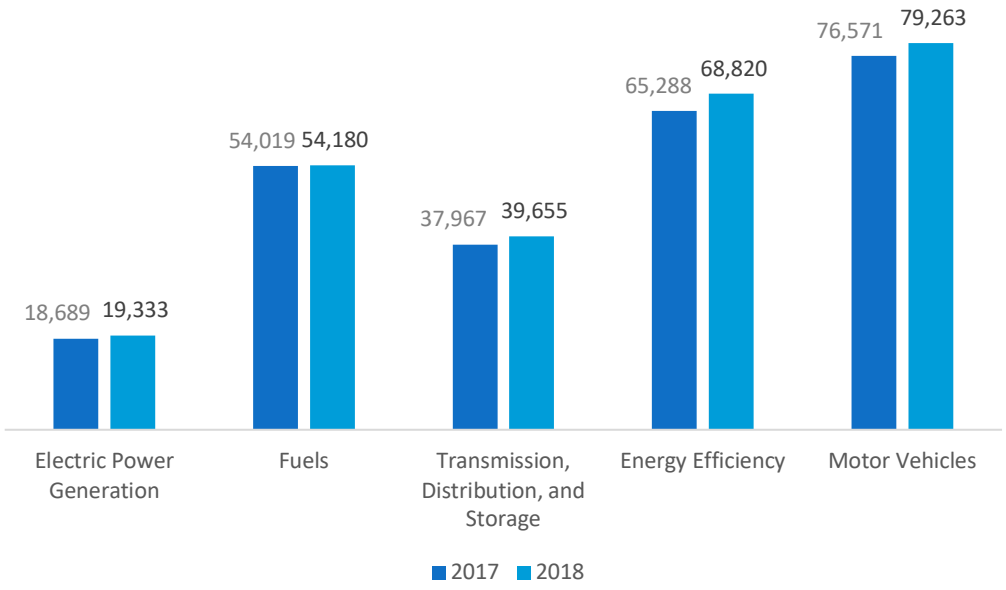
Pennsylvania

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



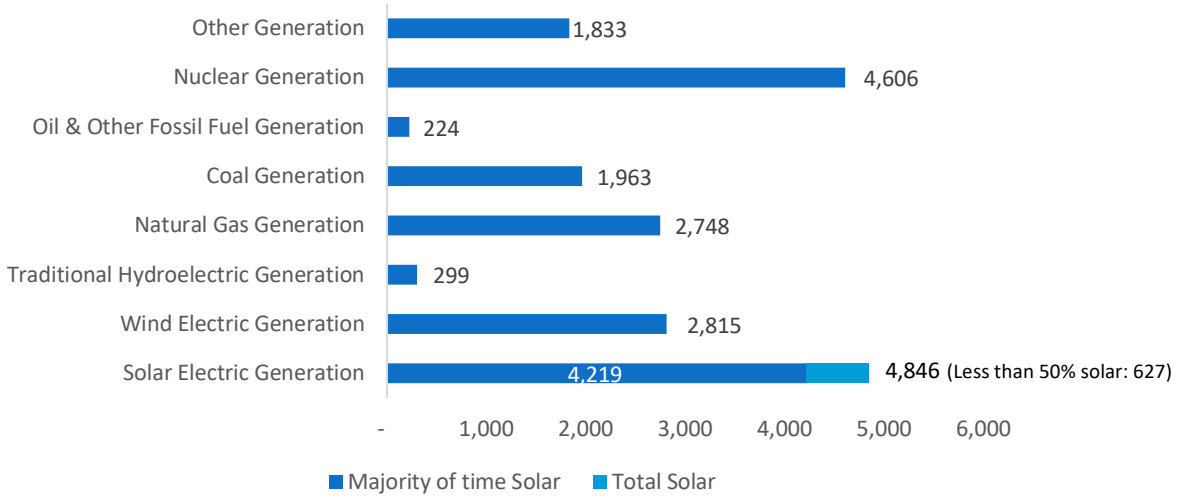
Overall, Traditional Energy jobs grew by 2.3 percent since the 2018 report, increasing by 2,493 jobs over the period. Energy Efficiency jobs added 3,532 jobs (5.4 percent) and motor vehicles added 2,692 jobs (3.5 percent).

