

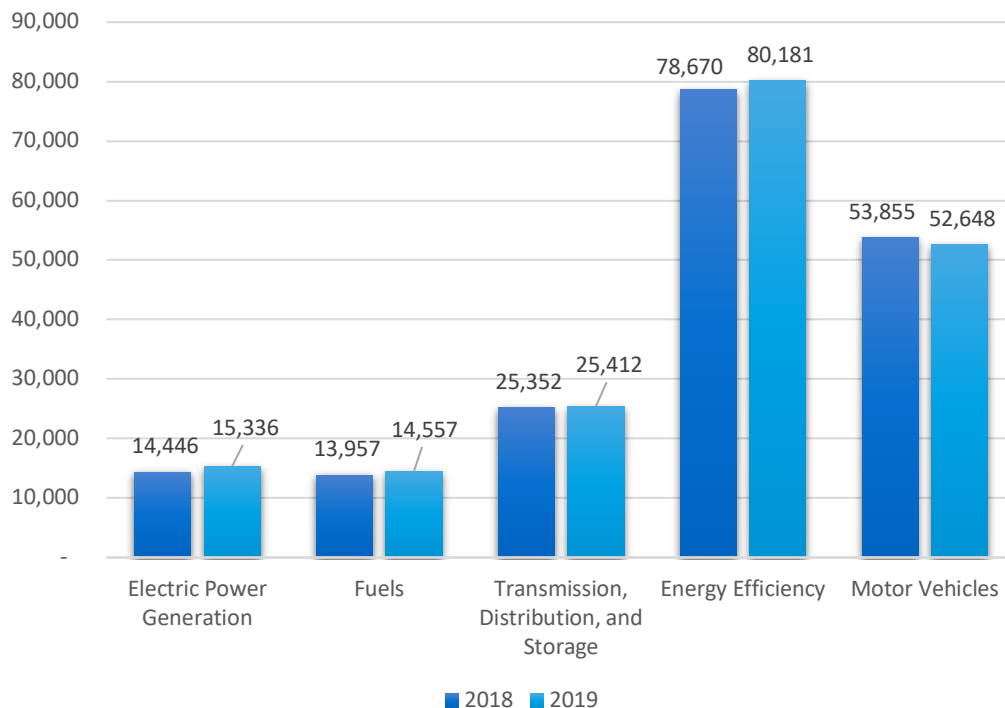
Virginia

ENERGY AND EMPLOYMENT — 2020

Overview

Virginia has a low concentration of energy employment, with 55,305 Traditional Energy workers statewide (representing 1.6 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 15,336 are in Electric Power Generation, 14,557 are in Fuels, and 25,412 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 80,181 jobs in Energy Efficiency (3.4 percent of all U.S. Energy Efficiency jobs) and 52,648 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 2.9 percent since the 2019 report, increasing by 1,551 jobs over the period. Energy Efficiency jobs added 1,511 jobs (1.9 percent) and motor vehicles lost 1,207 jobs (-2.2 percent).

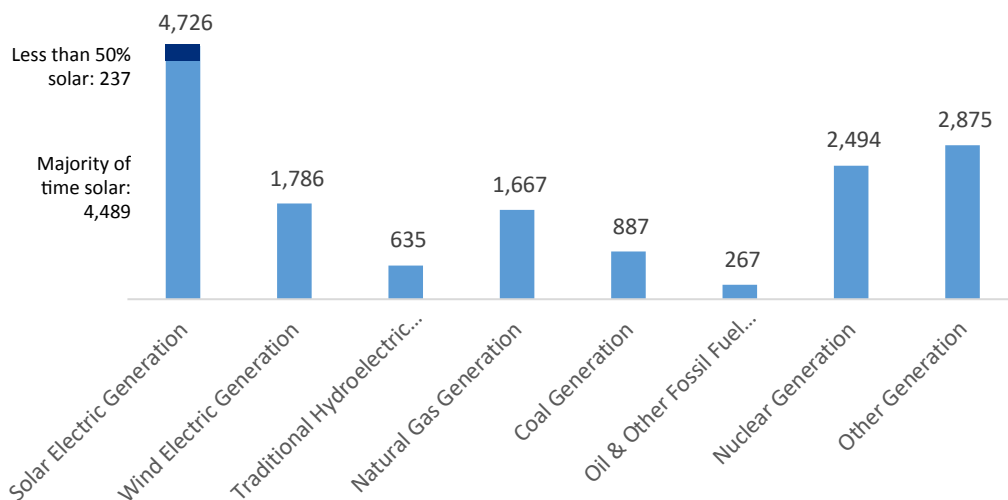
Breakdown by Technology Applications

ELECTRIC POWER GENERATION

Electric Power Generation employs 15,336 workers in Virginia, 1.7 percent of the national total and adding 890 jobs over the past year (6.2 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 4,726 jobs (up 11.4 percent), followed by traditional fossil fuel generation at 2,820 jobs (up 2.0 percent).

