
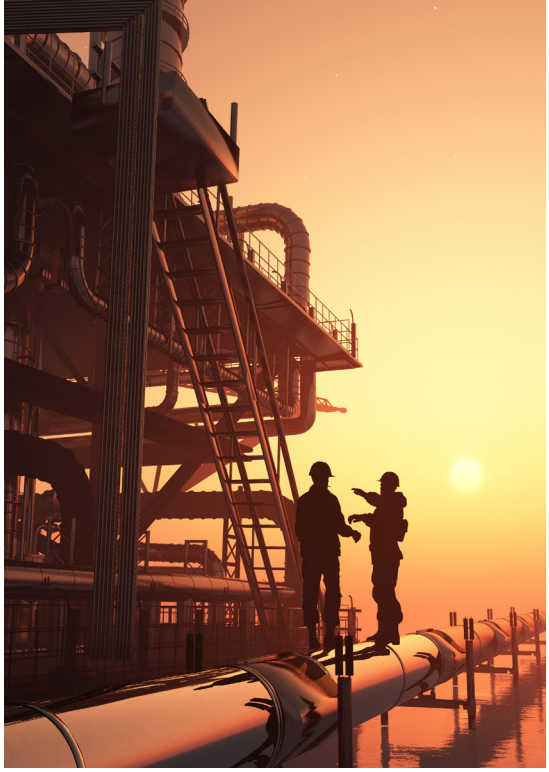


UNITED STATES ENERGY
& EMPLOYMENT REPORT 2023

ENERGY EMPLOYMENT BY STATE: 2023

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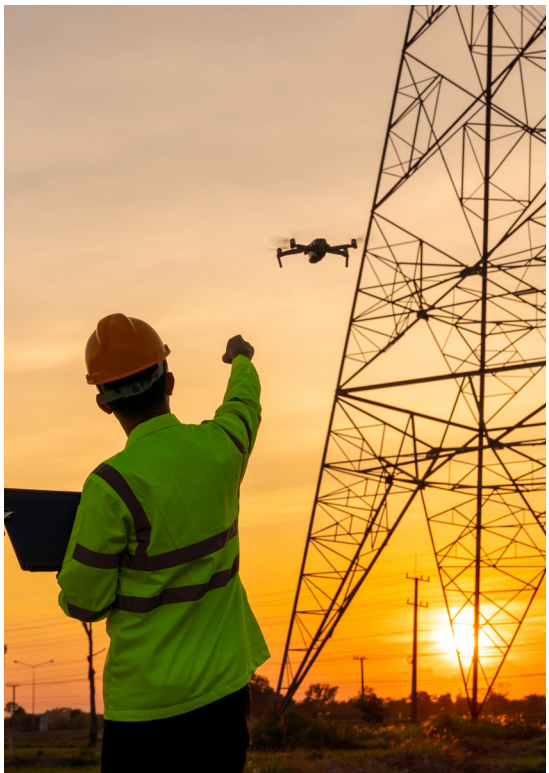


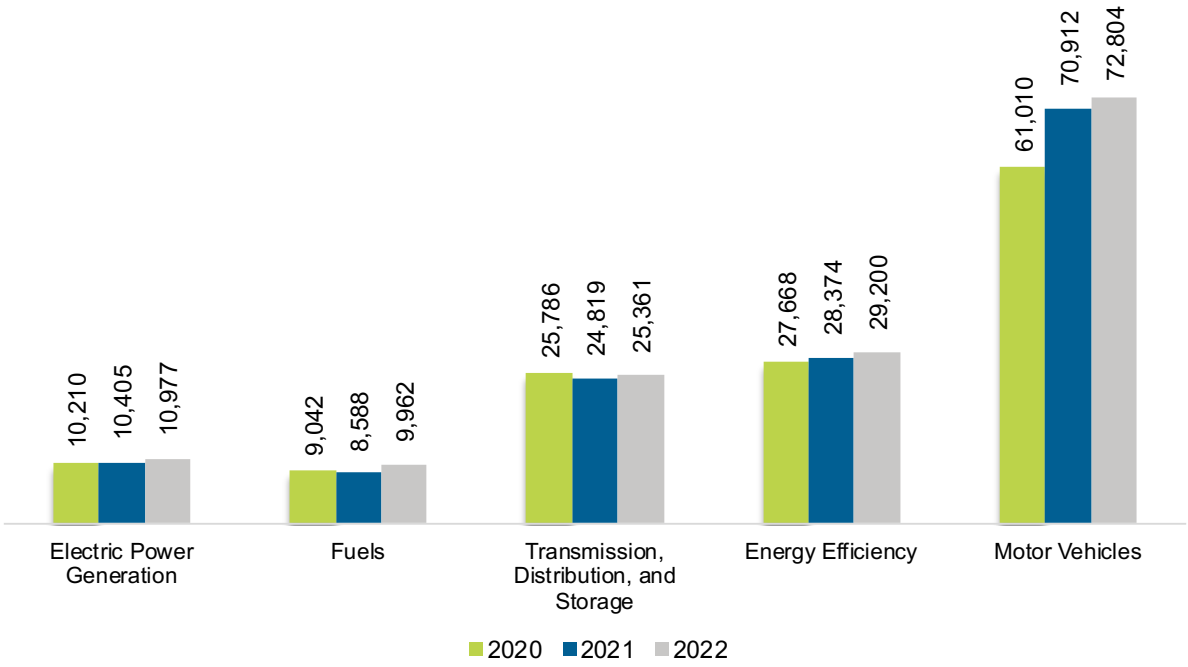

Alabama

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

Alabama had 148,304 energy workers statewide in 2022, representing 1.8% of all U.S. energy jobs. Of these energy jobs, 10,977 were in electric power generation; 9,962 in fuels; 25,361 in transmission, distribution, and storage; 29,200 in energy efficiency; and 72,804 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 5,206 jobs, or 3.6% (Figure AL-1). The energy sector in Alabama represented 7.3% of total state employment.

Figure AL-1. Employment by Major Energy Technology Application

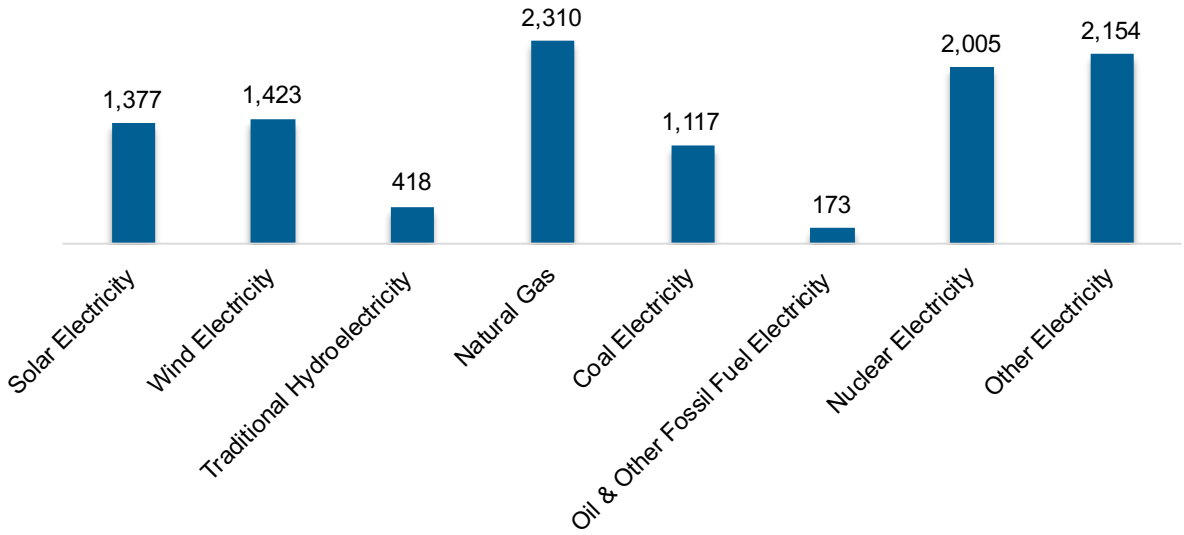


Breakdown by Technology Applications

Electric Power Generation

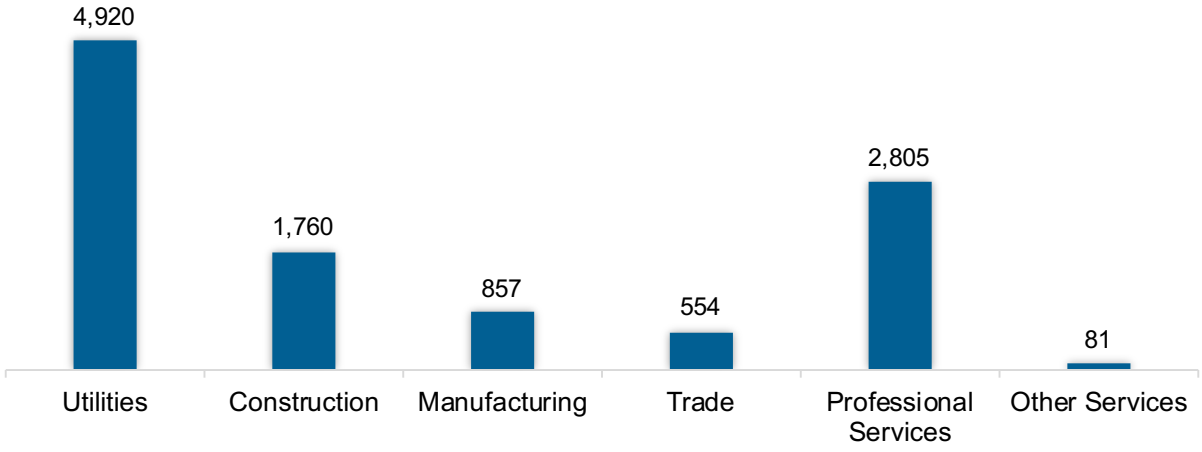
As shown in Figure AL-2, the electric power generation sector employed 10,977 workers in Alabama, 1.2% of the national electricity total, and added 572 jobs from 2021 to 2022 (5.5%).

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



Utilities was the largest industry sector in the electric power generation sector, with 44.8% of jobs. Professional and business services was second largest with 25.6% (Figure AL-3).

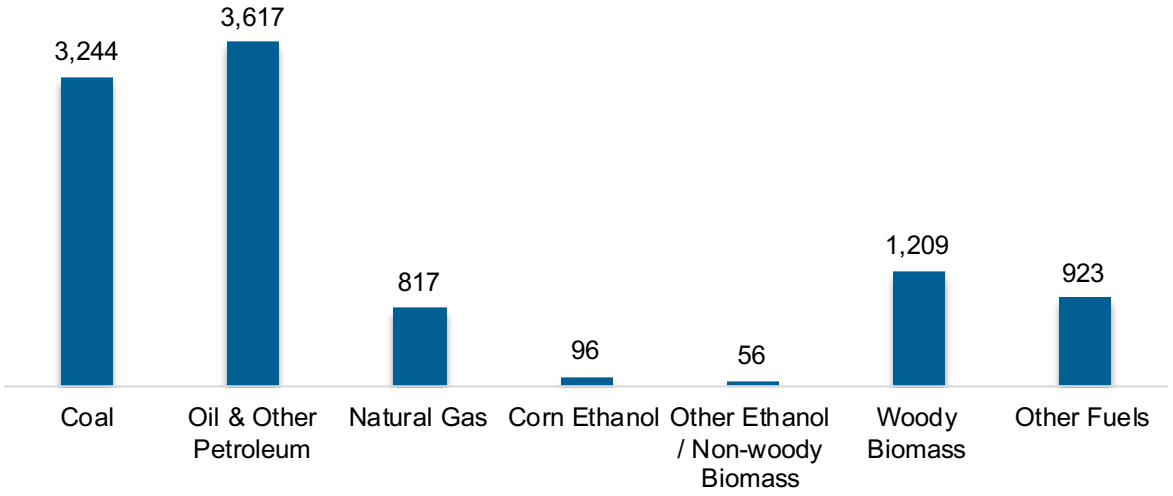
Figure AL-3. Electric Power Generation Employment by Industry Sector



Fuels

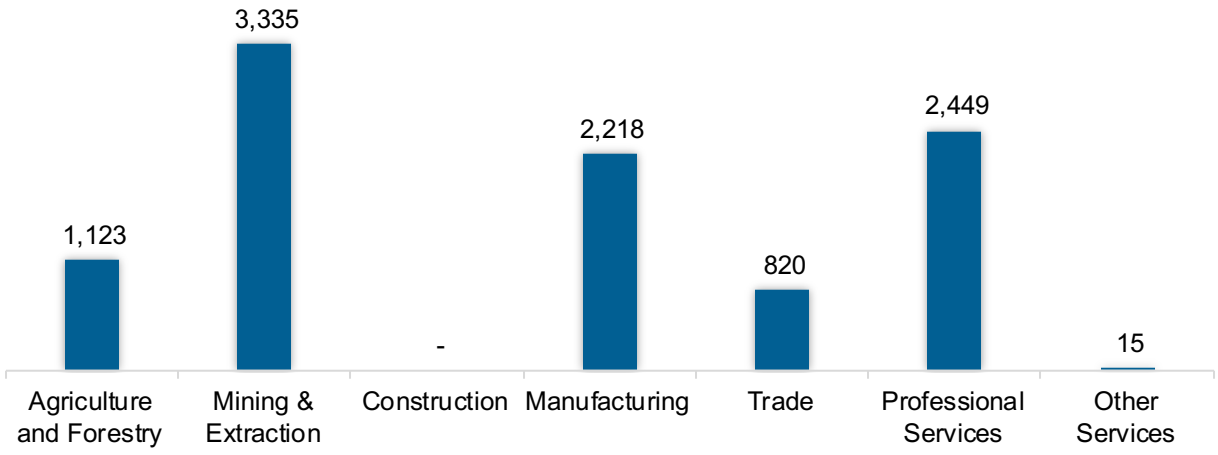
The Fuel sector employed 9,962 workers in Alabama, 1.0% of the national total in fuels (Figure AL-4). The sector gained 1,374 jobs and increased 16.0% from 2021 to 2022.

Figure AL-4. Fuels Employment by Detailed Technology Application



Mining and extraction jobs represented 33.5% of fuel jobs in Alabama (Figure AL-5).

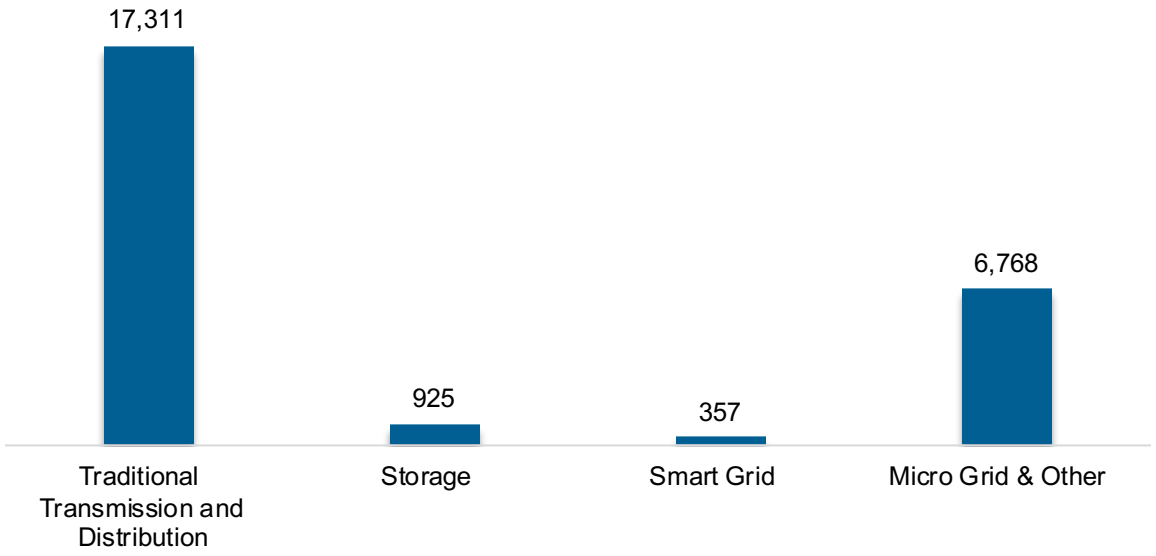
Figure AL-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

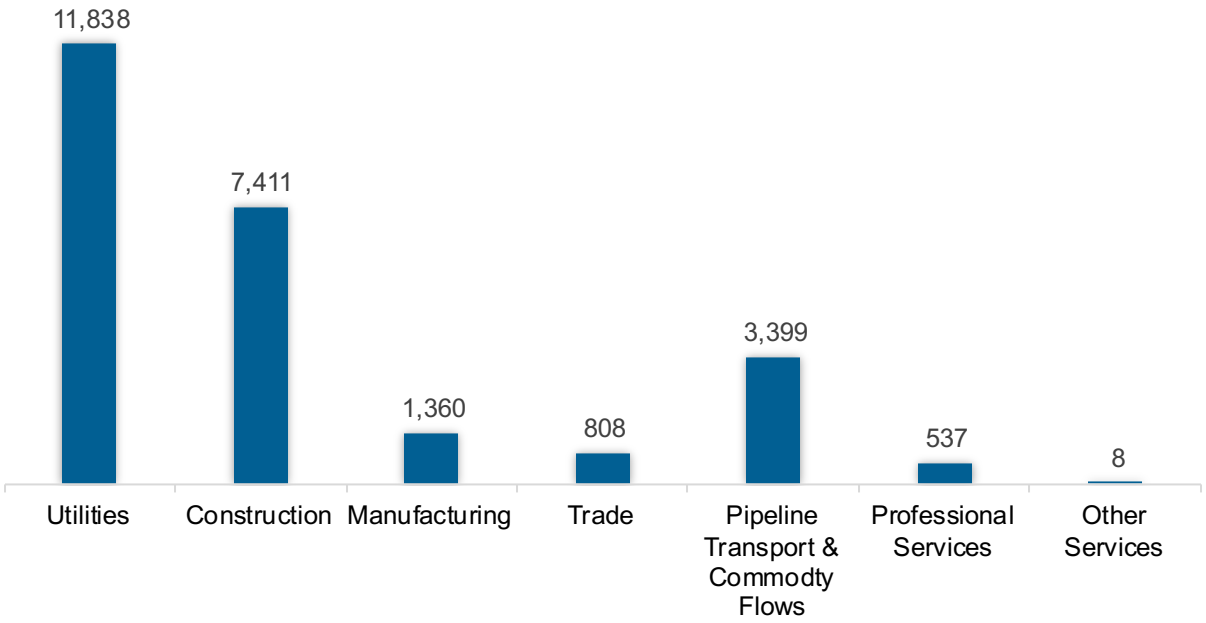
The transmission, distribution, and storage (TDS) sector employed 25,361 workers in Alabama, 1.0% of the national TDS total (Figure AL-6). The sector gained 543 jobs and increased 2.2% from 2021 to 2022.

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



Utilities was the largest proportion of TDS jobs in Alabama, accounting for 46.7% of the sector's jobs statewide (Figure AL-7).

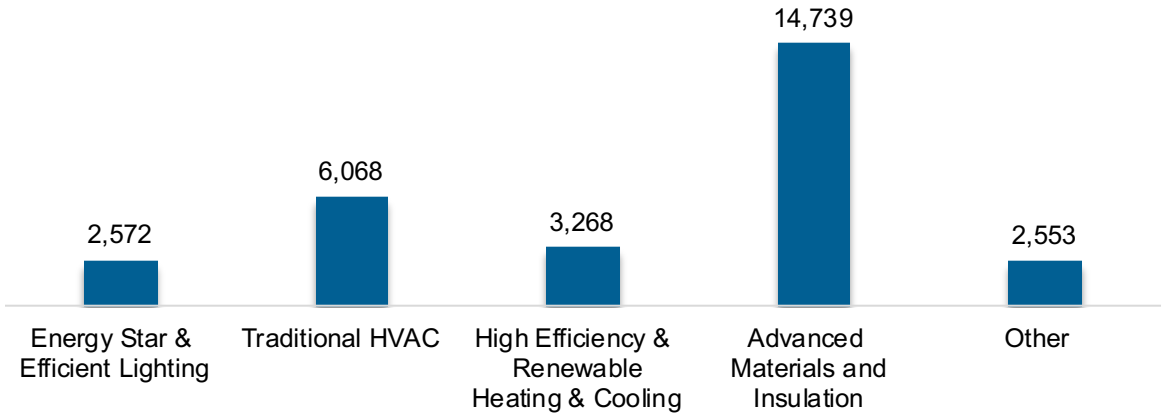
Figure AL-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

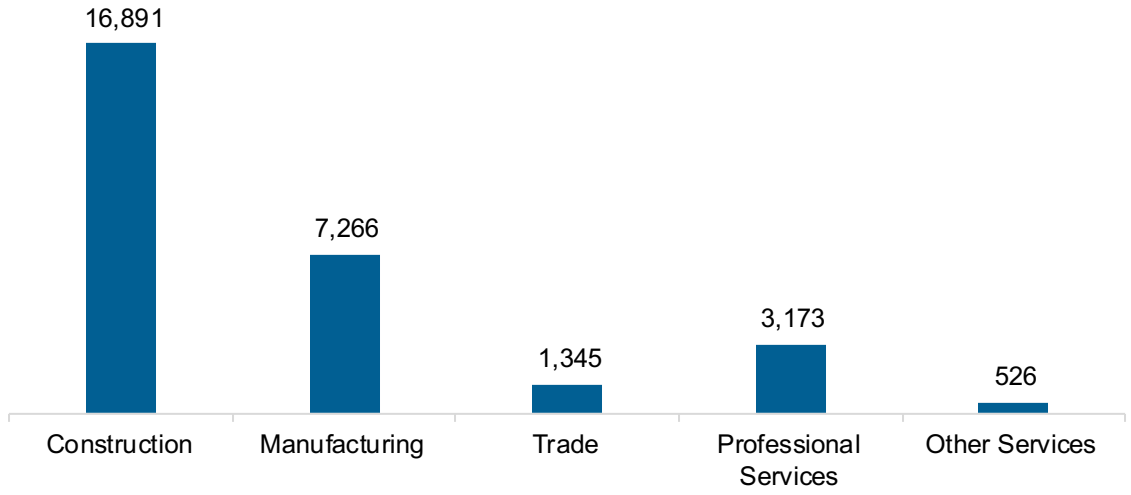
The energy efficiency (EE) sector employed 29,200 workers in Alabama, 1.3% of the national EE total. The EE sector added 826 jobs and increased 2.9% from 2021 to 2022 (Figure AL-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure AL-9).