Breakdown by Technology Applications

Electric Power Generation

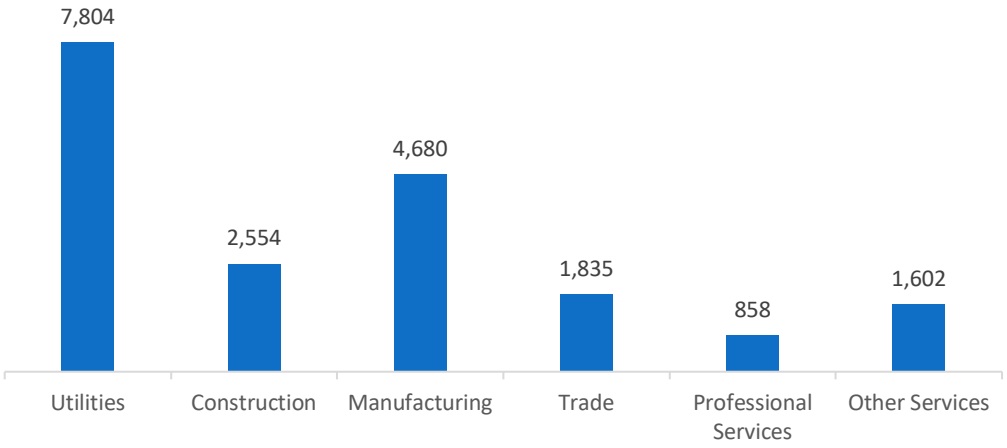
Electric Power Generation employs 19,333 workers in Pennsylvania, 2.2 percent of the national total and adding 644 jobs over the past year (3.4 percent). Traditional fossil fuel generation makes up the largest segment of employment related to Electric Power Generation, with 4,935 jobs (up 1.8 percent),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

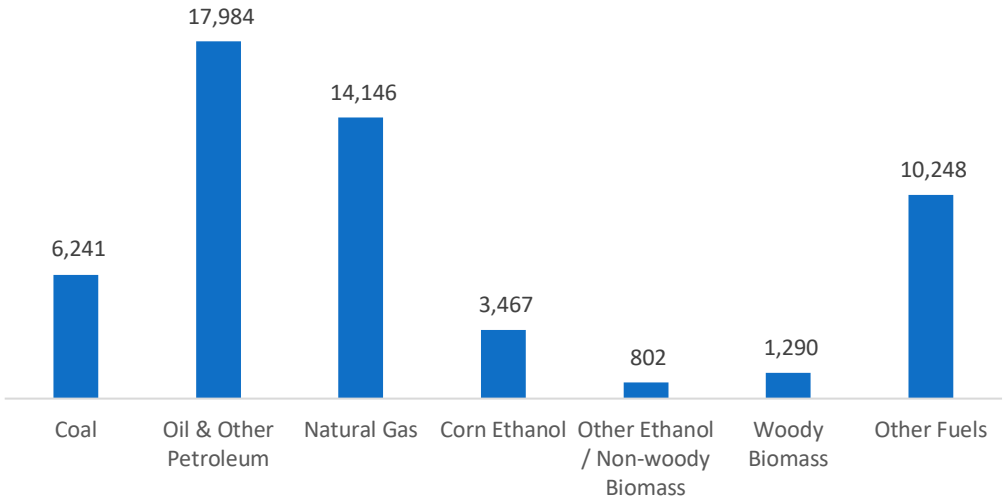
Figure PA-3.



Fuels

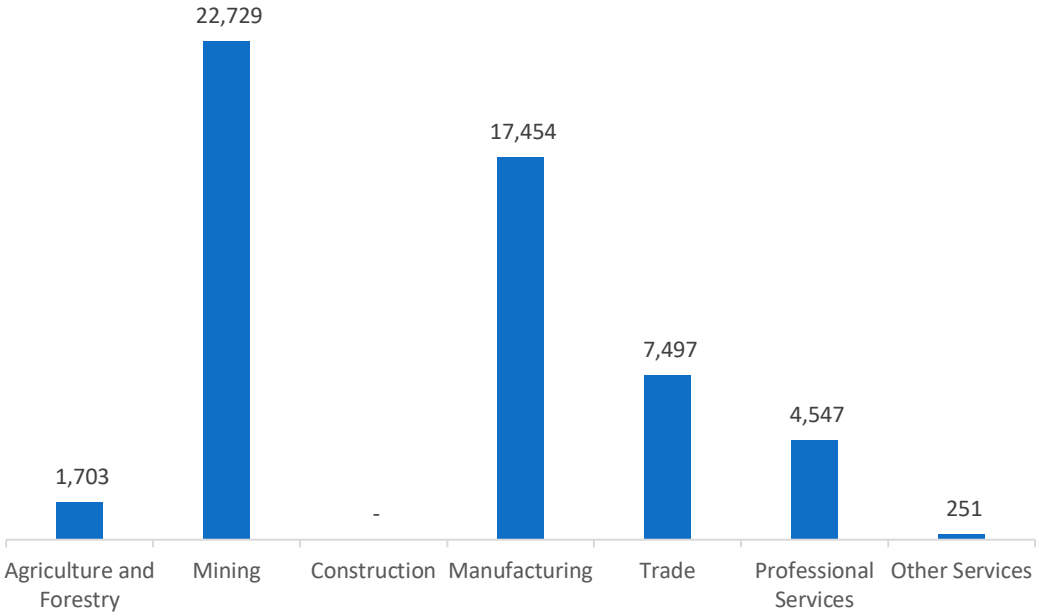
Fuels employs 54,180 workers in Pennsylvania, 4.8 percent of the national total, up 0.3 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure PA-4.
Fuels Employment by Detailed Technology Application



