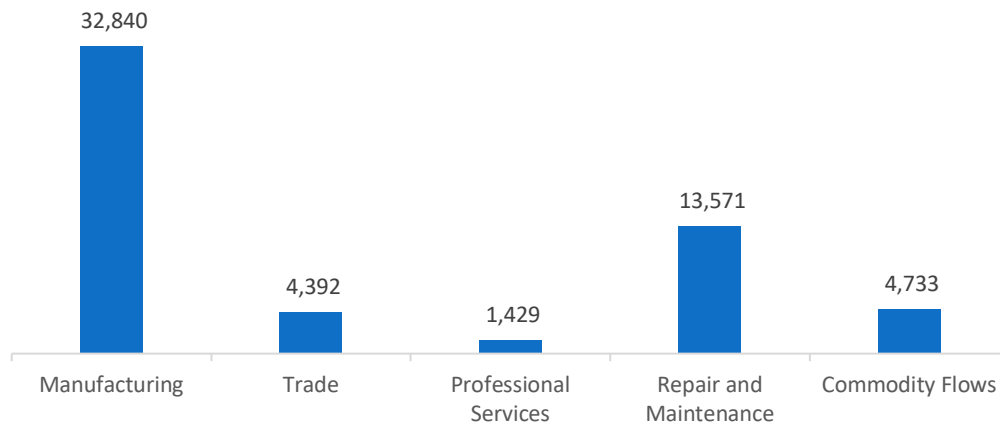
Figure SC-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 56,965 jobs in South Carolina, up 3,562 jobs over the past year (6.7 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is manufacturing.

Figure SC-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in South Carolina are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (6.0 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 451 jobs in Energy Efficiency (1.5 percent) and Motor Vehicles employers expect to add 1,128 jobs (2.0 percent) over the next year.

Table SC-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	8.4	7.1
Electric Power Transmission, Distribution and Storage	3.7	3.2
Energy Efficiency	1.5	7.8
Fuels	--	3.0
Motor Vehicles	2.0	2.2

Hiring Difficulty

Over the last year, 47.5 percent of energy-related employers in South Carolina hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Motor Vehicles.

Table SC-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	40.0	20.7	40.0	54.8
Electric Power Transmission, Distribution and Storage	40.0	21.9	20.0	46.1
Energy Efficiency	12.5	21.3	50.0	48.1
Fuels	--	37.9	--	43.0
Motor Vehicles	60.0	30.0	20.0	46.4

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

1. Lack of experience, training, or technical skills
2. Difficulty finding industry-specific knowledge, skills, and interest
3. Competition/ small applicant pool

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

1. Technician or mechanical support – \$15.59 median hourly wage
2. Electrician/construction laborers – \$16.99 median hourly wage
3. Management (directors, supervisors, vice presidents) – \$35.45 median hourly wage

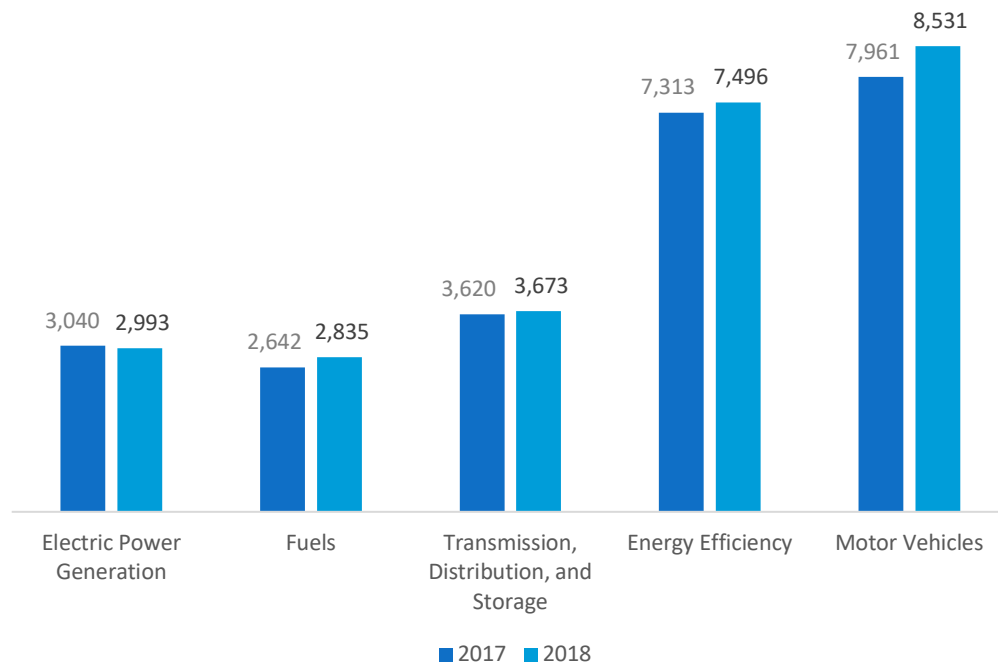
South Dakota

ENERGY AND EMPLOYMENT – 2019

Overview

South Dakota has an average concentration of energy employment, with 9,501 Traditional Energy workers statewide (representing 0.3 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 2,993 are in Electric Power Generation, 2,835 are in Fuels, and 3,673 are in Transmission, Distribution, and Storage. The Traditional Energy sector in South Dakota is 2.2 percent of total state employment (compared to 2.3 percent of national employment). South Dakota has an additional 7,496 jobs in Energy Efficiency (0.3 percent of all U.S. Energy Efficiency jobs) and 8,531 jobs in Motor Vehicles (0.3 percent of all U.S. Motor Vehicle jobs).

Figure SD-1.
Employment by Major Energy Technology Application



Overall, Traditional Energy jobs grew by 2.1 percent since the 2018 report, increasing by 198 jobs over the period. Energy Efficiency jobs added 184 jobs (2.5 percent) and motor vehicles added 570 jobs (7.2 percent).

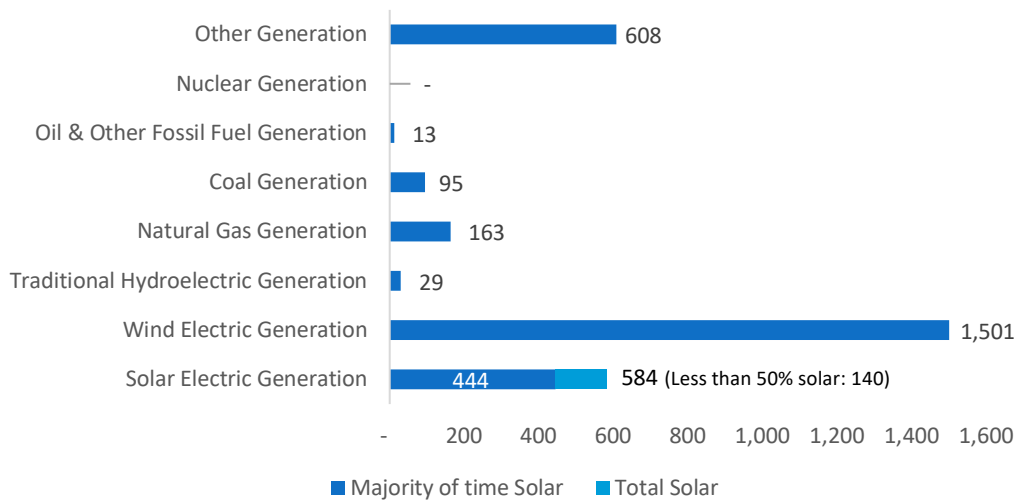
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 2,993 workers in South Dakota, 0.3 percent of the national total and losing 47 jobs over the past year (-1.5 percent). Wind makes up the largest segment of employment related to Electric Power Generation, with 1,501 jobs (down 0.8 percent), followed by solar at 584 jobs (down 3.1 percent).

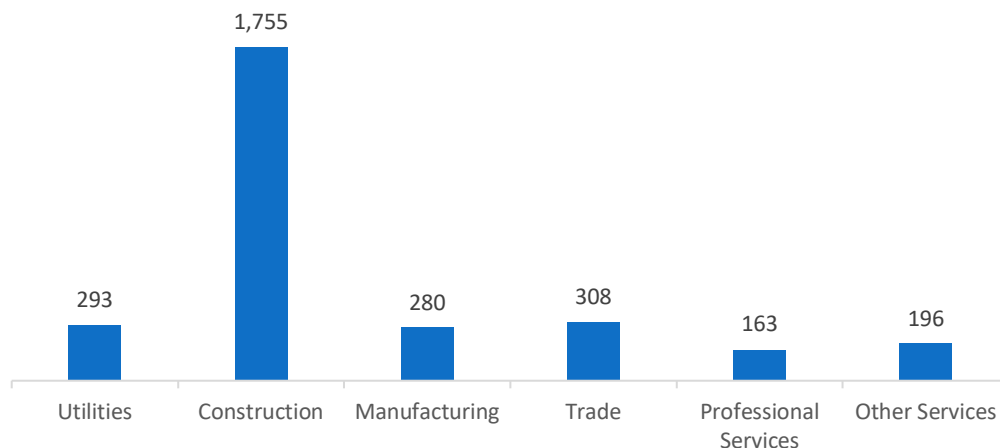
Figure SD-2.

Electric Power Generation Employment by Detailed Technology Application



Construction is the largest industry sector in Electric Power Generation, with 58.6 percent of jobs. Wholesale trade is next with 10.3 percent.

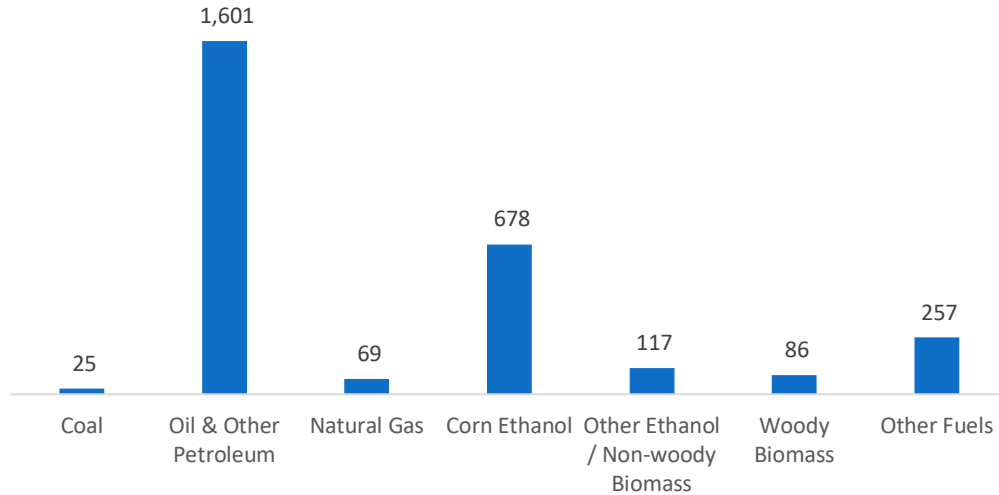
Figure SD-3.



Fuels

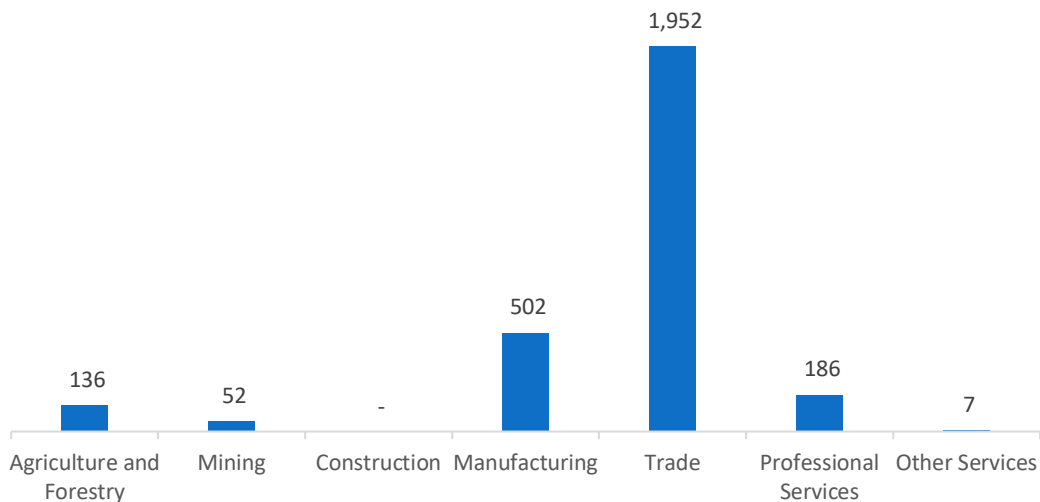
Fuels employs 2,835 workers in South Dakota, 0.3 percent of the national total, up 7.3 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure SD-4.
Fuels Employment by Detailed Technology Application



Wholesale trade jobs represent 68.9 percent of Fuels jobs in South Dakota.

Figure SD-5.
Fuels Employment by Industry Sector

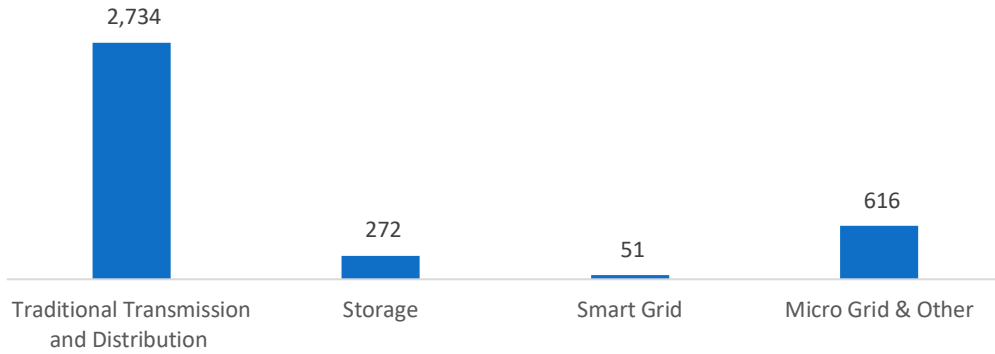


Transmission, Distribution and Storage

Transmission, Distribution, and Storage employs 3,673 workers in South Dakota, 0.3 percent of the national total, up 1.4 percent or 52 jobs since the 2018 report.

Figure SD-6.

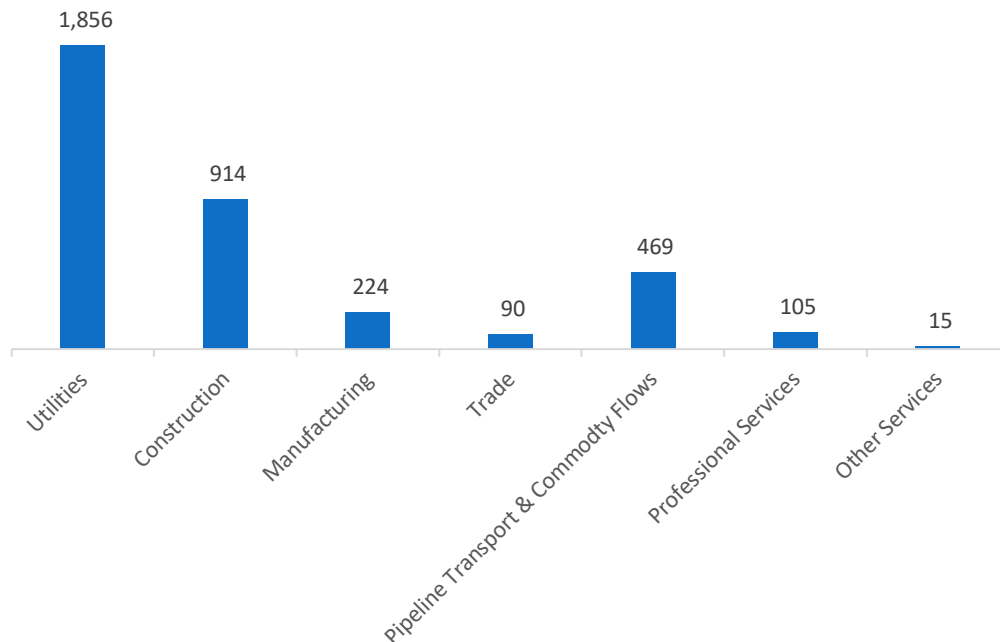
Transmission, Distribution and Storage Employment by Detailed Technology



Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in South Dakota, with 50.5 percent of such jobs statewide.

Figure SD-7.

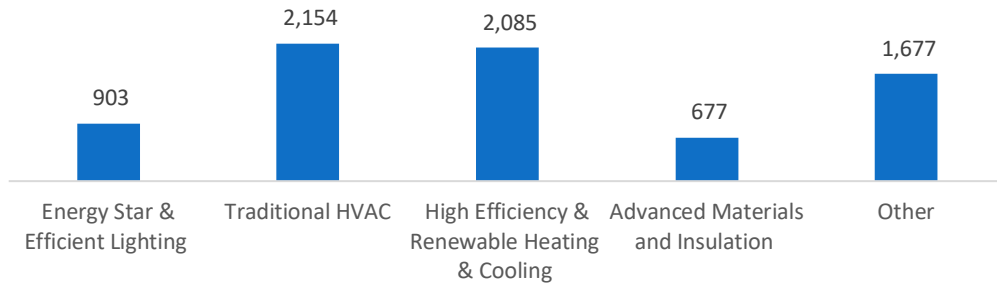
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

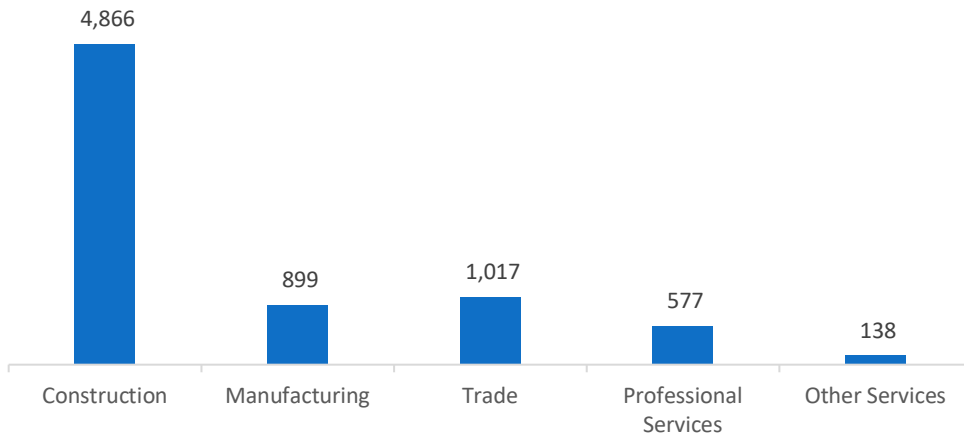
The 7,496 Energy Efficiency jobs in South Dakota represent 0.3 percent of all U.S. Energy Efficiency jobs, adding 184 jobs (2.5 percent) since last year. The largest number of these employees work in traditional HVAC firms, followed by high efficiency HVAC and renewable heating and cooling.

Figure SD-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

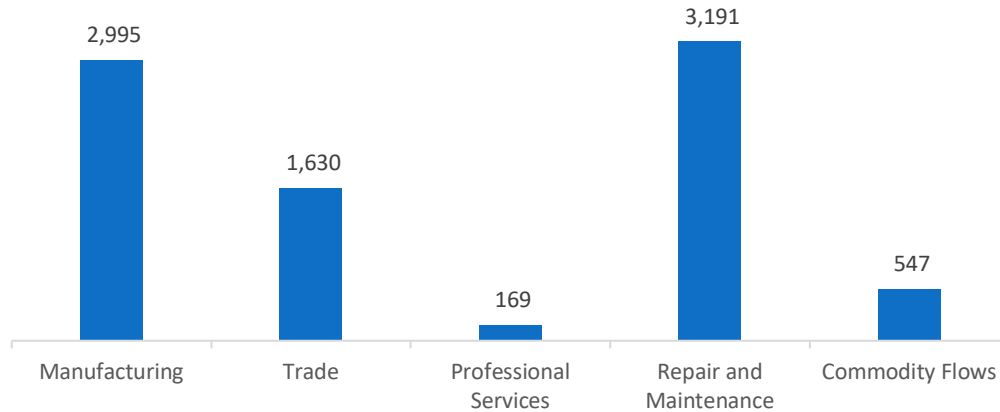
Figure SD-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 8,531 jobs in South Dakota, up 570 jobs over the past year (7.2 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure SD-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in South Dakota are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (4.7 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 645 jobs in Energy Efficiency (8.6 percent) and Motor Vehicles employers expect to add 169 jobs (2.0 percent) over the next year.

Table SD-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	8.2	7.1
Electric Power Transmission, Distribution and Storage	5.4	3.2
Energy Efficiency	8.6	7.8
Fuels	--	3.0
Motor Vehicles	2.0	2.2

Hiring Difficulty

Over the last year, 69.0 percent of energy-related employers in South Dakota hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Electric Power Generation.

Table SD-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	--	20.7	100.0	54.8
Electric Power Transmission, Distribution and Storage	25.0	21.9	25.0	46.1
Energy Efficiency	50.0	21.3	16.7	48.1
Fuels	--	37.9	100.0	43.0
Motor Vehicles	--	30.0	100.0	46.4

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

1. Lack of experience, training, or technical skills
2. Economy/structural problem
3. Insufficient non-technical skills (work ethic, dependability, critical thinking)

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

1. Technician or mechanical support – \$22.10 median hourly wage
2. Electrician/construction laborers – \$23.24 median hourly wage
3. Sales, marketing, or customer service – \$30.82 median hourly wage

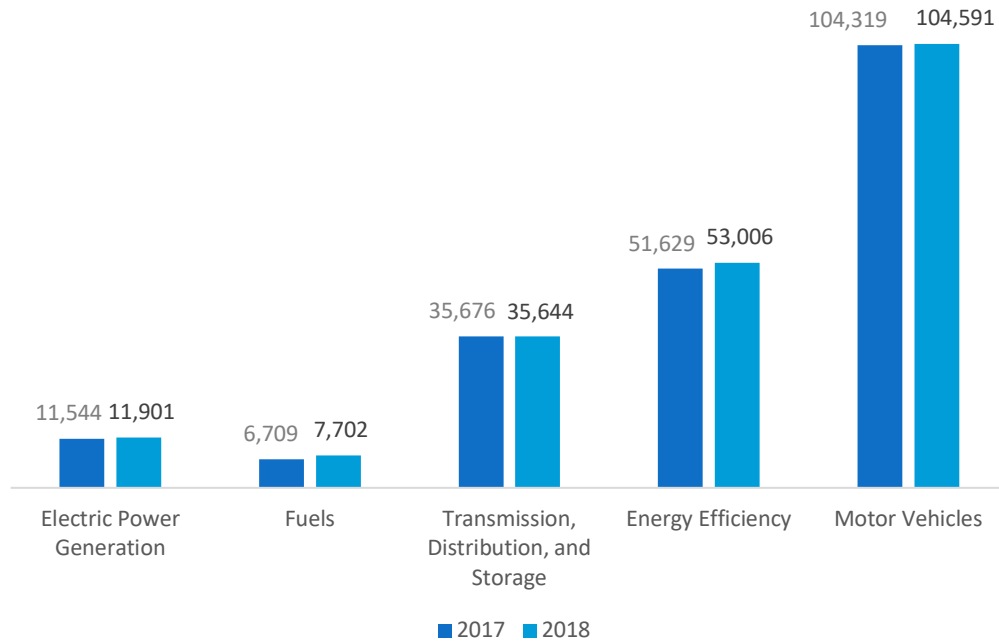
Tennessee

ENERGY AND EMPLOYMENT – 2019

Overview

Tennessee has a low concentration of energy employment, with 55,248 Traditional Energy workers statewide (representing 1.6 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 11,901 are in Electric Power Generation, 7,702 are in Fuels, and 35,644 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Tennessee is 1.8 percent of total state employment (compared to 2.3 percent of national employment). Tennessee has an additional 53,006 jobs in Energy Efficiency (2.3 percent of all U.S. Energy Efficiency jobs) and 104,591 jobs in Motor Vehicles (4.1 percent of all U.S. Motor Vehicle jobs).