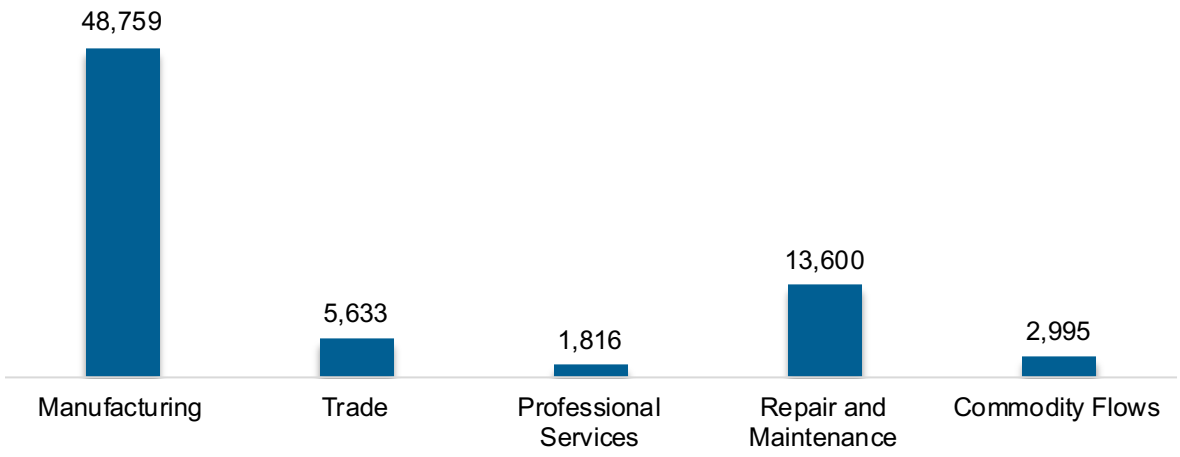
Figure AL-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 72,804 workers in Alabama, 2.8% of the national total for the sector. Motor vehicles and component parts added 1,892 jobs and increased 2.7% from 2021 to 2022. Manufacturing is the largest proportion of motor vehicle jobs (Figure AL-10).

Figure AL-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 61,374 jobs in clean energy in Alabama if traditional transmission and distribution is included and 44,063 jobs if it is not.[1] These increased under either definition, growing 4.0% with traditional transmission and distribution and 5.3% without.

Employer Perspectives

Expected Growth

Employers in Alabama were less optimistic than their peers across the country about energy sector job growth over the next year (Table AL-1).

Table AL-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	4.3	6.0
Electric Power Transmission, Distribution, and Storage	3.2	3.9
Energy Efficiency	4.5	6.4
Fuels	2.1	1.6
Motor Vehicles	4.0	5.5

[1] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in Alabama reported 55% overall hiring difficulty (Table AL-2).

Table AL-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	27	28	7	37	55

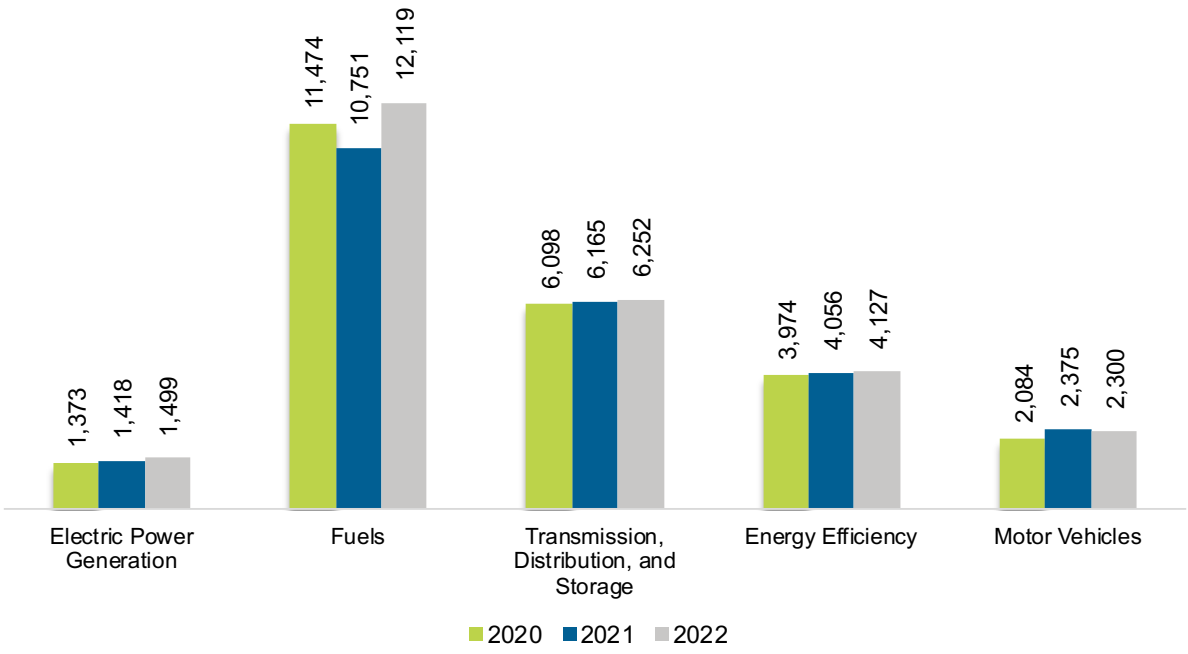
Alaska

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

Alaska had 26,298 energy workers statewide in 2022, representing 0.3% of all U.S. energy jobs. Of these energy jobs, 1,499 were in electric power generation; 12,119 in fuels; 6,252 in transmission, distribution, and storage; 4,127 in energy efficiency; and 2,300 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 1,533 jobs, or 6.2% (Figure AK-1). The energy sector in Alaska represented 8.1% of total state employment.

Figure AK-1. Employment by Major Energy Technology Application

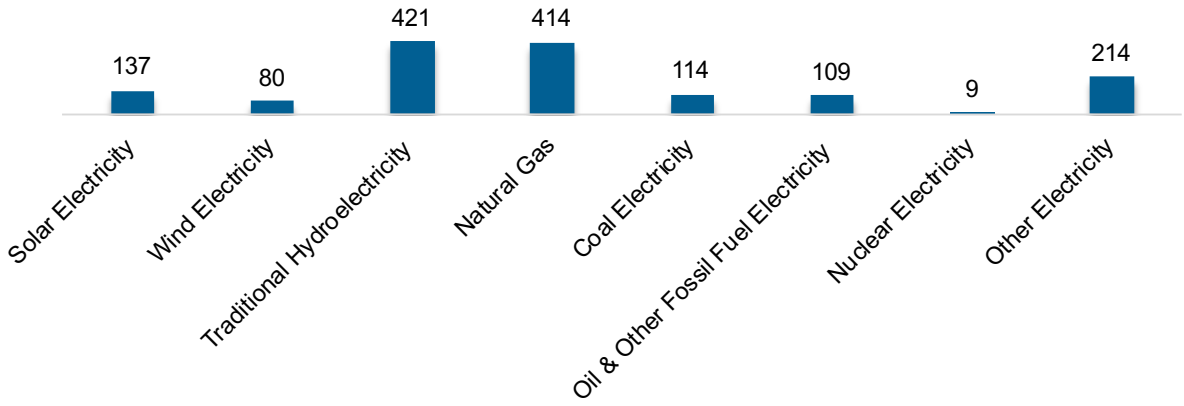


Breakdown by Technology Applications

Electric Power Generation

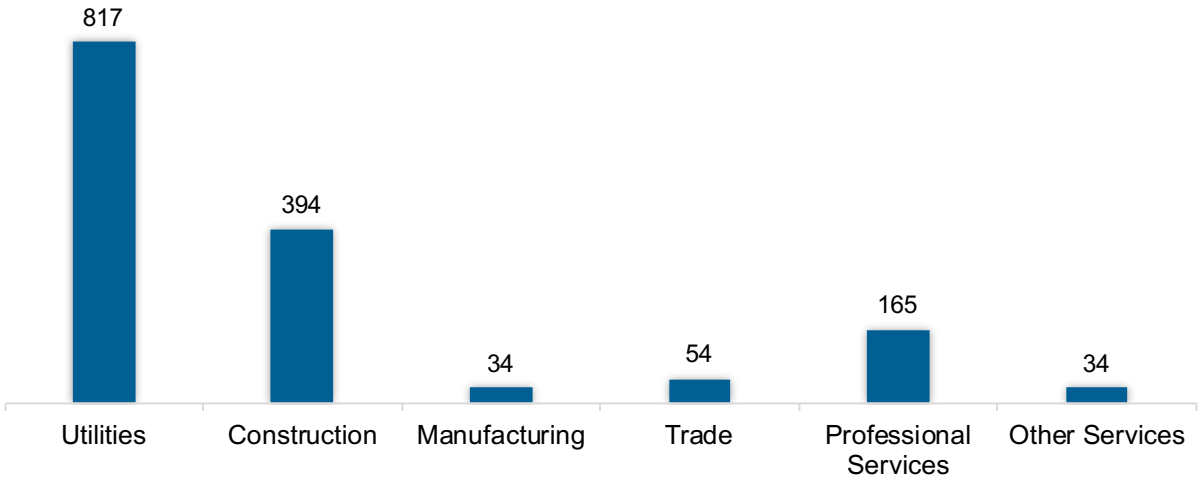
As shown in Figure AK-2, the electric power generation sector employed 1,499 workers in Alaska, 0.2% of the national electricity total, and added 81 jobs from 2021 to 2022 (5.7%).

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



Utilities was the largest industry sector in the electric power generation sector, with 54.5% of jobs. Construction was second largest with 26.3% (Figure AK-3).

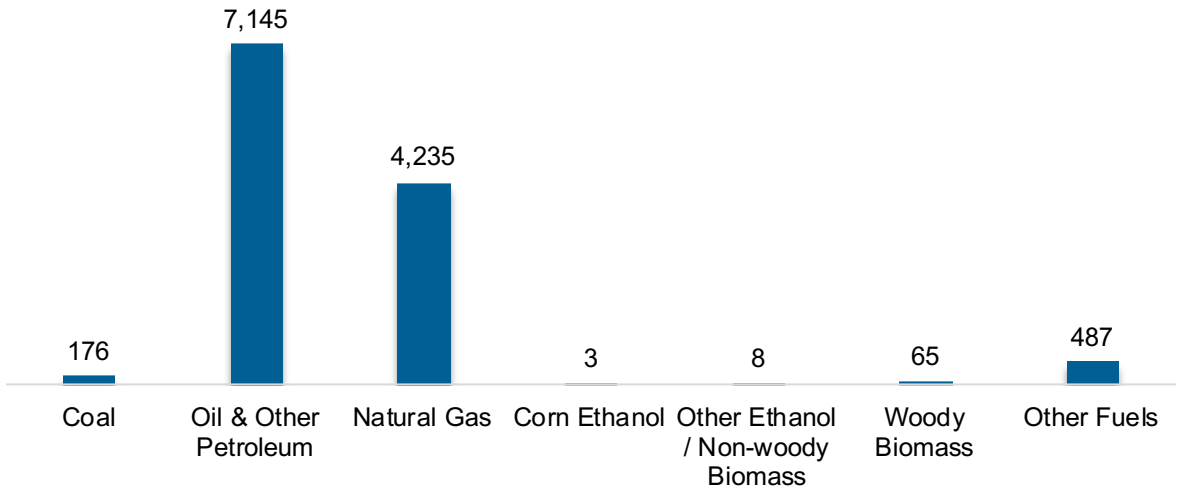
Figure AK-3. Electric Power Generation Employment by Industry Sector



Fuels

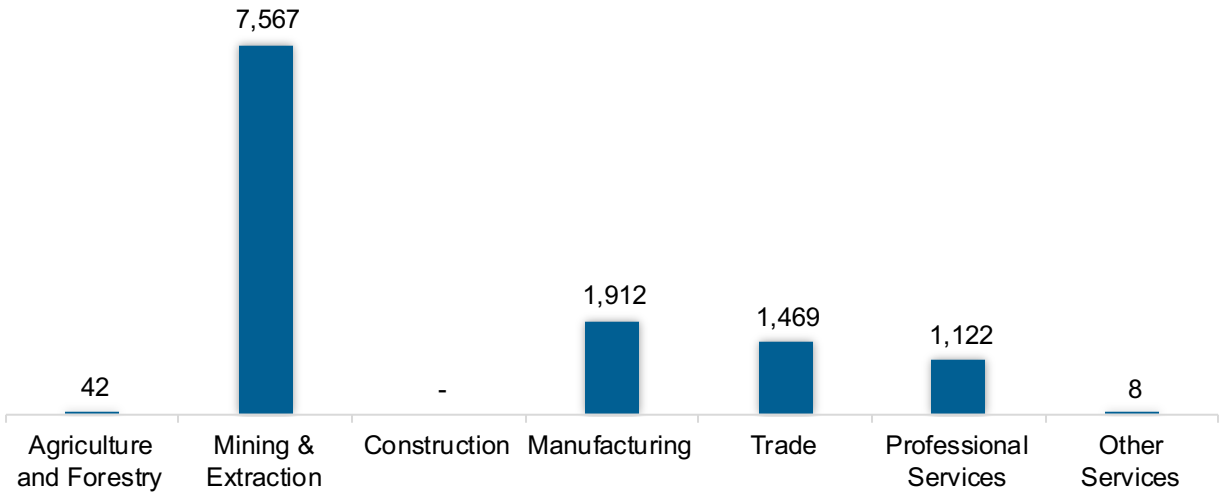
The Fuel sector employed 12,119 workers in Alaska, 1.2% of the national total in fuels (Figure AK-4). The sector gained 1,368 jobs and increased 12.7% from 2021 to 2022.

Figure AK-4. Fuels Employment by Detailed Technology Application



Mining and extraction jobs represented 62.4% of fuel jobs in Alaska (Figure AK-5).

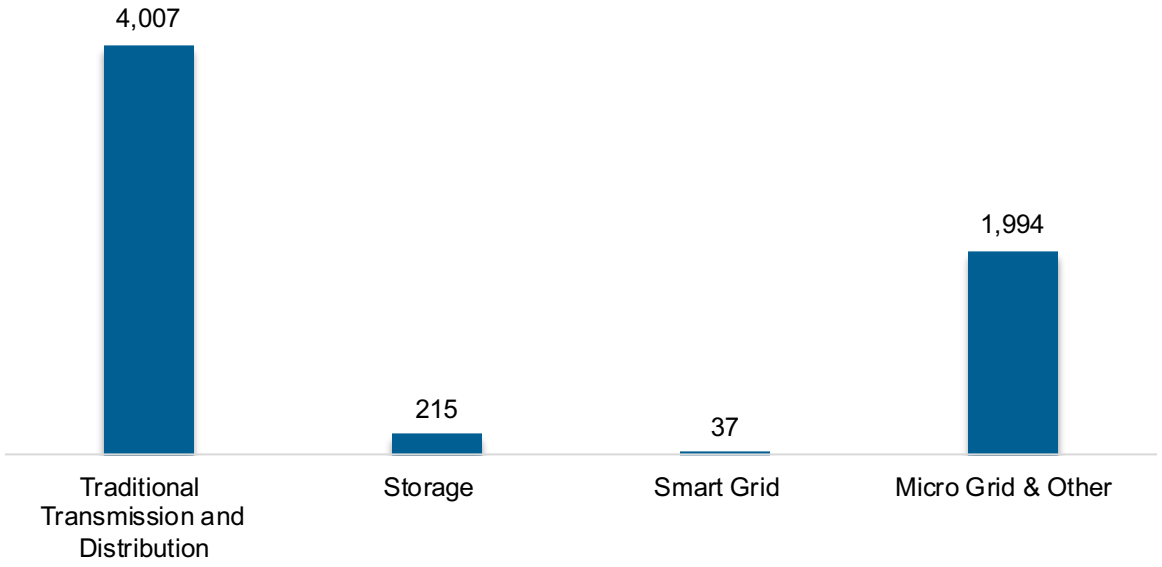
Figure AK-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

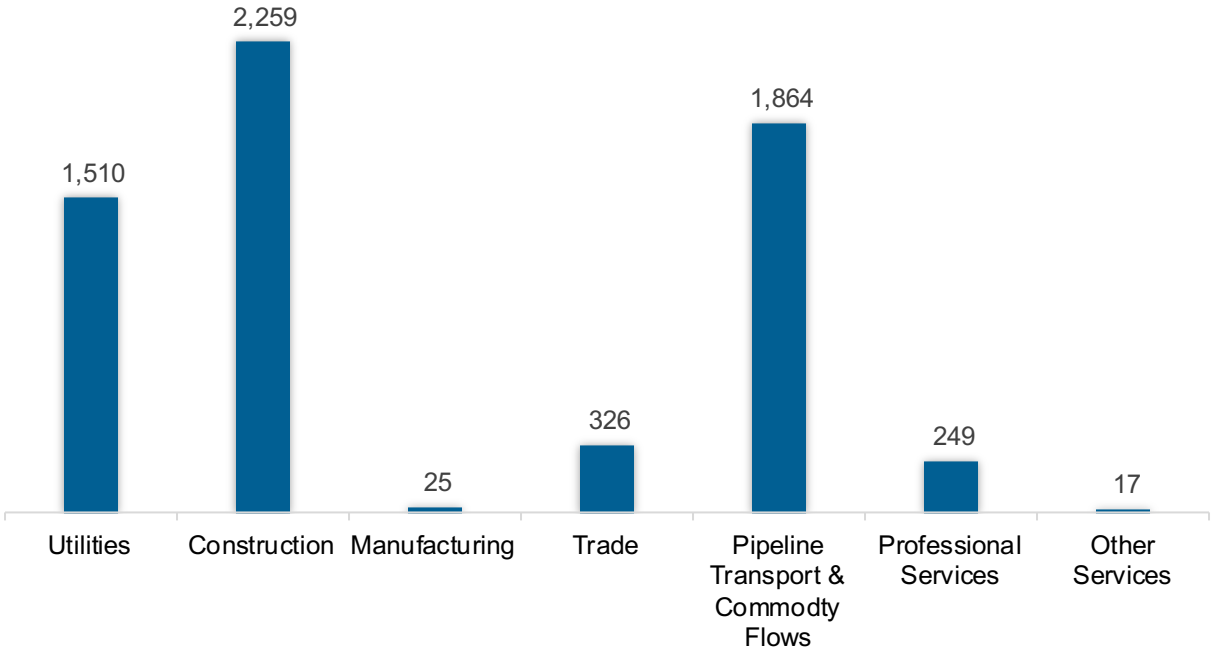
The transmission, distribution, and storage (TDS) sector employed 6,252 workers in Alaska, 1.2% of the national TDS total (Figure AK-6). The sector gained 87 jobs and increased 1.4% from 2021 to 2022.

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



Construction was the largest proportion of TDS jobs in Alaska, accounting for 36.1% of the sector's jobs statewide (Figure AK-7).

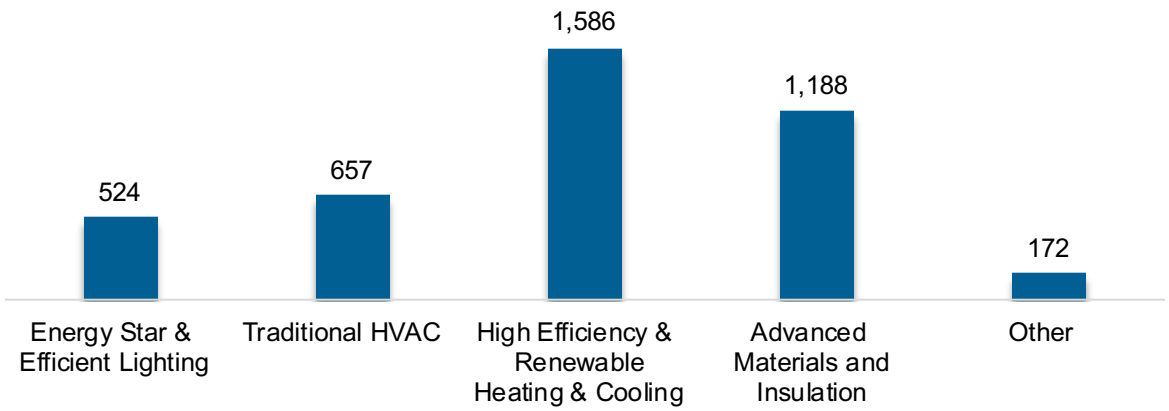
Figure AK-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

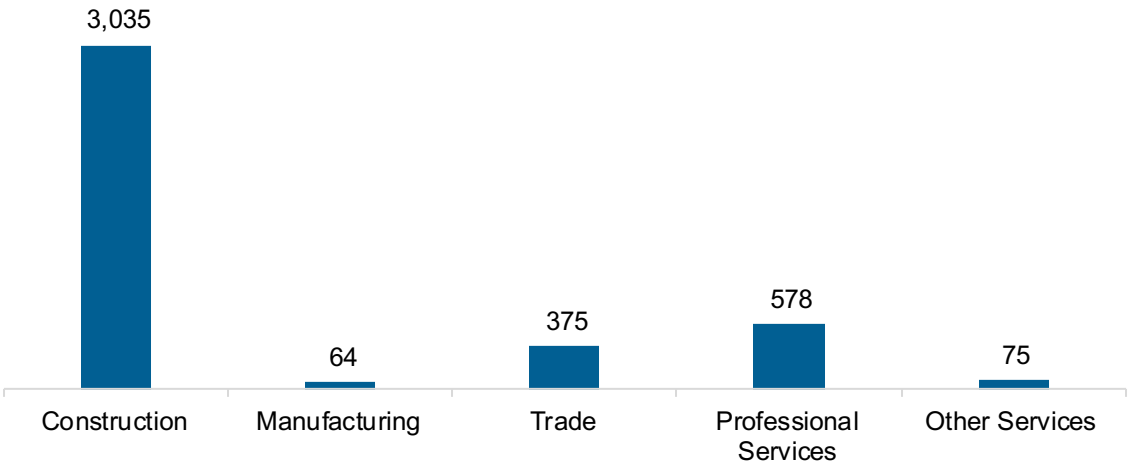
The energy efficiency (EE) sector employed 4,127 workers in Alaska, 0.2% of the national EE total. The EE sector added 72 jobs and decreased 1.8% from 2021 to 2022 (Figure AK-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure AK-9).