Figure VA-2.

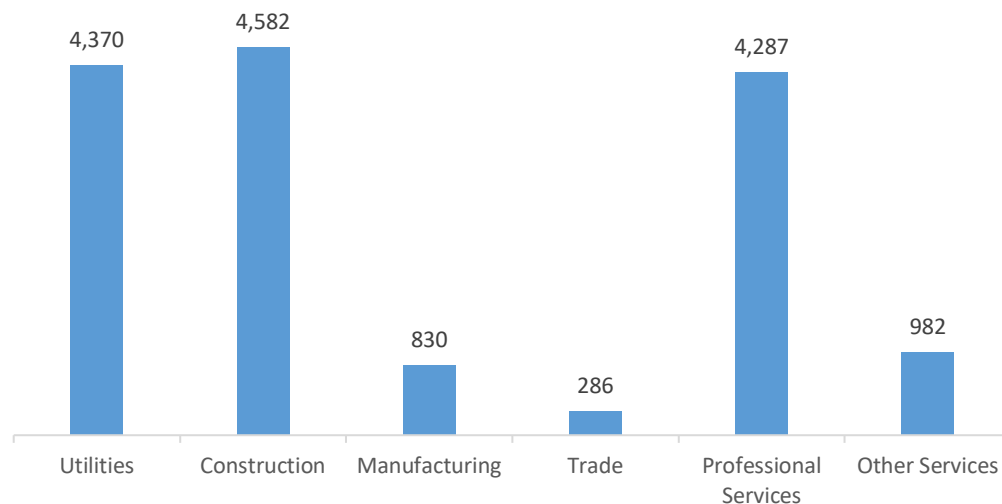
Electric Power Generation Employment by Detailed Technology Application



Construction is the largest industry sector in Electric Power Generation, with 29.9 percent of jobs. Utilities are next with 28.5 percent.

Figure VA-3.

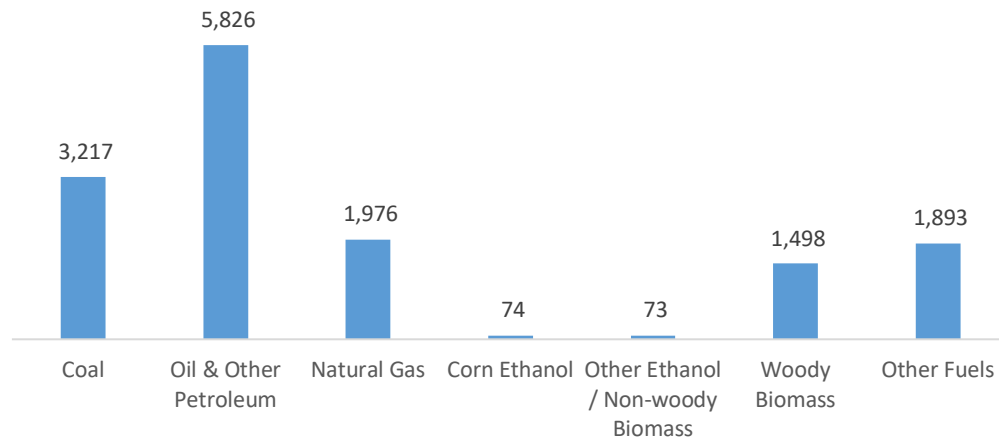
Electric Power Generation by Industry Sector



FUELS

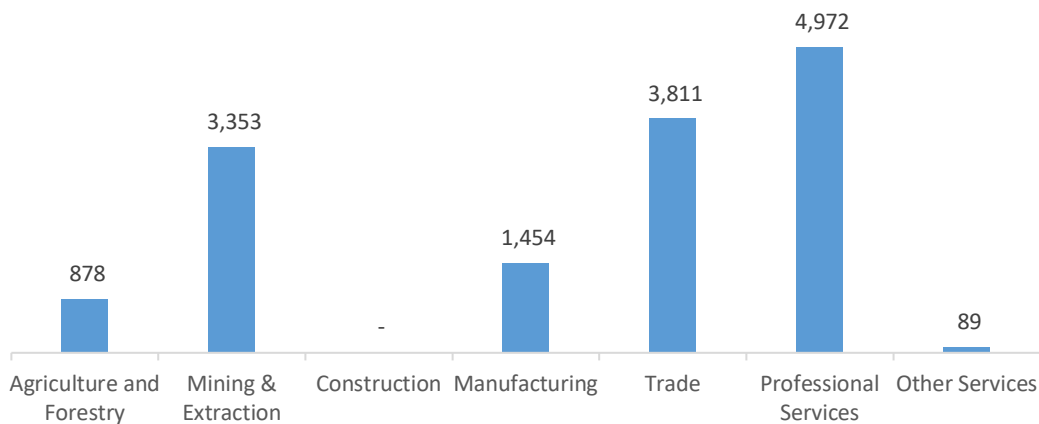
Fuels employs 14,557 workers in Virginia, 1.3 percent of the national total, up 4.3 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure VA-4.
Fuels Employment by Detailed Technology Application