Figure TN-1.
Employment by Major Energy Technology Application



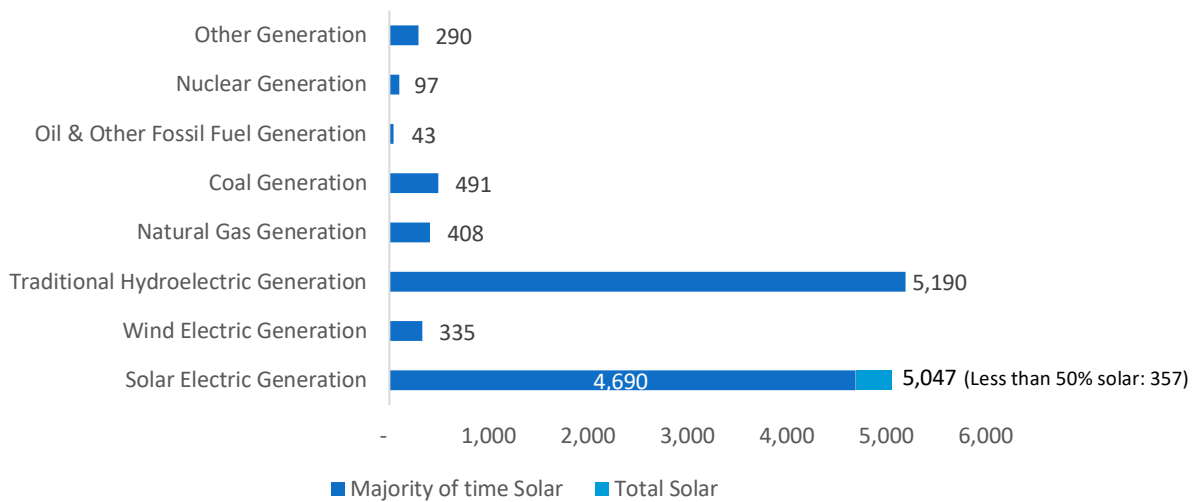
Overall, Traditional Energy jobs grew by 2.4 percent since the 2018 report, increasing by 1,319 jobs over the period. Energy Efficiency jobs added 1,378 jobs (2.7 percent) and motor vehicles added 272 jobs (0.3 percent).

Breakdown by Technology Applications

Electric Power Generation

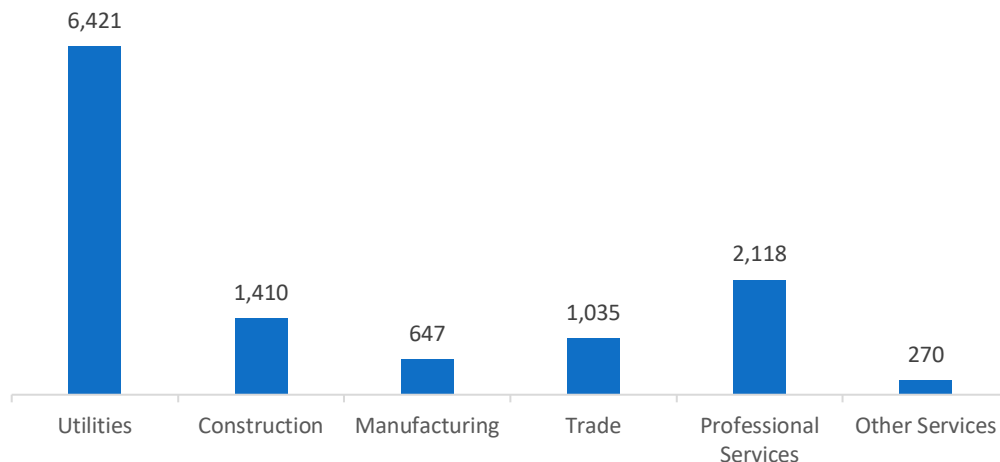
Electric Power Generation employs 11,901 workers in Tennessee, 1.4 percent of the national total and adding 357 jobs over the past year (3.1 percent). Traditional hydroelectric generation makes up the largest segment of employment related to Electric Power Generation, with 5,190 jobs (down 0.4 percent), followed by solar at 5,047 jobs (up 0.9 percent).

Figure TN-2.
Electric Power Generation Employment by Detailed Technology Application



Utilities are the largest industry sector in Electric Power Generation, with 53.9 percent of jobs. Professional and business services are next with 17.8 percent.

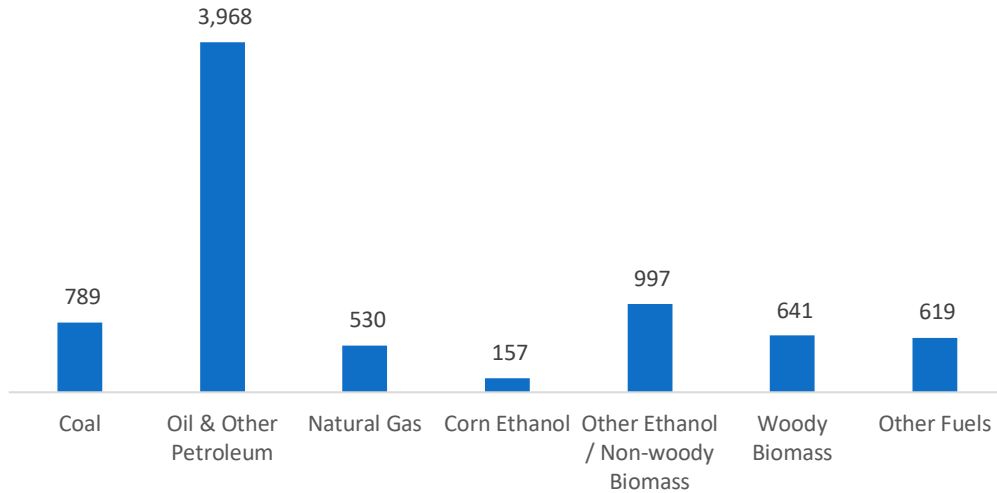
Figure TN-3.



Fuels

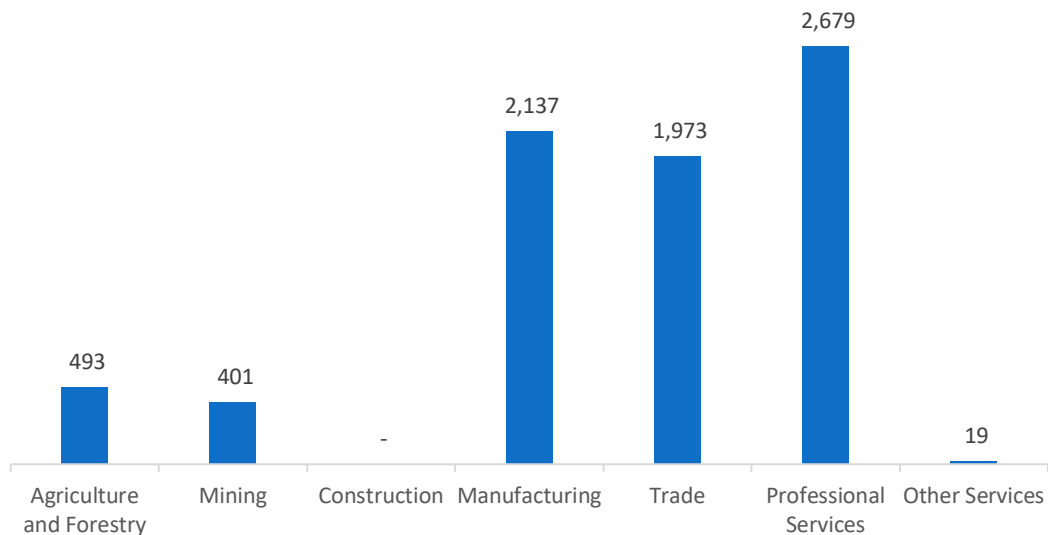
Fuels employs 7,702 workers in Tennessee, 0.7 percent of the national total, up 14.8 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure TN-4.
Fuels Employment by Detailed Technology Application



Professional and business services jobs represent 34.8 percent of Fuels jobs in Tennessee.

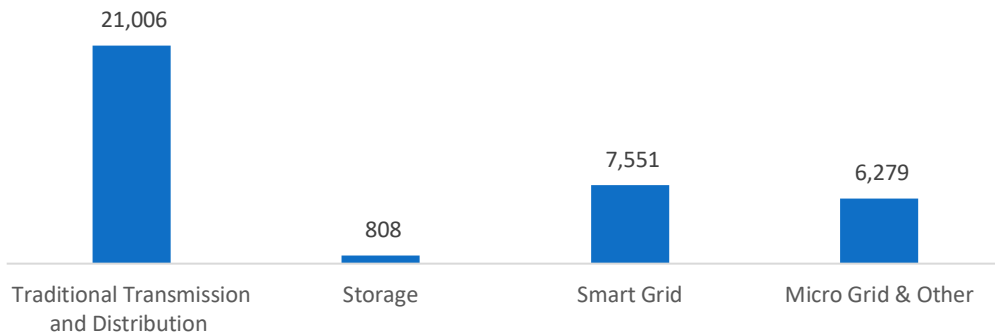
Figure TN-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

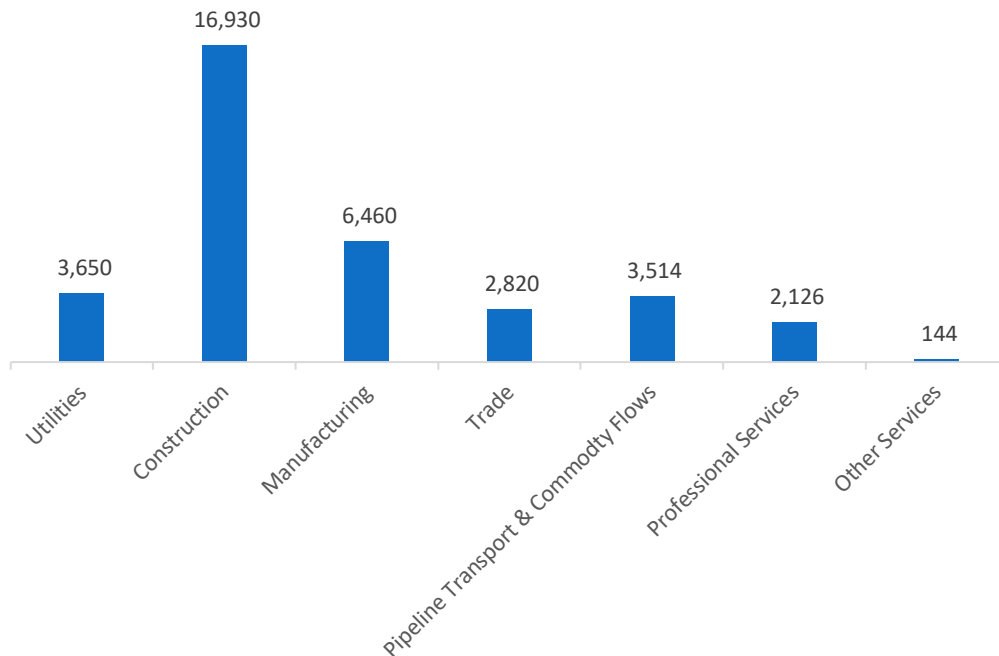
Transmission, Distribution, and Storage employs 35,644 workers in Tennessee, 2.6 percent of the national total, down 0.1 percent or 31 jobs since the 2018 report.

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



Construction is responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Tennessee, with 47.5 percent of such jobs statewide.

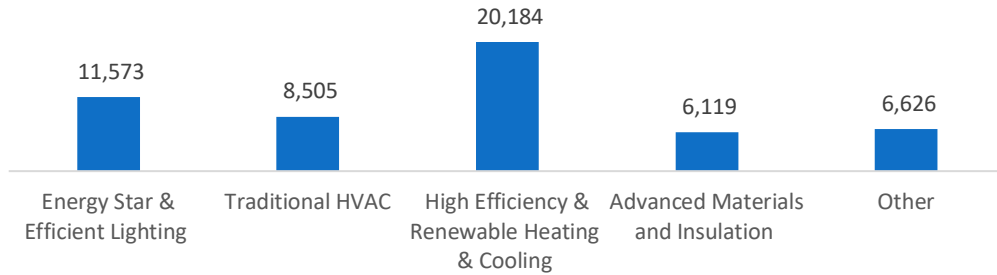
Figure TN-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

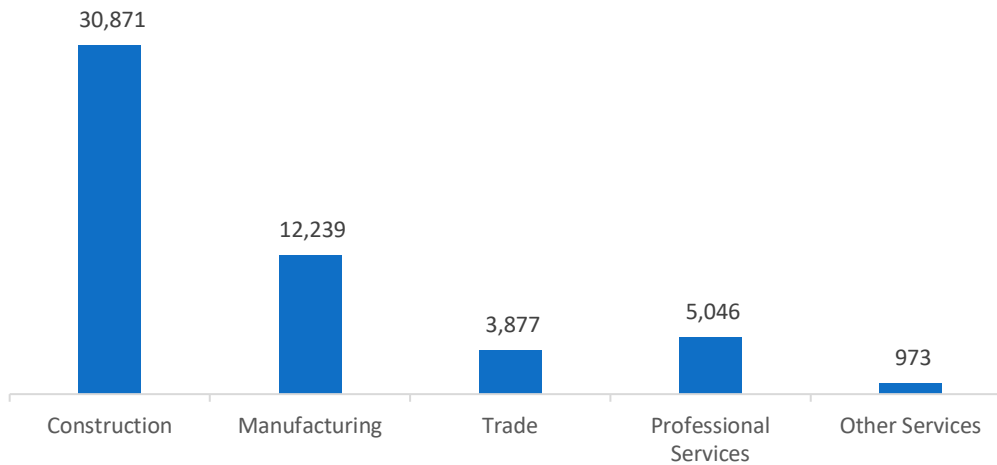
The 53,006 Energy Efficiency jobs in Tennessee represent 2.3 percent of all U.S. Energy Efficiency jobs, adding 1,378 jobs (2.7 percent) since last year. The largest number of these employees work in high efficiency HVAC and renewable heating and cooling firms, followed by ENERGY STAR and efficient lighting.

Figure TN-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

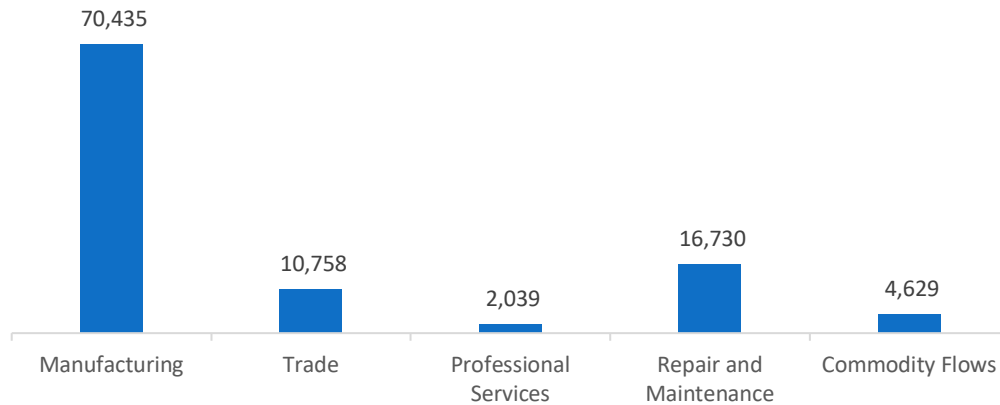
Figure TN-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 104,591 jobs in Tennessee, up 272 jobs over the past year (0.3 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is manufacturing.

Figure TN-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in Tennessee are less optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (-0.0 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 3,310 jobs in Energy Efficiency (6.2 percent) and Motor Vehicles employers expect to add 2,071 jobs (2.0 percent) over the next year.

Table TN-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	0.7	7.1
Electric Power Transmission, Distribution and Storage	--	3.2
Energy Efficiency	6.2	7.8
Fuels	(1.3)	3.0
Motor Vehicles	2.0	2.2

Hiring Difficulty

Over the last year, 60.6 percent of energy-related employers in Tennessee hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Motor Vehicles.

Table TN-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	28.6	20.7	57.1	54.8
Electric Power Transmission, Distribution and Storage	14.3	21.9	42.9	46.1
Energy Efficiency	50.0	21.3	30.0	48.1
Fuels	--	37.9	66.7	43.0
Motor Vehicles	71.4	30.0	28.6	46.4

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

1. Lack of experience, training, or technical skills
2. Insufficient non-technical skills (work ethic, dependability, critical thinking)
3. Insufficient qualifications (certifications or education)

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

1. Technician or mechanical support – \$20.65 median hourly wage
2. Electrician/construction laborers – \$19.23 median hourly wage
3. Sales, marketing, or customer service – \$30.10 median hourly wage

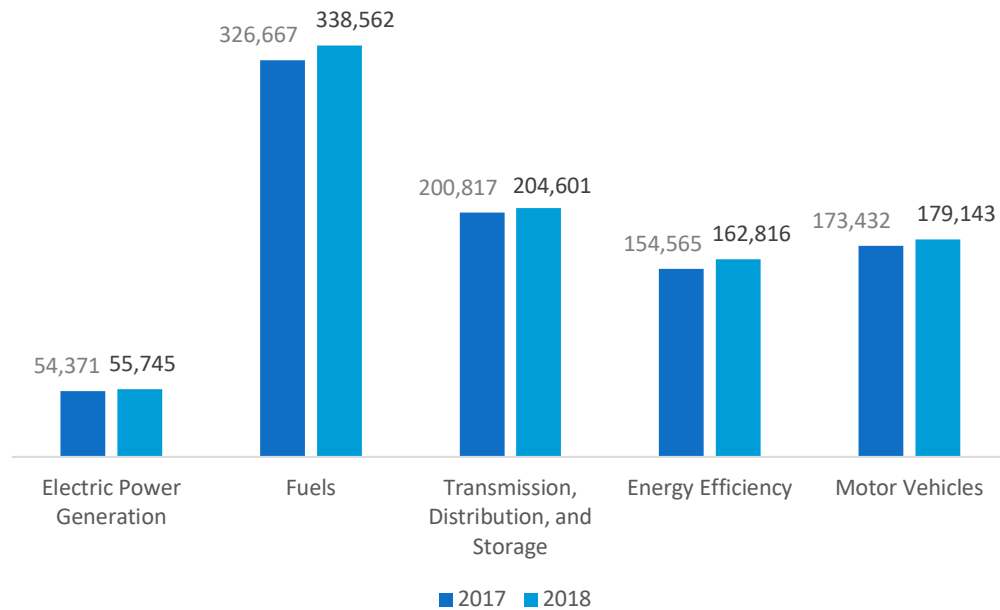
Texas

ENERGY AND EMPLOYMENT — 2019

Overview

Texas has a high concentration of energy employment, with 598,908 Traditional Energy workers statewide (representing 17.8 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 55,745 are in Electric Power Generation, 338,562 are in Fuels, and 204,601 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Texas is 4.9 percent of total state employment (compared to 2.3 percent of national employment). Texas has an additional 162,816 jobs in Energy Efficiency (7.0 percent of all U.S. Energy Efficiency jobs) and 179,143 jobs in Motor Vehicles (7.1 percent of all U.S. Motor Vehicle jobs).

Figure TX-1.
Employment by Major Energy Technology Application



Overall, Traditional Energy jobs grew by 2.9 percent since the 2018 report, increasing by 17,054 jobs over the period. Energy Efficiency jobs added 8,251 jobs (5.3 percent) and motor vehicles added 5,710 jobs (3.3 percent).

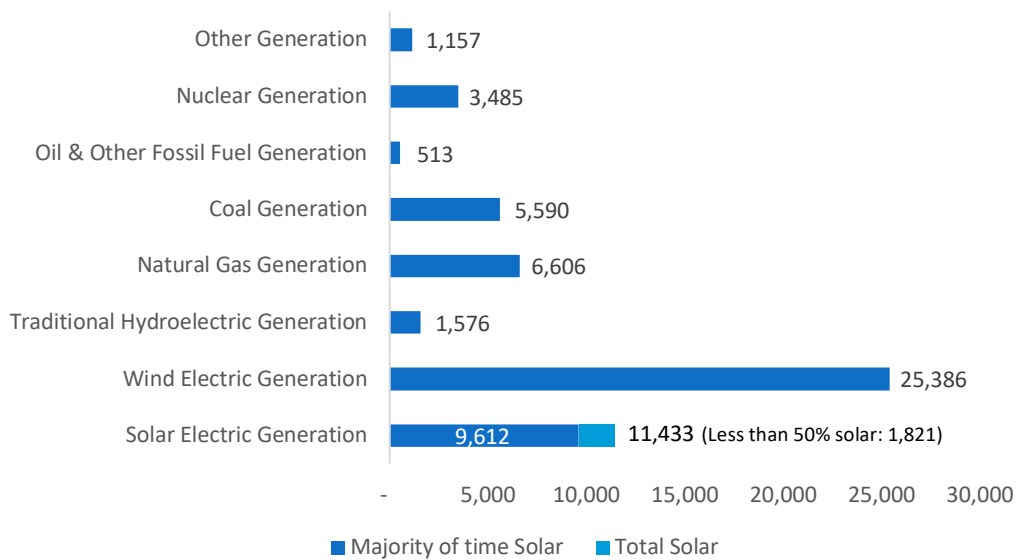
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 55,745 workers in Texas, 6.4 percent of the national total and adding 1,375 jobs over the past year (2.5 percent). Wind makes up the largest segment of employment related to Electric Power Generation, with 25,386 jobs (up 0.6 percent), followed by traditional fossil fuel generation at 12,709 jobs (up 1.9 percent).

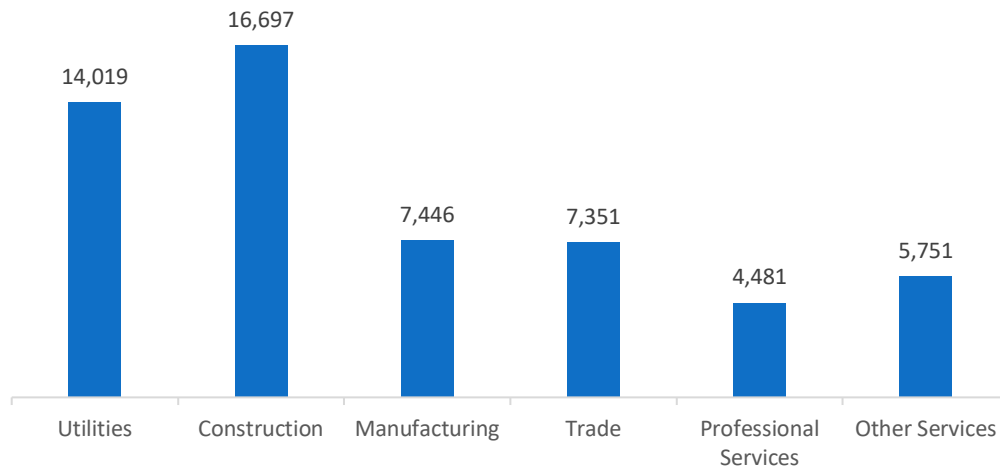
Figure TX-2.

Electric Power Generation Employment by Detailed Technology Application



Construction is the largest industry sector in Electric Power Generation, with 30.0 percent of jobs. Utilities are next with 25.1 percent.