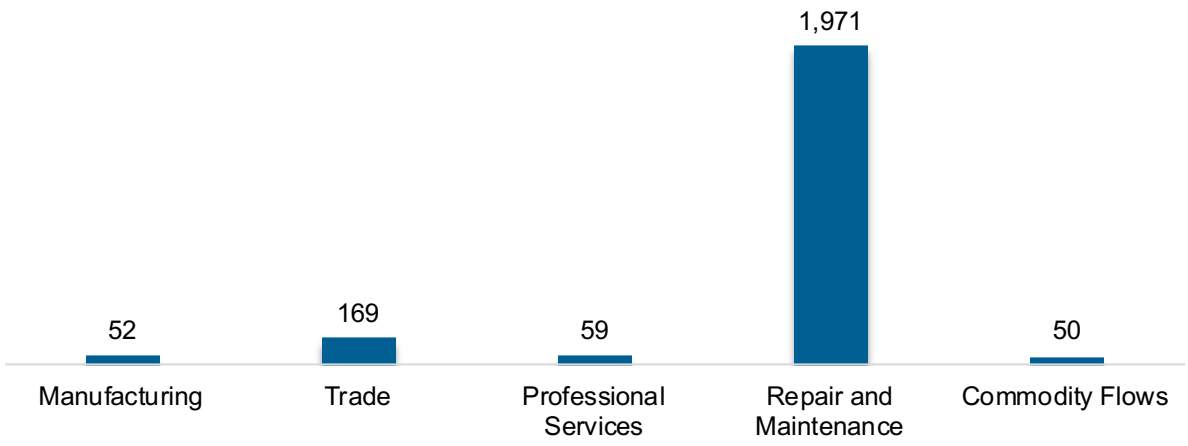
Figure AK-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 2,300 workers in Alaska, 0.1% of the national total for the sector. Motor vehicles and component parts lost 75 jobs and decreased 3.2% from 2021 to 2022. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure AK-10).

Figure AK-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 9,535 jobs in clean energy in Alaska if traditional transmission and distribution is included and 5,518 jobs if it is not.[2] These increased under either definition, growing 1.5% with traditional transmission and distribution and 2.8% without.

Employer Perspectives

Expected Growth

Employers in Alaska are similarly optimistic than their peers across the country about energy sector job growth over the next year (Table AK-1).

Table AK-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	6.0	6.0
Electric Power Transmission, Distribution, and Storage	5.0	3.9
Energy Efficiency	6.2	6.4
Fuels	3.8	1.6
Motor Vehicles	5.8	5.5

[2] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in Alaska reported 42% overall hiring difficulty (Table AK-2).

Table AK-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	22	20	4	53	42

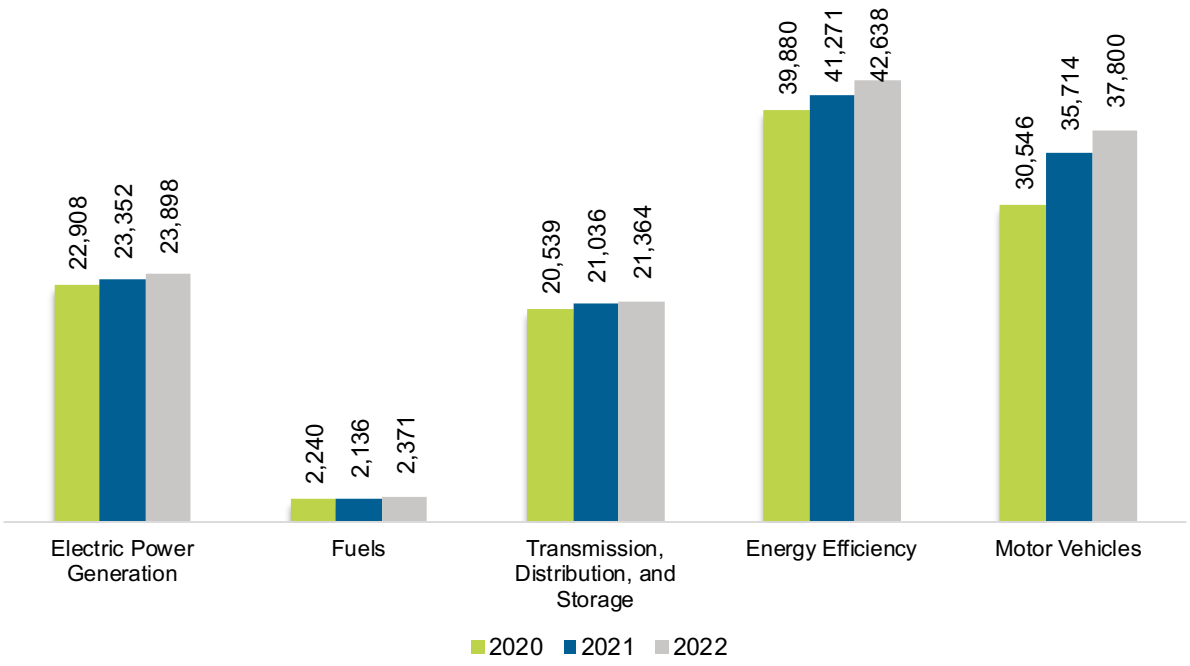
Arizona

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

Arizona had 128,070 energy workers statewide in 2022, representing 1.6% of all U.S. energy jobs. Of these energy jobs, 23,898 were in electric power generation; 2,371 in fuels; 21,364 in transmission, distribution, and storage; 42,638 in energy efficiency; and 37,800 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 4,562 jobs, or 3.7% (Figure AZ-1). The energy sector in Arizona represented 4.2% of total state employment.

Figure AZ-1. Employment by Major Energy Technology Application

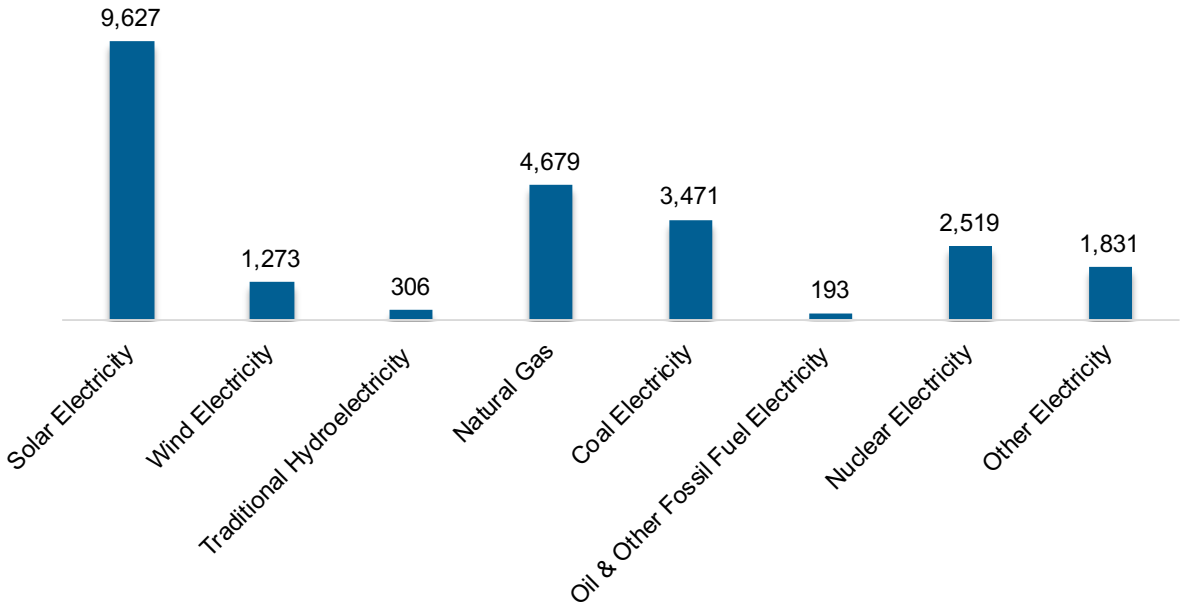


Breakdown by Technology Applications

Electric Power Generation

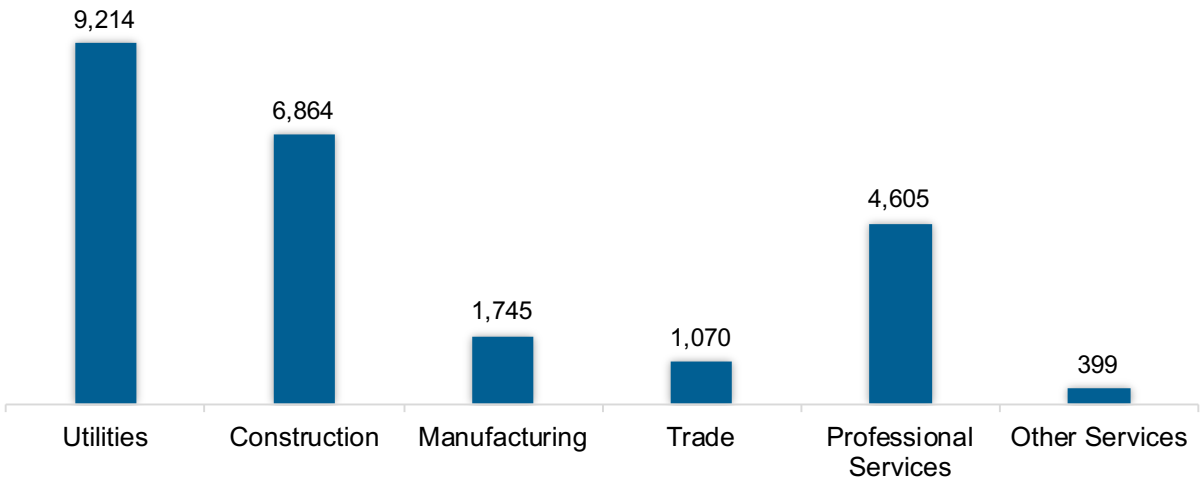
As shown in Figure AZ-2, the electric power generation sector employed 23,898 workers in Arizona, 2.7% of the national electricity total, and added 545 jobs from 2021 to 2022 (2.3%).

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



Utilities was the largest industry sector in the electric power generation sector, with 38.6% of jobs. Construction was second largest with 28.7% (Figure AZ-3).

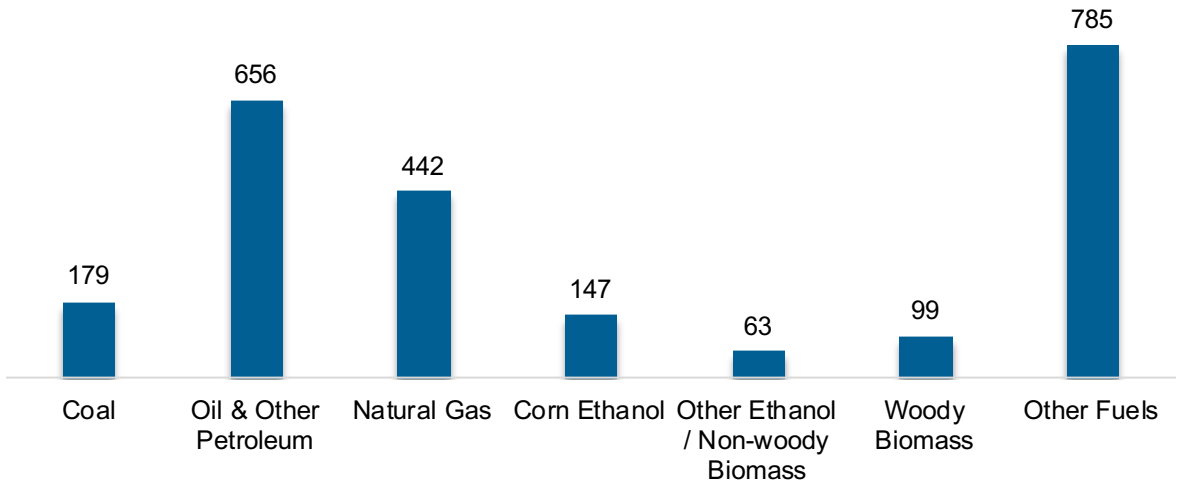
Figure AZ-3. Electric Power Generation Employment by Industry Sector



Fuels

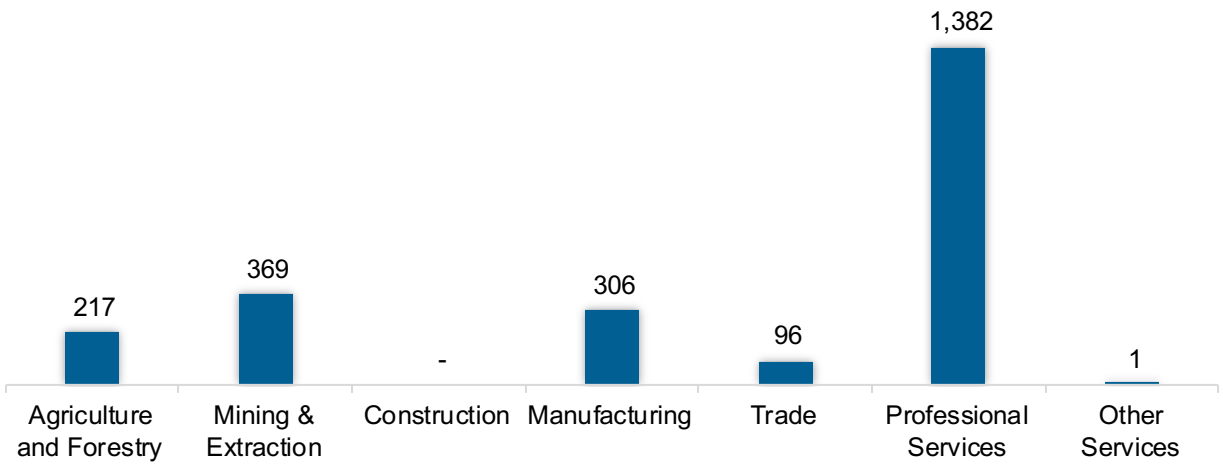
The Fuel sector employed 2,371 workers in Arizona, 0.2% of the national total in fuels (Figure AZ-4). The sector gained 235 jobs and increased 11.0% from 2021 to 2022.

Figure AZ-4. Fuels Employment by Detailed Technology Application



Professional and business services jobs represented 58.3% of fuel jobs in Arizona (Figure AZ-5).

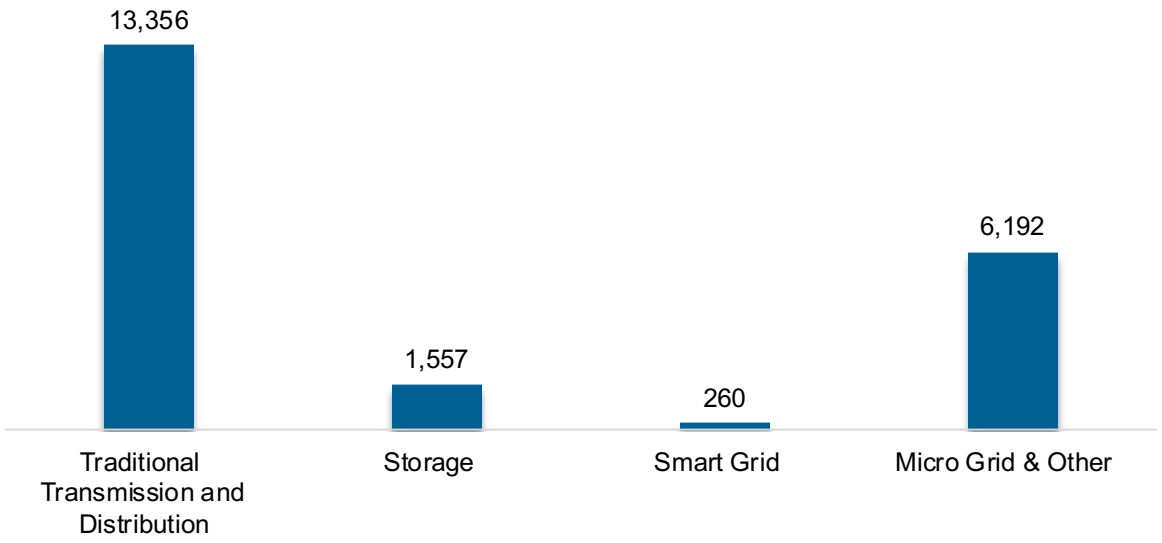
Figure AZ-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

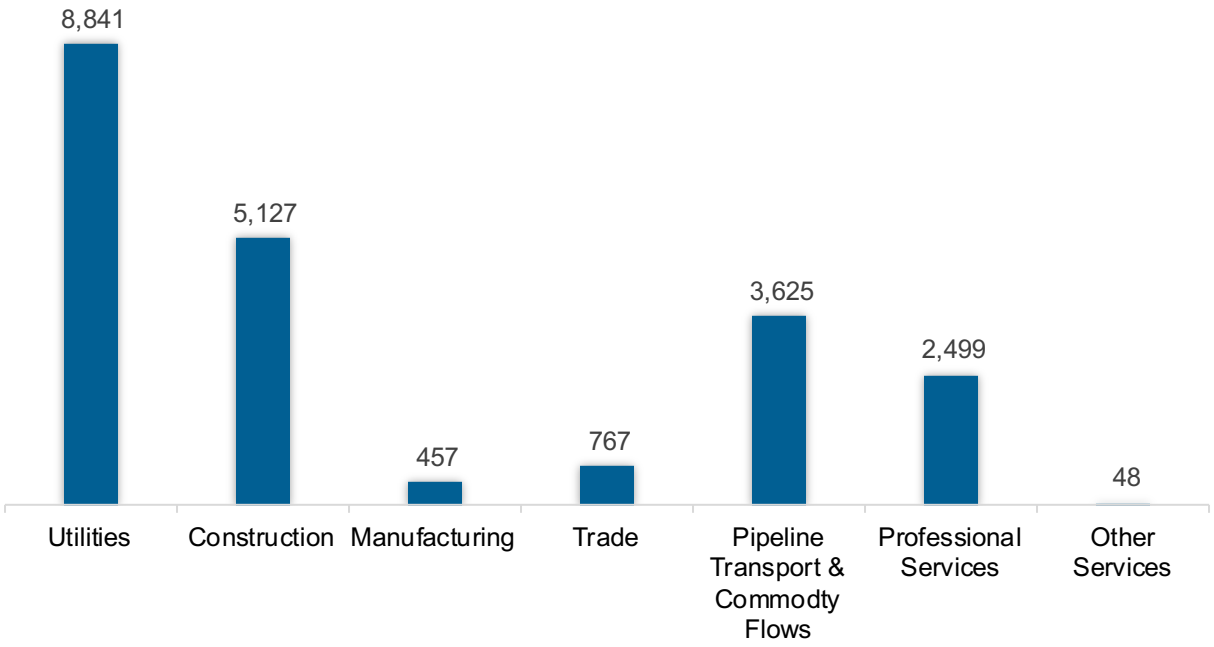
The transmission, distribution, and storage (TDS) sector employed 21,364 workers in Arizona, 0.2% of the national TDS total (Figure AZ-6). The sector gained 329 jobs and increased 1.6% from 2021 to 2022.

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



Utilities was the largest proportion of TDS jobs in Arizona, accounting for 41.4% of the sector's jobs statewide (Figure AZ-7).

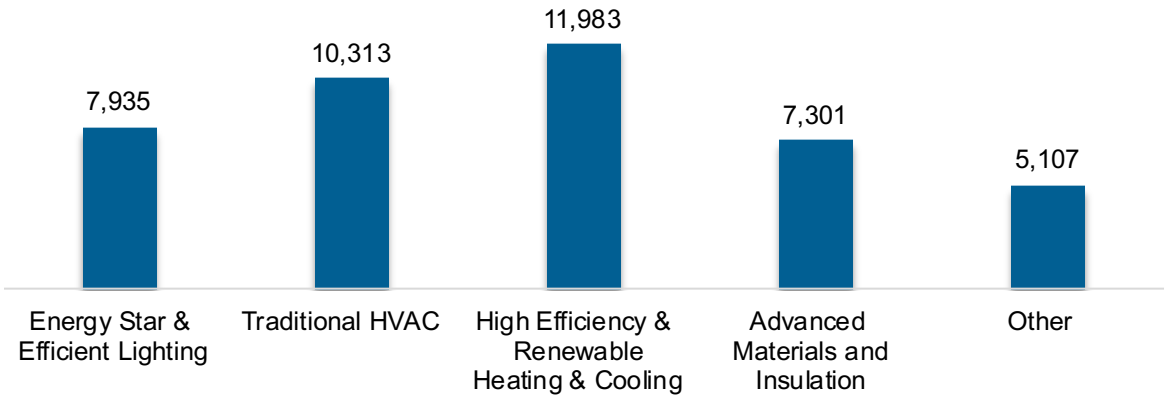
Figure AZ-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

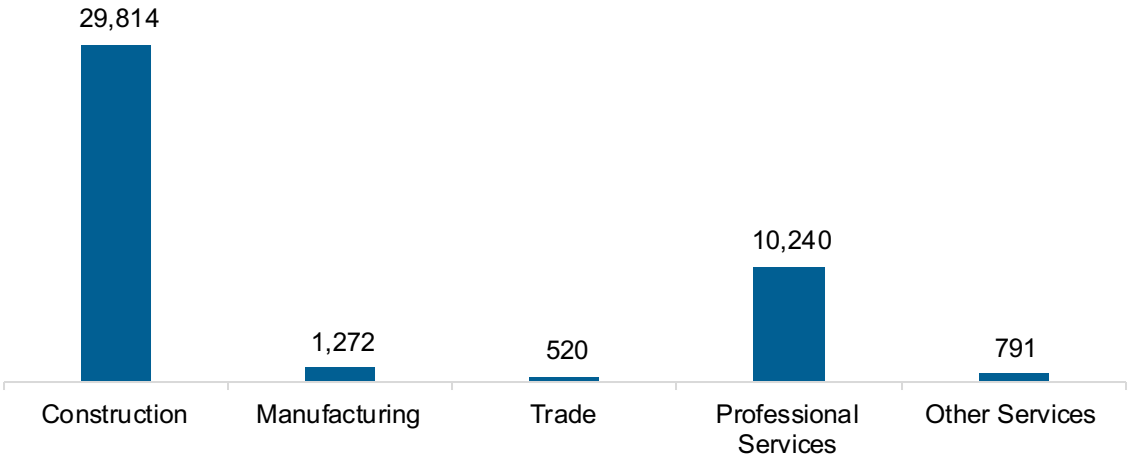
The energy efficiency (EE) sector employed 42,638 workers in Arizona, 1.9% of the national EE total. The EE sector added 1,367 jobs and increased 3.3% from 2021 to 2022 (Figure AZ-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure AZ-9).