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

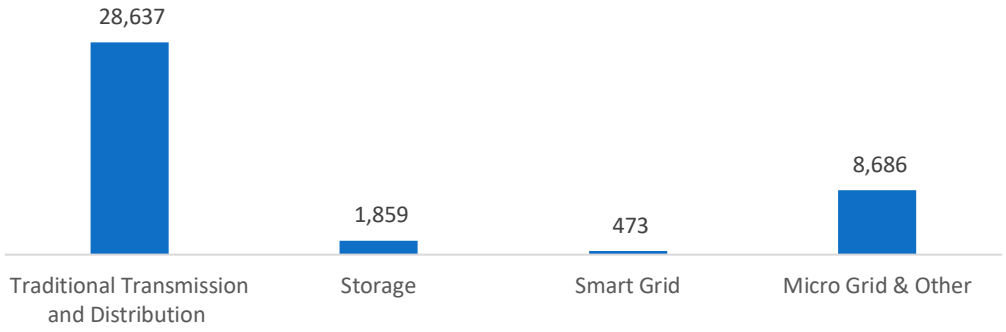
Figure PA-5.
Fuels Employment by Industry Sector



Transmission, Distribution and Storage

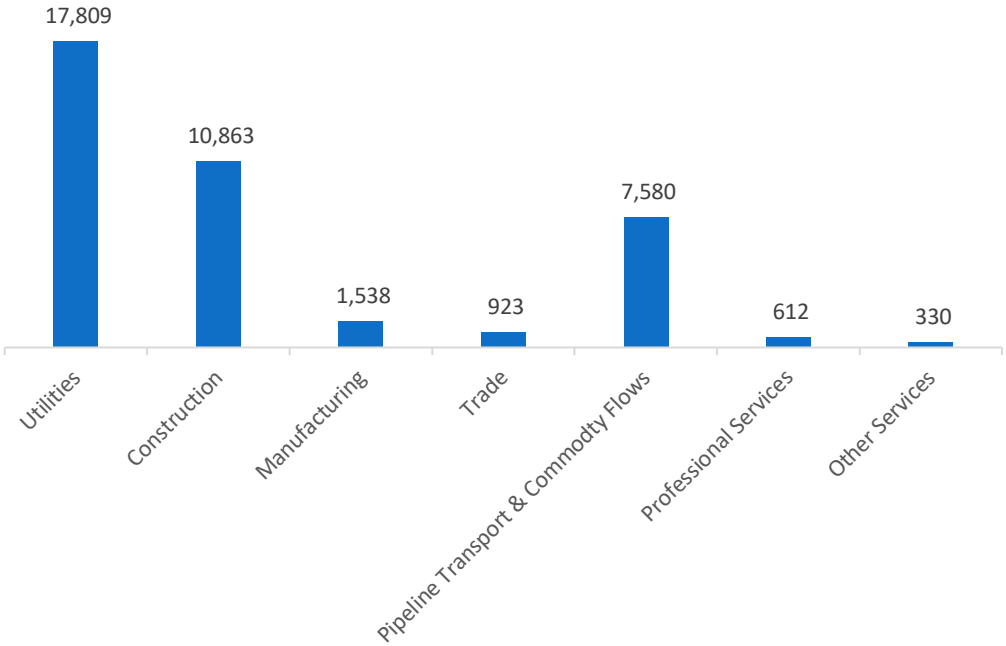
Transmission, Distribution, and Storage employs 39,655 workers in Pennsylvania, 2.9 percent of the national total, up 4.4 percent or 1,688 jobs since the 2018 report.

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.