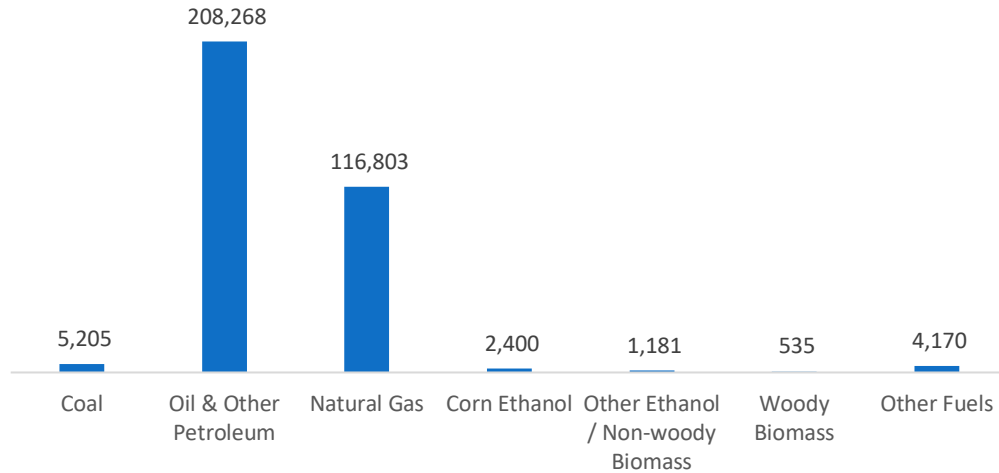
Figure TX-3.



Fuels

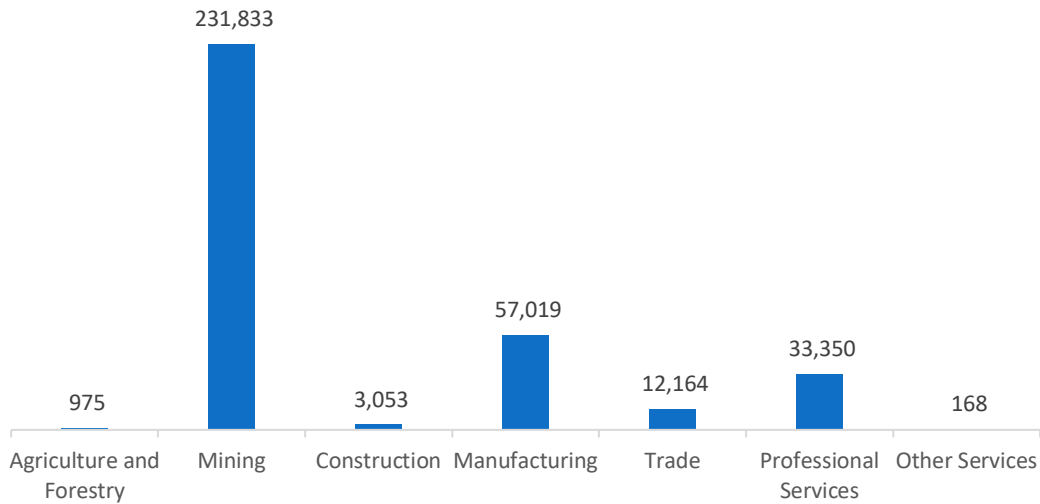
Fuels employs 338,562 workers in Texas, 30.0 percent of the national total, up 3.6 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure TX-4.
Fuels Employment by Detailed Technology Application



Mining and extraction jobs represent 68.5 percent of Fuels jobs in Texas.

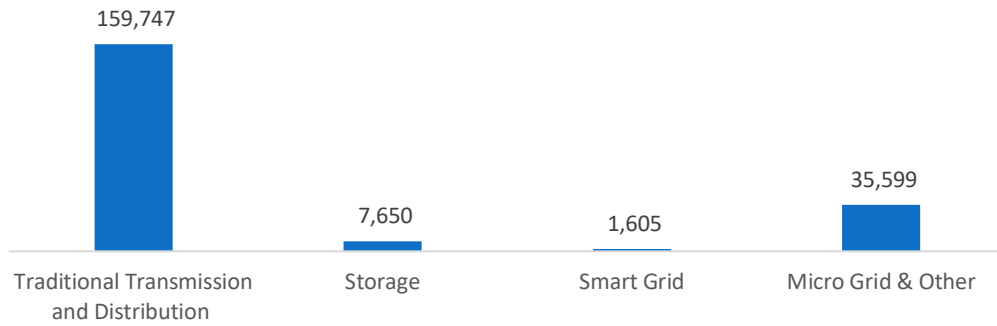
Figure TX-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

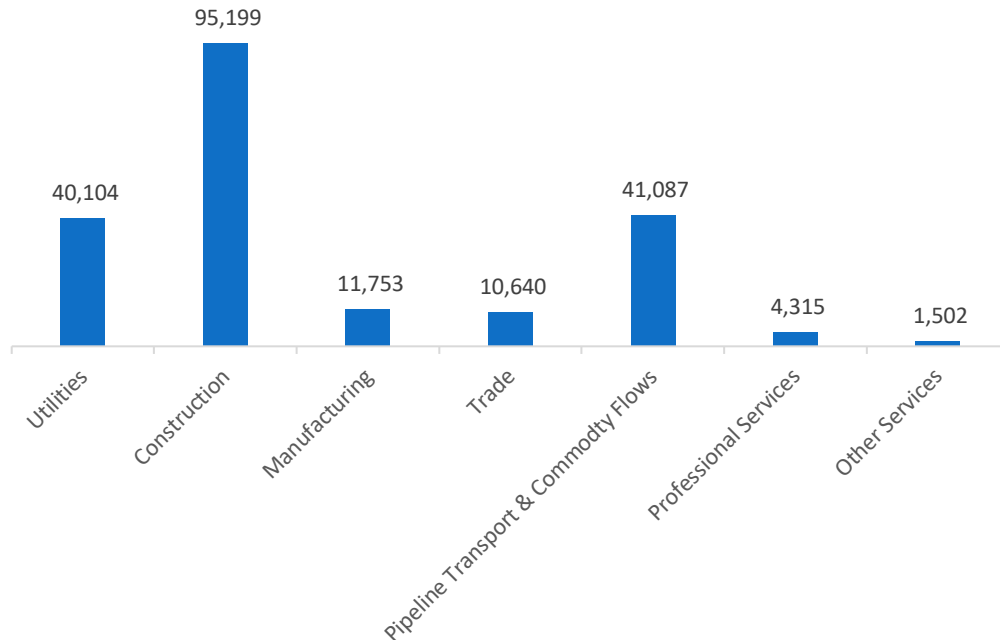
Transmission, Distribution, and Storage employs 204,601 workers in Texas, 15.0 percent of the national total, up 1.9 percent or 3,784 jobs since the 2018 report.

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



Construction is responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Texas, with 46.5 percent of such jobs statewide.

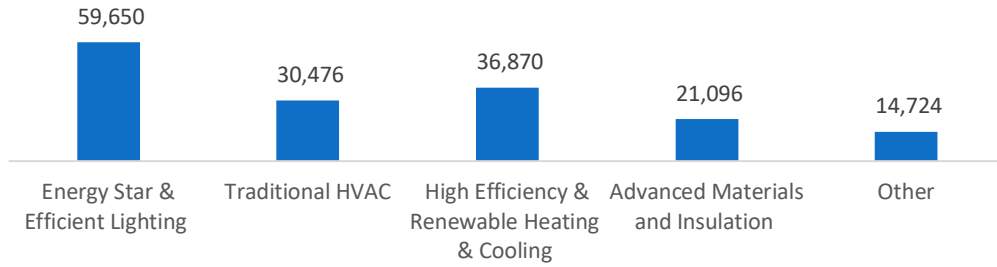
Figure TX-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

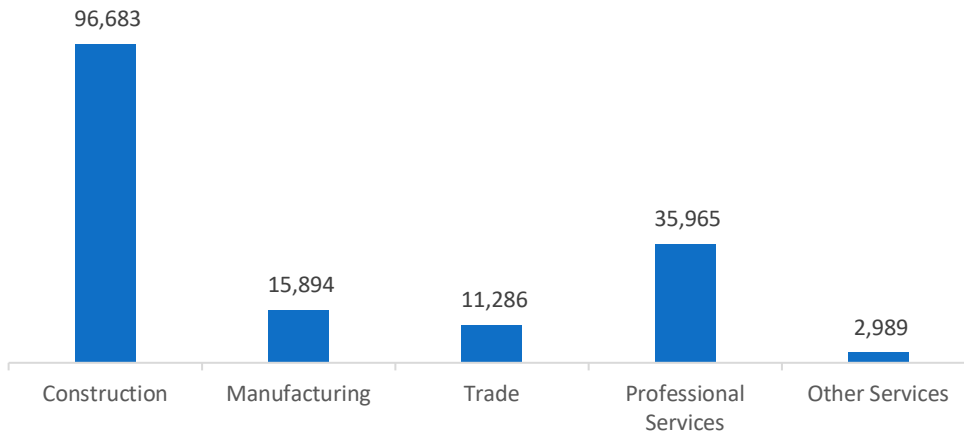
The 162,816 Energy Efficiency jobs in Texas represent 7.0 percent of all U.S. Energy Efficiency jobs, adding 8,251 jobs (5.3 percent) since last year. The largest number of these employees work in ENERGY STAR and efficient lighting firms, followed by high efficiency HVAC and renewable heating and cooling.

Figure TX-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

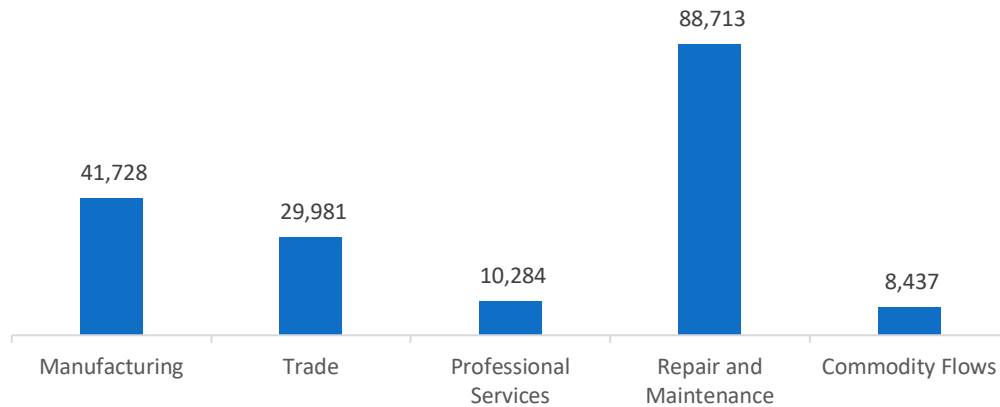
Figure TX-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 179,143 jobs in Texas, up 5,710 jobs over the past year (3.3 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure TX-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in Texas are less optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (3.5 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 12,079 jobs in Energy Efficiency (7.4 percent) and Motor Vehicles employers expect to add 5,884 jobs (3.3 percent) over the next year.

Table TX-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	2.9	7.1
Electric Power Transmission, Distribution and Storage	3.3	3.2
Energy Efficiency	7.4	7.8
Fuels	3.7	3.0
Motor Vehicles	3.3	2.2

Hiring Difficulty

Over the last year, 49.4 percent of energy-related employers in Texas hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Electric Power Generation.

Table TX-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	15.5	20.7	56.9	54.8
Electric Power Transmission, Distribution and Storage	21.2	21.9	45.5	46.1
Energy Efficiency	47.6	21.3	28.6	48.1
Fuels	19.4	37.9	37.1	43.0
Motor Vehicles	25.0	30.0	40.6	46.4

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

1. Lack of experience, training, or technical skills
2. Insufficient non-technical skills (work ethic, dependability, critical thinking)
3. Difficulty finding industry-specific knowledge, skills, and interest

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

1. Technician or mechanical support – \$20.00 median hourly wage
2. Electrician/construction laborers – \$22.08 median hourly wage
3. Sales, marketing, or customer service – \$33.51 median hourly wage

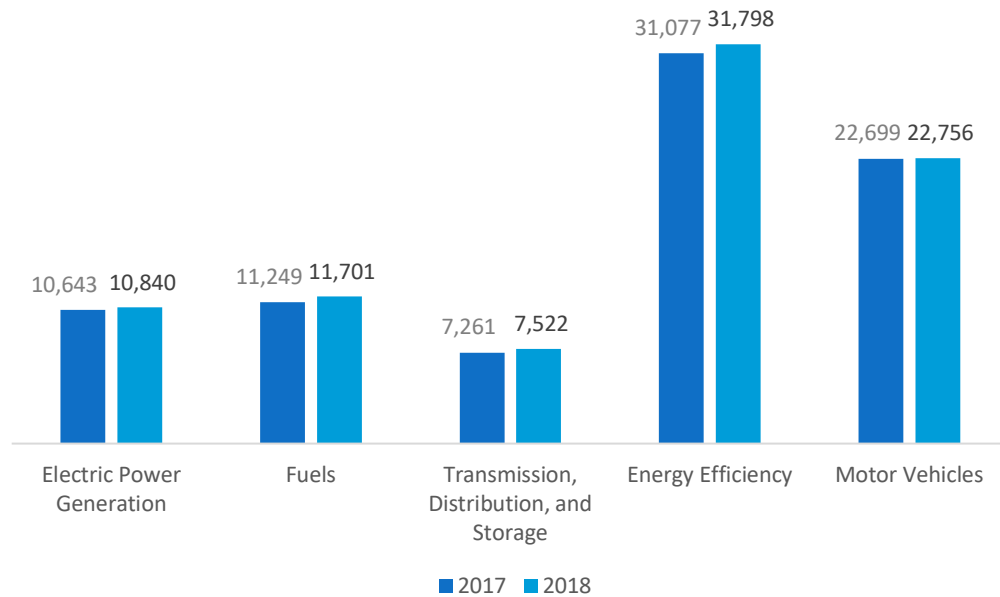
Utah

ENERGY AND EMPLOYMENT — 2019

Overview

Utah has an average concentration of energy employment, with 30,063 Traditional Energy workers statewide (representing 0.9 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 10,840 are in Electric Power Generation, 11,701 are in Fuels, and 7,522 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Utah is 2.0 percent of total state employment (compared to 2.3 percent of national employment). Utah has an additional 31,798 jobs in Energy Efficiency (1.4 percent of all U.S. Energy Efficiency jobs) and 22,756 jobs in Motor Vehicles (0.9 percent of all U.S. Motor Vehicle jobs).

Figure UT-1.
Employment by Major Energy Technology Application



Overall, Traditional Energy jobs grew by 3.1 percent since the 2018 report, increasing by 910 jobs over the period. Energy Efficiency jobs added 721 jobs (2.3 percent) and motor vehicles added 57 jobs (0.3 percent).

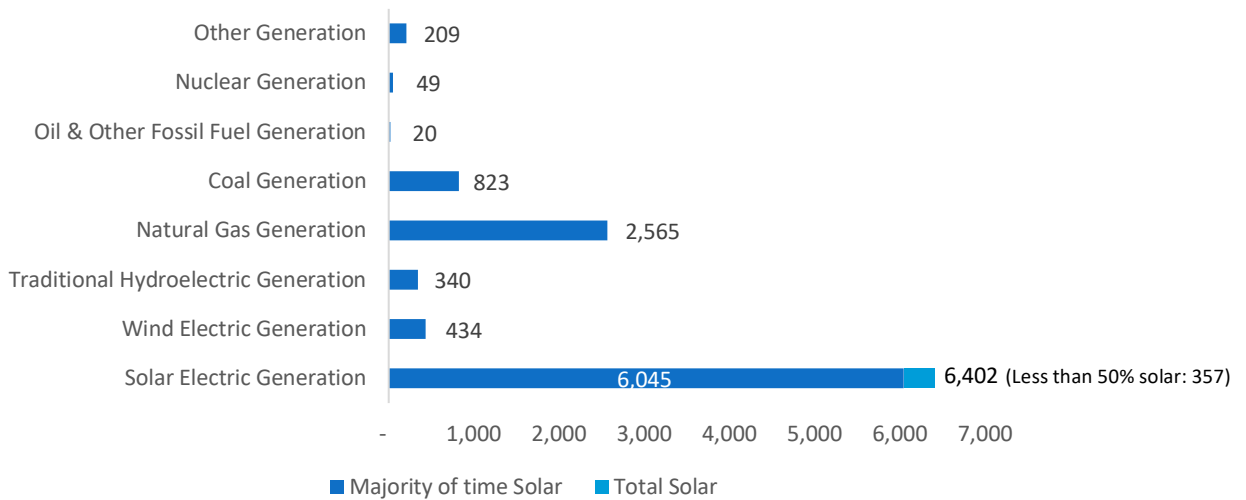
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 10,840 workers in Utah, 1.2 percent of the national total and adding 197 jobs over the past year (1.9 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 6,402 jobs (up 1.1 percent), followed by traditional fossil fuel generation at 3,407 jobs (down 0.1 percent).

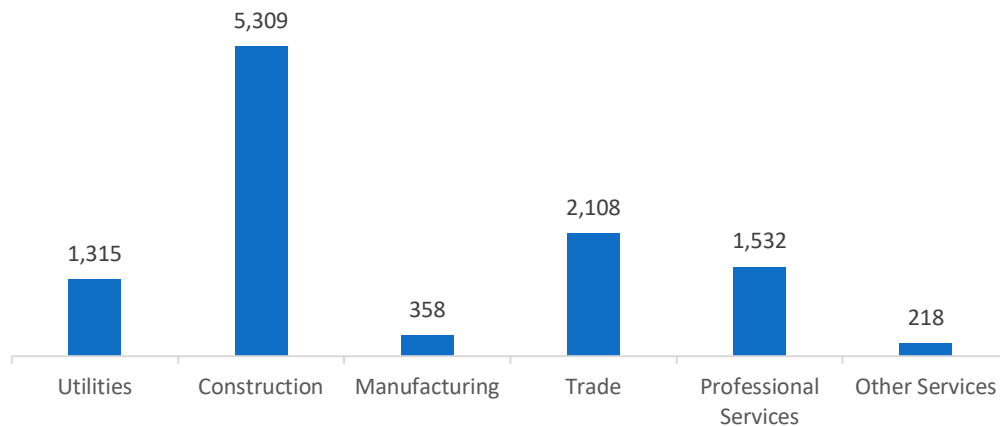
Figure UT-2.

Electric Power Generation Employment by Detailed Technology Application



Construction is the largest industry sector in Electric Power Generation, with 49.0 percent of jobs. Wholesale trade is next with 19.5 percent.

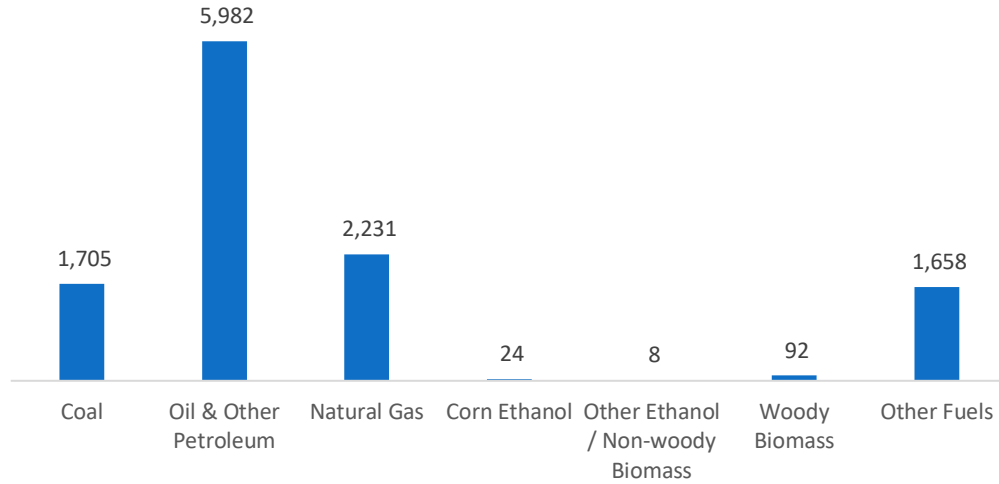
Figure UT-3.



Fuels

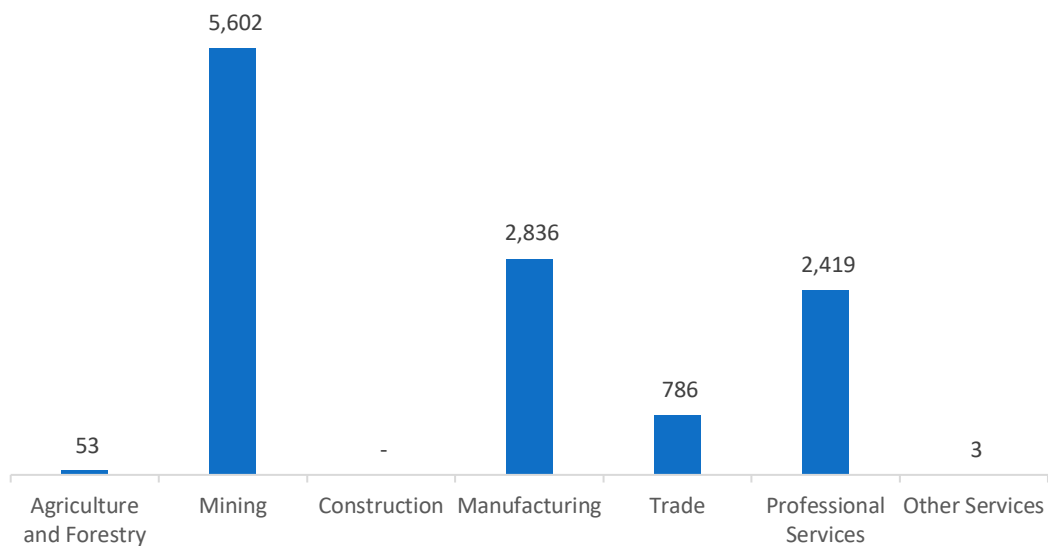
Fuels employs 11,701 workers in Utah, 1.0 percent of the national total, up 4.0 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure UT-4.
Fuels Employment by Detailed Technology Application



Mining and extraction jobs represent 47.9 percent of Fuels jobs in Utah.

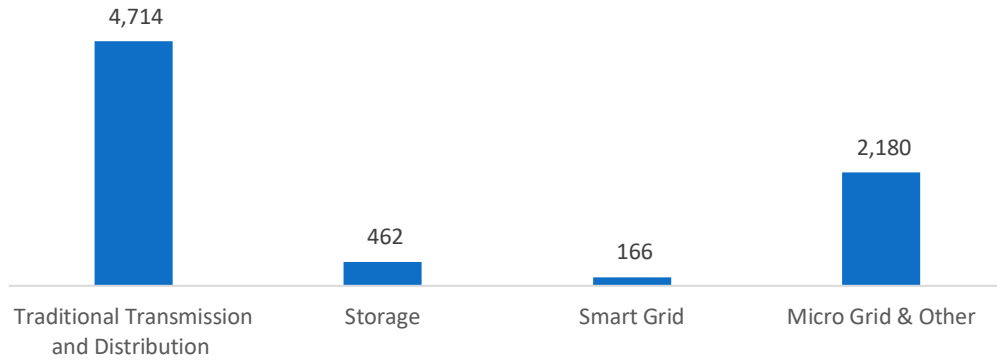
Figure UT-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

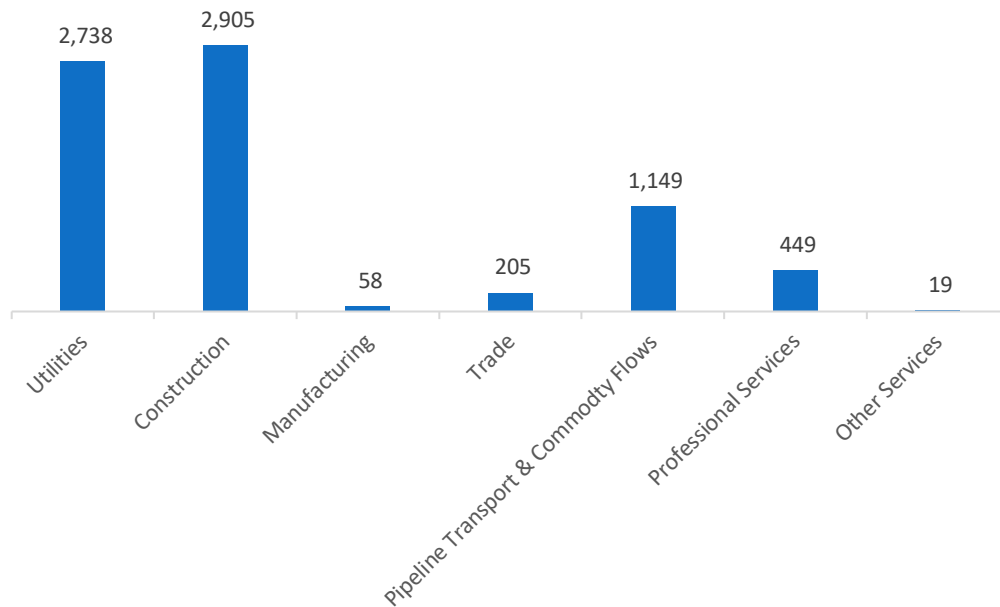
Transmission, Distribution, and Storage employs 7,522 workers in Utah, 0.6 percent of the national total, up 3.6 percent or 261 jobs since the 2018 report.