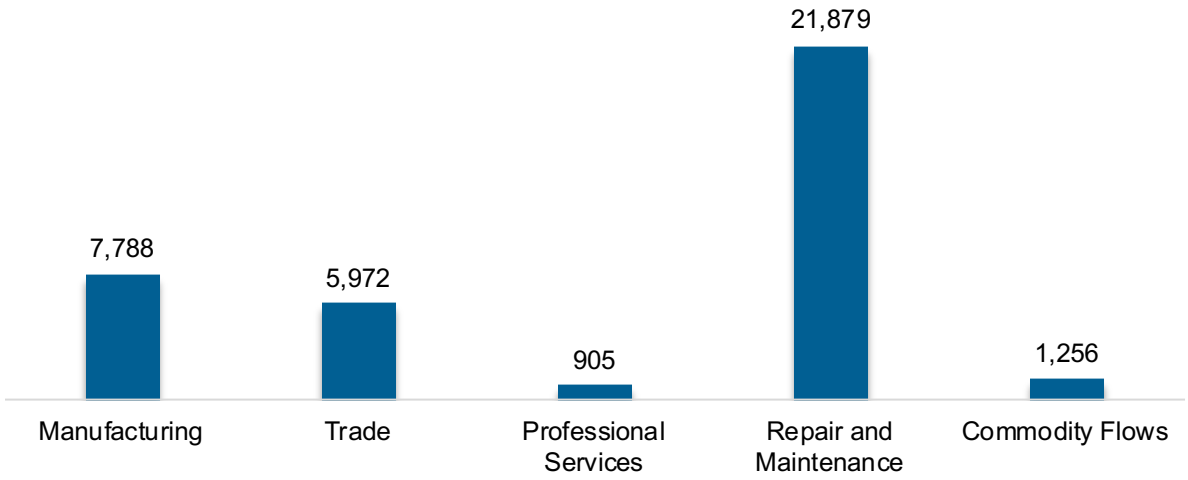
Figure AZ-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 37,800 workers in Arizona, 1.4% of the national total for the sector. Motor vehicles and component parts added 2,086 jobs and increased 5.8% from 2021 to 2022. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure AZ-10).

Figure AZ-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 76,526 jobs in clean energy in Arizona if traditional transmission and distribution is included and 63,092 jobs if it is not.[3] These increased under either definition, growing 3.5% with traditional transmission and distribution and 4.0% without.

Employer Perspectives

Expected Growth

Employers in Arizona were more optimistic than their peers across the country about energy sector job growth over the next year (Table AZ-1).

Table AZ-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	8.9	6.0
Electric Power Transmission, Distribution, and Storage	7.9	3.9
Energy Efficiency	9.1	6.4
Fuels	6.7	1.6
Motor Vehicles	8.7	5.5

[3] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in Arizona reported 51% overall hiring difficulty (Table AZ-2).

Table AZ-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	22	29	7	42	51

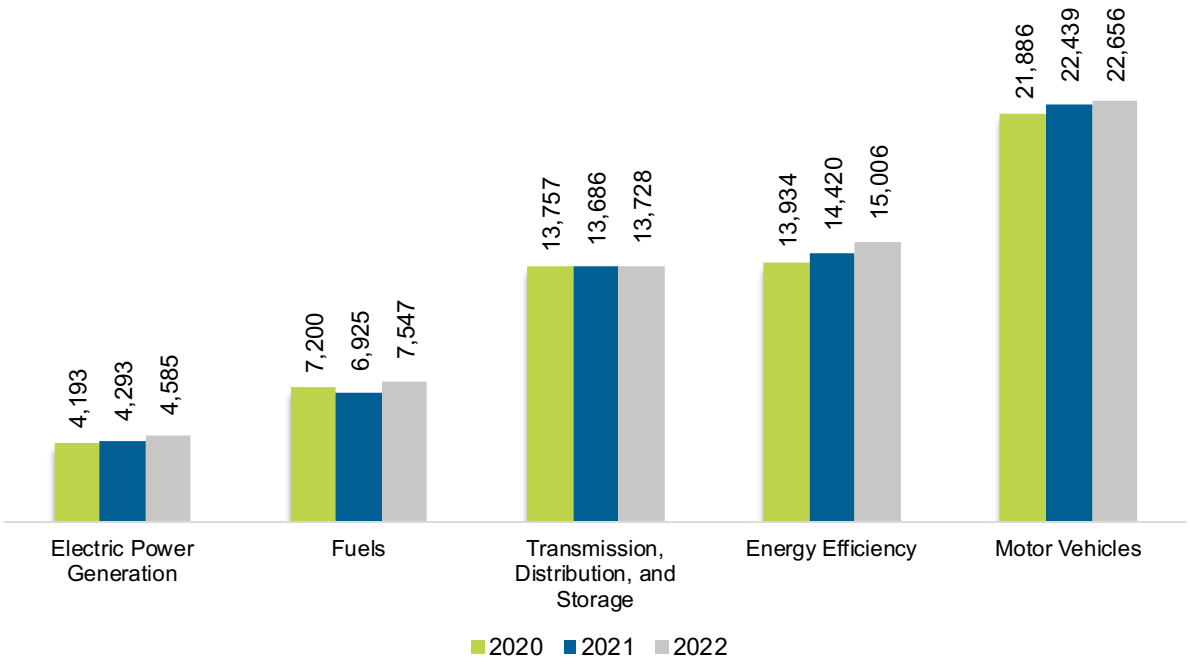
Arkansas

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

Arkansas had 63,522 energy workers statewide in 2022, representing 0.8% of all U.S. energy jobs. Of these energy jobs, 4,585 were in electric power generation; 7,547 in fuels; 13,728 in transmission, distribution, and storage; 15,006 in energy efficiency; and 22,656 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 1,759 jobs, or 2.8% (Figure AR-1). The energy sector in Arkansas represented 5.0% of total state employment.

Figure AR-1. Employment by Major Energy Technology Application

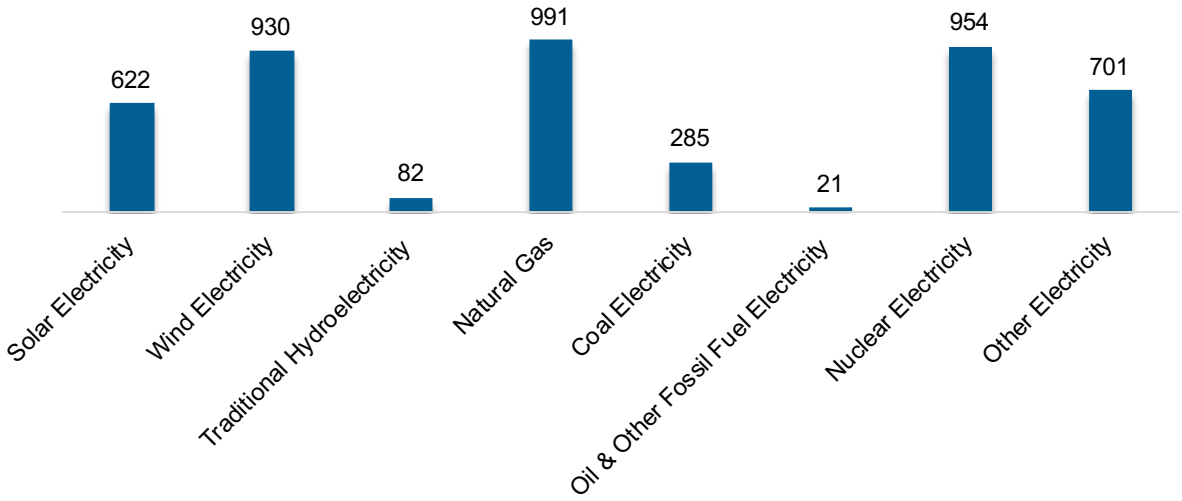


Breakdown by Technology Applications

Electric Power Generation

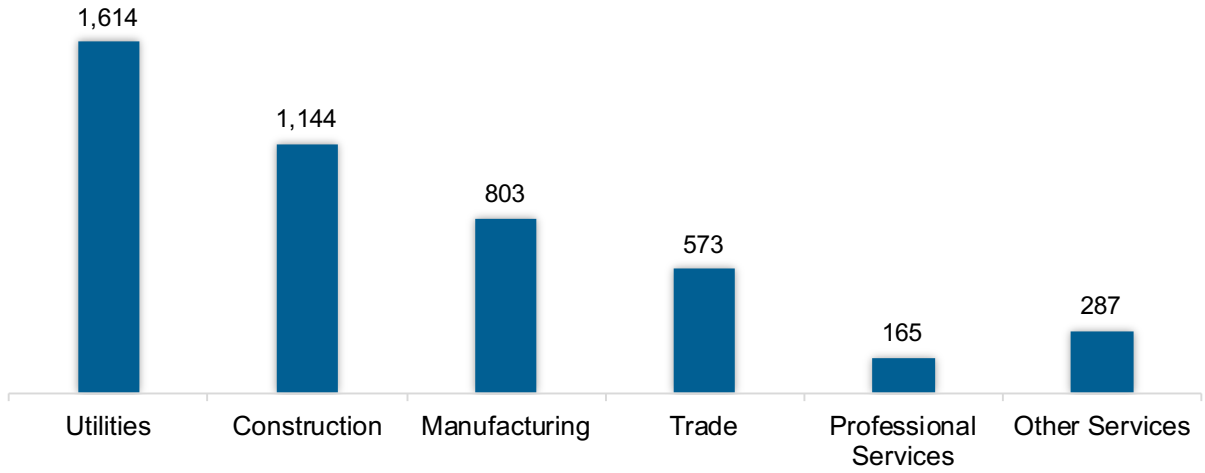
As shown in Figure AR-2, the electric power generation sector employed 4,585 workers in Arkansas, 0.5% of the national electricity total, and added 293 jobs from 2021 to 2022 (6.8%).

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



Utilities was the largest industry sector in the electric power generation sector, with 35.2% of jobs. Construction was second largest with 25.0% (Figure AR-3).

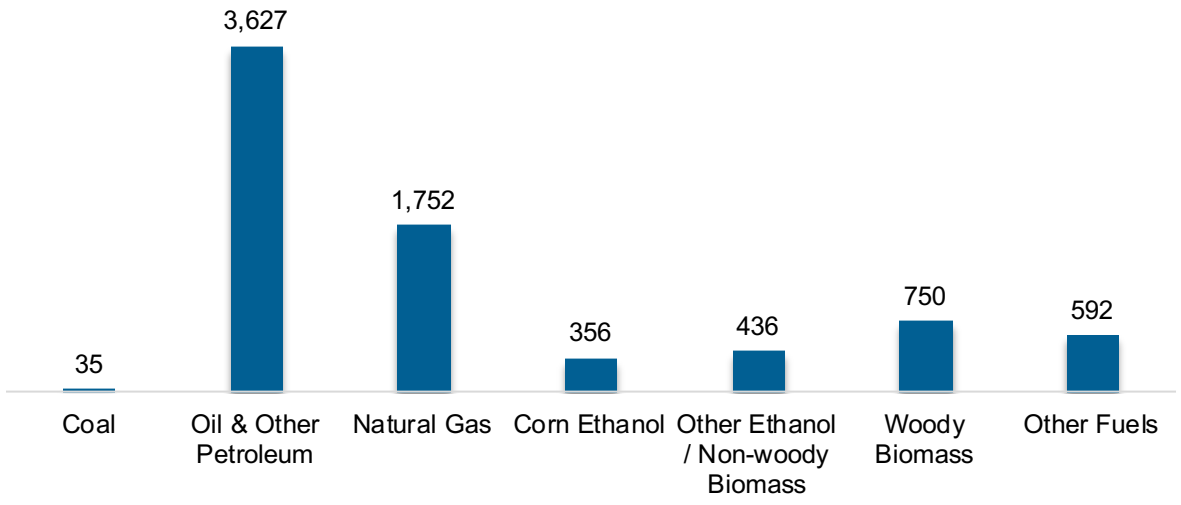
Figure AR-3. Electric Power Generation Employment by Industry Sector



Fuels

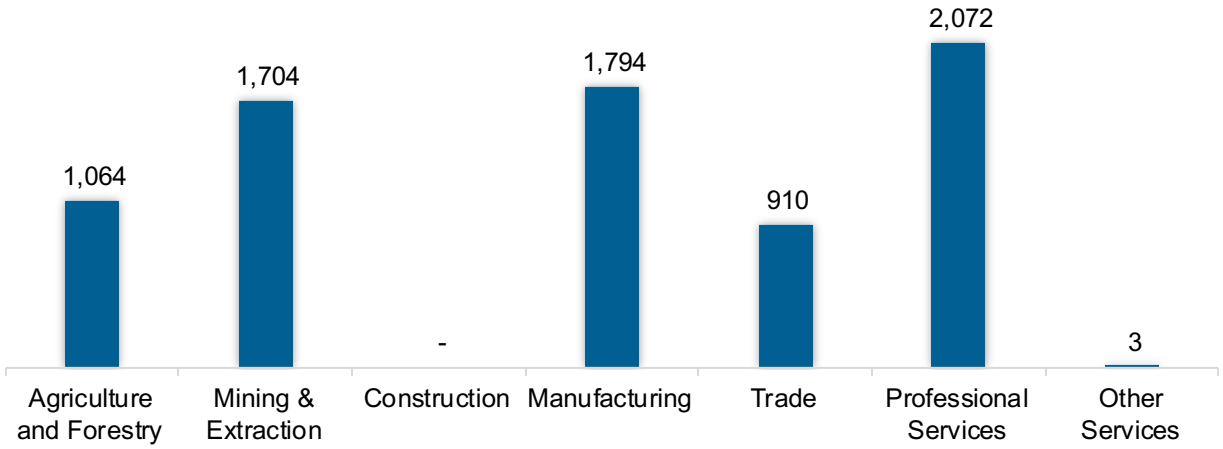
The Fuel sector employed 7,547 workers in Arkansas, 0.7% of the national total in fuels (Figure AR-4). The sector gained 622 jobs and increased 9.0% from 2021 to 2022.

Figure AR-4. Fuels Employment by Detailed Technology Application



Professional and business services jobs represented 27.5% of fuel jobs in Arkansas (Figure AR-5).

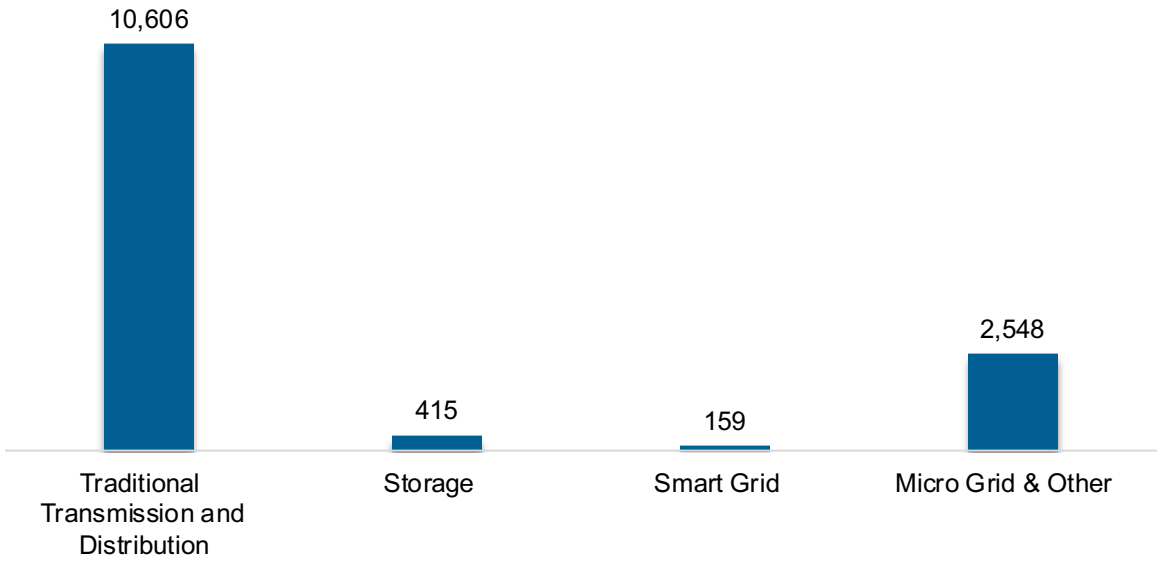
Figure AR-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

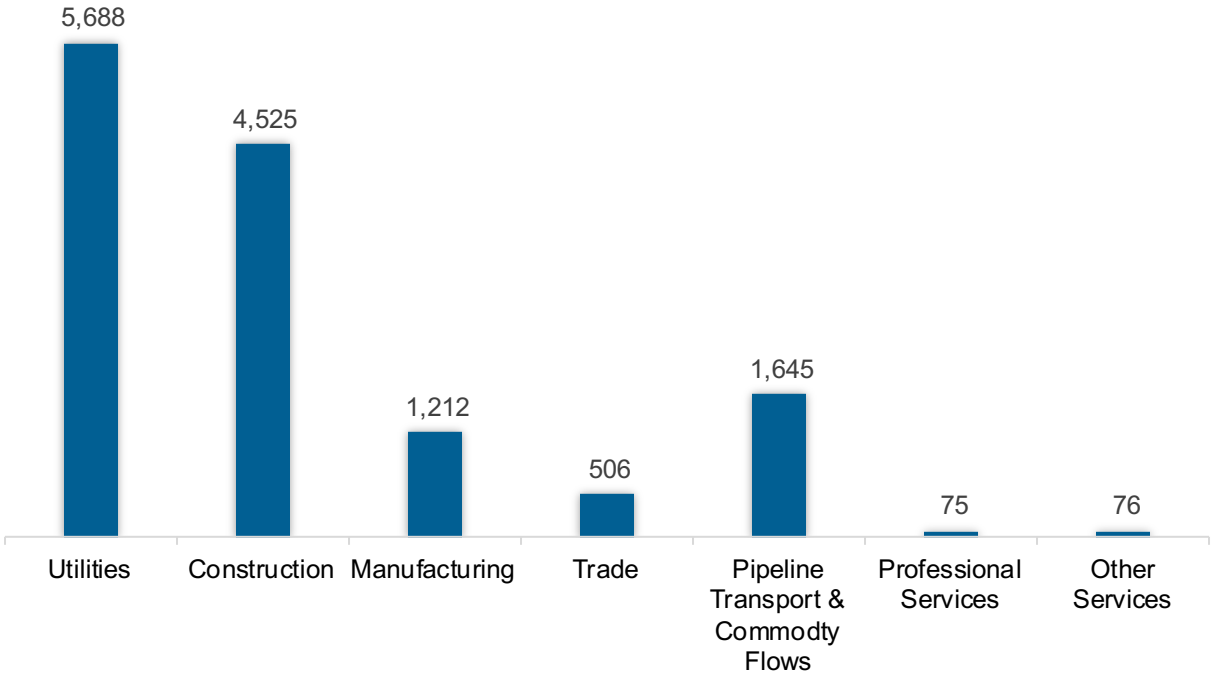
The transmission, distribution, and storage (TDS) sector employed 13,728 workers in Arkansas, 0.7% of the national TDS total (Figure AR-6). The sector gained 42 jobs and increased 0.3% from 2021 to 2022.

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



Utilities was the largest proportion of TDS jobs in Arkansas, accounting for 41.4% of the sector's jobs statewide (Figure AR-7).

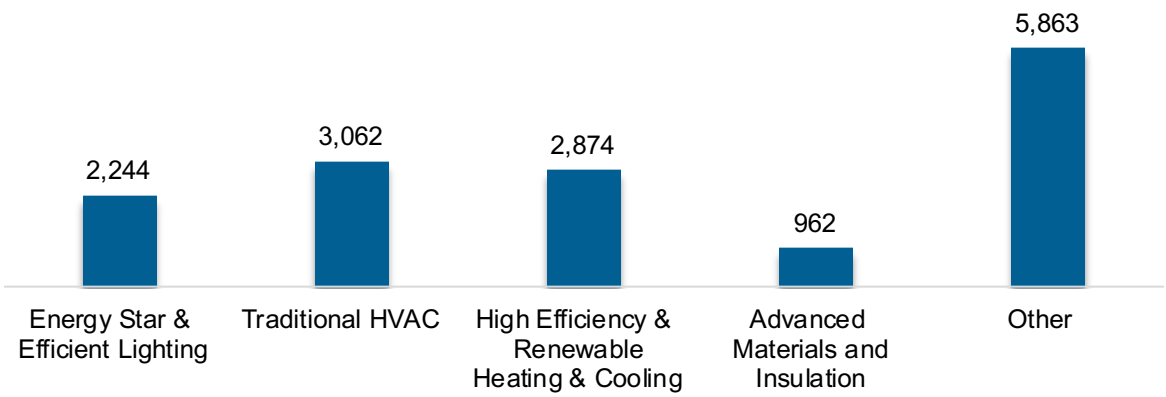
Figure AR-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

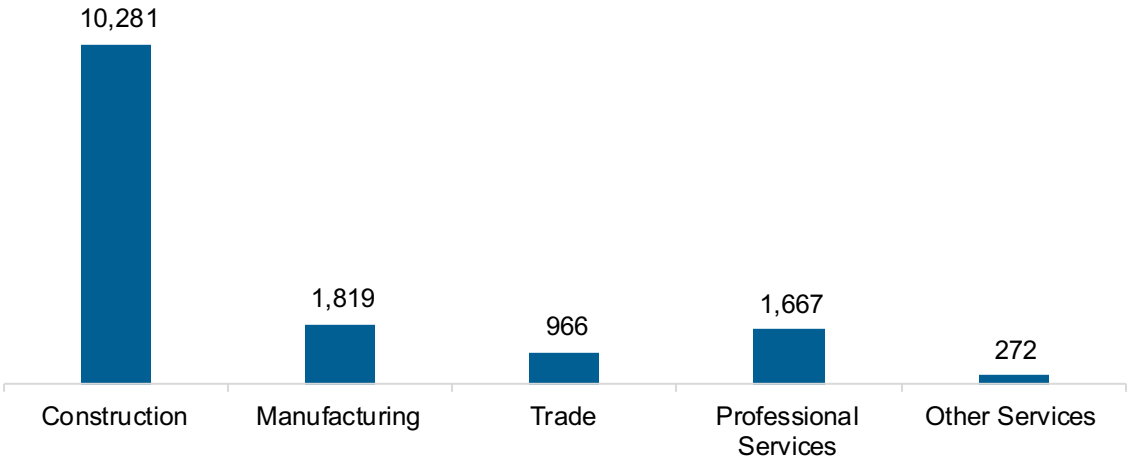
The energy efficiency (EE) sector employed 15,006 workers in Arkansas, 0.7% of the national EE total. The EE sector added 586 jobs and increased 4.1% from 2021 to 2022 (Figure AR-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure AR-9).