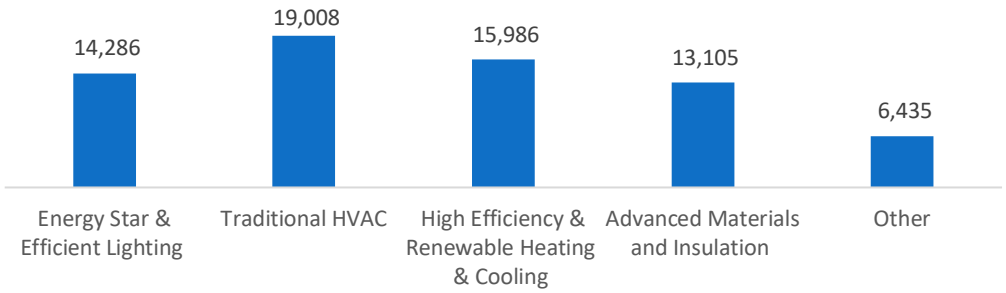
Figure PA-7.
Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

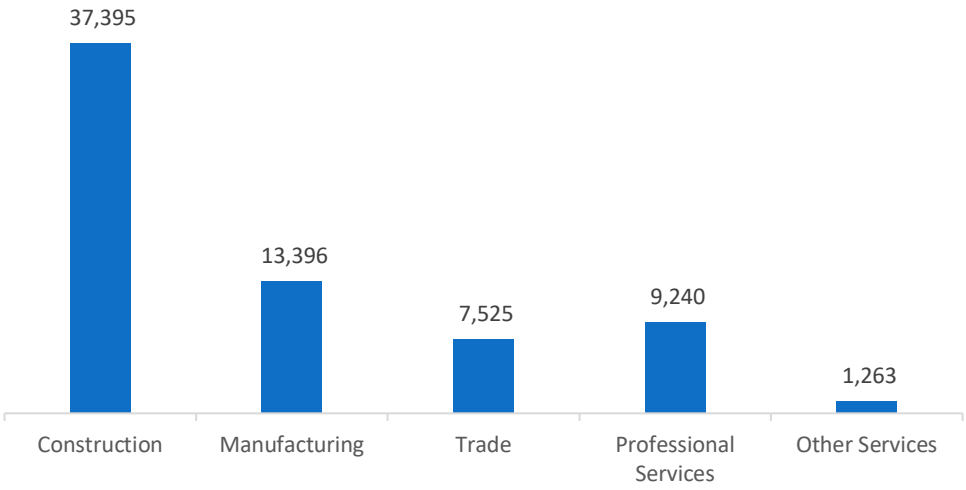
The 68,820 Energy Efficiency jobs in Pennsylvania represent 3.0 percent of all U.S. Energy Efficiency jobs, adding 3,532 jobs (5.4 percent) since last year. The largest number of these employees work in traditional HVAC firms, followed by high efficiency HVAC and renewable heating and cooling.

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



Energy Efficiency employment is primarily found in the construction industry.

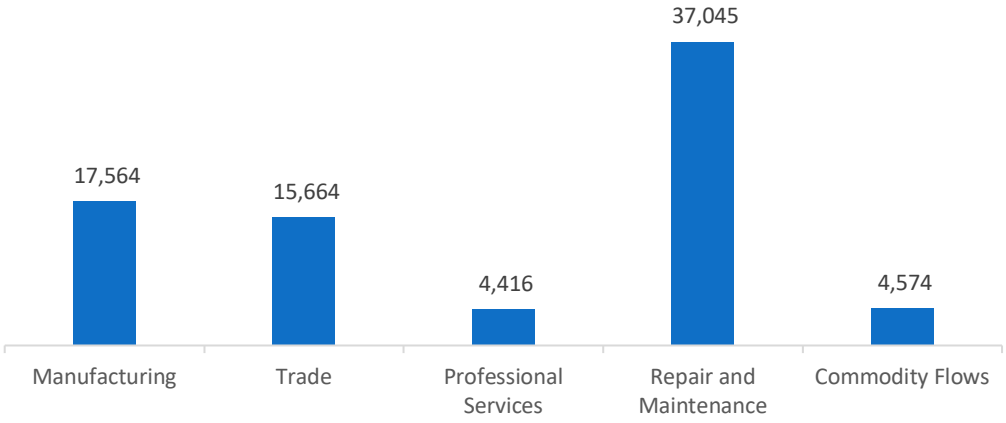
Figure PA-9.
Energy Efficiency Employment by Industry Sector



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 mechnical 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