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



Construction is responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Utah, with 38.6 percent of such jobs statewide.

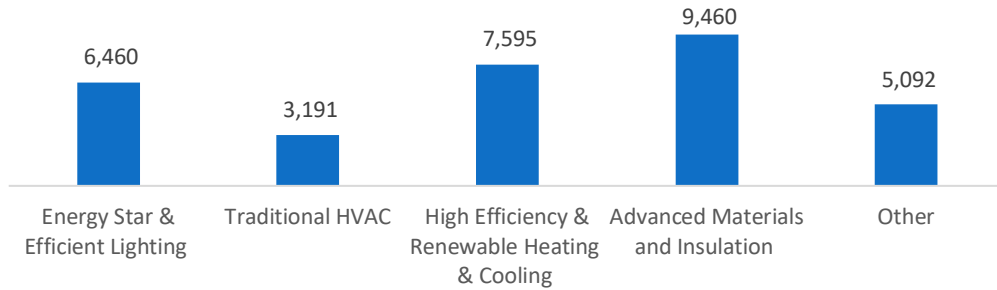
Figure UT-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

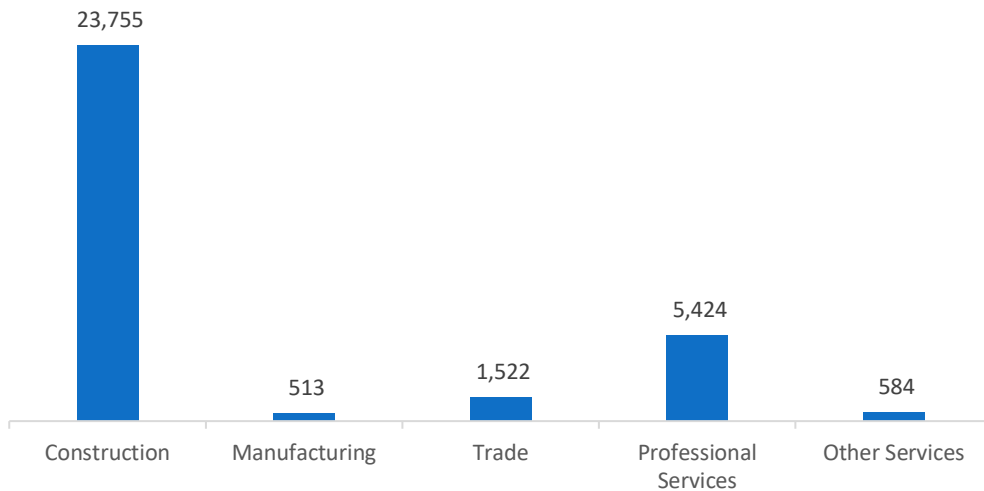
The 31,798 Energy Efficiency jobs in Utah represent 1.4 percent of all U.S. Energy Efficiency jobs, adding 721 jobs (2.3 percent) since last year. The largest number of these employees work in advanced materials and insulation firms, followed by high efficiency HVAC and renewable heating and cooling.

Figure UT-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

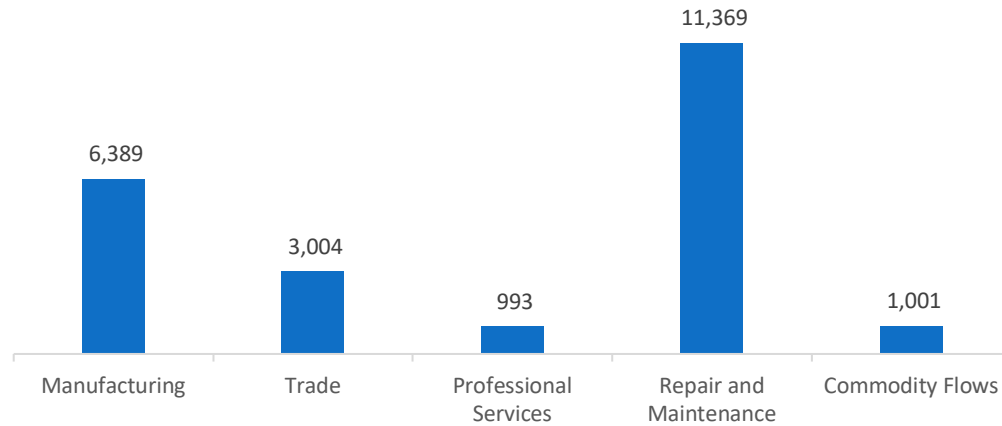
Figure UT-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 22,756 jobs in Utah, up 57 jobs over the past year (0.3 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure UT-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in Utah are less optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (3.0 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 3,626 jobs in Energy Efficiency (11.4 percent) and Motor Vehicles employers expect to add 1,304 jobs (5.7 percent) over the next year.

Table UT-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	3.1	7.1
Electric Power Transmission, Distribution and Storage	7.5	3.2
Energy Efficiency	11.4	7.8
Fuels	--	3.0
Motor Vehicles	5.7	2.2

Hiring Difficulty

Over the last year, 50.0 percent of energy-related employers in Utah hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Motor Vehicles.

Table UT-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	26.7	20.7	60.0	54.8
Electric Power Transmission, Distribution and Storage	20.0	21.9	40.0	46.1
Energy Efficiency	16.7	21.3	33.3	48.1
Fuels	25.0	37.9	25.0	43.0
Motor Vehicles	50.0	30.0	50.0	46.4

Employers in Utah 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 – \$34.62 median hourly wage
2. Electrician/construction laborers – \$26.55 median hourly wage
3. Management (directors, supervisors, vice presidents) – \$41.08 median hourly wage

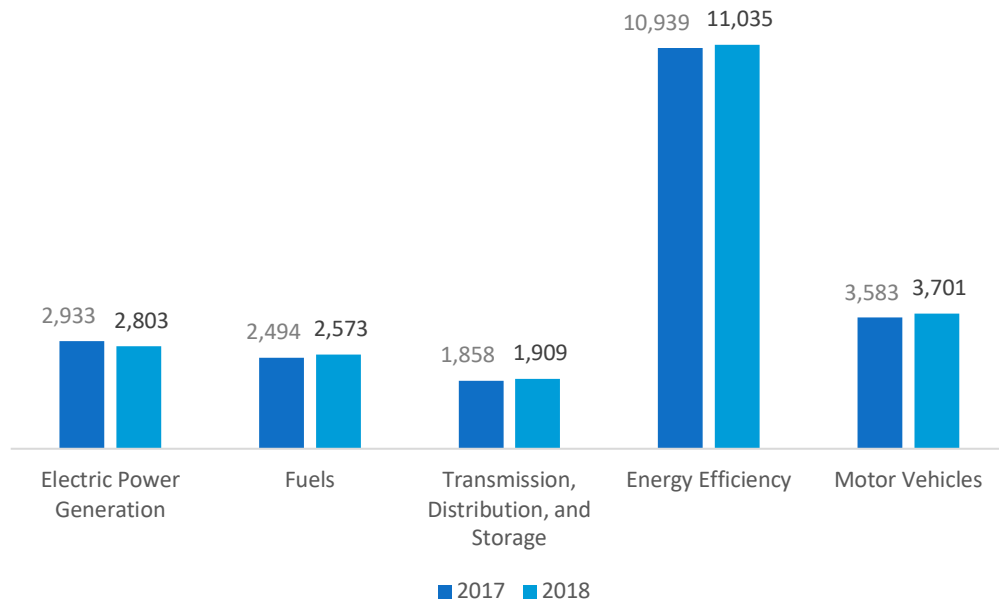
Vermont

ENERGY AND EMPLOYMENT — 2019

Overview

Vermont has an average concentration of energy employment, with 7,285 Traditional Energy workers statewide (representing 0.2 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 2,803 are in Electric Power Generation, 2,573 are in Fuels, and 1,909 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Vermont is 2.3 percent of total state employment (compared to 2.3 percent of national employment). Vermont has an additional 11,035 jobs in Energy Efficiency (0.5 percent of all U.S. Energy Efficiency jobs) and 3,701 jobs in Motor Vehicles (0.1 percent of all U.S. Motor Vehicle jobs).

Figure VT-1.
Employment by Major Energy Technology Application



Overall, Traditional Energy jobs declined by 0.0 percent since the 2018 report, decreasing by - 0 jobs over the period. Energy Efficiency jobs added 95 jobs (0.9 percent) and motor vehicles added 118 jobs (3.3 percent).

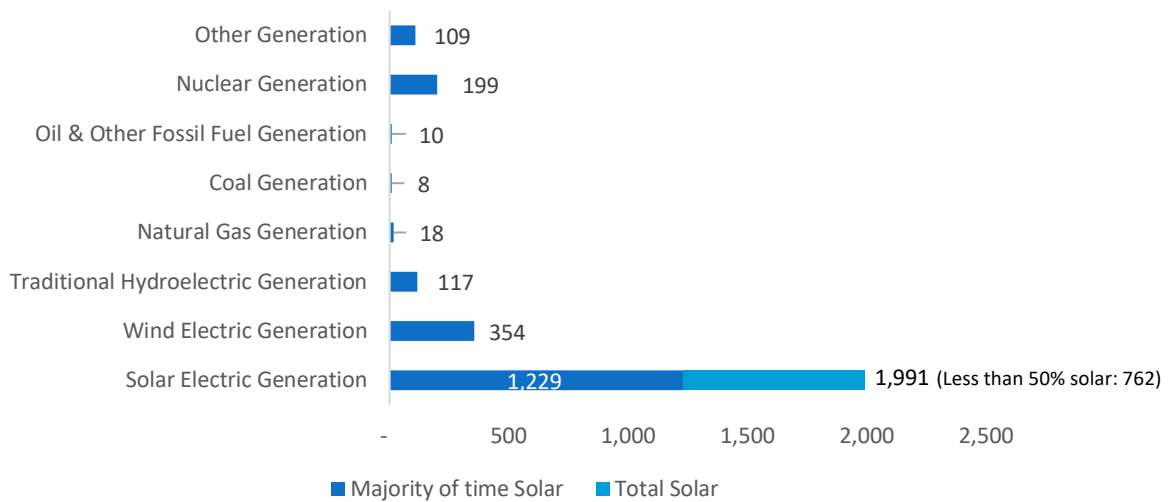
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 2,803 workers in Vermont, 0.3 percent of the national total and losing 130 jobs over the past year (-4.4 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 1,991 jobs (down 8.1 percent), followed by wind at 354 jobs (up 2.4 percent).

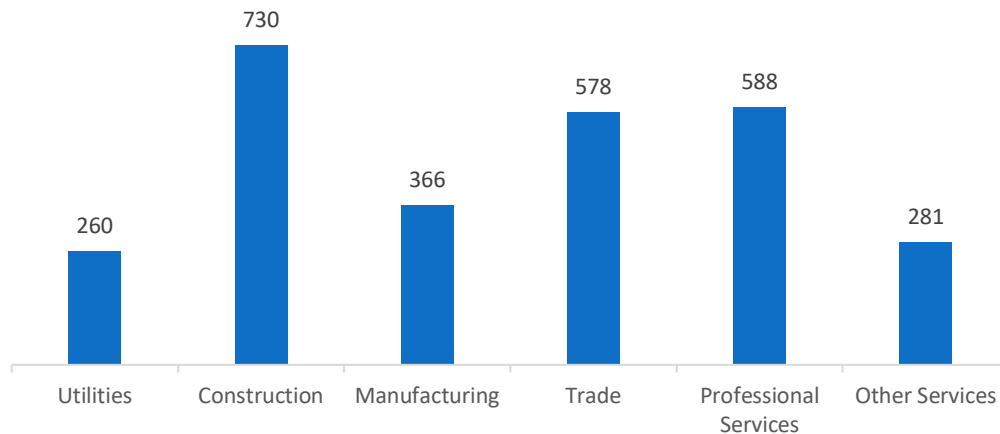
Figure VT-2.

Electric Power Generation Employment by Detailed Technology Application



Construction is the largest industry sector in Electric Power Generation, with 26.1 percent of jobs. Professional and business services are next with 21.0 percent.

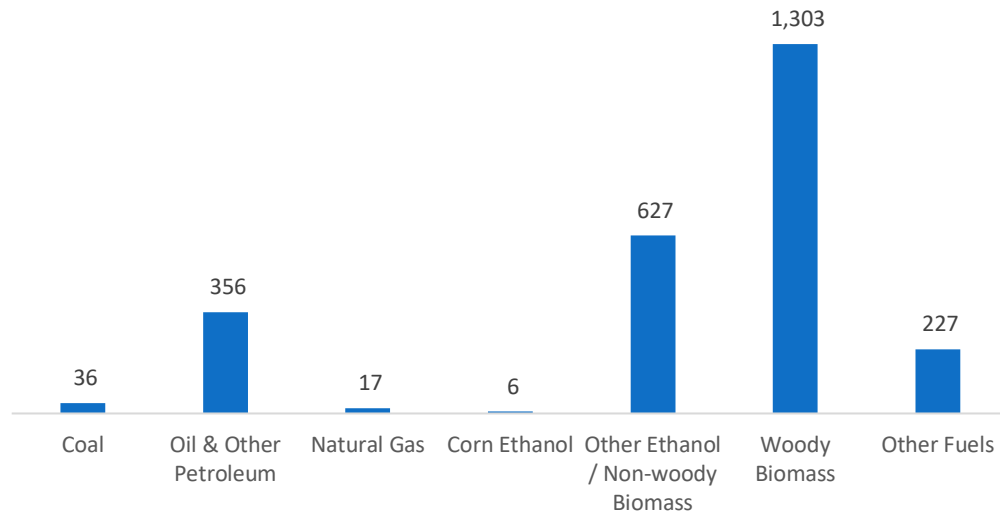
Figure VT-3.



Fuels

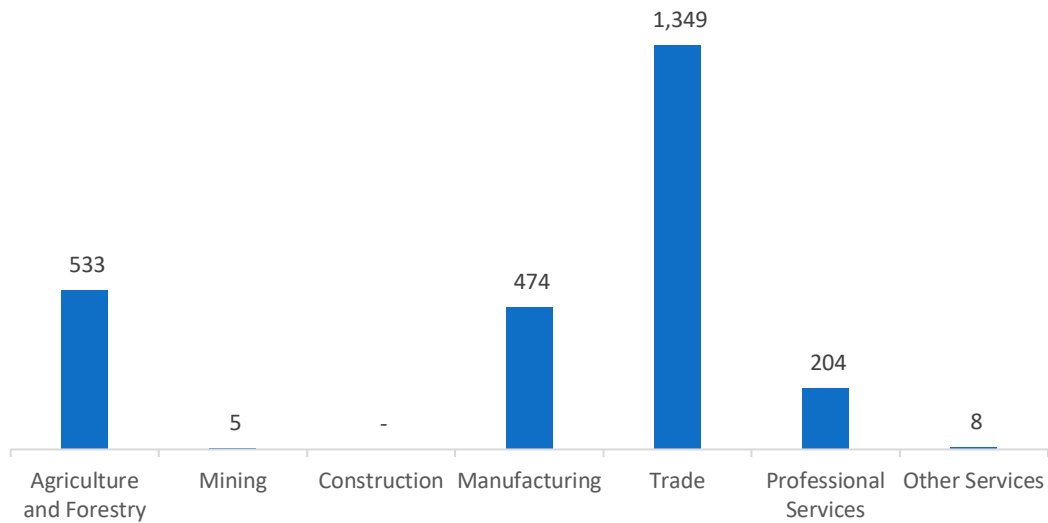
Fuels employs 2,573 workers in Vermont, 0.2 percent of the national total, up 3.2 percent over the past year. Woody biomass makes up the largest segment of employment related to Fuels.

Figure VT-4.
Fuels Employment by Detailed Technology Application



Wholesale trade jobs represent 52.4 percent of Fuels jobs in Vermont.

Figure VT-5.
Fuels Employment by Industry Sector

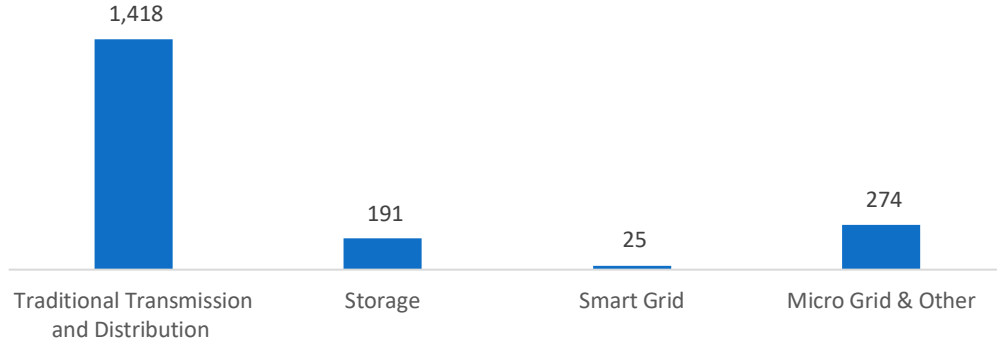


Transmission, Distribution and Storage

Transmission, Distribution, and Storage employs 1,909 workers in Vermont, 0.1 percent of the national total, up 2.7 percent or 50 jobs since the 2018 report.

Figure VT-6.

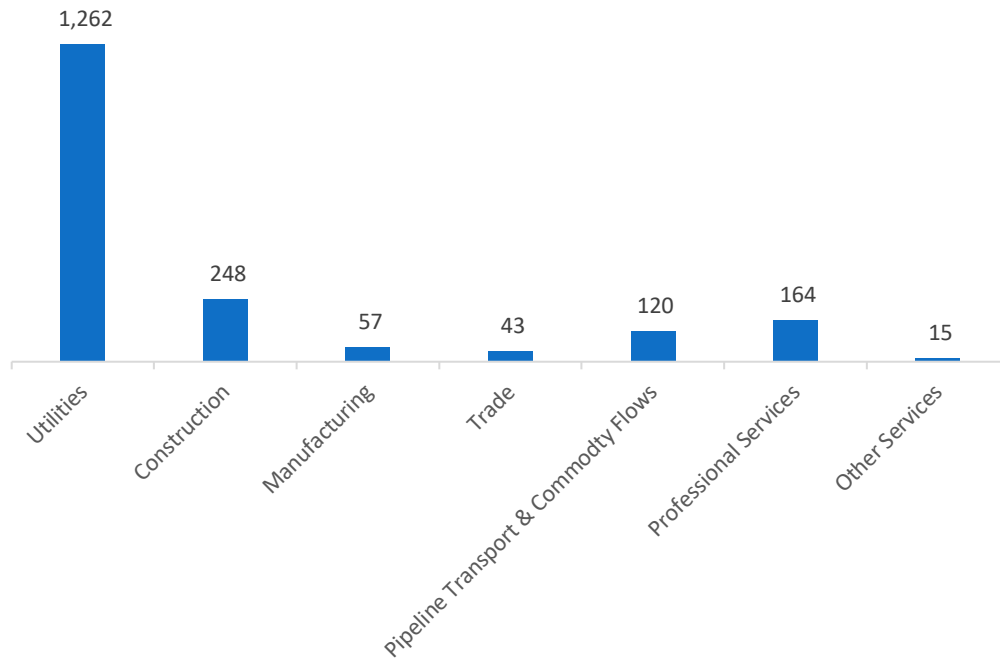
Transmission, Distribution and Storage Employment by Detailed Technology



Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Vermont, with 66.1 percent of such jobs statewide.

Figure VT-7.

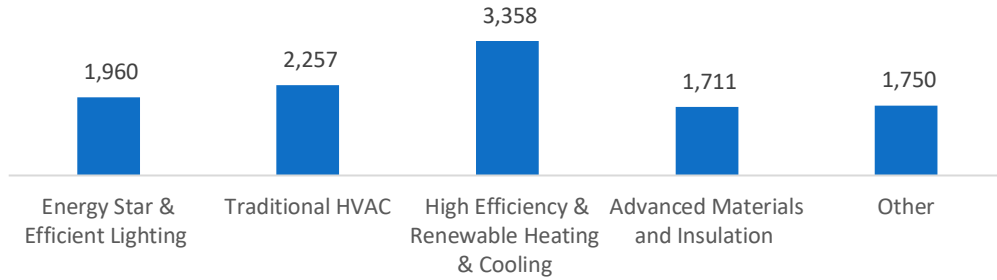
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

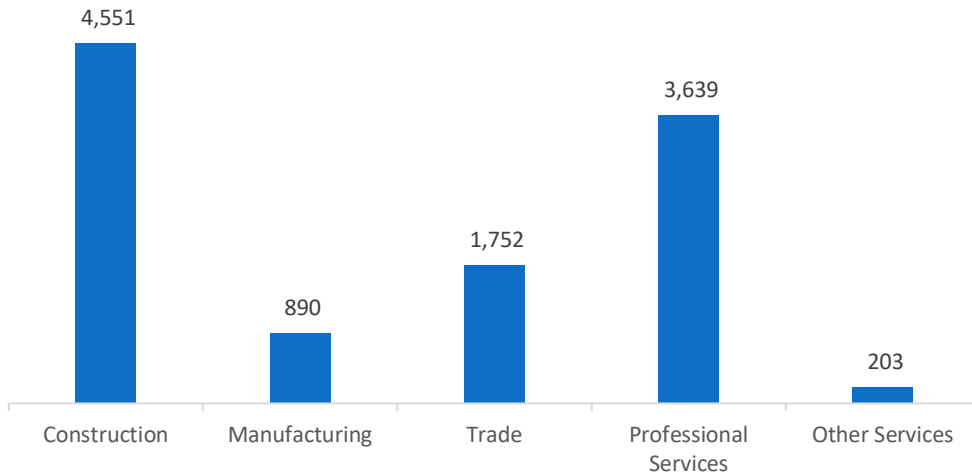
The 11,035 Energy Efficiency jobs in Vermont represent 0.5 percent of all U.S. Energy Efficiency jobs, adding 95 jobs (0.9 percent) since last year. The largest number of these employees work in high efficiency HVAC and renewable heating and cooling firms, followed by traditional HVAC.

Figure VT-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

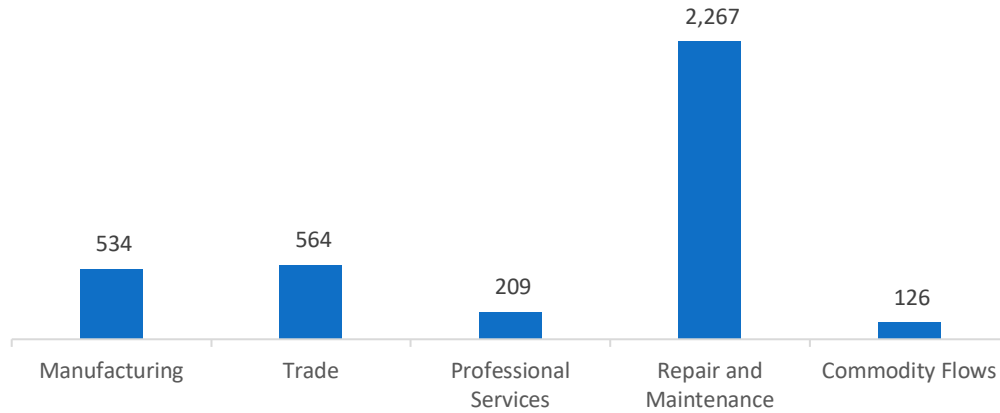
Figure VT-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 3,701 jobs in Vermont, up 118 jobs over the past year (3.3 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure VT-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in Vermont are less optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (2.3 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 718 jobs in Energy Efficiency (6.5 percent) and Motor Vehicles employers expect to add 73 jobs (2.0 percent) over the next year.