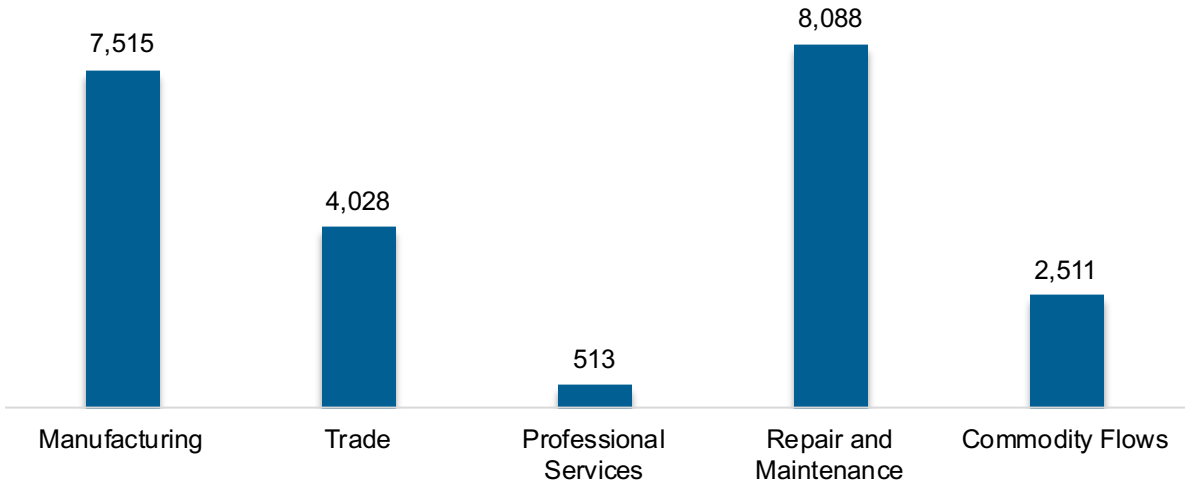
Figure AR-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 22,656 workers in Arkansas, 0.9% of the national total for the sector. Motor vehicles and component parts added 217 jobs and increased 1.0% from 2021 to 2022. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure AR-10).

Figure AR-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 32,576 jobs in clean energy in Arkansas if traditional transmission and distribution is included and 21,948 jobs if it is not.[4] These increased under either definition, growing 3.1% with traditional transmission and distribution and 4.5% without.

Employer Perspectives

Expected Growth

Employers in Arkansas were more optimistic than their peers across the country about energy sector job growth over the next year (Table AR-1).

Table AR-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	8.1	6.0
Electric Power Transmission, Distribution, and Storage	7.1	3.9
Energy Efficiency	8.3	6.4
Fuels	5.9	1.6
Motor Vehicles	7.9	5.5

[4] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in Arkansas reported 51% overall hiring difficulty (Table AR-2).

Table AR-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	26	25	4	45	51

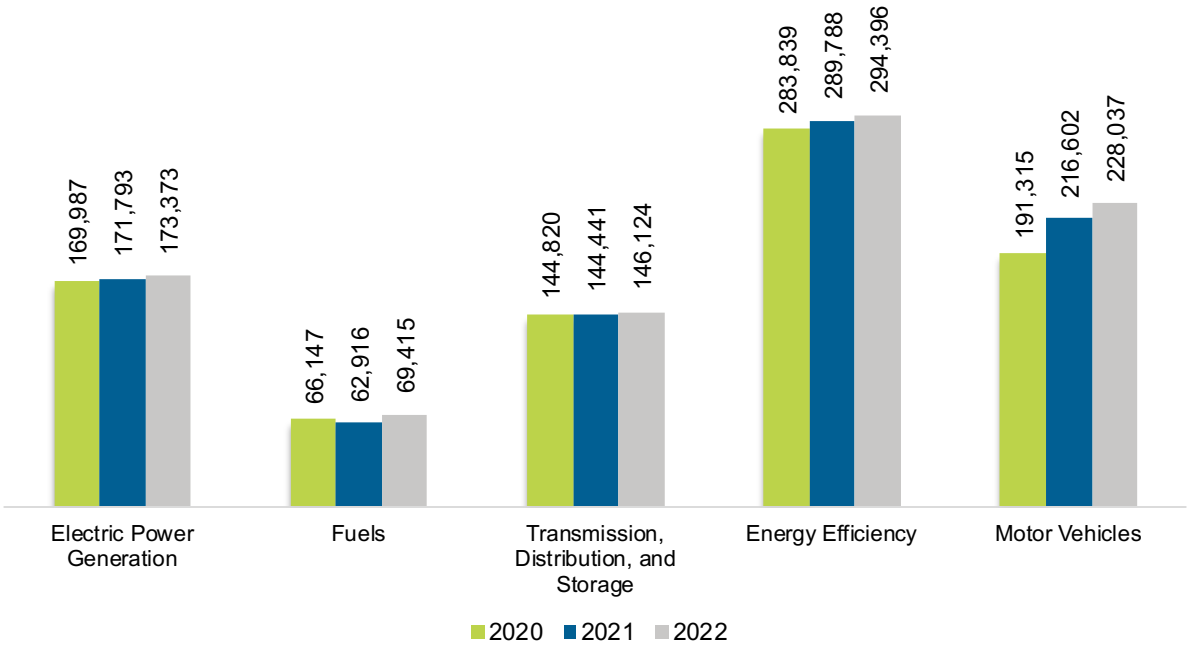
California

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

California had 911,345 energy workers statewide in 2022, representing 11.2% of all U.S. energy jobs. Of these energy jobs, 173,373 were in electric power generation; 69,415 in fuels; 146,124 in transmission, distribution, and storage; 294,396 in energy efficiency; and 228,037 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 25,806 jobs, or 2.9% (Figure CA-1). The energy sector in California represented 5.0% of total state employment.

Figure CA-1. Employment by Major Energy Technology Application

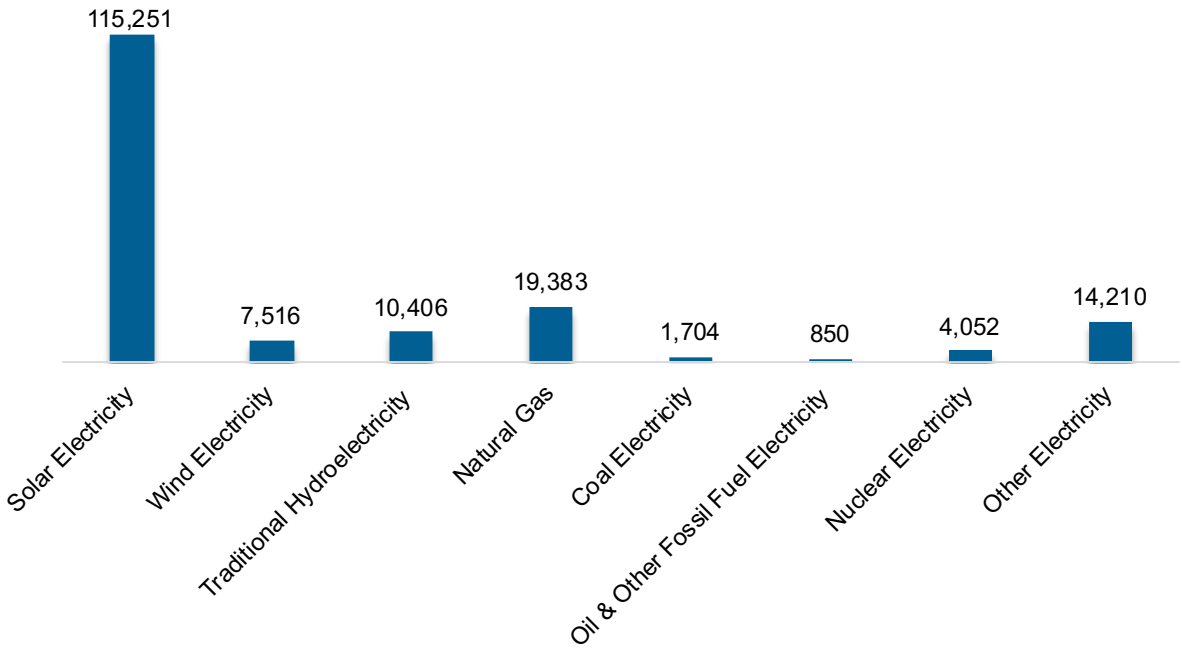


Breakdown by Technology Applications

Electric Power Generation

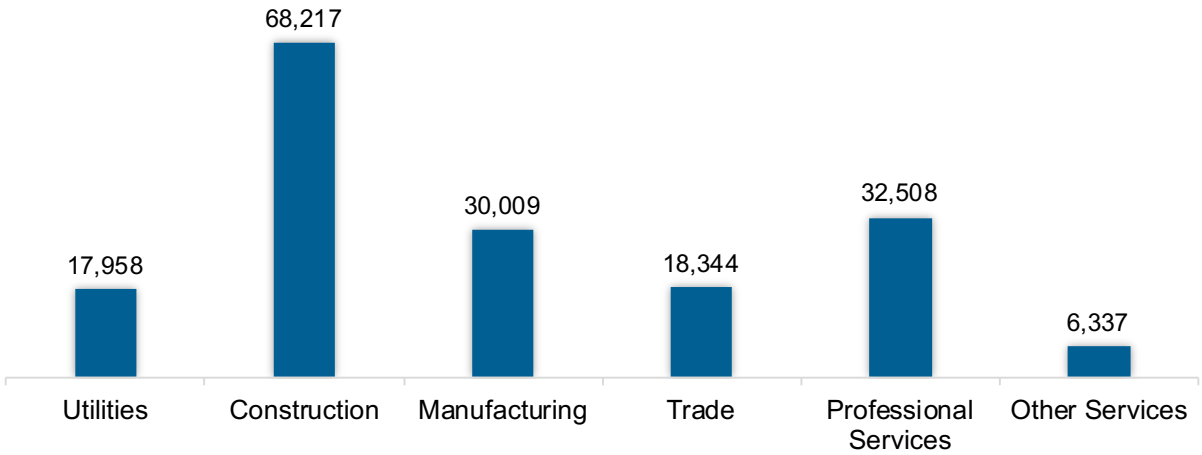
As shown in Figure CA-2, the electric power generation sector employed 173,373 workers in California, 19.6% of the national electricity total, and added 1,580 jobs from 2021 to 2022 (0.9%).

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



Construction was the largest industry sector in the electric power generation sector, with 39.3% of jobs. Professional and business services was second largest with 18.8% (Figure CA-3).

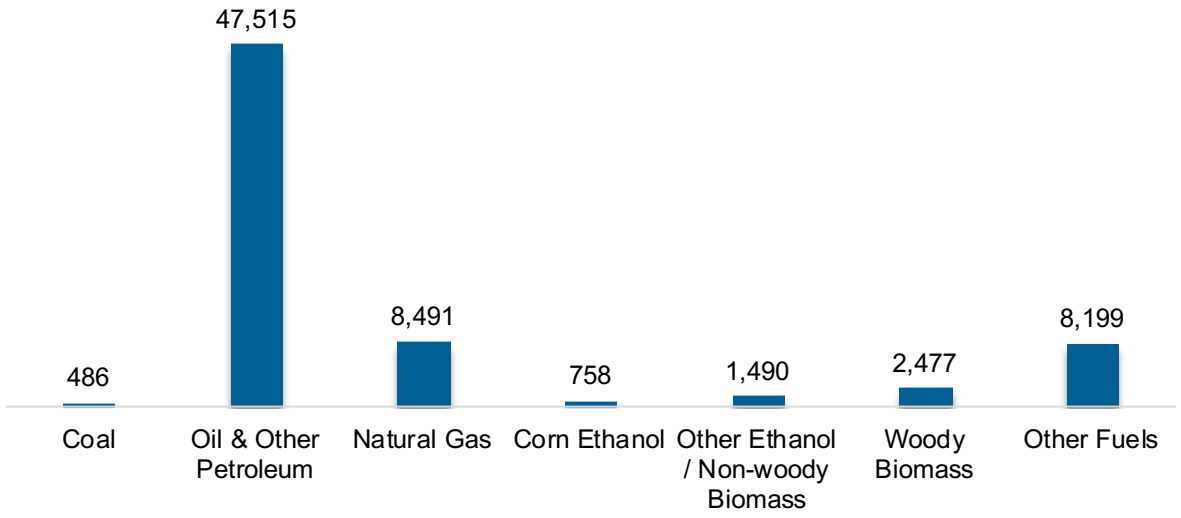
Figure CA-3. Electric Power Generation Employment by Industry Sector



Fuels

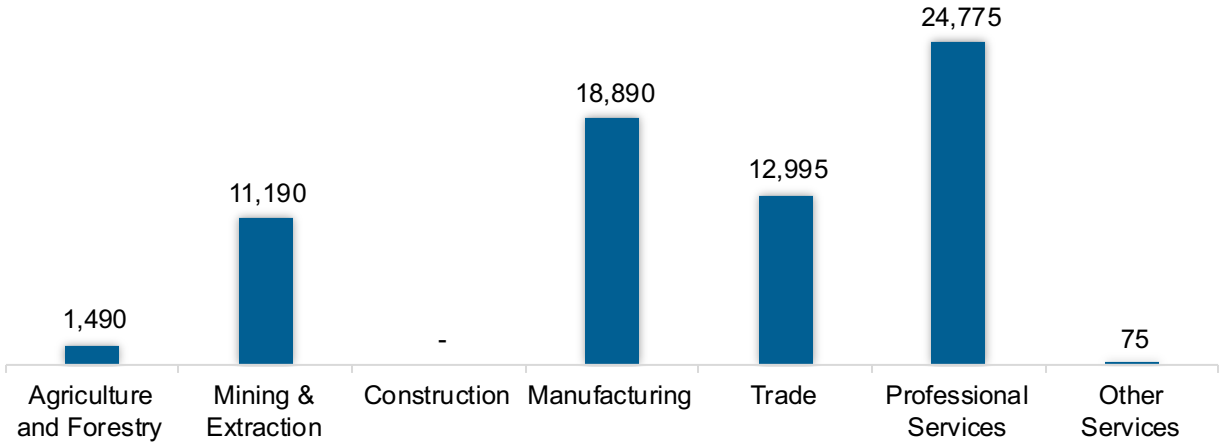
The Fuel sector employed 69,415 workers in California, 6.7% of the national total in fuels (Figure CA-4). The sector gained 6,500 jobs and increased 10.3% from 2021 to 2022.

Figure CA-4. Fuels Employment by Detailed Technology Application



Professional and business services jobs represented 35.7% of fuel jobs in California (Figure CA-5).

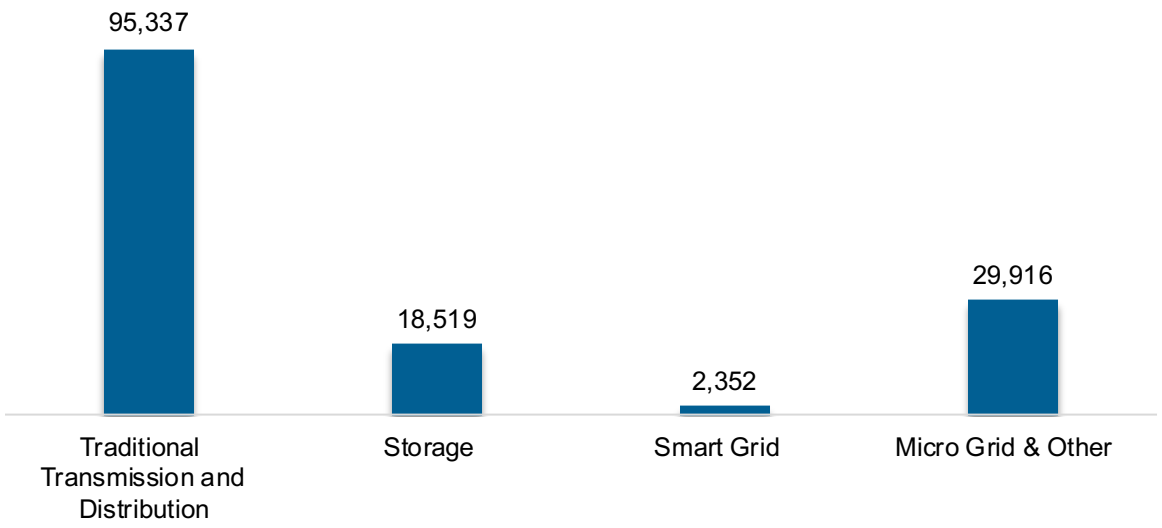
Figure CA-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

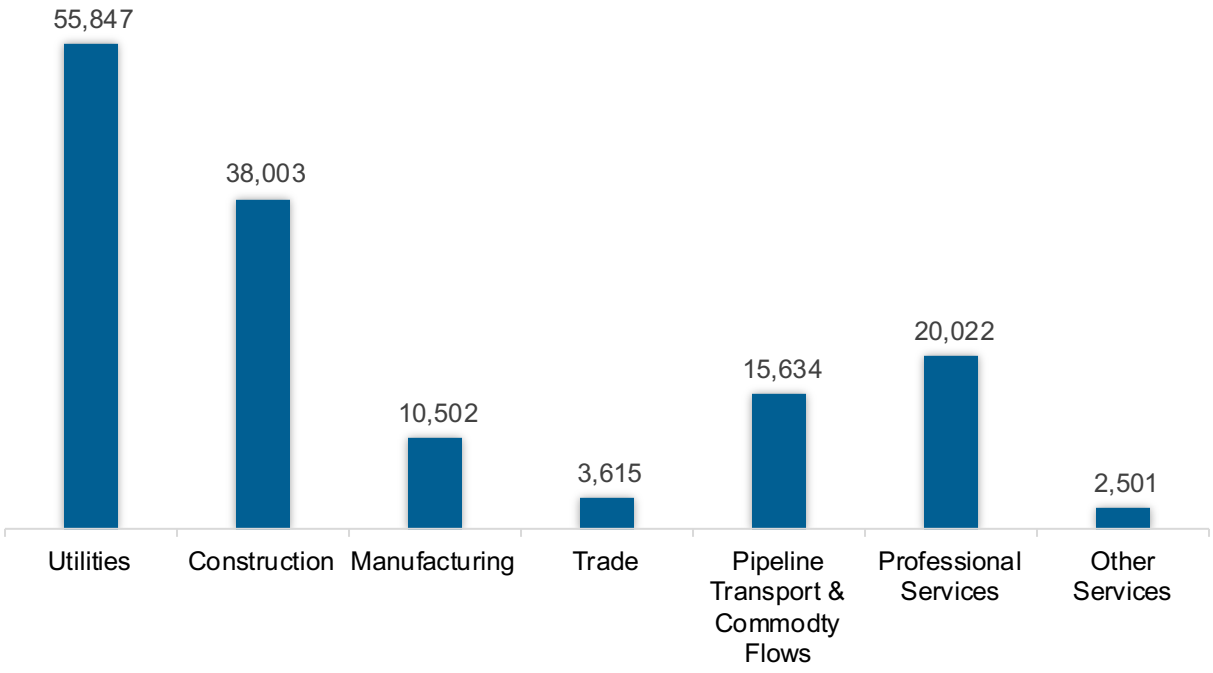
The transmission, distribution, and storage (TDS) sector employed 146,124 workers in California, 6.7% of the national TDS total (Figure CA-6). The sector gained 1,684 jobs and increased 1.2% from 2021 to 2022.

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



Utilities was the largest proportion of TDS jobs in California, accounting for 38.2% of the sector's jobs statewide (Figure CA-7).

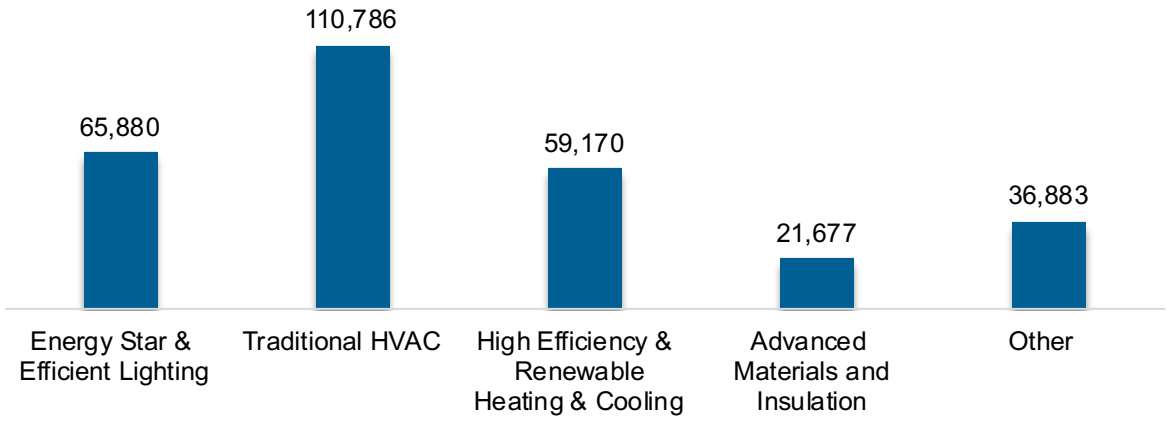
Figure CA-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

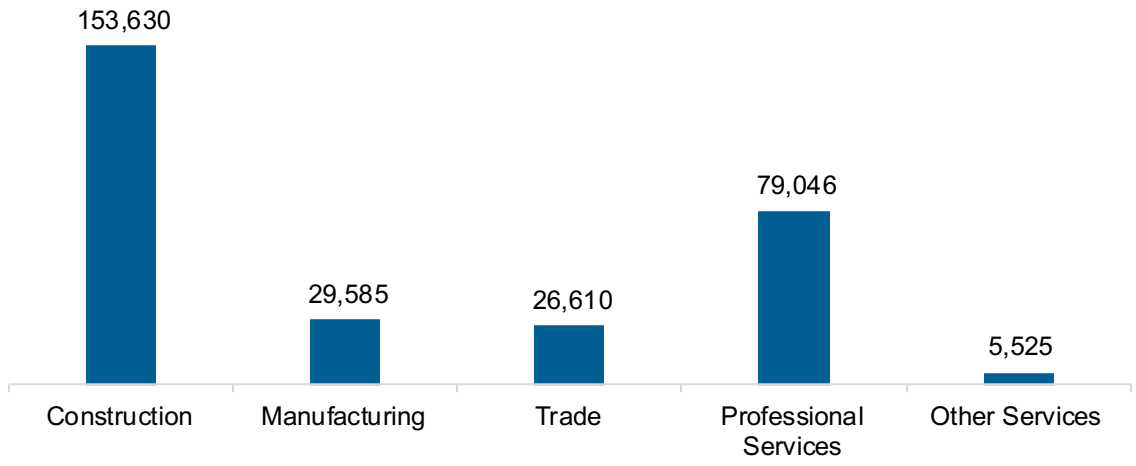
The energy efficiency (EE) sector employed 294,396 workers in California, 13.3% of the national EE total. The EE sector added 4,608 jobs and increased 1.6% from 2021 to 2022 (Figure CA-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure CA-9).