Professional and business services jobs represent 34.2 percent of Fuels jobs in Virginia.

Figure VA-5.
Fuels Employment by Industry Sector

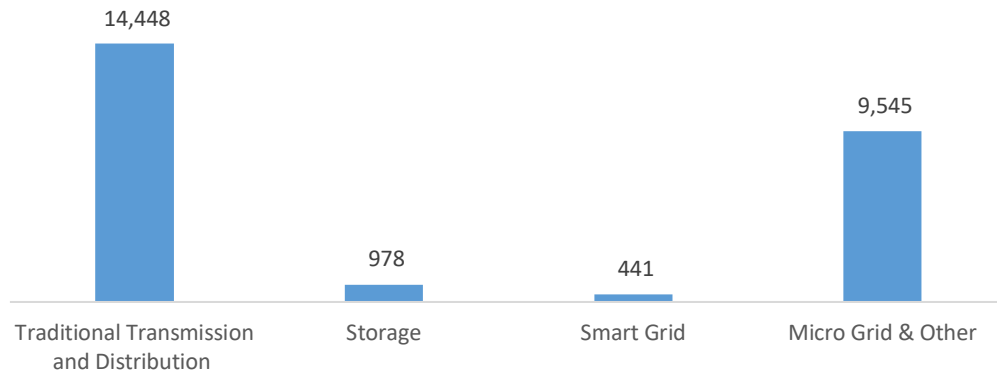


TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 25,412 workers in Virginia, 1.8 percent of the national total, up 0.2 percent or 60 jobs since the 2018 report.

Figure VA-6.

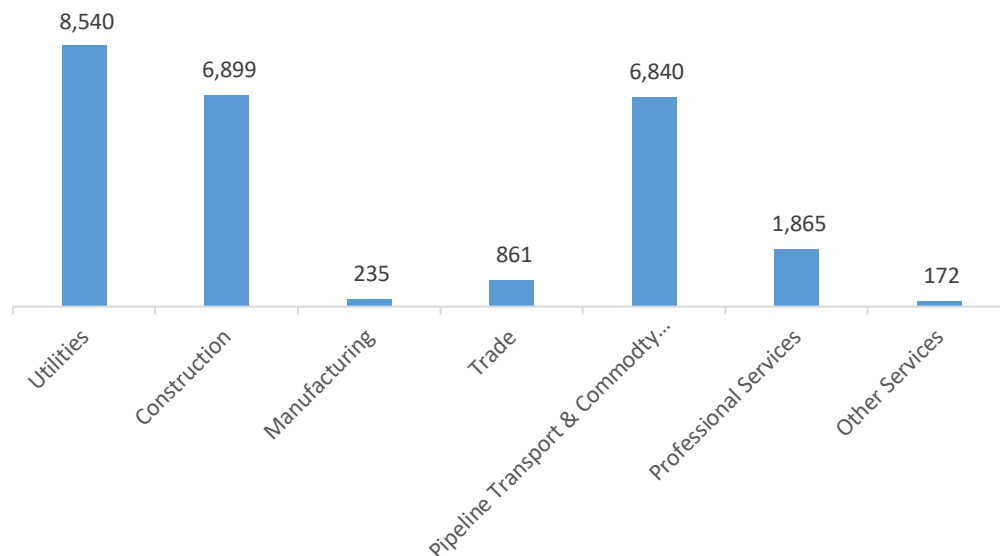
Transmission, Distribution and Storage Employment by Detailed Technology



Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Virginia, with 33.6 percent of such jobs statewide.

Figure VA-7.