Table VT-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	5.9	7.1
Electric Power Transmission, Distribution and Storage	--	3.2
Energy Efficiency	6.5	7.8
Fuels	--	3.0
Motor Vehicles	2.0	2.2

Hiring Difficulty

Over the last year, 44.2 percent of energy-related employers in Vermont hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Fuels.

Table VT-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	27.3	20.7	54.5	54.8
Electric Power Transmission, Distribution and Storage	--	21.9	100.0	46.1
Energy Efficiency	66.7	21.3	16.7	48.1
Fuels	100.0	37.9	--	43.0
Motor Vehicles	--	30.0	100.0	46.4

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

1. Lack of experience, training, or technical skills
2. Insufficient qualifications (certifications or education)
3. Difficulty finding industry-specific knowledge, skills, and interest

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

1. Technician or mechanical support – \$24.76 median hourly wage
2. Engineers/scientists – \$44.51 median hourly wage
3. Electrician/construction laborers – \$26.73 median hourly wage

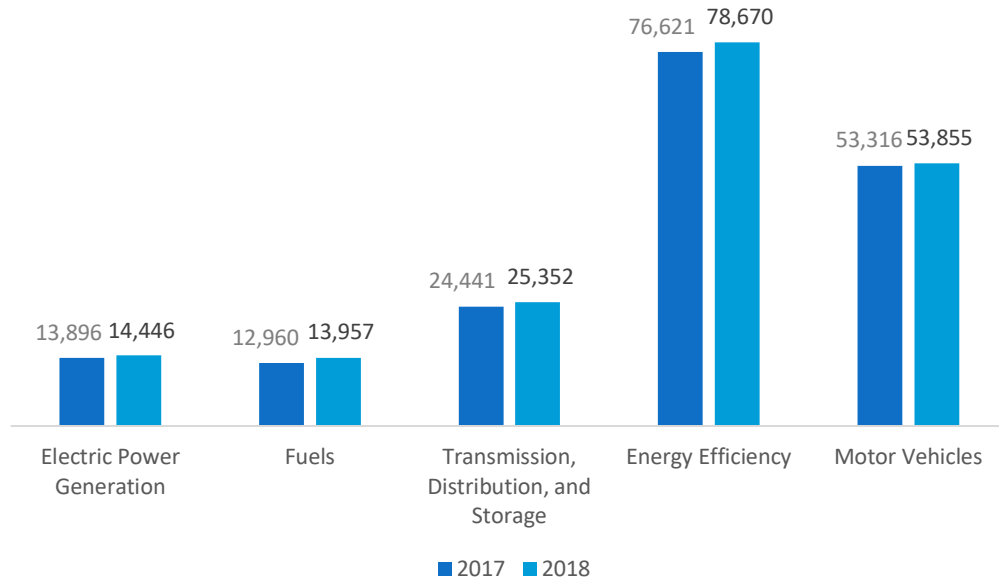
Virginia

ENERGY AND EMPLOYMENT — 2019

Overview

Virginia has a low concentration of energy employment, with 53,755 Traditional Energy workers statewide (representing 1.6 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 14,446 are in Electric Power Generation, 13,957 are in Fuels, and 25,352 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Virginia is 1.4 percent of total state employment (compared to 2.3 percent of national employment). Virginia has an additional 78,670 jobs in Energy Efficiency (3.4 percent of all U.S. Energy Efficiency jobs) and 53,855 jobs in Motor Vehicles (2.1 percent of all U.S. Motor Vehicle jobs).

Figure VA-1.
Employment by Major Energy Technology Application



Overall, Traditional Energy jobs grew by 4.8 percent since the 2018 report, increasing by 2,458 jobs over the period. Energy Efficiency jobs added 2,049 jobs (2.7 percent) and motor vehicles added 539 jobs (1.0 percent).

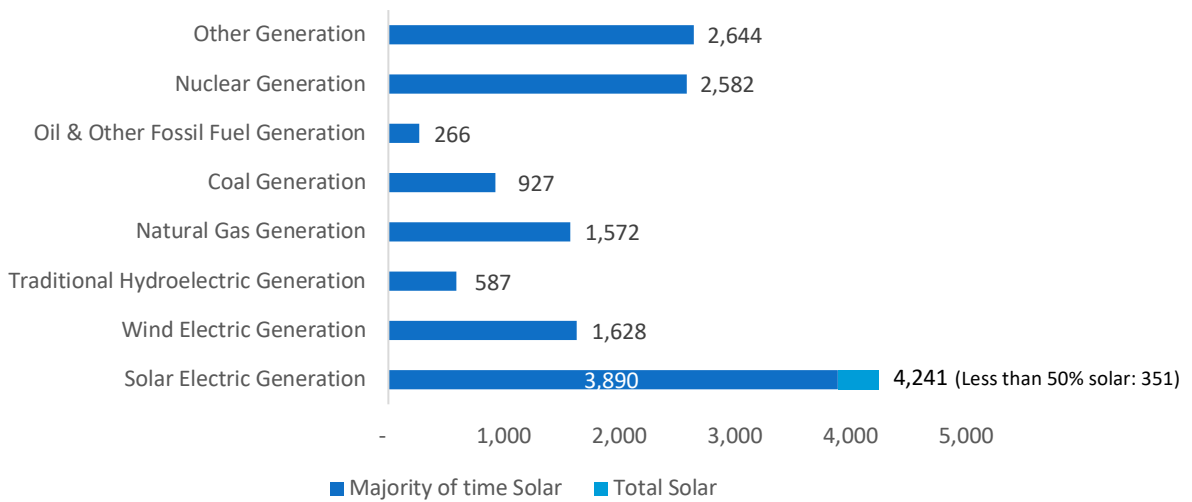
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 14,446 workers in Virginia, 1.6 percent of the national total and adding 550 jobs over the past year (4.0 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 4,241 jobs (up 1.0 percent), followed by traditional fossil fuel generation at 2,765 jobs (up 3.7 percent).

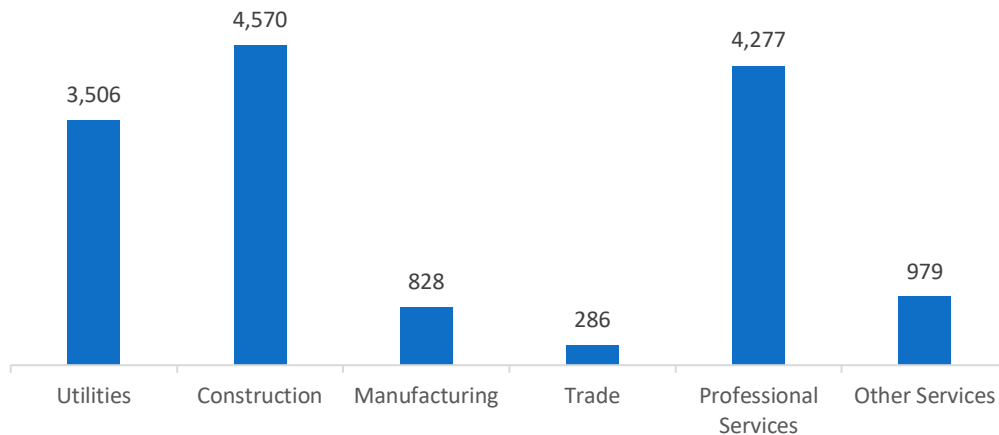
Figure VA-2.

Electric Power Generation Employment by Detailed Technology Application



Construction is the largest industry sector in Electric Power Generation, with 31.6 percent of jobs. Professional and business services are next with 29.6 percent.

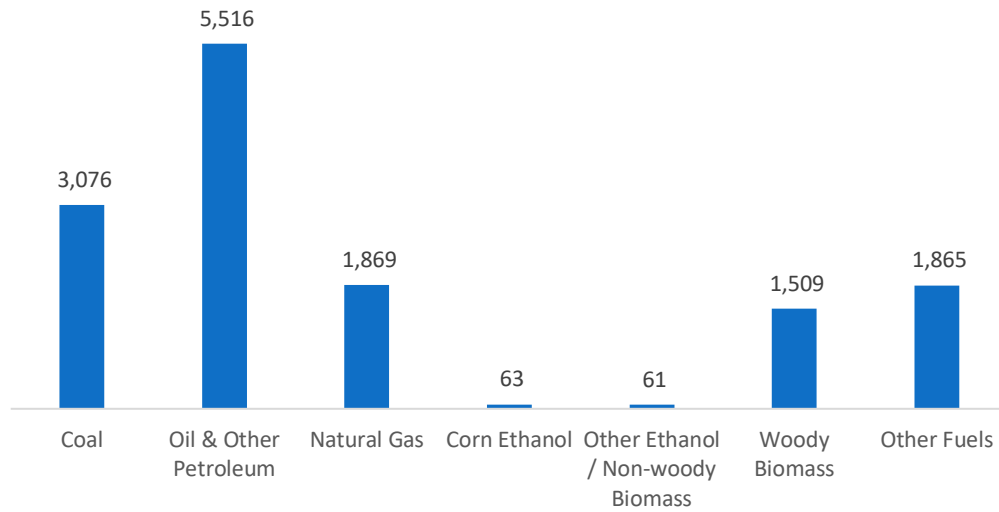
Figure VA-3.



Fuels

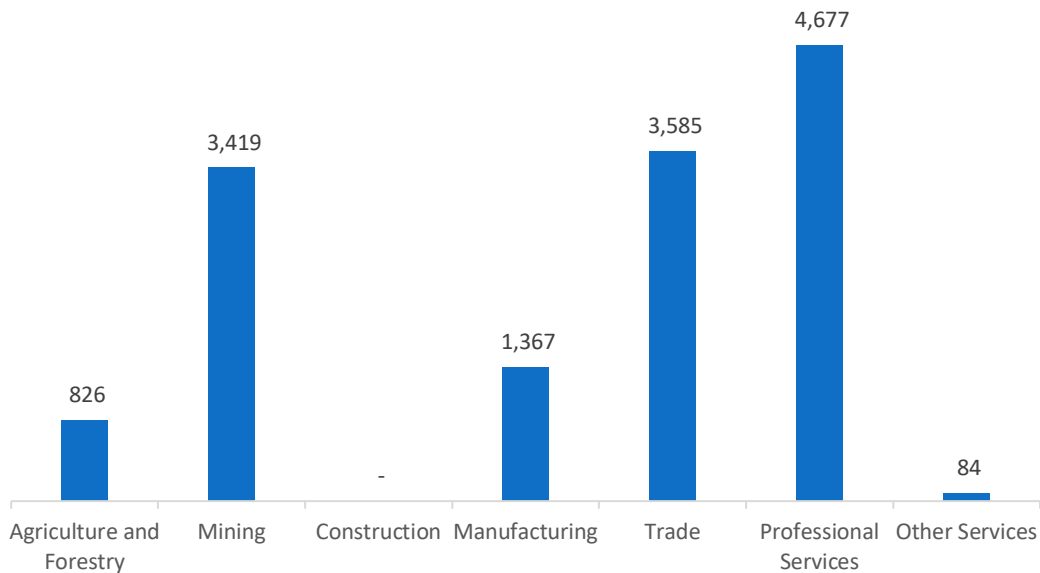
Fuels employs 13,957 workers in Virginia, 1.2 percent of the national total, up 7.7 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure VA-4.
Fuels Employment by Detailed Technology Application



Professional and business services jobs represent 33.5 percent of Fuels jobs in Virginia.

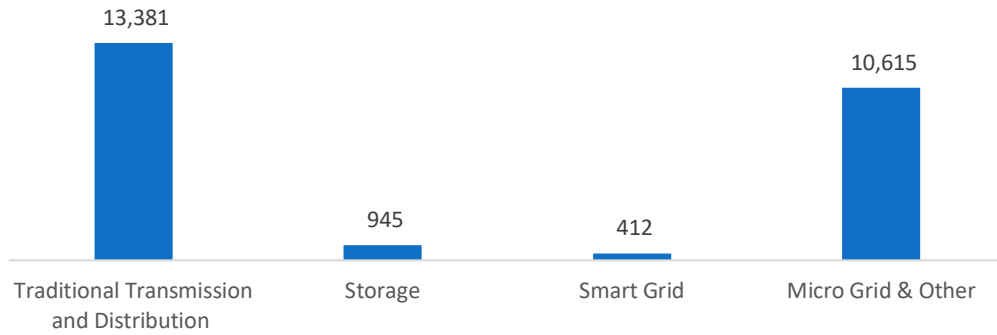
Figure VA-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

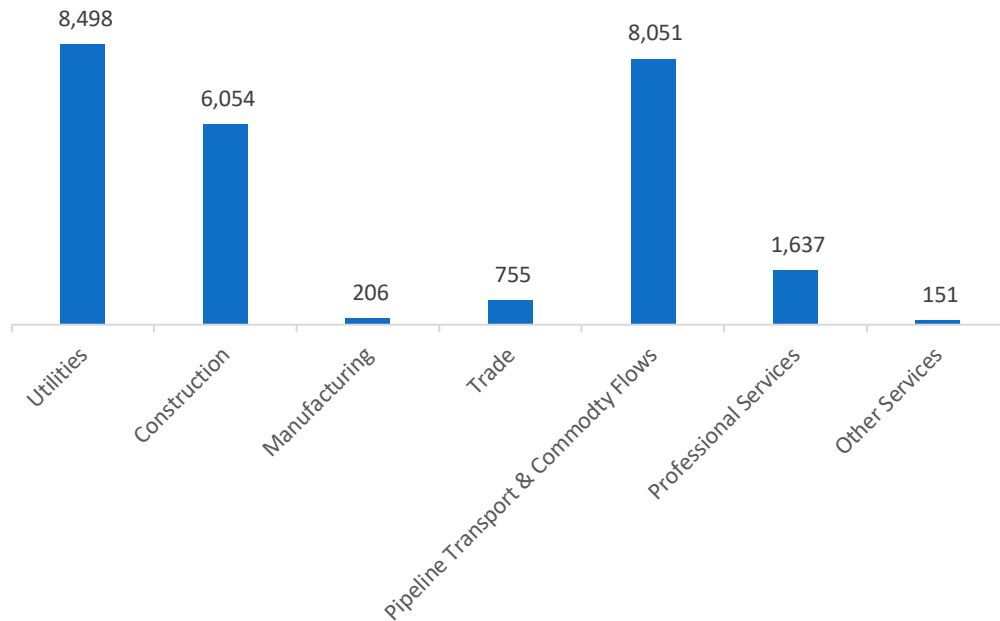
Transmission, Distribution, and Storage employs 25,352 workers in Virginia, 1.9 percent of the national total, up 3.7 percent or 911 jobs since the 2018 report.

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



Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Virginia, with 33.5 percent of such jobs statewide.

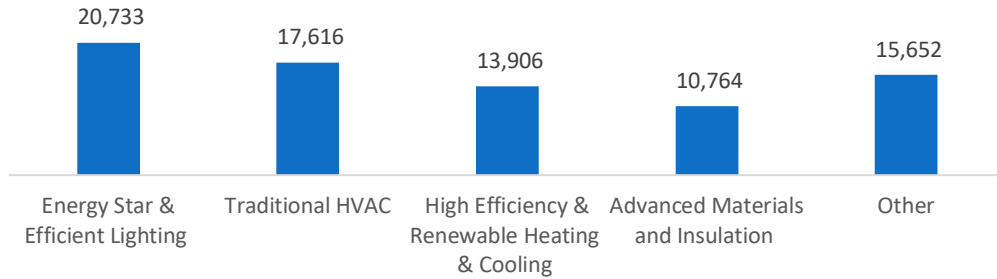
Figure VA-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

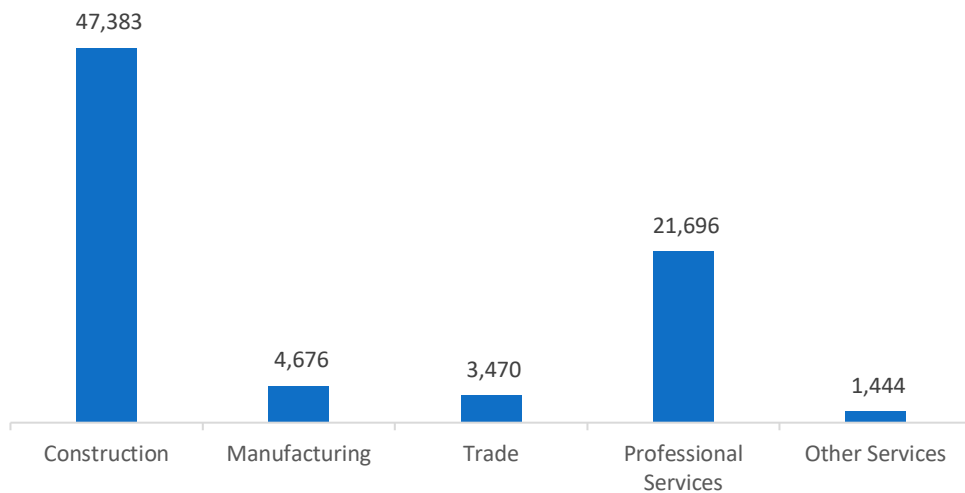
The 78,670 Energy Efficiency jobs in Virginia represent 3.4 percent of all U.S. Energy Efficiency jobs, adding 2,049 jobs (2.7 percent) since last year. The largest number of these employees work in ENERGY STAR and efficient lighting firms, followed by traditional HVAC.

Figure VA-8.
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

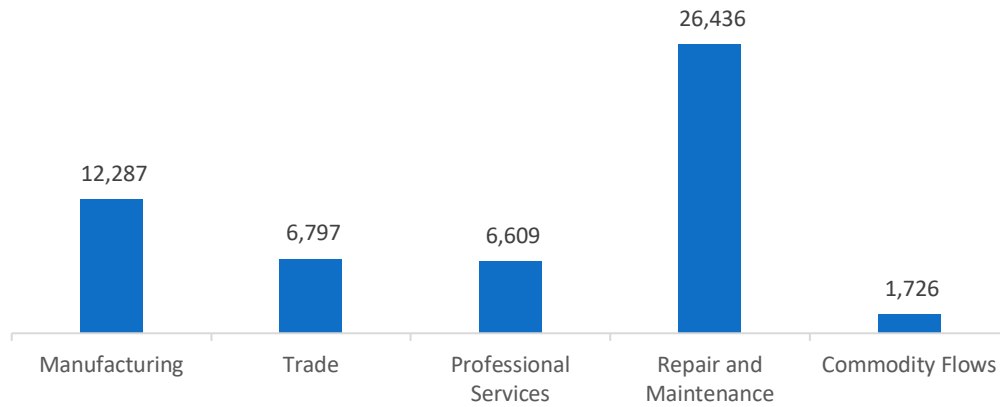
Figure VA-9.
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 53,855 jobs in Virginia, up 539 jobs over the past year (1.0 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure VA-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in Virginia are less optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (3.6 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 6,927 jobs in Energy Efficiency (8.8 percent) and Motor Vehicles employers expect to add 6,452 jobs (12.0 percent) over the next year.

Table VA-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	6.4	7.1
Electric Power Transmission, Distribution and Storage	4.0	3.2
Energy Efficiency	8.8	7.8
Fuels	--	3.0
Motor Vehicles	12.0	2.2

Hiring Difficulty

Over the last year, 50.8 percent of energy-related employers in Virginia hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Motor Vehicles.

Table VA-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	5.6	20.7	66.7	54.8
Electric Power Transmission, Distribution and Storage	27.3	21.9	45.5	46.1
Energy Efficiency	36.4	21.3	45.5	48.1
Fuels	50.0	37.9	50.0	43.0
Motor Vehicles	57.1	30.0	42.9	46.4

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

1. Lack of experience, training, or technical skills
2. Difficulty finding industry-specific knowledge, skills, and interest
3. Insufficient qualifications (certifications or education)

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

1. Technician or mechanical support – \$16.89 median hourly wage
2. Management (directors, supervisors, vice presidents) – \$38.57 median hourly wage
3. Installation workers – \$17.18 median hourly wage

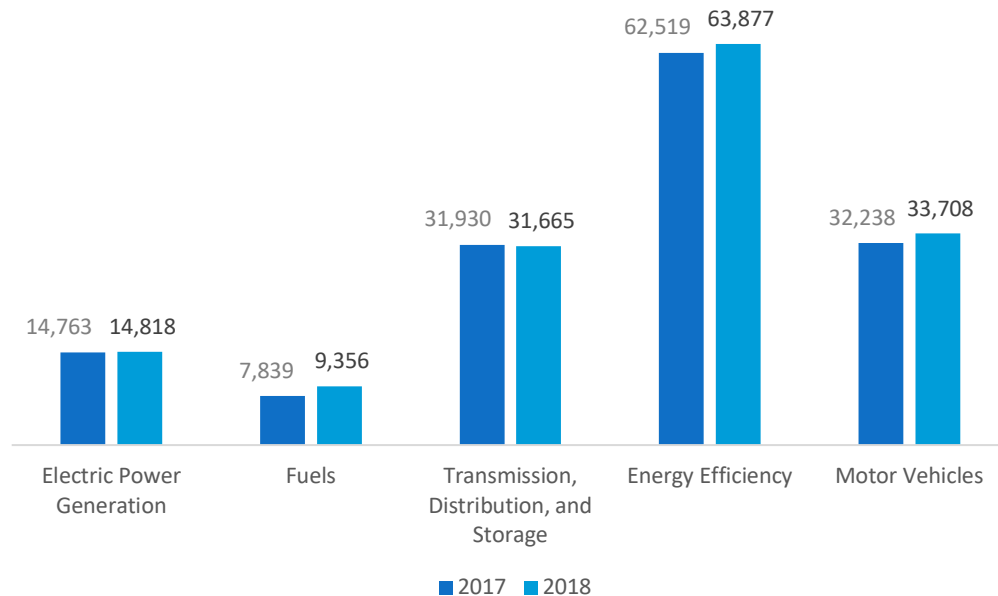
Washington

ENERGY AND EMPLOYMENT — 2019

Overview

Washington has a low concentration of energy employment, with 55,839 Traditional Energy workers statewide (representing 1.7 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 14,818 are in Electric Power Generation, 9,356 are in Fuels, and 31,665 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Washington is 1.6 percent of total state employment (compared to 2.3 percent of national employment). Washington has an additional 63,877 jobs in Energy Efficiency (2.7 percent of all U.S. Energy Efficiency jobs) and 33,708 jobs in Motor Vehicles (1.3 percent of all U.S. Motor Vehicle jobs).

Figure WA-1.
Employment by Major Energy Technology Application



Overall, Traditional Energy jobs grew by 2.4 percent since the 2018 report, increasing by 1,307 jobs over the period. Energy Efficiency jobs added 1,358 jobs (2.2 percent) and motor vehicles added 1,470 jobs (4.6 percent).