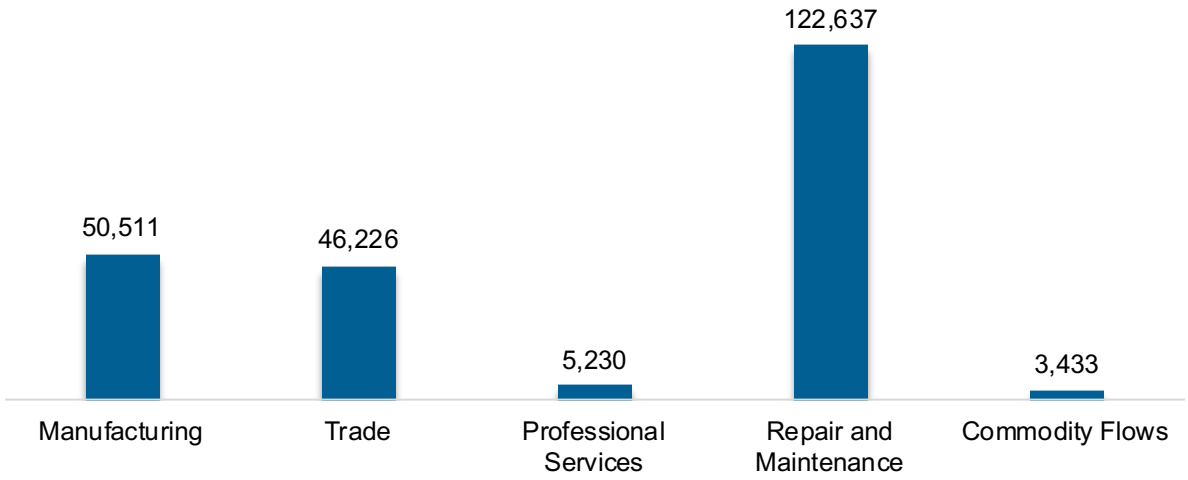
Figure CA-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 228,037 workers in California, 8.7% of the national total for the sector. Motor vehicles and component parts added 11,435 jobs and increased 5.3% from 2021 to 2022. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure CA-10).

Figure CA-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 623,972 jobs in clean energy in California if traditional transmission and distribution is included and 527,696 jobs if it is not.[5] These increased under either definition, growing 3.2% with traditional transmission and distribution and 3.6% without.

Employer Perspectives

Expected Growth

Employers in California were less optimistic than their peers across the country about energy sector job growth over the next year (Table CA-1).

Table CA-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	4.1	6.0
Electric Power Transmission, Distribution, and Storage	3.0	3.9
Energy Efficiency	4.3	6.4
Fuels	1.9	1.6
Motor Vehicles	3.8	5.5

[5] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in California reported 51% overall hiring difficulty (Table CA-2).

Table CA-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	24	27	7	43	51

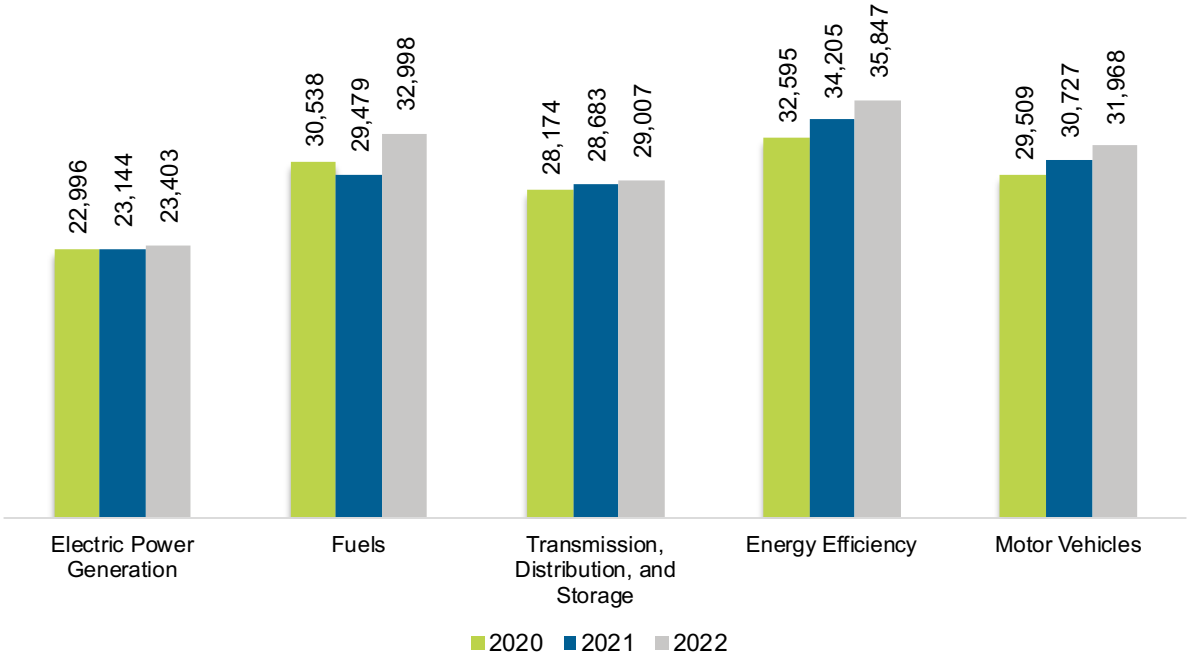
Colorado

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

Colorado had 153,223 energy workers statewide in 2022, representing 1.9% of all U.S. energy jobs. Of these energy jobs, 23,403 were in electric power generation; 32,998 in fuels; 29,007 in transmission, distribution, and storage; 35,847 in energy efficiency; and 31,968 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 6,984 jobs, or 4.8% (Figure CO-1). The energy sector in Colorado represented 5.4% of total state employment.

Figure CO-1. Employment by Major Energy Technology Application

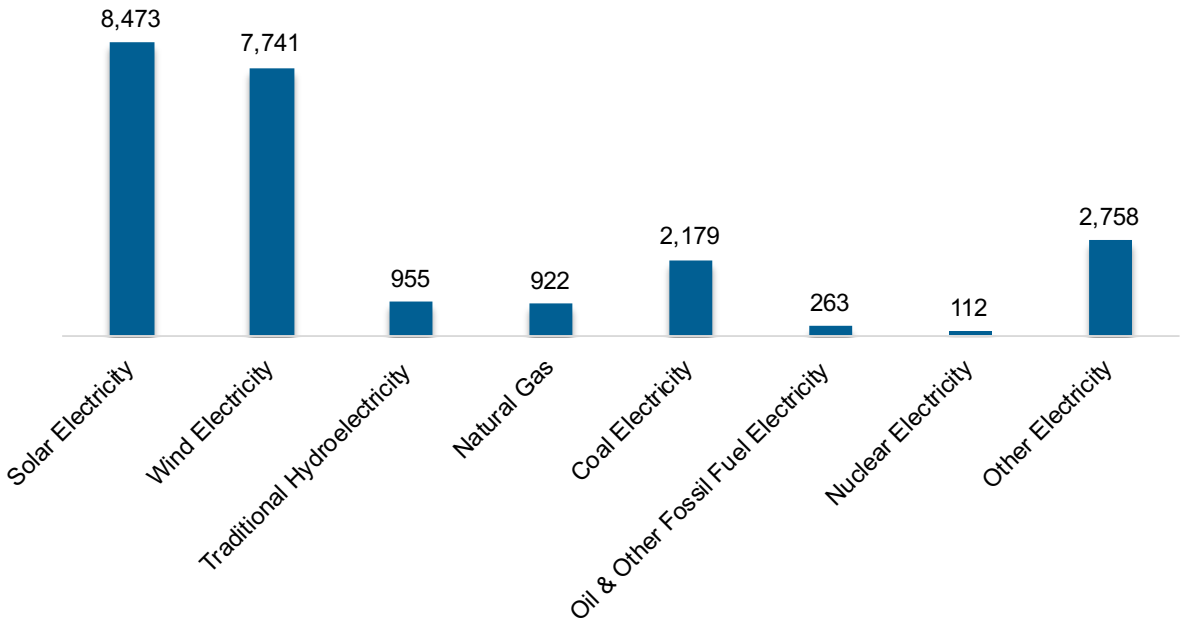


Breakdown by Technology Applications

Electric Power Generation

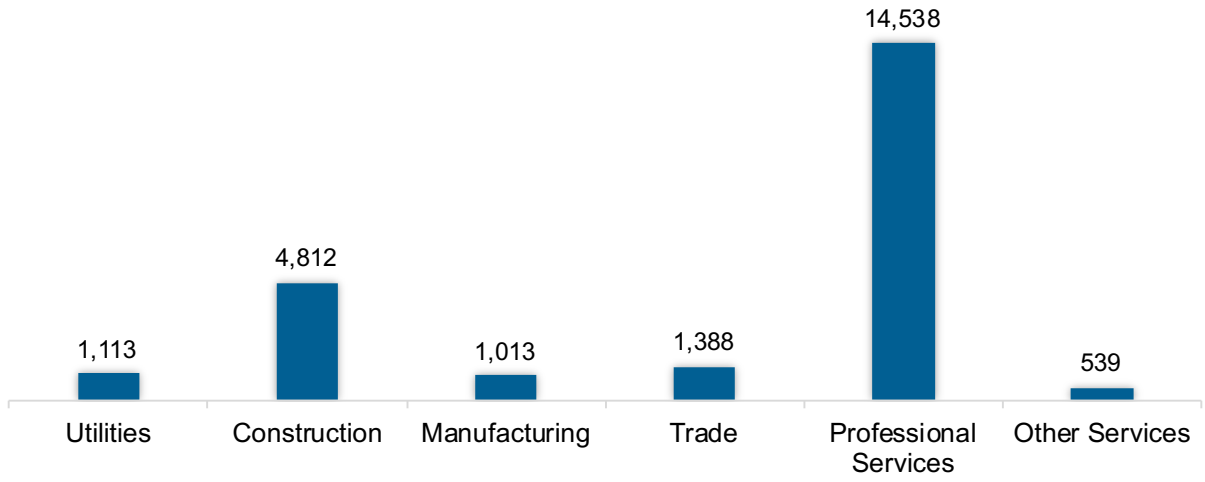
As shown in Figure CO-2, the electric power generation sector employed 23,403 workers in Colorado, 2.6% of the national electricity total, and added 259 jobs from 2021 to 2022 (1.1%).

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



Professional and business services was the largest industry sector in the electric power generation sector, with 62.1% of jobs. Construction was second largest with 20.6% (Figure CO-3).

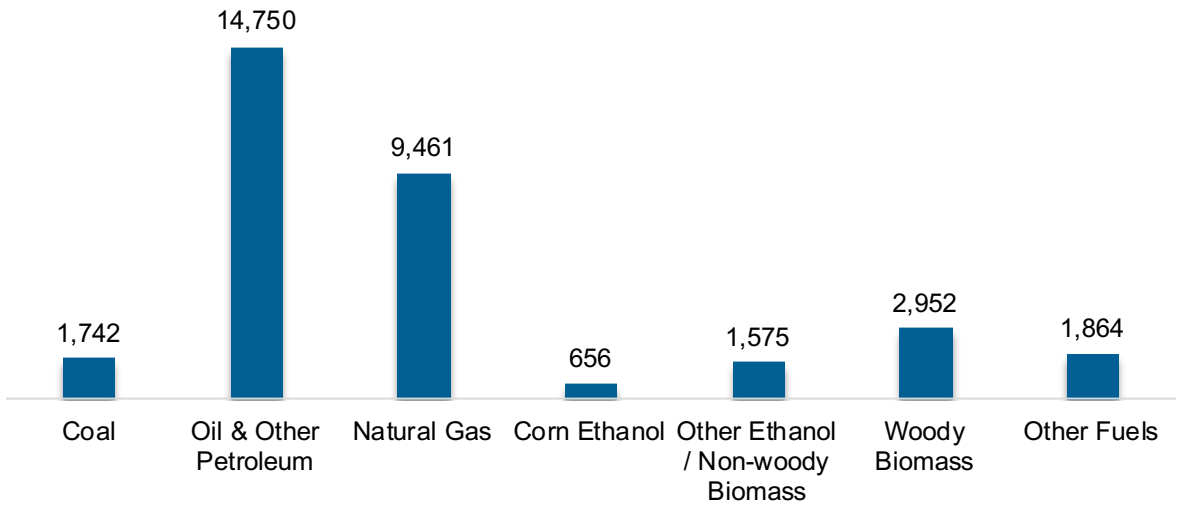
Figure CO-3. Electric Power Generation Employment by Industry Sector



Fuels

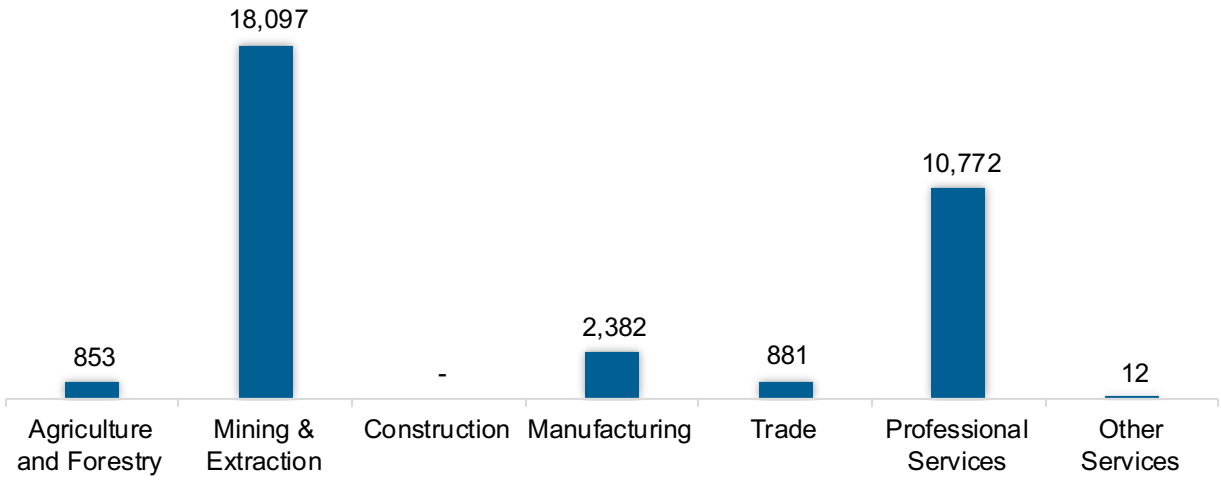
The Fuel sector employed 32,998 workers in Colorado, 3.2% of the national total in fuels (Figure CO-4). The sector gained 3,519 jobs and increased 11.9% from 2021 to 2022.

Figure CO-4. Fuels Employment by Detailed Technology Application



Mining and extraction jobs represented 54.8% of fuel jobs in Colorado (Figure CO-5).

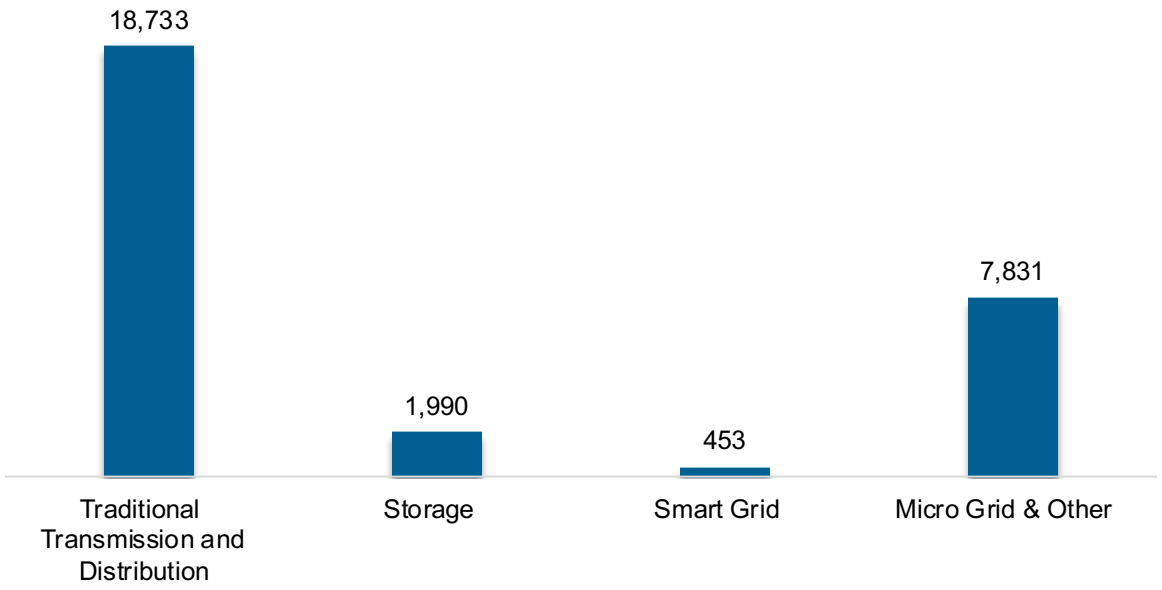
Figure CO-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

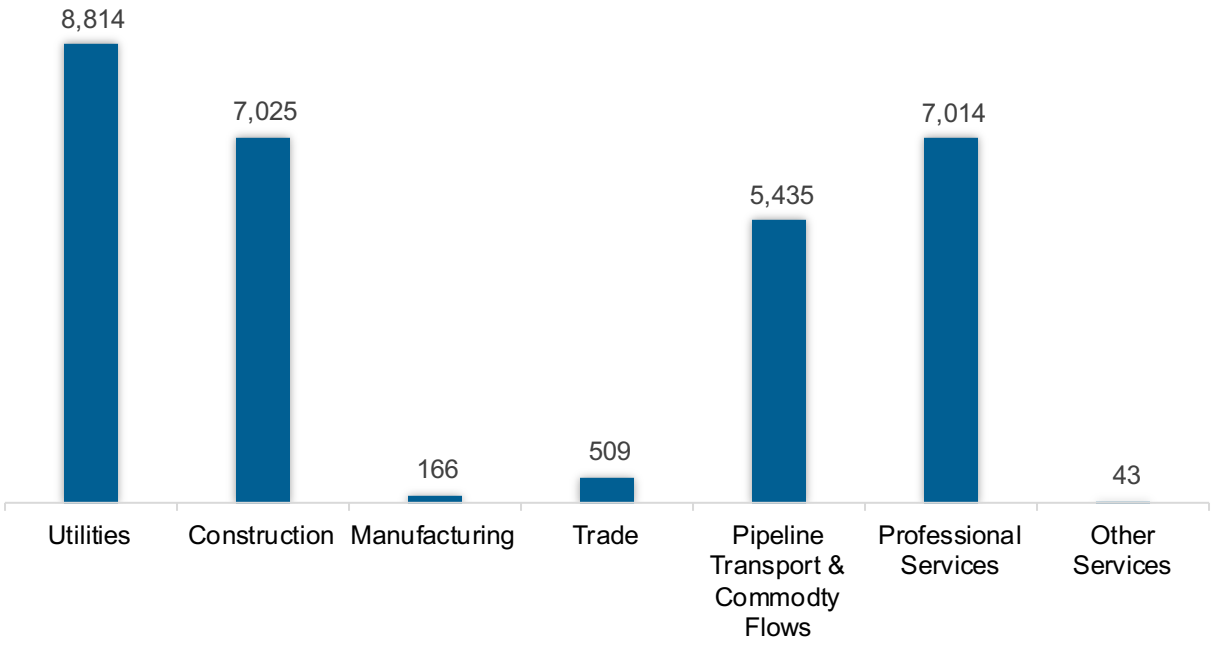
The transmission, distribution, and storage (TDS) sector employed 29,007 workers in Colorado, 3.2% of the national TDS total (Figure CO-6). The sector gained 324 jobs and increased 1.1% from 2021 to 2022.

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



Utilities was the largest proportion of TDS jobs in Colorado, accounting for 30.4% of the sector's jobs statewide (Figure CO-7).

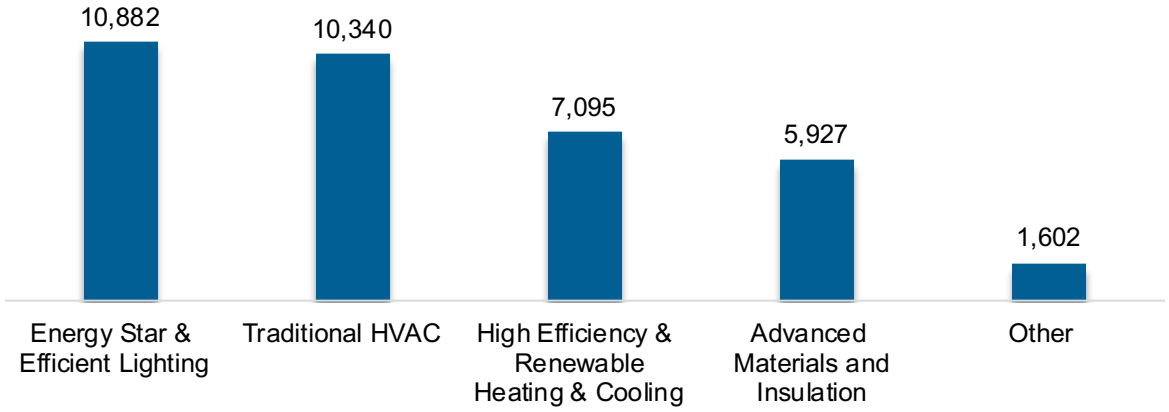
Figure CO-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

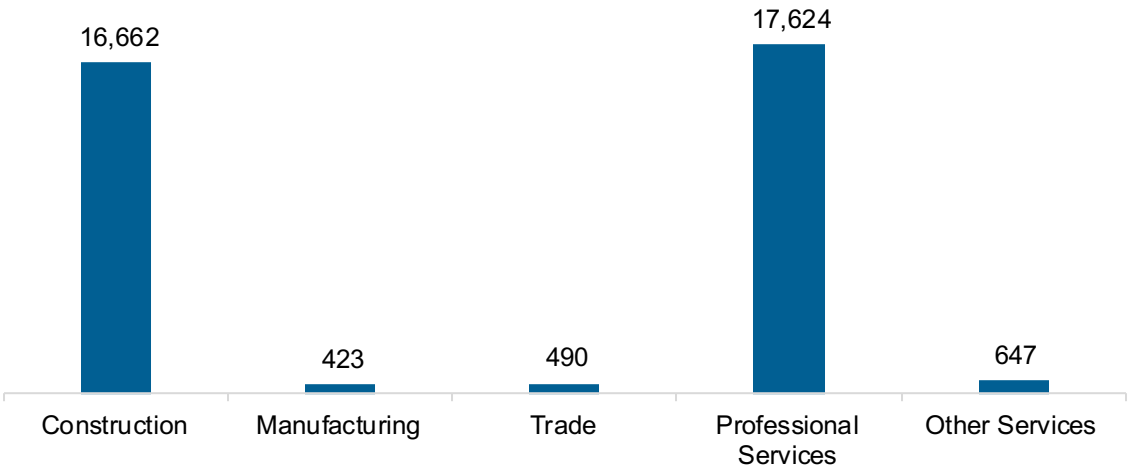
The energy efficiency (EE) sector employed 35,847 workers in Colorado, 1.6% of the national EE total. The EE sector added 1,642 jobs and increased 4.8% from 2021 to 2022 (Figure CO-8).

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



Energy efficiency employment was primarily found in the professional and business services industry (Figure CO-9).