Transmission, Distribution and Storage Employment by Industry Sector

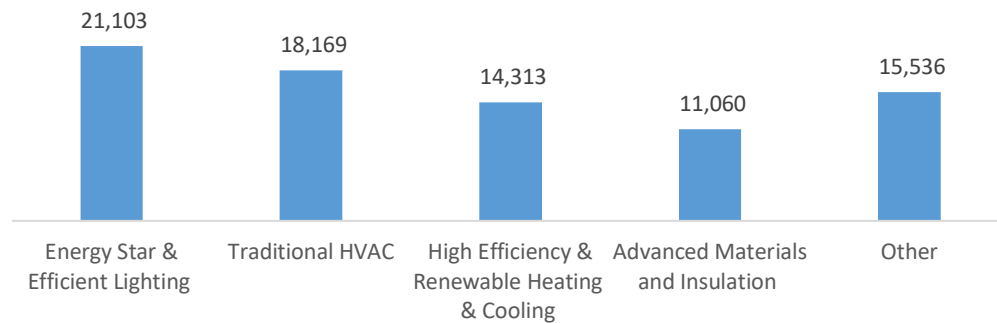


ENERGY EFFICIENCY

The 80,181 Energy Efficiency jobs in Virginia represent 3.4 percent of all U.S. Energy Efficiency jobs, adding 1,511 jobs (1.9 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.

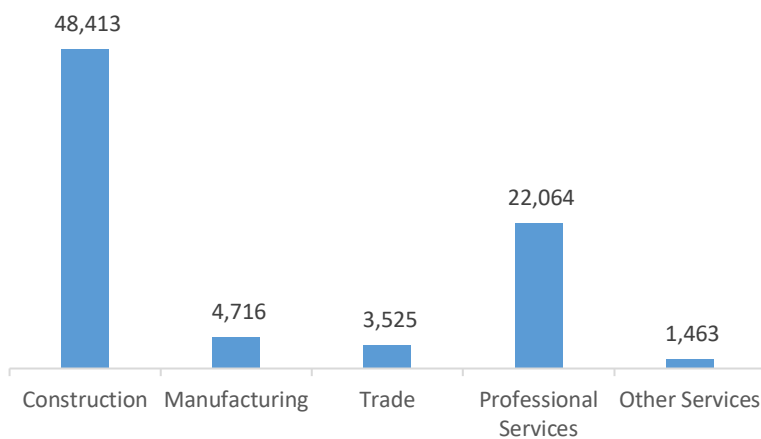
Energy Efficiency Employment by Detailed Technology Application



Energy Efficiency employment is primarily found in the construction industry.

Figure VA-9.

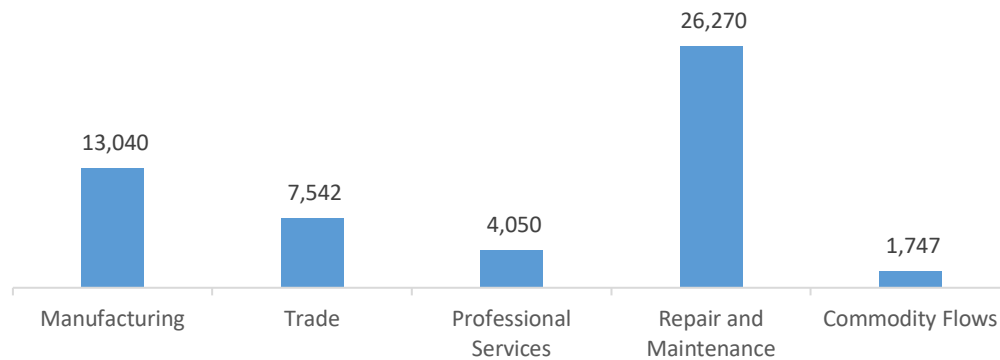
Energy Efficiency Employment by Industry Sector



MOTOR VEHICLES

Motor Vehicle employment accounts for 52,648 jobs in Virginia, down 1,207 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 VA-10.
Motor Vehicle Employment by Industry Sector



Workforce Characteristics

EMPLOYER GROWTH

Employers in Virginia are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (4.3 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 3,809 jobs in Energy Efficiency (4.8 percent) and Motor Vehicles employers expect to add 5,122 jobs (9.7 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	4.0	4.8
Electric Power Transmission, Distribution, and Storage	4.6	3.5
Energy Efficiency	4.8	3.0
Fuels	4.2	1.7
Motor Vehicles	9.7	3.1

HIRING DIFFICULTY

Over the last year, 39.2 percent of energy-related employers in Virginia hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Electric Power Transmission, Distribution, and Storage.

Table VA-2
Hiring Difficulty by Major Technology Application.

Technology	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)
Electric Power Generation	25.4	63.9	10.7
Electric Power Transmission, Distribution, and Storage	25.4	66.1	8.5
Energy Efficiency	35.5	50.9	13.6
Fuels	27.7	45.9	26.4
Motor Vehicles	34.2	49.0	16.8

Employers in Virginia 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 — \$20.28 median hourly wage
2. Management (directors, supervisors, vice presidents) — \$37.13 median hourly wage
3. Engineers/scientists — \$35.46 median hourly wage