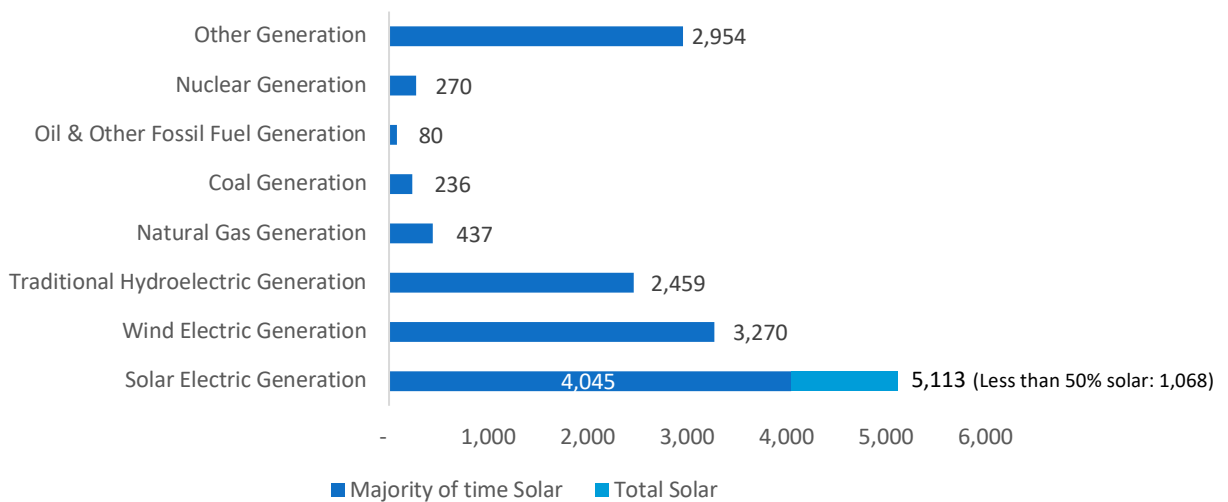
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 14,818 workers in Washington, 1.7 percent of the national total and adding 55 jobs over the past year (0.4 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 5,113 jobs (down 2.5 percent), followed by wind at 3,270 jobs (up 1.3 percent).

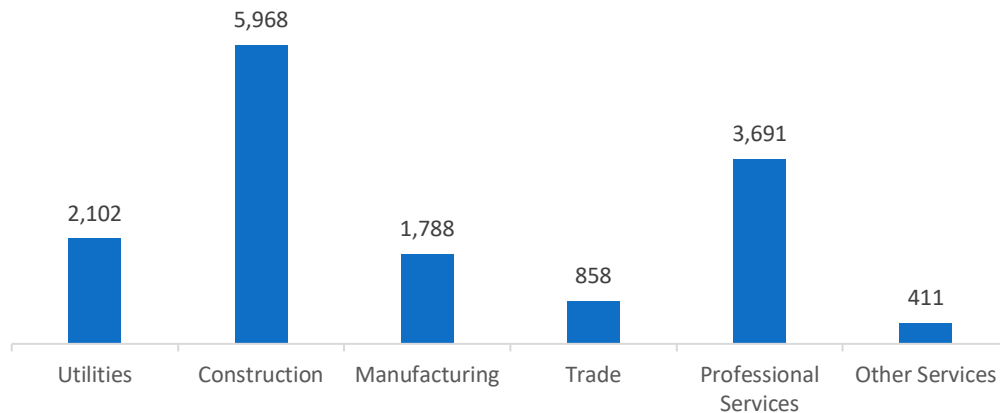
Figure WA-2.

Electric Power Generation Employment by Detailed Technology Application



Construction is the largest industry sector in Electric Power Generation, with 40.3 percent of jobs. Professional and business services are next with 24.9 percent.

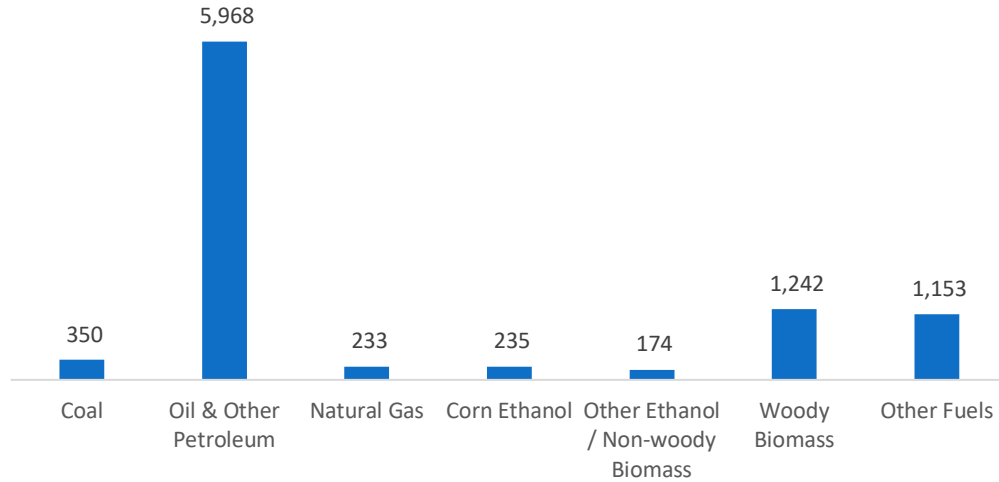
Figure WA-3.



Fuels

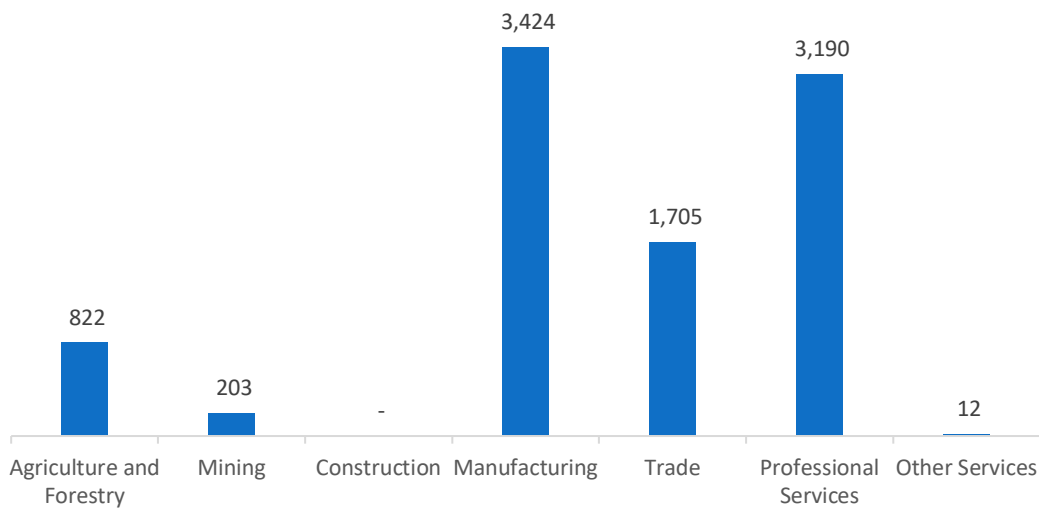
Fuels employs 9,356 workers in Washington, 0.8 percent of the national total, up 19.4 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure WA-4.
Fuels Employment by Detailed Technology Application



Manufacturing jobs represent 36.6 percent of Fuels jobs in Washington.

Figure WA-5.
Fuels Employment by Industry Sector

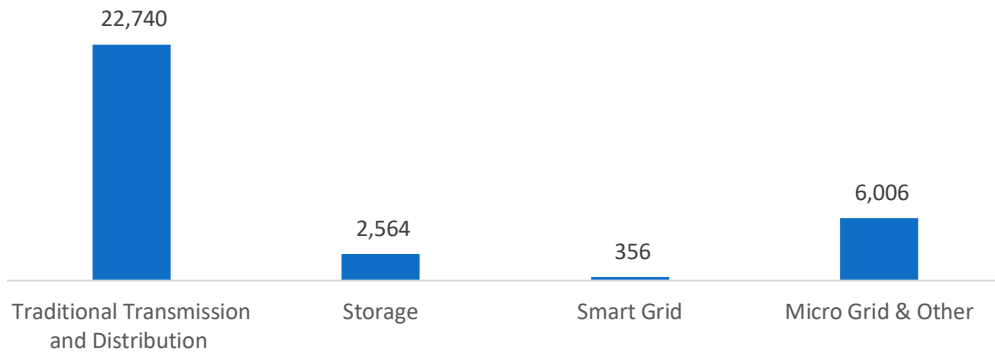


Transmission, Distribution and Storage

Transmission, Distribution, and Storage employs 31,665 workers in Washington, 2.3 percent of the national total, down 0.8 percent or 265 jobs since the 2018 report.

Figure WA-6.

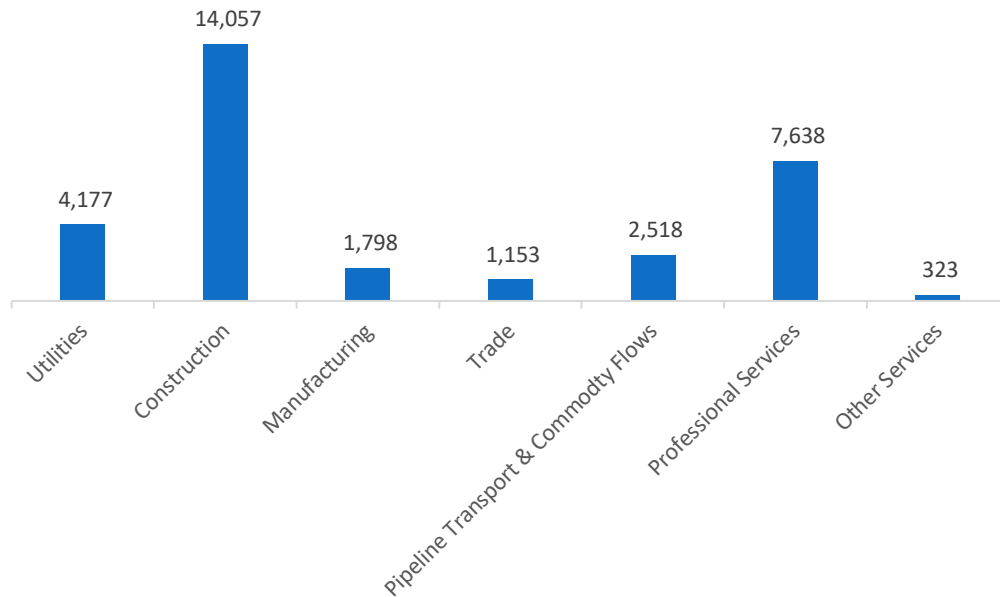
Transmission, Distribution and Storage Employment by Detailed Technology



Construction is responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Washington, with 44.4 percent of such jobs statewide.

Figure WA-7.

Transmission, Distribution and Storage Employment by Industry Sector

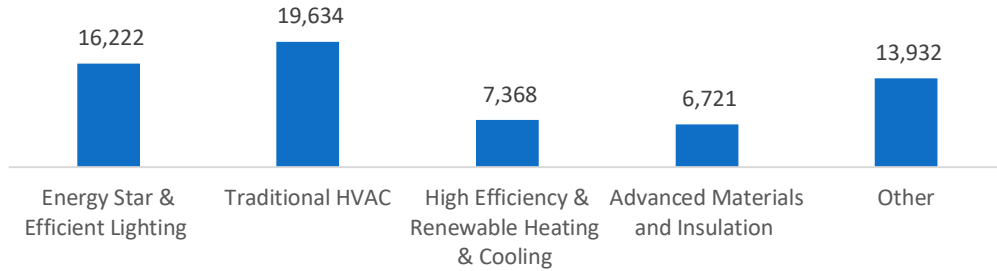


Energy Efficiency

The 63,877 Energy Efficiency jobs in Washington represent 2.7 percent of all U.S. Energy Efficiency jobs, adding 1,358 jobs (2.2 percent) since last year. The largest number of these employees work in traditional HVAC firms, followed by ENERGY STAR and efficient lighting.

Figure WA-8.

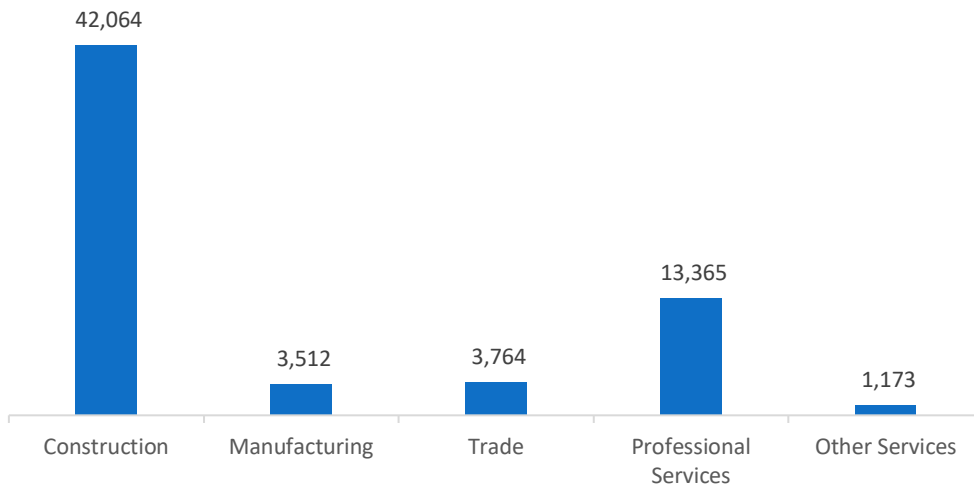
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

Figure WA-9.

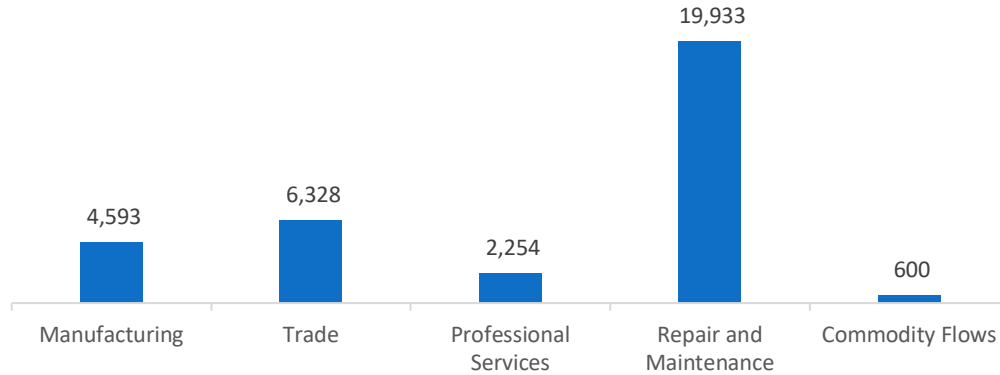
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 33,708 jobs in Washington, up 1,470 jobs over the past year (4.6 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure WA-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in Washington are similarly optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (3.9 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 3,343 jobs in Energy Efficiency (5.2 percent) and Motor Vehicles employers expect to add 667 jobs (2.0 percent) over the next year.

Table WA-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	3.0	7.1
Electric Power Transmission, Distribution and Storage	4.4	3.2
Energy Efficiency	5.2	7.8
Fuels	3.7	3.0
Motor Vehicles	2.0	2.2

Hiring Difficulty

Over the last year, 59.5 percent of energy-related employers in Washington hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Motor Vehicles.

Table WA-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	11.1	20.7	66.7	54.8
Electric Power Transmission, Distribution and Storage	16.7	21.9	50.0	46.1
Energy Efficiency	41.7	21.3	41.7	48.1
Fuels	25.0	37.9	25.0	43.0
Motor Vehicles	60.0	30.0	40.0	46.4

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

1. Lack of experience, training, or technical skills
2. Insufficient non-technical skills (work ethic, dependability, critical thinking)
3. Insufficient qualifications (certifications or education)

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

1. Technician or mechanical support – \$18.37 median hourly wage
2. Electrician/construction laborers – \$19.58 median hourly wage
3. Sales, marketing, or customer service – \$38.47 median hourly wage

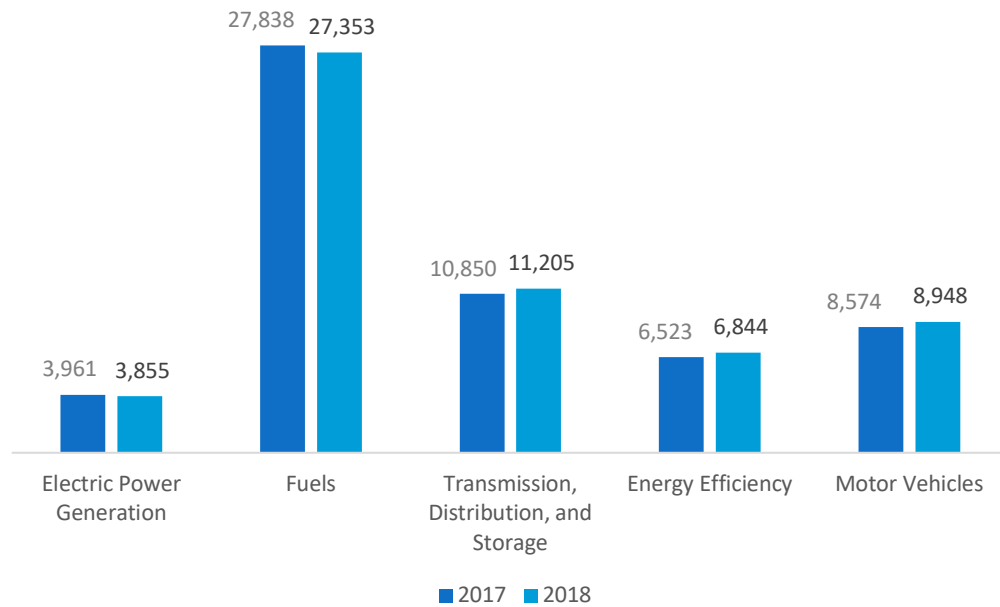
West Virginia

ENERGY AND EMPLOYMENT — 2019

Overview

West Virginia has a high concentration of energy employment, with 42,413 Traditional Energy workers statewide (representing 1.3 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 3,855 are in Electric Power Generation, 27,353 are in Fuels, and 11,205 are in Transmission, Distribution, and Storage. The Traditional Energy sector in West Virginia is 6.0 percent of total state employment (compared to 2.3 percent of national employment). West Virginia has an additional 6,844 jobs in Energy Efficiency (0.3 percent of all U.S. Energy Efficiency jobs) and 8,948 jobs in Motor Vehicles (0.4 percent of all U.S. Motor Vehicle jobs).

Figure WV-1.
Employment by Major Energy Technology Application



Overall, Traditional Energy jobs declined by 0.6 percent since the 2018 report, decreasing by 236 jobs over the period. Energy Efficiency jobs added 321 jobs (4.9 percent) and motor vehicles added 374 jobs (4.4 percent).

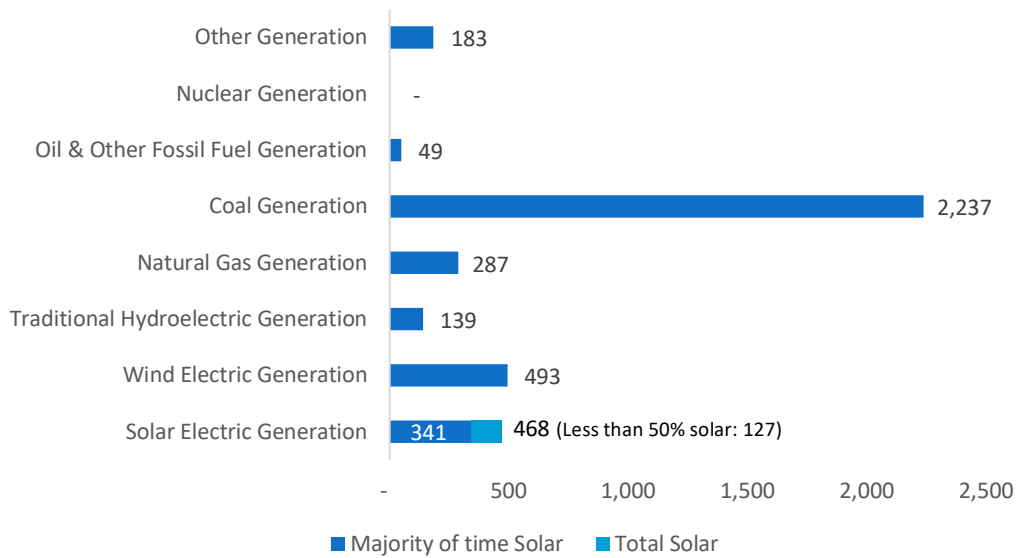
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 3,855 workers in West Virginia, 0.4 percent of the national total and losing 106 jobs over the past year (-2.7 percent). Traditional fossil fuel generation makes up the largest segment of employment related to Electric Power Generation, with 2,572 jobs (down 4.7 percent), followed by wind at 493 jobs (up 2.1 percent).

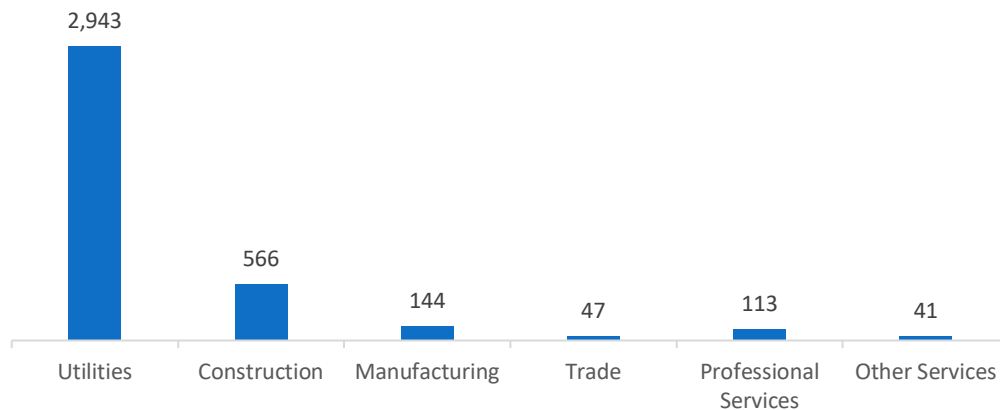
Figure WV-2.

Electric Power Generation Employment by Detailed Technology Application



Utilities are the largest industry sector in Electric Power Generation, with 76.4 percent of jobs. Construction is next with 14.7 percent.

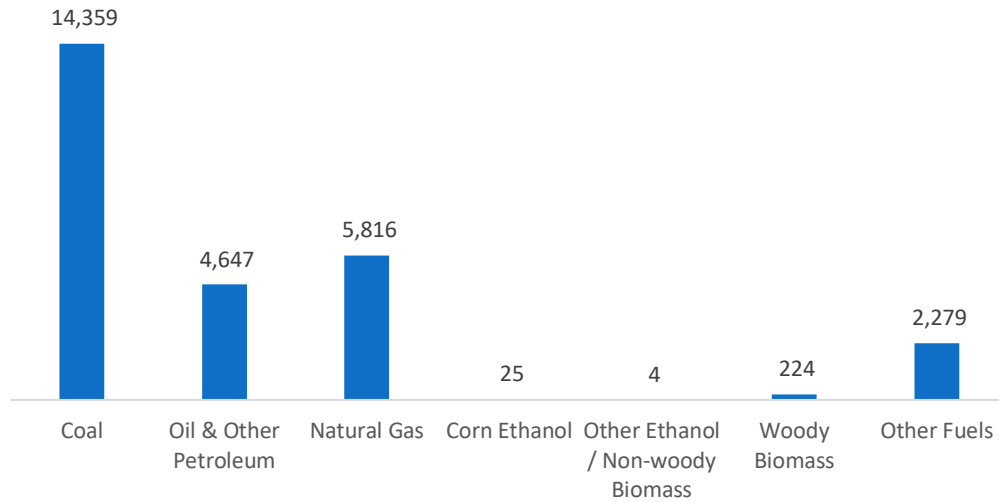
Figure WV-3.