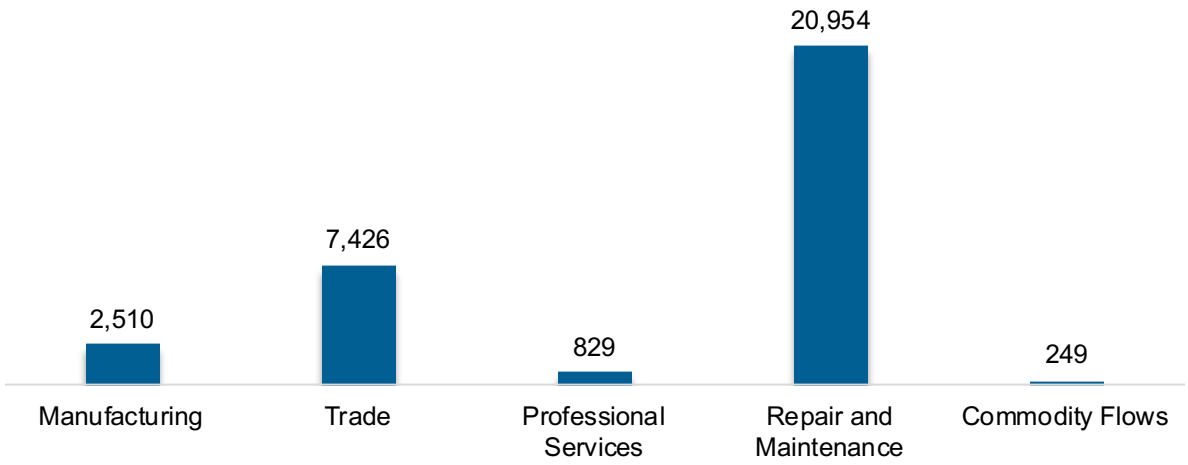
Figure CO-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 31,968 workers in Colorado, 1.2% of the national total for the sector. Motor vehicles and component parts added 1,241 jobs and increased 4.0% from 2021 to 2022. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure CO-10).

Figure CO-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 85,222 jobs in clean energy in Colorado if traditional transmission and distribution is included and 66,388 jobs if it is not.[6] These increased under either definition, growing 3.4% with traditional transmission and distribution and 4.0% without.

Employer Perspectives

Expected Growth

Employers in Colorado are similarly optimistic than their peers across the country about energy sector job growth over the next year (Table CO-1).

Table CO-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	6.0	6.0
Electric Power Transmission, Distribution, and Storage	5.0	3.9
Energy Efficiency	6.2	6.4
Fuels	3.8	1.6
Motor Vehicles	5.8	5.5

[6] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in Colorado reported 47% overall hiring difficulty (Table CO-2).

Table CO-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	23	24	7	46	47

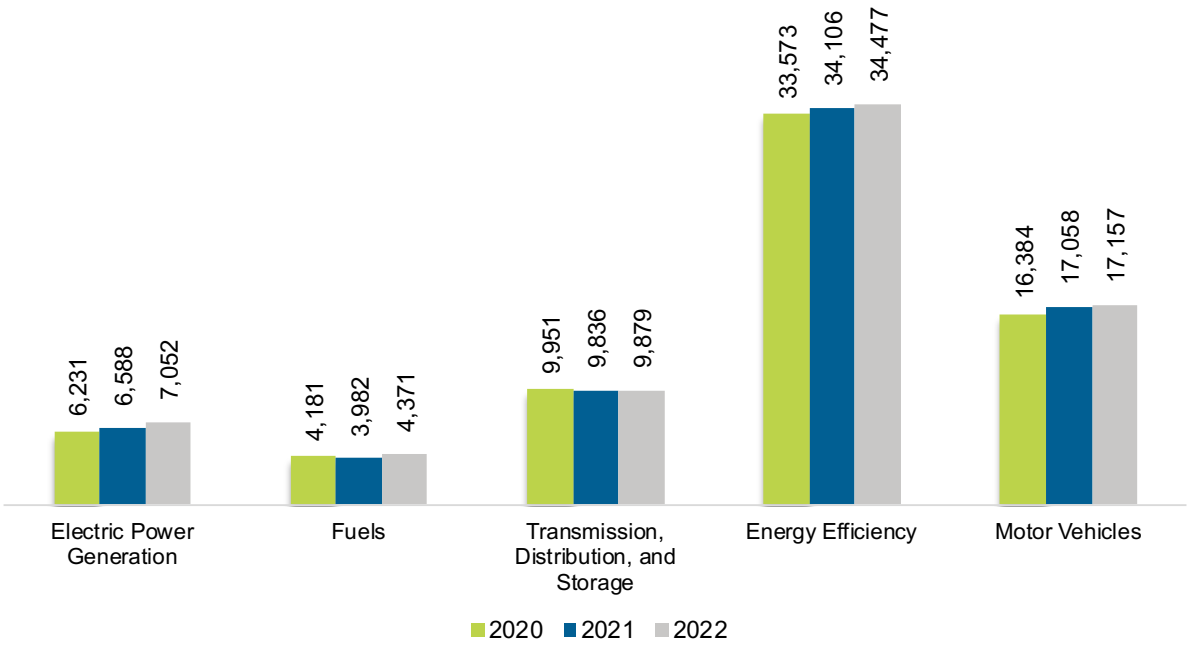
Connecticut

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

Connecticut had 72,937 energy workers statewide in 2022, representing 0.9% of all U.S. energy jobs. Of these energy jobs, 7,052 were in electric power generation; 4,371 in fuels; 9,879 in transmission, distribution, and storage; 34,477 in energy efficiency; and 17,157 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 1,367 jobs, or 1.9% (Figure CT-1). The energy sector in Connecticut represented 4.4% of total state employment.

Figure CT-1. Employment by Major Energy Technology Application

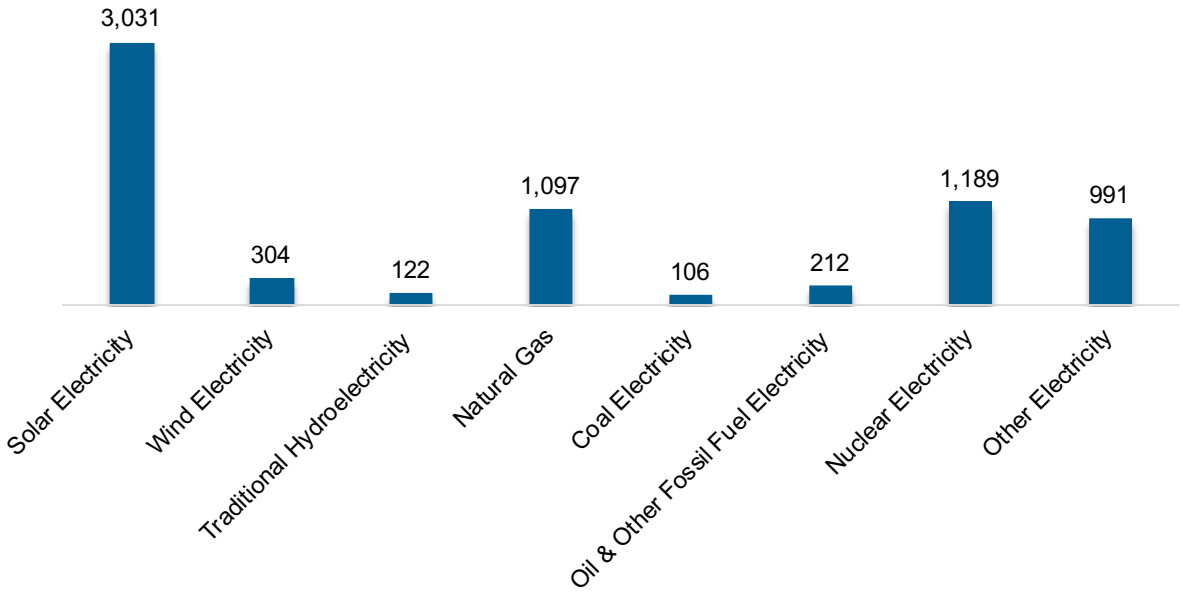


Breakdown by Technology Applications

Electric Power Generation

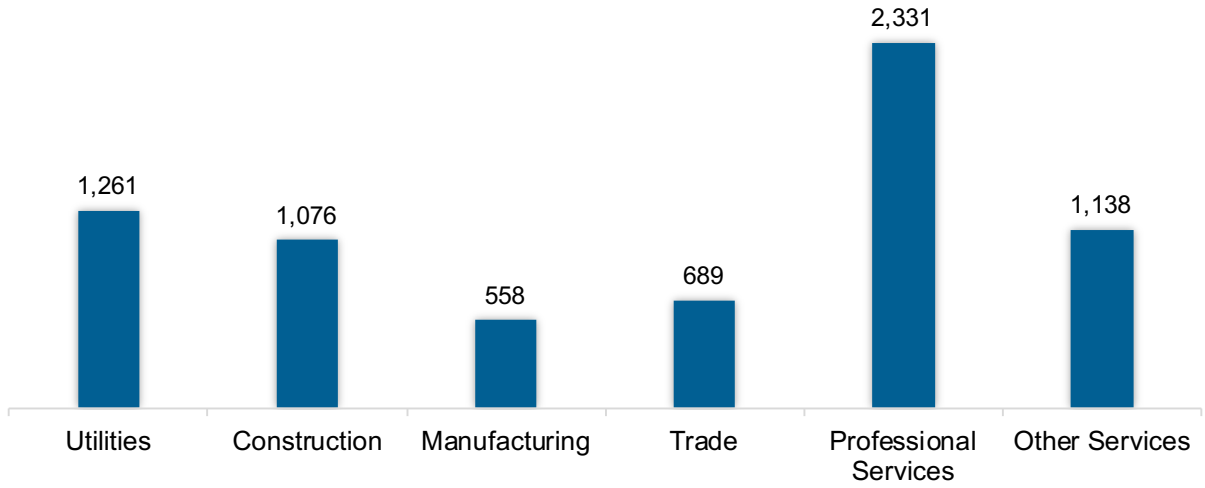
As shown in Figure CT-2, the electric power generation sector employed 7,052 workers in Connecticut, 0.8% of the national electricity total, and added 464 jobs from 2021 to 2022 (7.0%).

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



Professional and business services was the largest industry sector in the electric power generation sector, with 33.0% of jobs. Utilities was second largest with 17.9% (Figure CT-3).

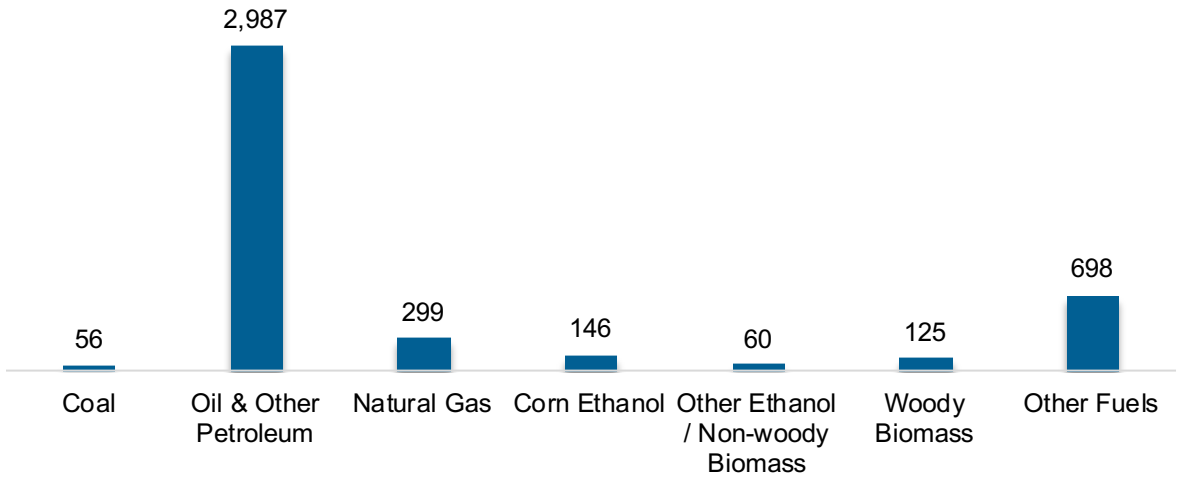
Figure CT-3. Electric Power Generation Employment by Industry Sector



Fuels

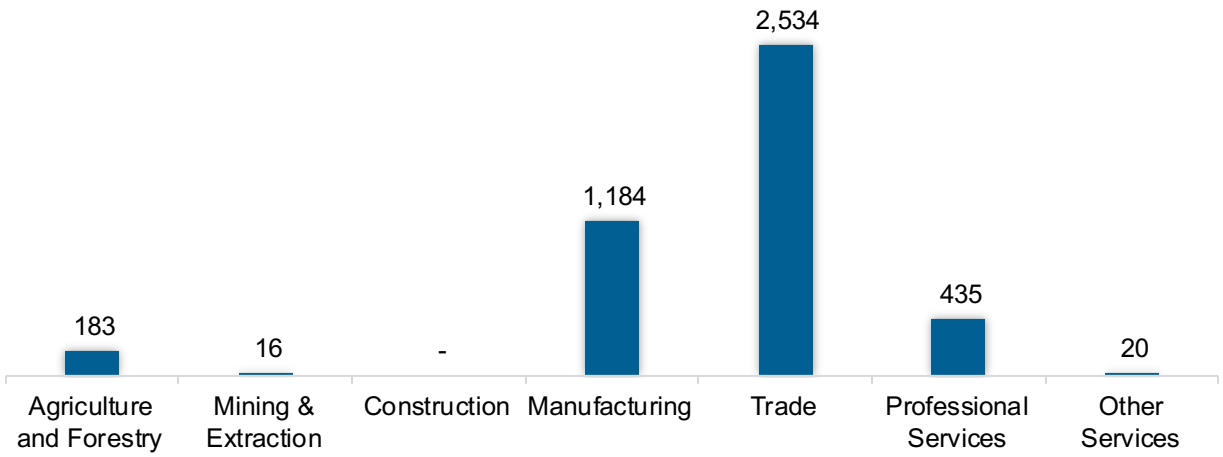
The Fuel sector employed 4,371 workers in Connecticut, 0.4% of the national total in fuels (Figure CT-4). The sector gained 390 jobs and increased 9.8% from 2021 to 2022.

Figure CT-4. Fuels Employment by Detailed Technology Application



Wholesale trade jobs represented 58.0% of fuel jobs in Connecticut (Figure CT-5).

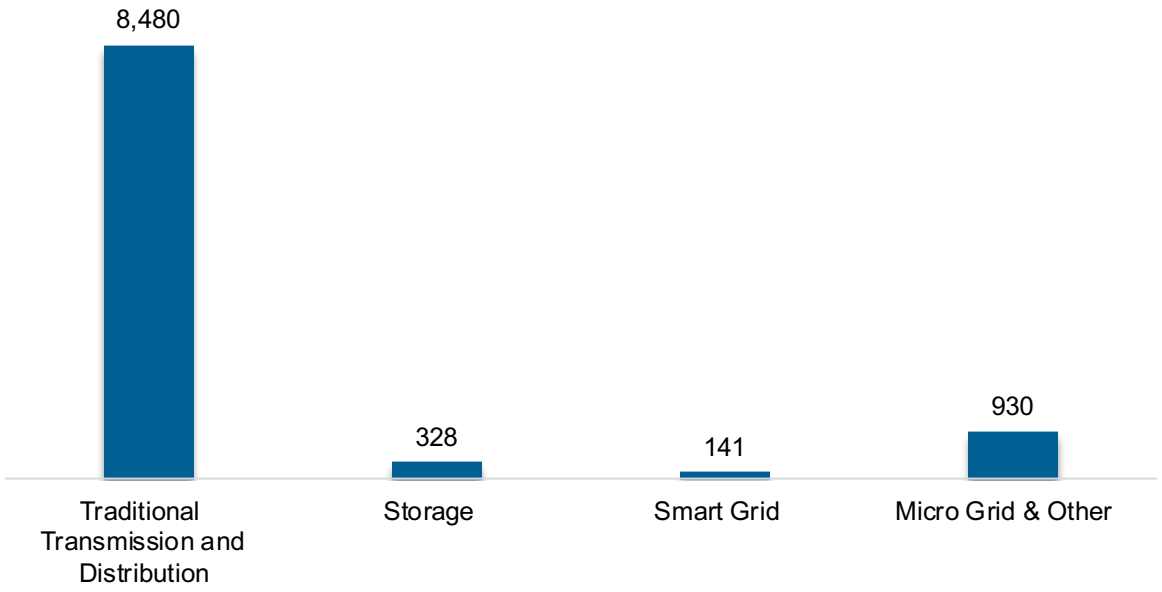
Figure CT-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

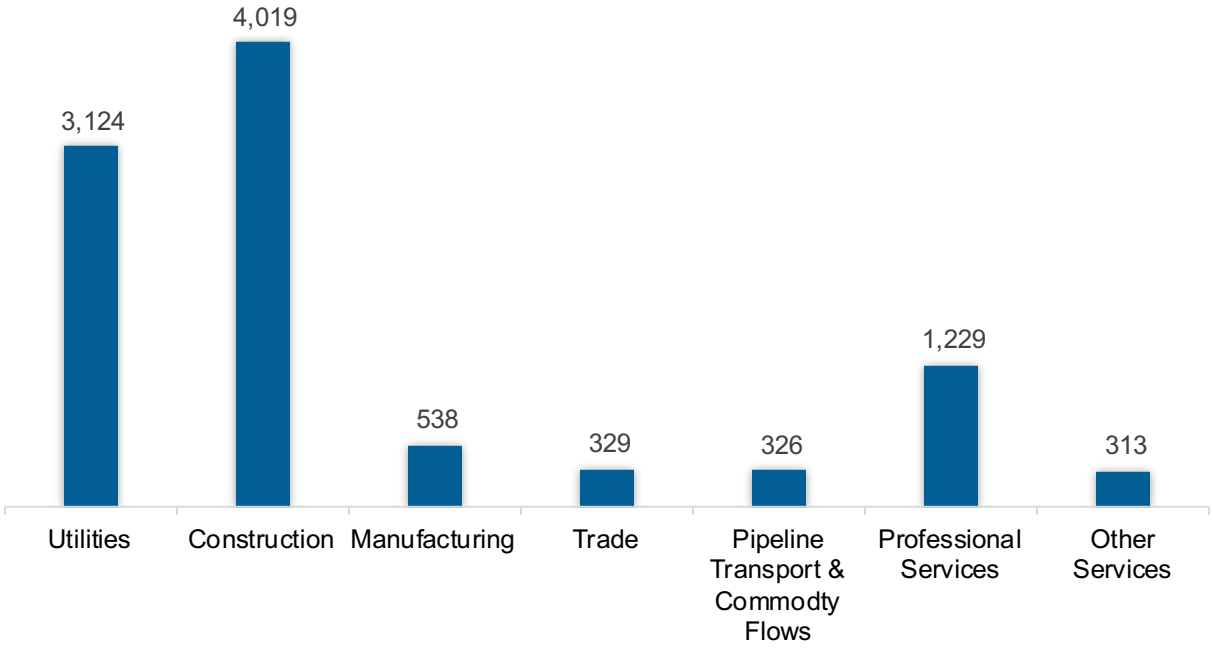
The transmission, distribution, and storage (TDS) sector employed 9,879 workers in Connecticut, 0.4% of the national TDS total (Figure CT-6). The sector gained 43 jobs and increased 0.4% from 2021 to 2022.

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



Construction was the largest proportion of TDS jobs in Connecticut, accounting for 40.7% of the sector's jobs statewide (Figure CT-7).

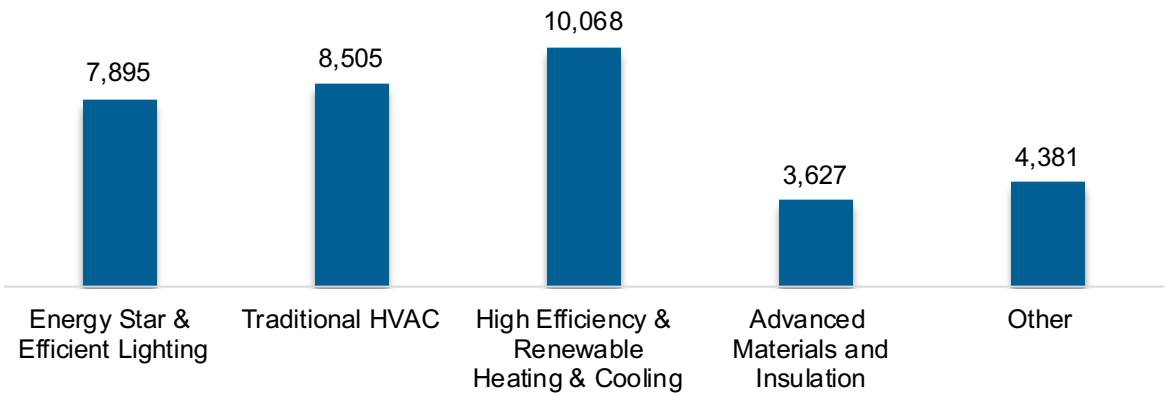
Figure CT-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

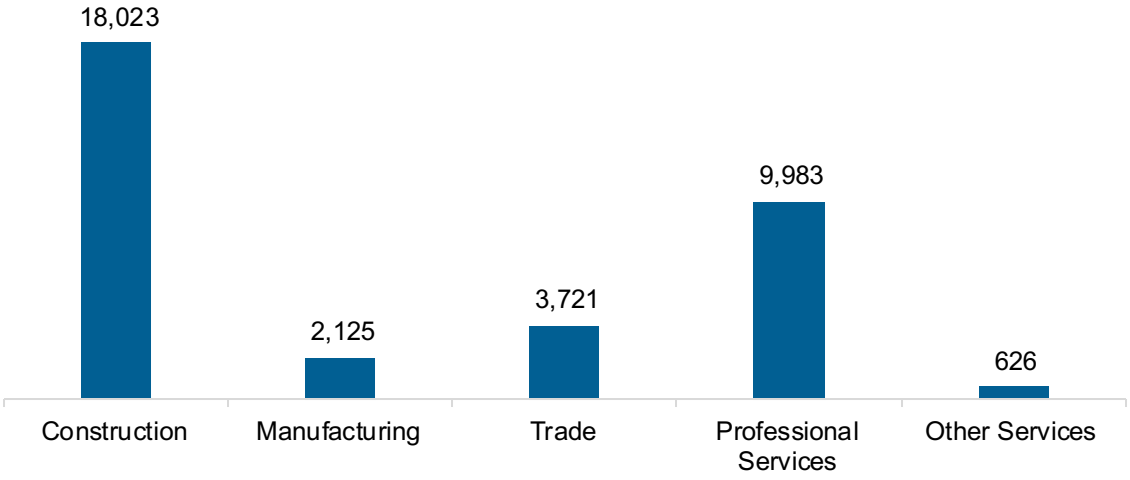
The energy efficiency (EE) sector employed 34,477 workers in Connecticut, 1.6% of the national EE total. The EE sector added 371 jobs and increased 1.1% from 2021 to 2022 (Figure CT-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure CT-9).