Fuels

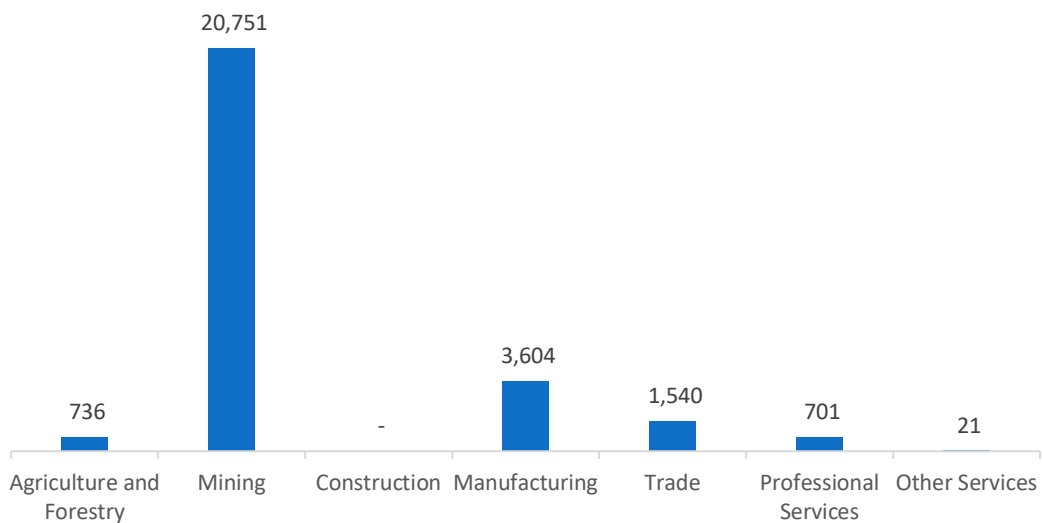
Fuels employs 27,353 workers in West Virginia, 2.4 percent of the national total, down 1.7 percent over the past year. Coal makes up the largest segment of employment related to Fuels.

Figure WV-4.
Fuels Employment by Detailed Technology Application



Mining and extraction jobs represent 75.9 percent of Fuels jobs in West Virginia.

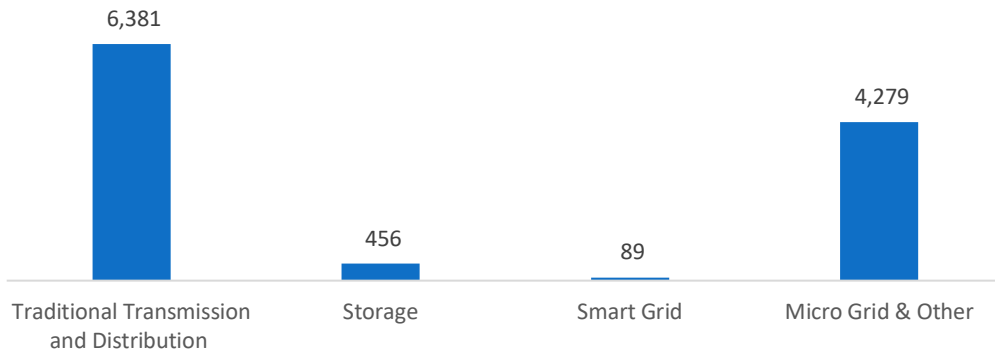
Figure WV-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

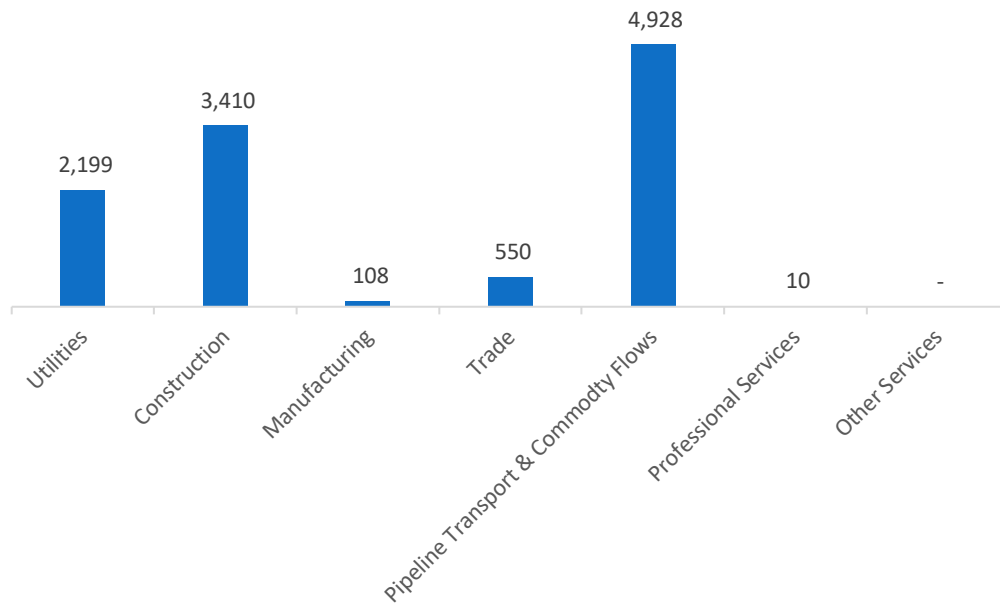
Transmission, Distribution, and Storage employs 11,205 workers in West Virginia, 0.8 percent of the national total, up 3.3 percent or 355 jobs since the 2018 report.

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



Pipeline transport and commodity flows are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in West Virginia, with 44.0 percent of such jobs statewide.

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

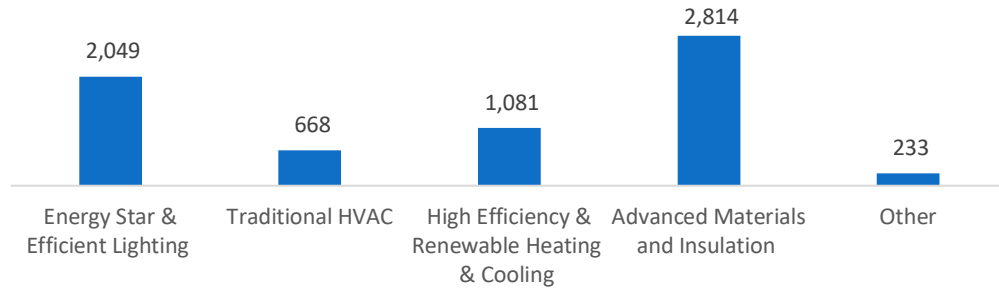


Energy Efficiency

The 6,844 Energy Efficiency jobs in West Virginia represent 0.3 percent of all U.S. Energy Efficiency jobs, adding 321 jobs (4.9 percent) since last year. The largest number of these employees work in advanced materials and insulation firms, followed by ENERGY STAR and efficient lighting.

Figure WV-8.

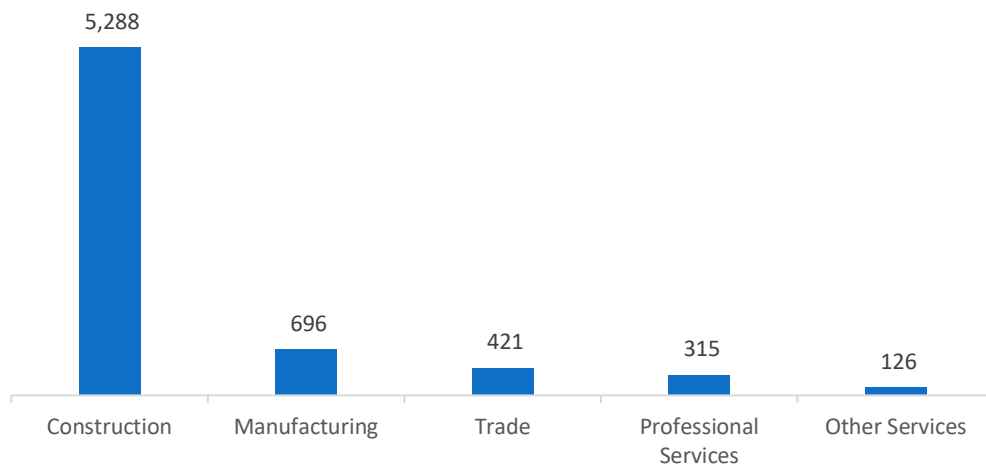
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

Figure WV-9.

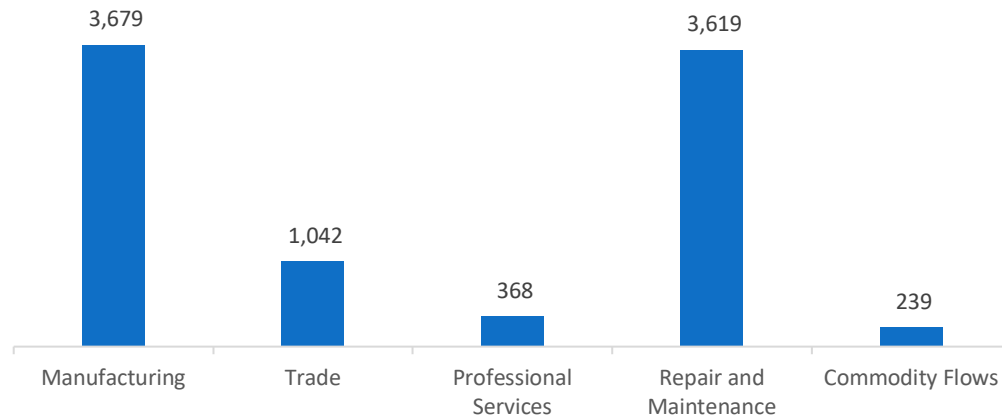
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 8,948 jobs in West Virginia, up 374 jobs over the past year (4.4 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is manufacturing.

Figure WV-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in West Virginia are less optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (0.9 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 134 jobs in Energy Efficiency (2.0 percent) and Motor Vehicles employers expect to add 177 jobs (2.0 percent) over the next year.

Table WV-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	10.4	7.1
Electric Power Transmission, Distribution and Storage	--	3.2
Energy Efficiency	2.0	7.8
Fuels	--	3.0
Motor Vehicles	2.0	2.2

Hiring Difficulty

Over the last year, 53.2 percent of energy-related employers in West Virginia hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Fuels.

Table WV-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	--	20.7	50.0	54.8
Electric Power Transmission, Distribution and Storage	50.0	21.9	--	46.1
Energy Efficiency	50.0	21.3	10.0	48.1
Fuels	33.3	37.9	50.0	43.0
Motor Vehicles	40.0	30.0	40.0	46.4

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

1. Lack of experience, training, or technical skills
2. Cannot pass employment screening
3. Competition/ small applicant pool

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

1. Technician or mechanical support – \$15.78 median hourly wage
2. Electrician/construction laborers – \$17.53 median hourly wage
3. Sales, marketing, or customer service – \$28.33 median hourly wage

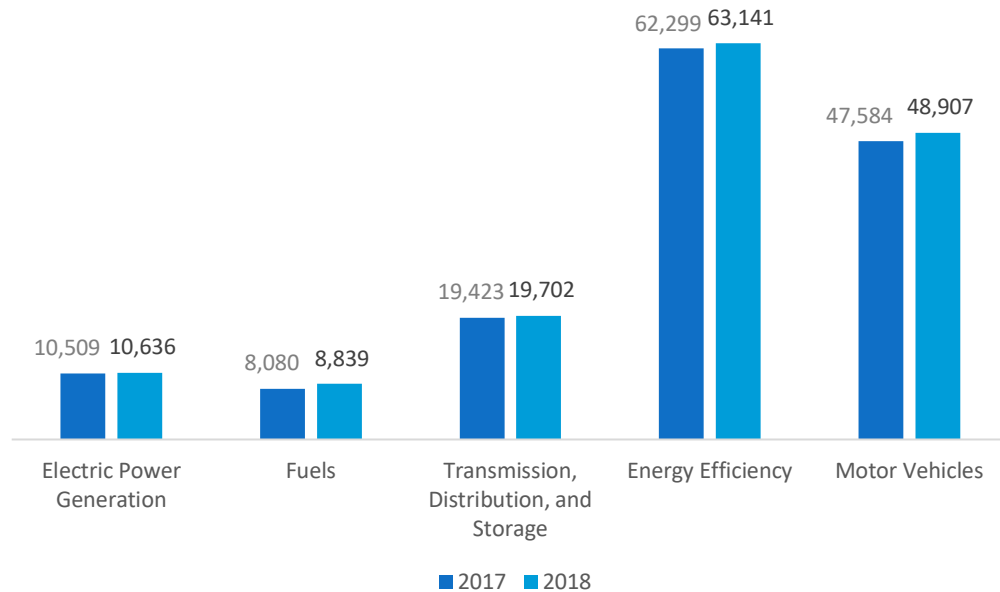
Wisconsin

ENERGY AND EMPLOYMENT – 2019

Overview

Wisconsin has a low concentration of energy employment, with 39,177 Traditional Energy workers statewide (representing 1.2 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 10,636 are in Electric Power Generation, 8,839 are in Fuels, and 19,702 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Wisconsin is 1.3 percent of total state employment (compared to 2.3 percent of national employment). Wisconsin has an additional 63,141 jobs in Energy Efficiency (2.7 percent of all U.S. Energy Efficiency jobs) and 48,907 jobs in Motor Vehicles (1.9 percent of all U.S. Motor Vehicle jobs).

Figure WI-1.
Employment by Major Energy Technology Application



Overall, Traditional Energy jobs grew by 3.1 percent since the 2018 report, increasing by 1,165 jobs over the period. Energy Efficiency jobs added 841 jobs (1.4 percent) and motor vehicles added 1,323 jobs (2.8 percent).

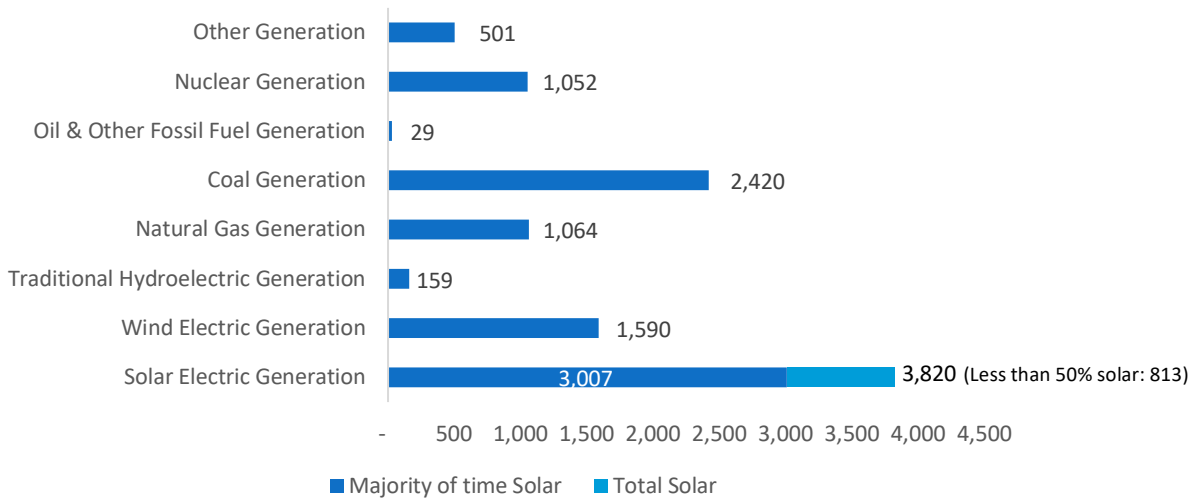
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 10,636 workers in Wisconsin, 1.2 percent of the national total and adding 127 jobs over the past year (1.2 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 3,820 jobs (up 0.5 percent), followed by traditional fossil fuel generation at 3,513 jobs (down 2.2 percent).

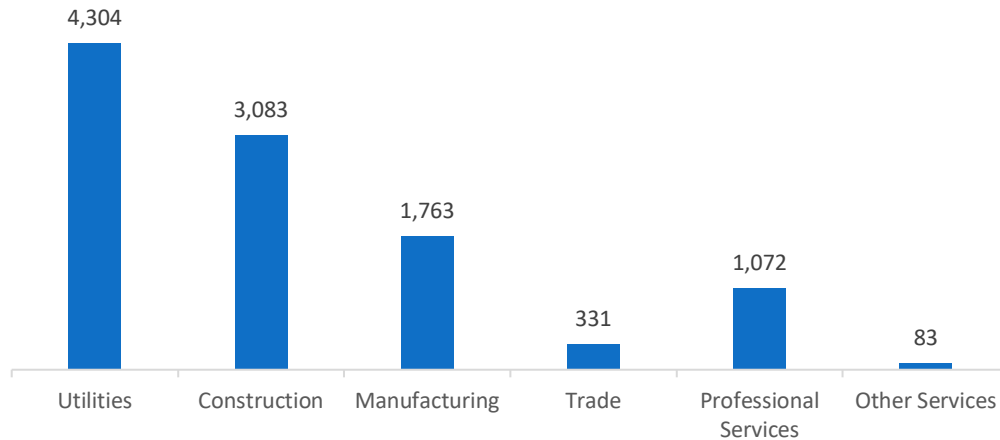
Figure WI-2.

Electric Power Generation Employment by Detailed Technology Application



Utilities are the largest industry sector in Electric Power Generation, with 40.5 percent of jobs. Construction is next with 29.0 percent.

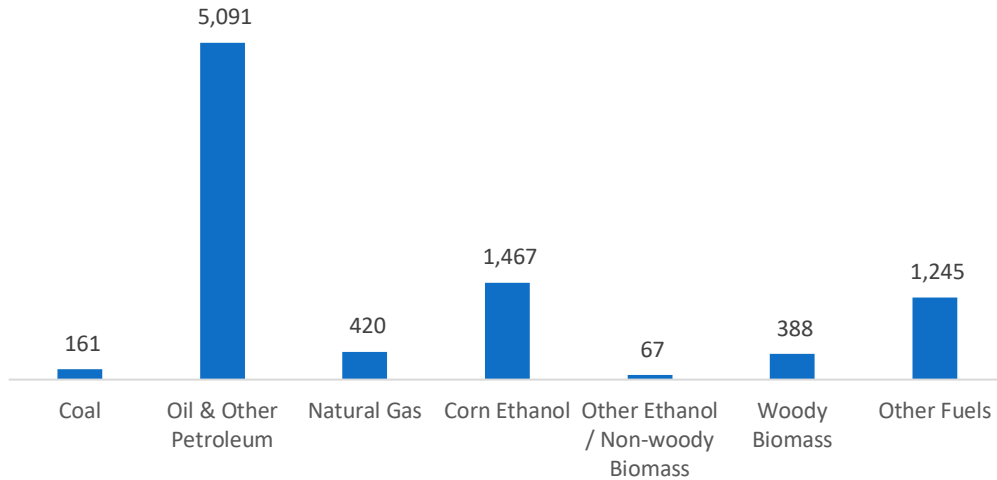
Figure WI-3.



Fuels

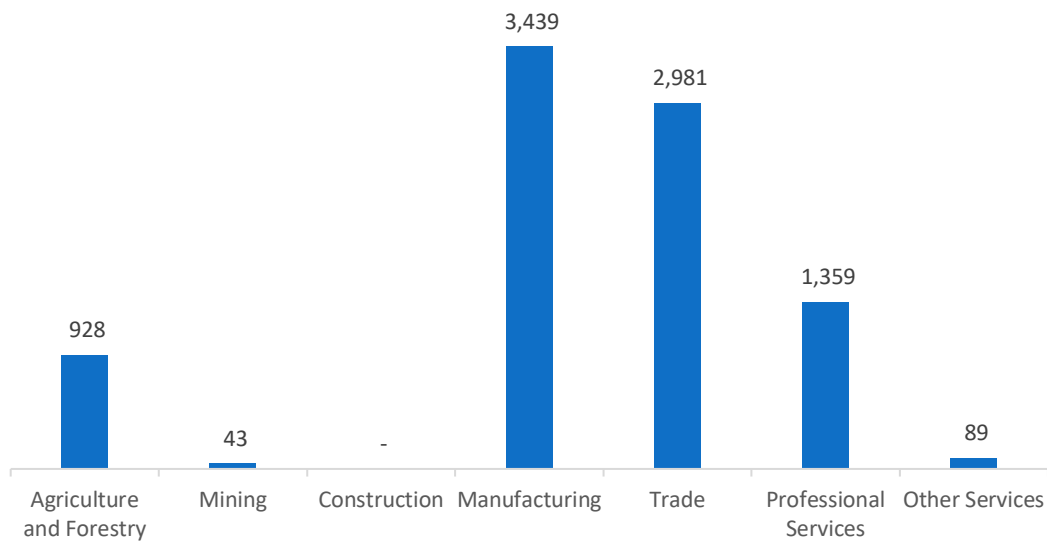
Fuels employs 8,839 workers in Wisconsin, 0.8 percent of the national total, up 9.4 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure WI-4.
Fuels Employment by Detailed Technology Application



Manufacturing jobs represent 38.9 percent of Fuels jobs in Wisconsin.

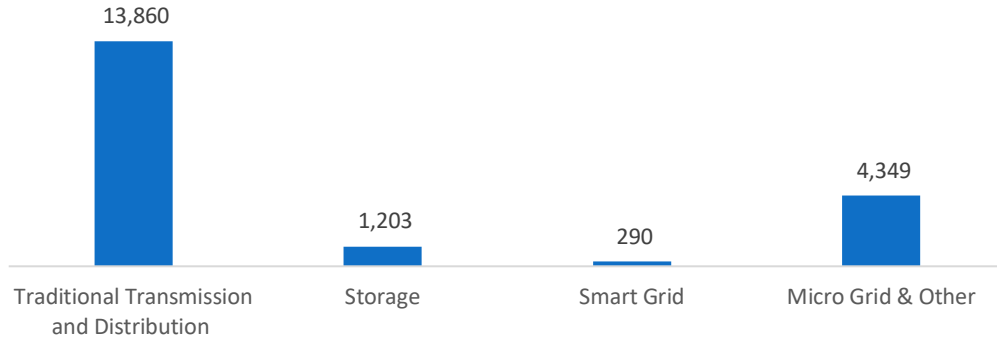
Figure WI-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

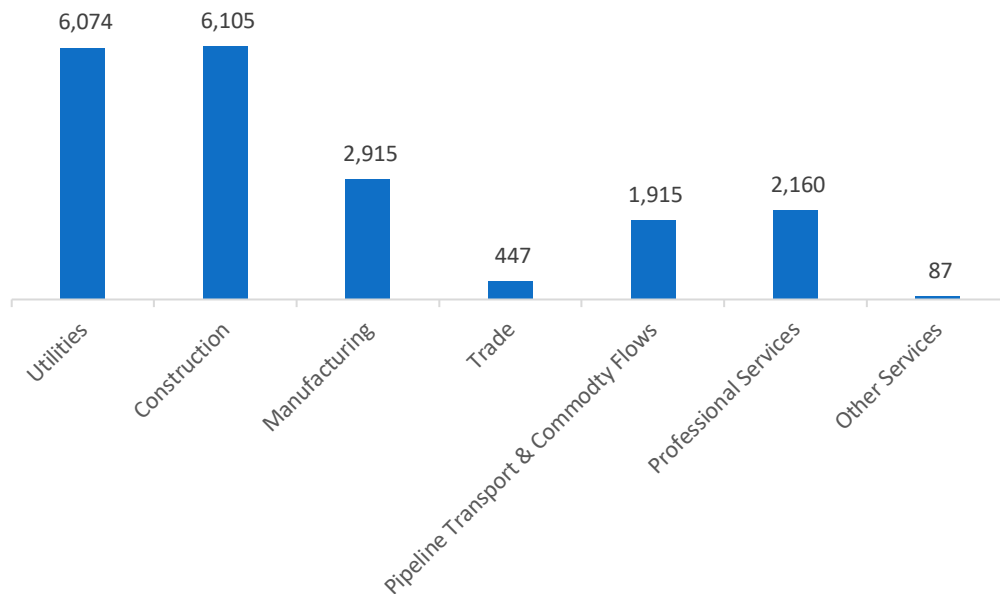
Transmission, Distribution, and Storage employs 19,702 workers in Wisconsin, 1.4 percent of the national total, up 1.4 percent or 279 jobs since the 2018 report.

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



Construction is responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Wisconsin, with 31.0 percent of such jobs statewide.

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

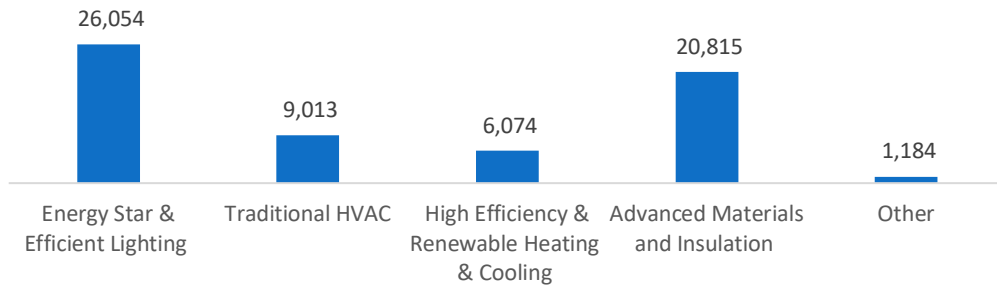


Energy Efficiency

The 63,141 Energy Efficiency jobs in Wisconsin represent 2.7 percent of all U.S. Energy Efficiency jobs, adding 841 jobs (1.4 percent) since last year. The largest number of these employees work in ENERGY STAR and efficient lighting firms, followed by advanced materials and insulation.

Figure WI-8.

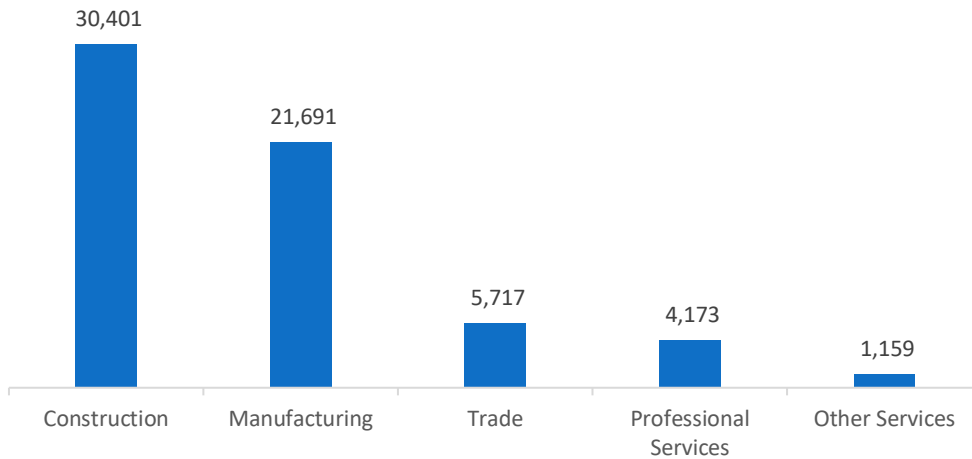
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

Figure WI-9.

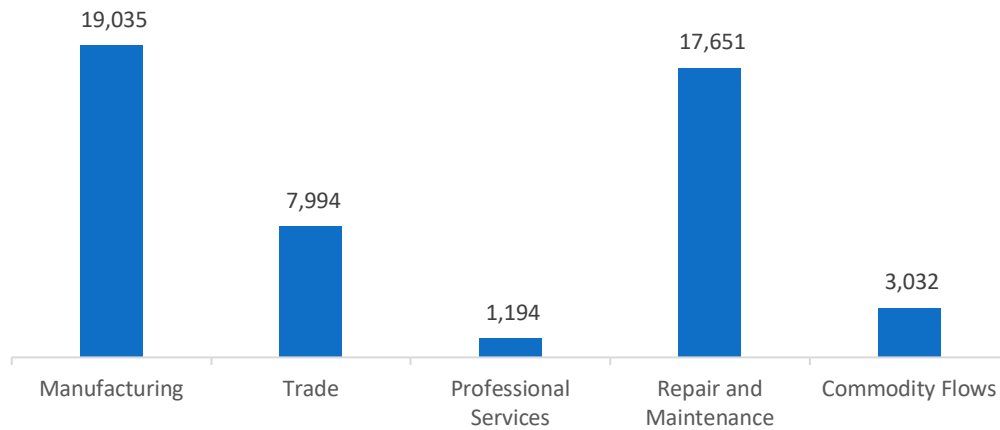
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 48,907 jobs in Wisconsin, up 1,323 jobs over the past year (2.8 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is manufacturing.

Figure WI-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in Wisconsin are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (5.7 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 5,127 jobs in Energy Efficiency (8.1 percent) and Motor Vehicles employers expect to add 2,191 jobs (4.5 percent) over the next year.

Table WI-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	8.4	7.1
Electric Power Transmission, Distribution and Storage	4.5	3.2
Energy Efficiency	8.1	7.8
Fuels	5.1	3.0
Motor Vehicles	4.5	2.2

Hiring Difficulty

Over the last year, 60.9 percent of energy-related employers in Wisconsin hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Energy Efficiency.

Table WI-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	25.0	20.7	37.5	54.8
Electric Power Transmission, Distribution and Storage	14.3	21.9	71.4	46.1
Energy Efficiency	50.0	21.3	43.8	48.1
Fuels	33.3	37.9	33.3	43.0
Motor Vehicles	33.3	30.0	61.1	46.4

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

1. Lack of experience, training, or technical skills
2. Insufficient non-technical skills (work ethic, dependability, critical thinking)
3. Competition/ small applicant pool

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

1. Technician or mechanical support – \$23.78 median hourly wage
2. Electrician/construction laborers – \$22.75 median hourly wage
3. Sales, marketing, or customer service – \$33.66 median hourly wage

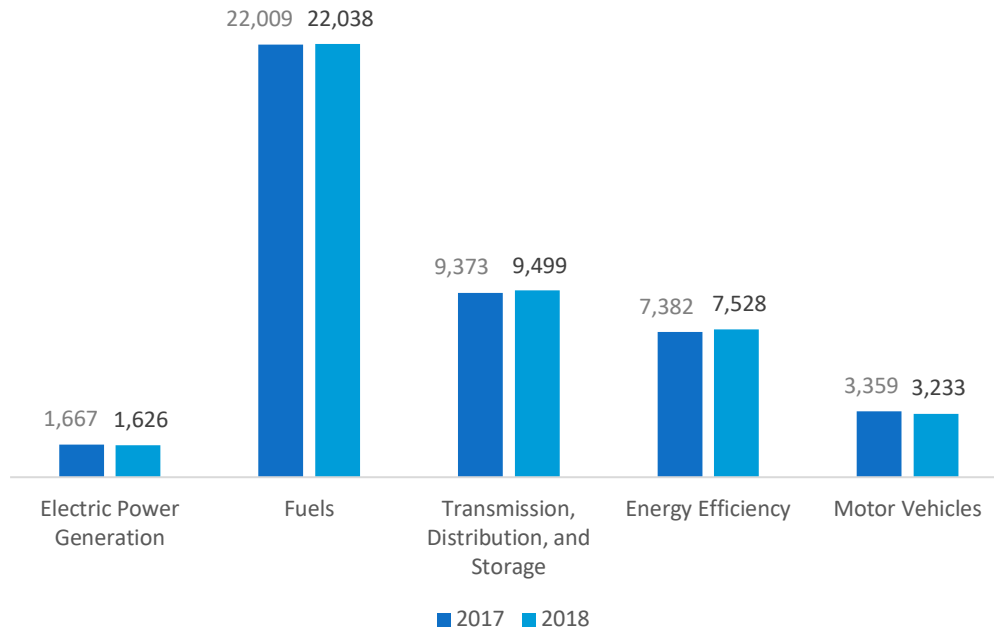
Wyoming

ENERGY AND EMPLOYMENT — 2019

Overview

Wyoming has a high concentration of energy employment, with 33,163 Traditional Energy workers statewide (representing 1.0 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 1,626 are in Electric Power Generation, 22,038 are in Fuels, and 9,499 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Wyoming is 11.8 percent of total state employment (compared to 2.3 percent of national employment). Wyoming has an additional 7,528 jobs in Energy Efficiency (0.3 percent of all U.S. Energy Efficiency jobs) and 3,233 jobs in Motor Vehicles (0.1 percent of all U.S. Motor Vehicle jobs).

Figure WY-1.
Employment by Major Energy Technology Application



Overall, Traditional Energy jobs grew by 0.3 percent since the 2018 report, increasing by 114 jobs over the period. Energy Efficiency jobs added 146 jobs (2.0 percent) and motor vehicles lost 125 jobs (-3.7 percent).

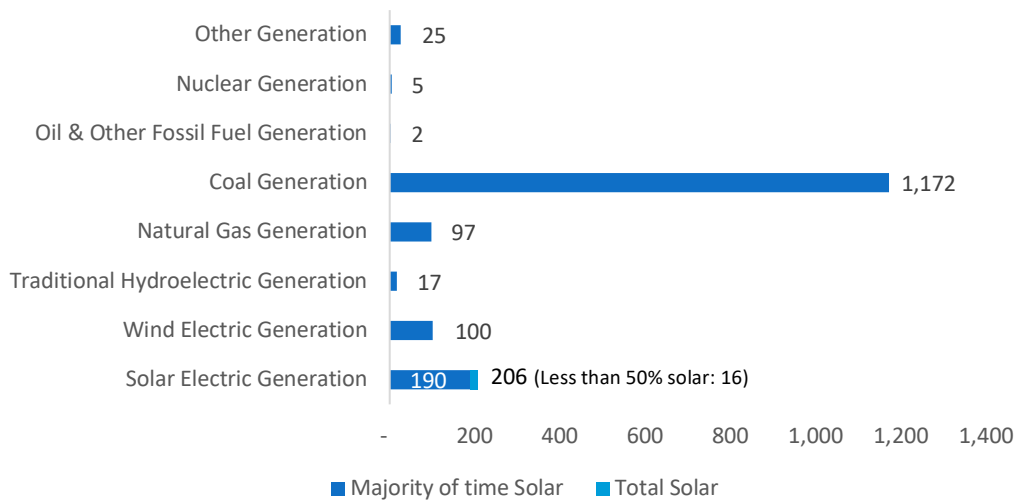
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 1,626 workers in Wyoming, 0.2 percent of the national total and losing 41 jobs over the past year (-2.4 percent). Traditional fossil fuel generation makes up the largest segment of employment related to Electric Power Generation, with 1,272 jobs (down 5.5 percent), followed by solar at 206 jobs (up 1.6 percent).

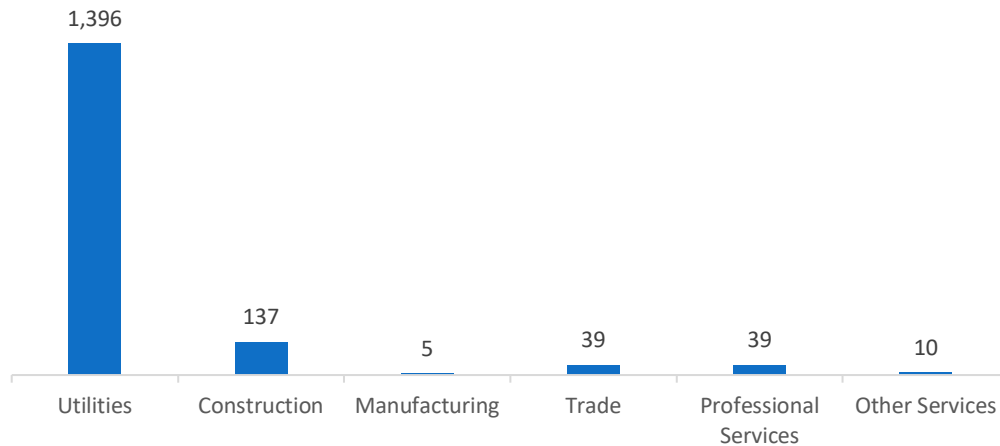
Figure WY-2.

Electric Power Generation Employment by Detailed Technology Application



Utilities are the largest industry sector in Electric Power Generation, with 85.8 percent of jobs. Construction is next with 8.4 percent.

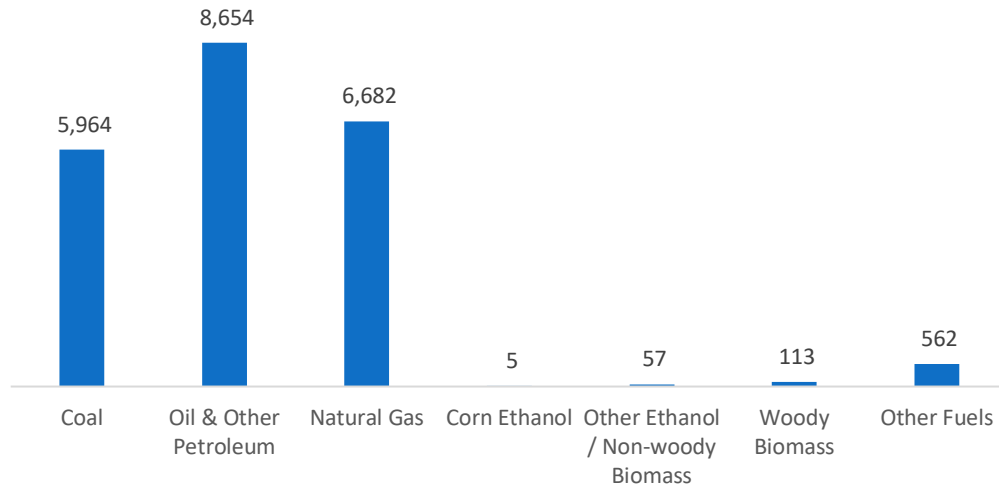
Figure WY-3.



Fuels

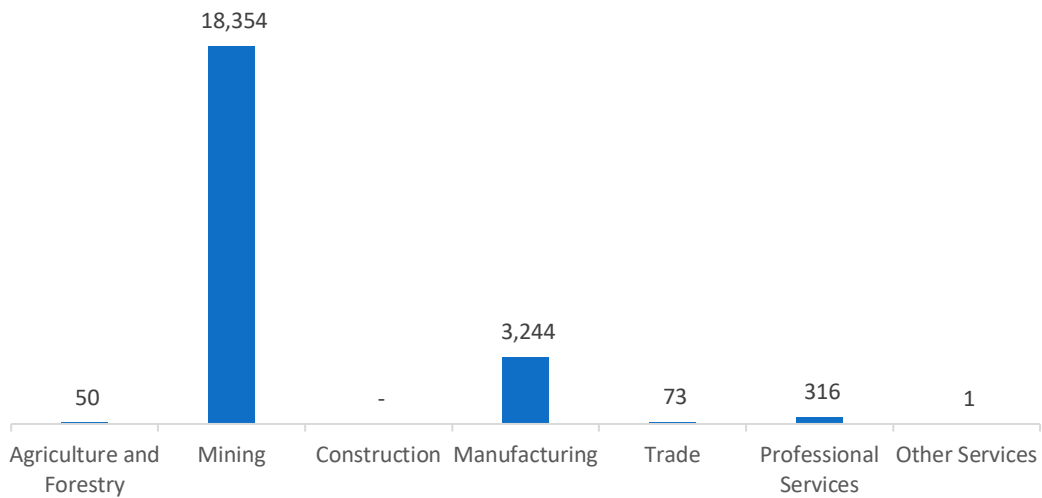
Fuels employs 22,038 workers in Wyoming, 2.0 percent of the national total, up 0.1 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure WY-4.
Fuels Employment by Detailed Technology Application



Mining and extraction jobs represent 83.3 percent of Fuels jobs in Wyoming.

Figure WY-5.
Fuels Employment by Industry Sector

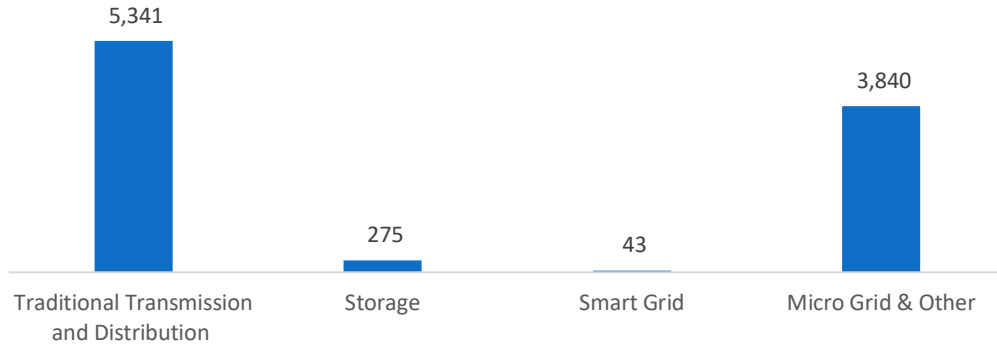


Transmission, Distribution and Storage

Transmission, Distribution, and Storage employs 9,499 workers in Wyoming, 0.7 percent of the national total, up 1.3 percent or 126 jobs since the 2018 report.

Figure WY-6.

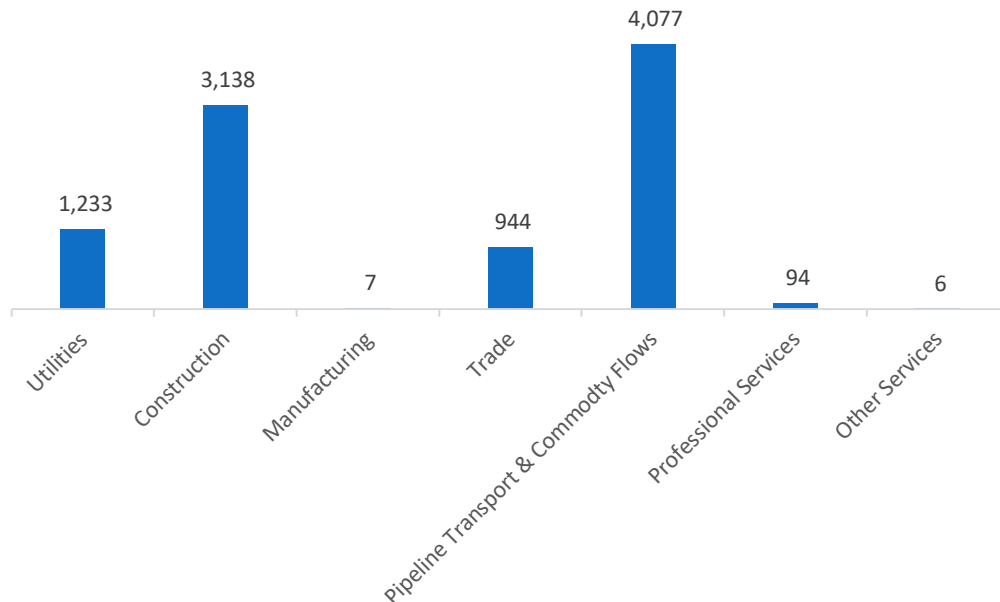
Transmission, Distribution and Storage Employment by Detailed Technology



Pipeline transport and commodity flows are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Wyoming, with 42.9 percent of such jobs statewide.

Figure WY-7.

Transmission, Distribution and Storage Employment by Industry Sector

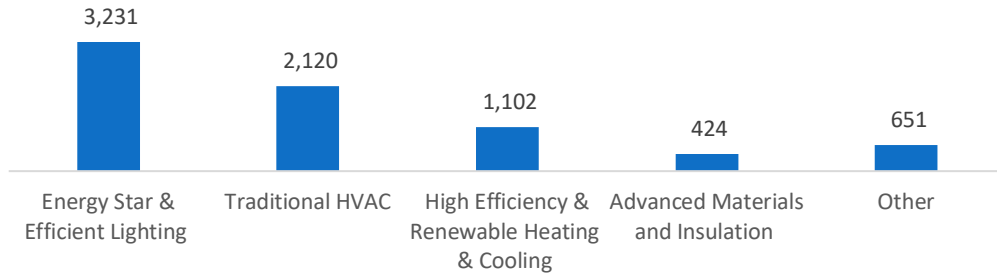


Energy Efficiency

The 7,528 Energy Efficiency jobs in Wyoming represent 0.3 percent of all U.S. Energy Efficiency jobs, adding 146 jobs (2.0 percent) since last year. The largest number of these employees work in ENERGY STAR and efficient lighting firms, followed by traditional HVAC.

Figure WY-8.

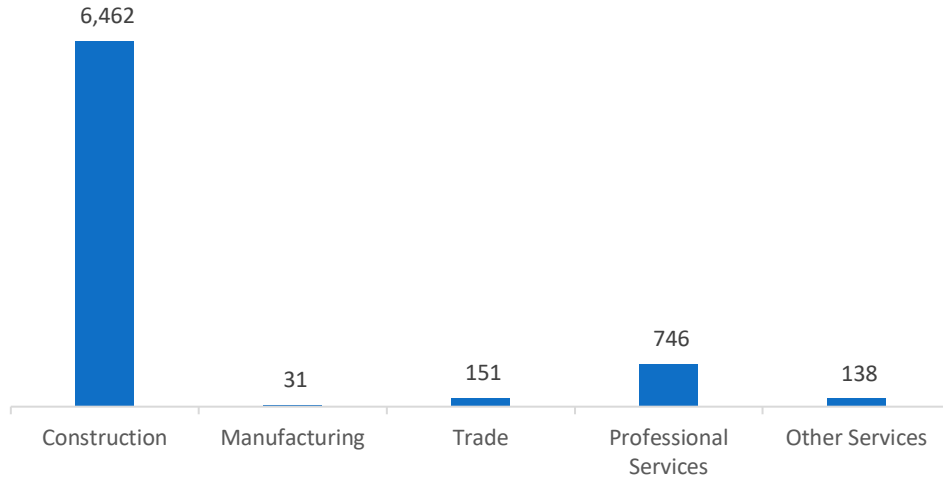
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

Figure WY-9.

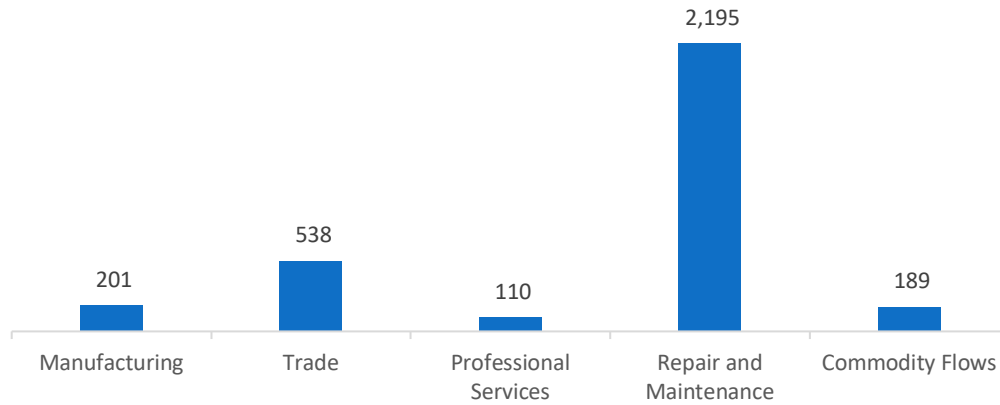
Energy Efficiency Employment by Industry Sector



Motor Vehicles

Motor Vehicle employment accounts for 3,233 jobs in Wyoming, down 125 jobs over the past year (-3.7 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure WY-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

Employer Growth

Employers in Wyoming are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (6.7 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 587 jobs in Energy Efficiency (7.8 percent) and Motor Vehicles employers expect to add 64 jobs (2.0 percent) over the next year.

Table WY-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	--	7.1
Electric Power Transmission, Distribution and Storage	7.9	3.2
Energy Efficiency	7.8	7.8
Fuels	6.7	3.0
Motor Vehicles	2.0	2.2

Hiring Difficulty

Over the last year, 67.9 percent of energy-related employers in Wyoming hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Motor Vehicles.

Table WY-2
Hiring Difficulty by Major Technology Application

Technology	Very Difficult (%)		Somewhat Difficult (%)	
	State	National	State	National
Electric Power Generation	--	20.7	66.7	54.8
Electric Power Transmission, Distribution and Storage	--	21.9	100.0	46.1
Energy Efficiency	--	21.3	--	48.1
Fuels	14.3	37.9	42.9	43.0
Motor Vehicles	50.0	30.0	50.0	46.4

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

1. Lack of experience, training, or technical skills
2. Cannot provide competitive wages
3. Location

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

1. Technician or mechanical support – \$23.34 median hourly wage
2. Electrician/construction laborers – \$25.36 median hourly wage
3. Sales, marketing, or customer service – \$27.84 median hourly wage