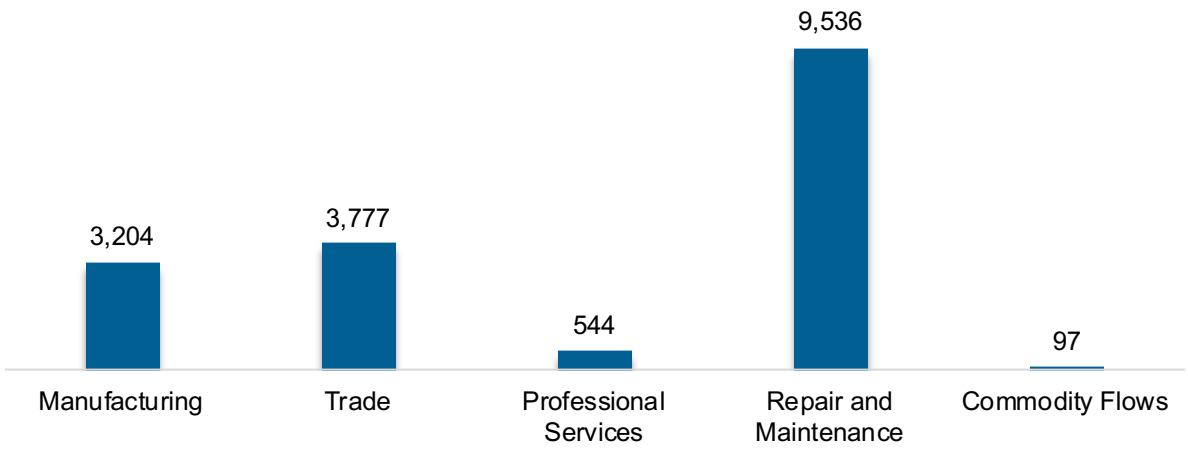
Figure CT-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 17,157 workers in Connecticut, 0.7% of the national total for the sector. Motor vehicles and component parts added 99 jobs and increased 0.6% from 2021 to 2022. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure CT-10).

Figure CT-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 51,393 jobs in clean energy in Connecticut if traditional transmission and distribution is included and 42,896 jobs if it is not.[7] These increased under either definition, growing 2.0% with traditional transmission and distribution and 2.6% without.

Employer Perspectives

Expected Growth

Employers in Connecticut are similarly optimistic than their peers across the country about energy sector job growth over the next year (Table CT-1).

Table CT-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	6.4	6.0
Electric Power Transmission, Distribution, and Storage	5.3	3.9
Energy Efficiency	6.6	6.4
Fuels	4.2	1.6
Motor Vehicles	6.1	5.5

[7] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in Connecticut reported 48% overall hiring difficulty (Table CT-2).

Table CT-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	23	25	6	46	48

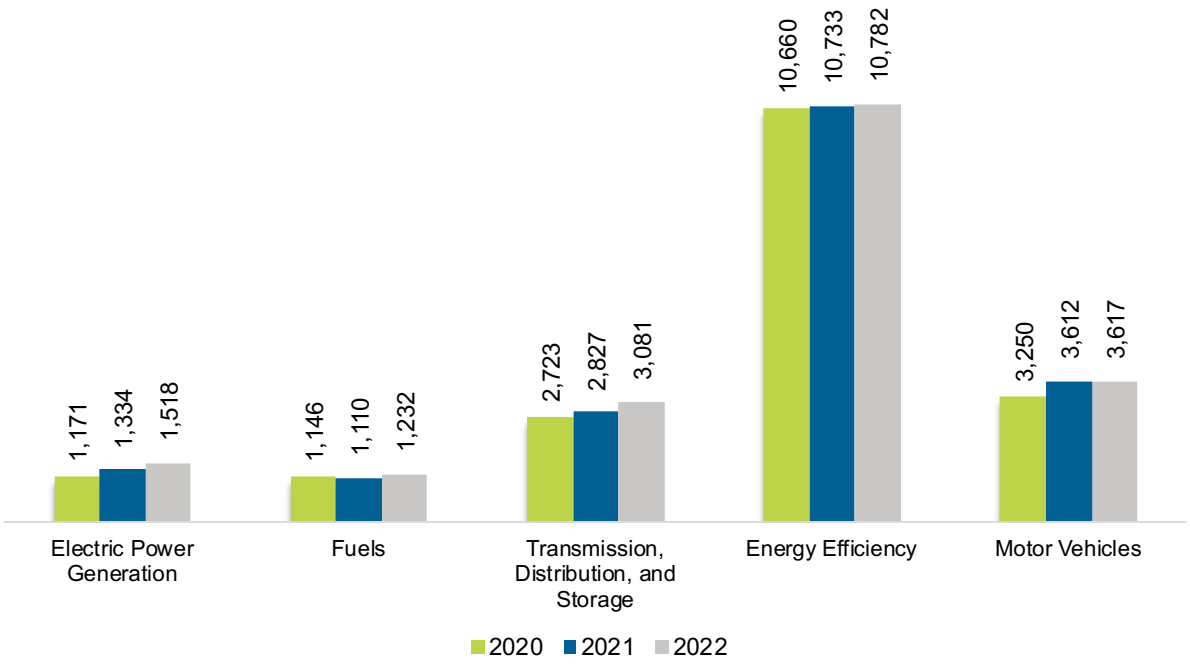
Delaware

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

Delaware had 20,230 energy workers statewide in 2022, representing 0.2% of all U.S. energy jobs. Of these energy jobs, 1,518 were in electric power generation; 1,232 in fuels; 3,081 in transmission, distribution, and storage; 10,782 in energy efficiency; and 3,617 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 613 jobs, or 3.1% (Figure DE-1). The energy sector in Delaware represented 4.3% of total state employment.

Figure DE-1. Employment by Major Energy Technology Application

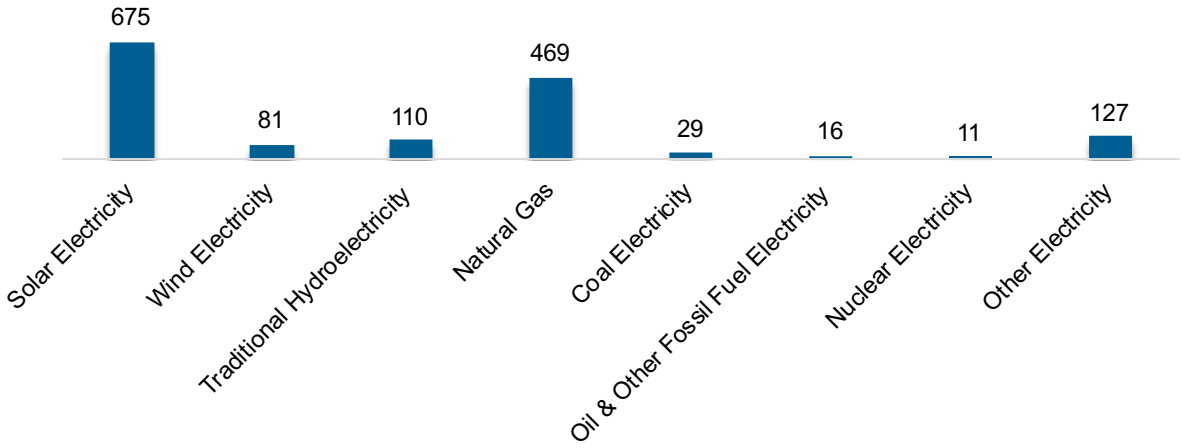


Breakdown by Technology Applications

Electric Power Generation

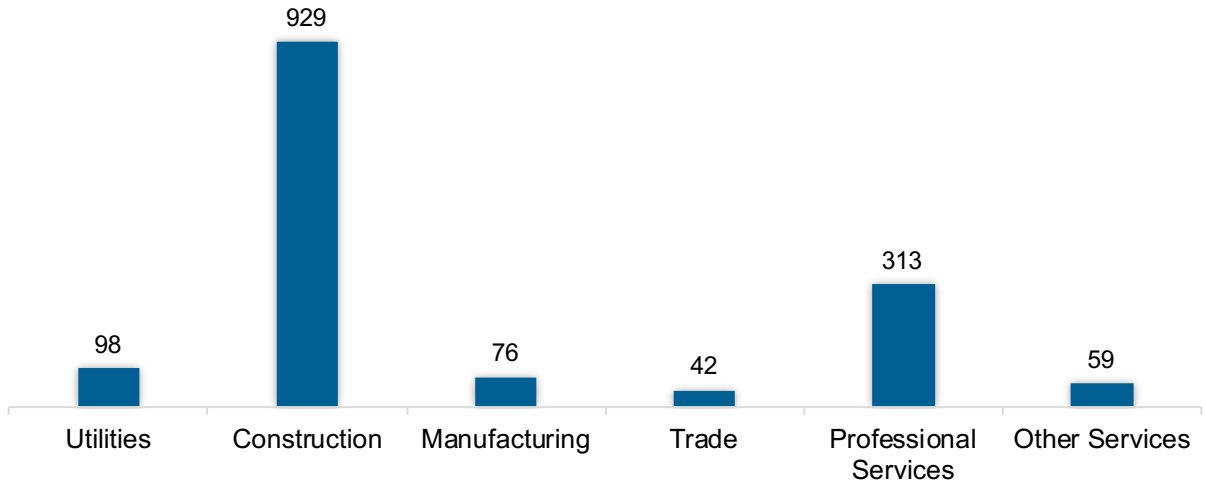
As shown in Figure DE-2, the electric power generation sector employed 1,518 workers in Delaware, 0.2% of the national electricity total, and added 184 jobs from 2021 to 2022 (13.8%).

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



Construction was the largest industry sector in the electric power generation sector, with 61.2% of jobs. Professional and business services was second largest with 20.6% (Figure DE-3).

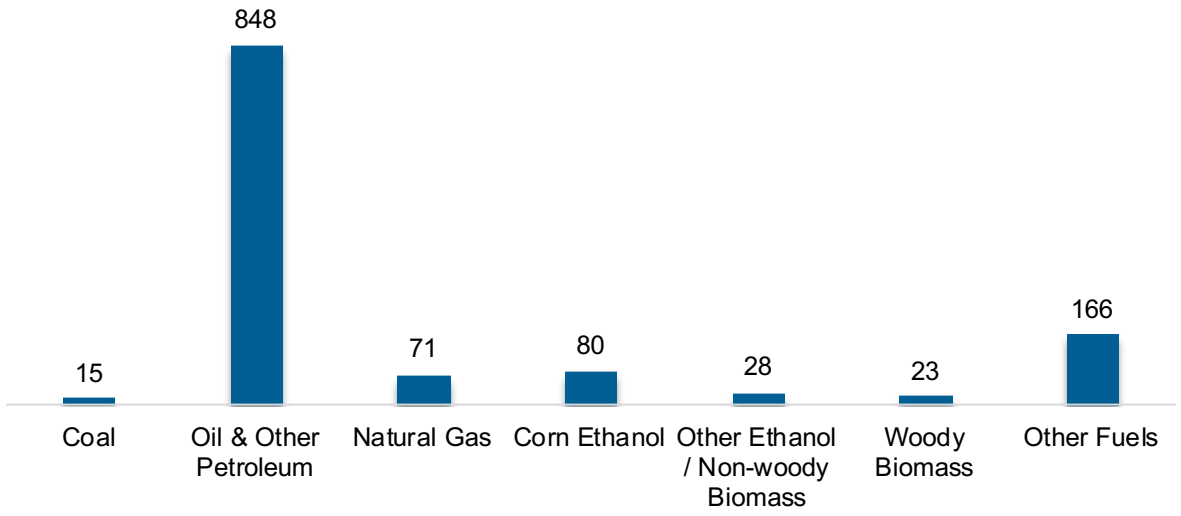
Figure DE-3. Electric Power Generation Employment by Industry Sector



Fuels

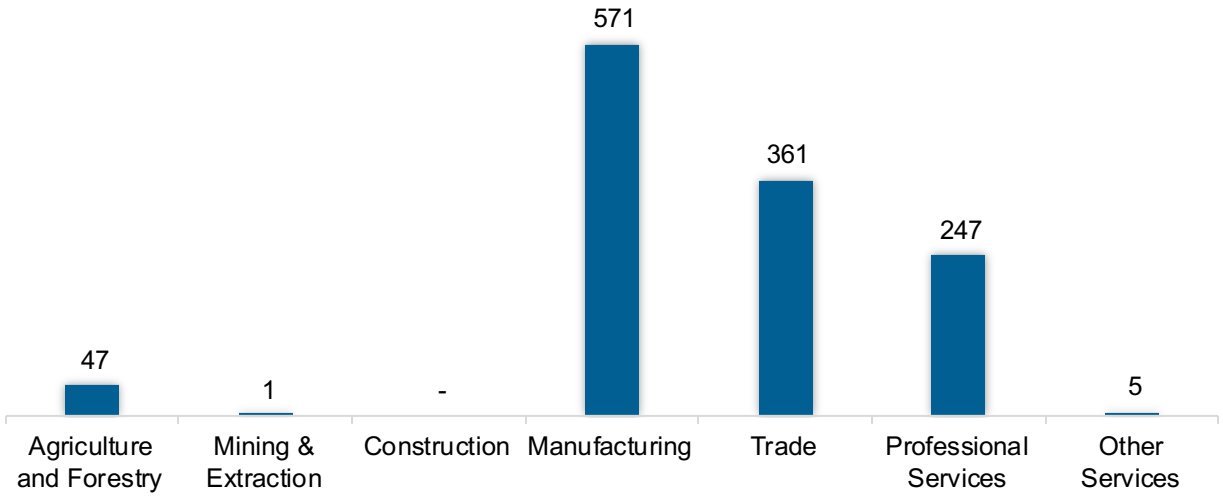
The Fuel sector employed 1,232 workers in Delaware, 0.1% of the national total in fuels (Figure DE-4). The sector gained 122 jobs and increased 11.0% from 2021 to 2022.

Figure DE-4. Fuels Employment by Detailed Technology Application



Manufacturing jobs represented 46.3% of fuel jobs in Delaware (Figure DE-5).

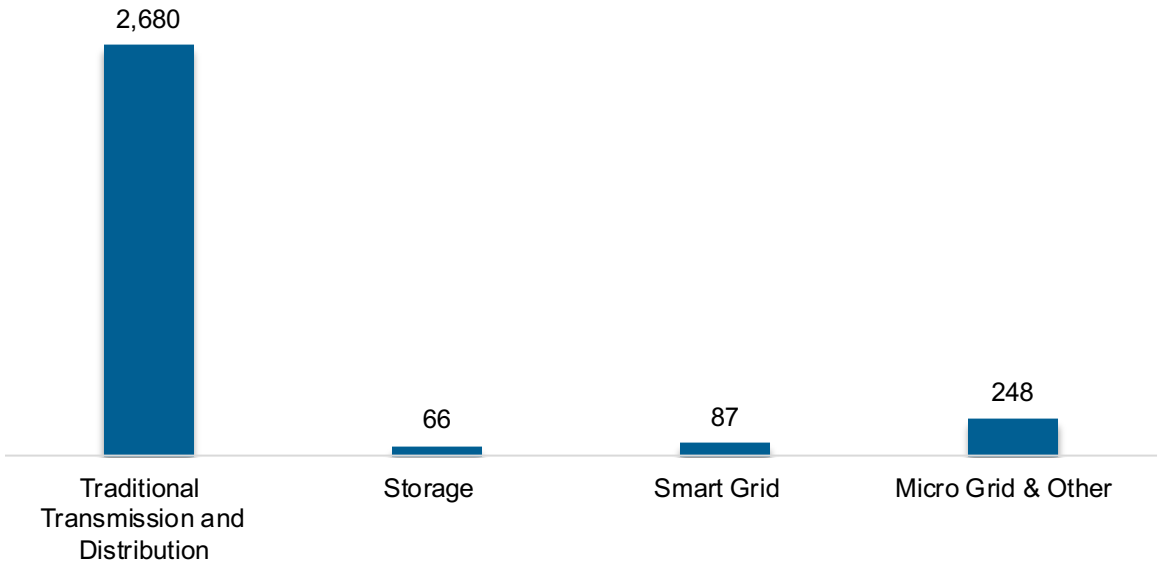
Figure DE-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

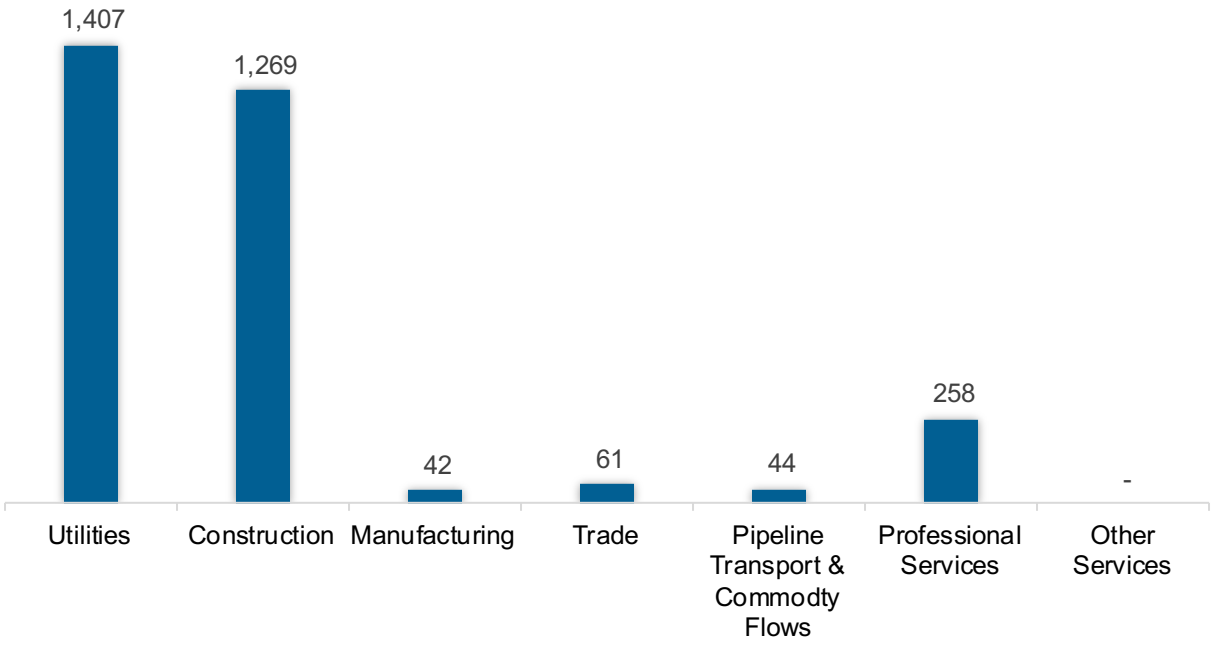
The transmission, distribution, and storage (TDS) sector employed 3,081 workers in Delaware, 0.1% of the national TDS total (Figure DE-6). The sector gained 254 jobs and increased 9.0% from 2021 to 2022.

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



Utilities was the largest proportion of TDS jobs in Delaware, accounting for 45.7% of the sector's jobs statewide (Figure DE-7).

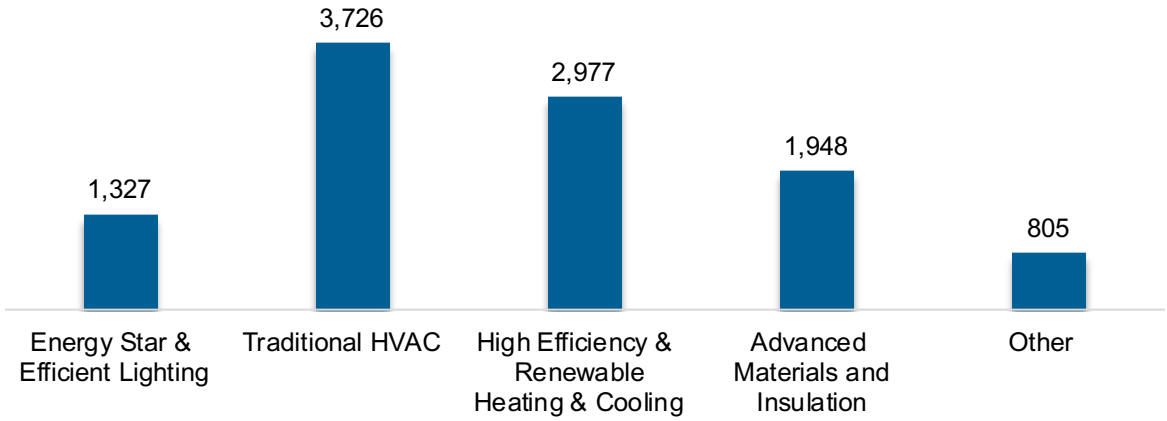
Figure DE-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

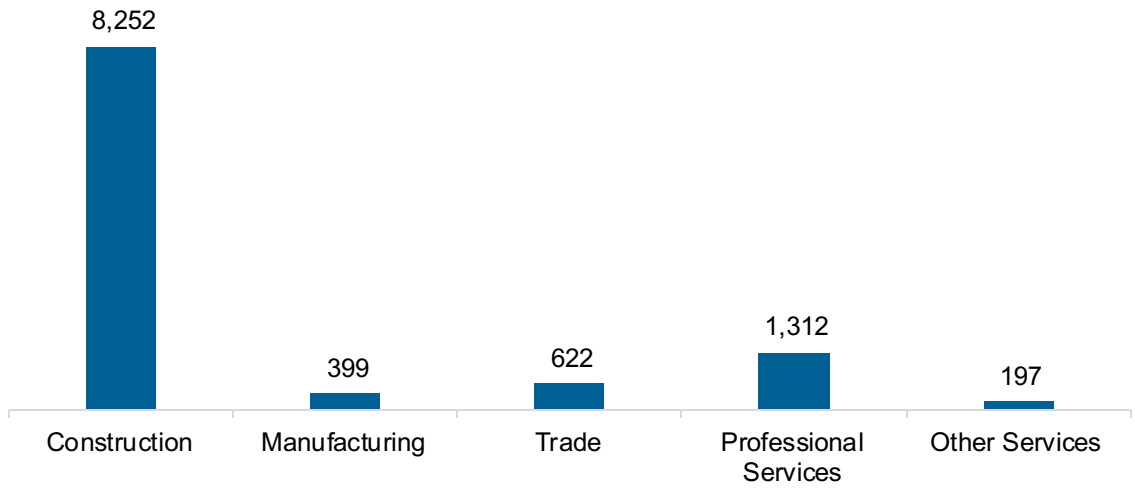
The energy efficiency (EE) sector employed 10,782 workers in Delaware, 0.5% of the national EE total. The EE sector added 49 jobs and increased 0.5% from 2021 to 2022 (Figure DE-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure DE-9).

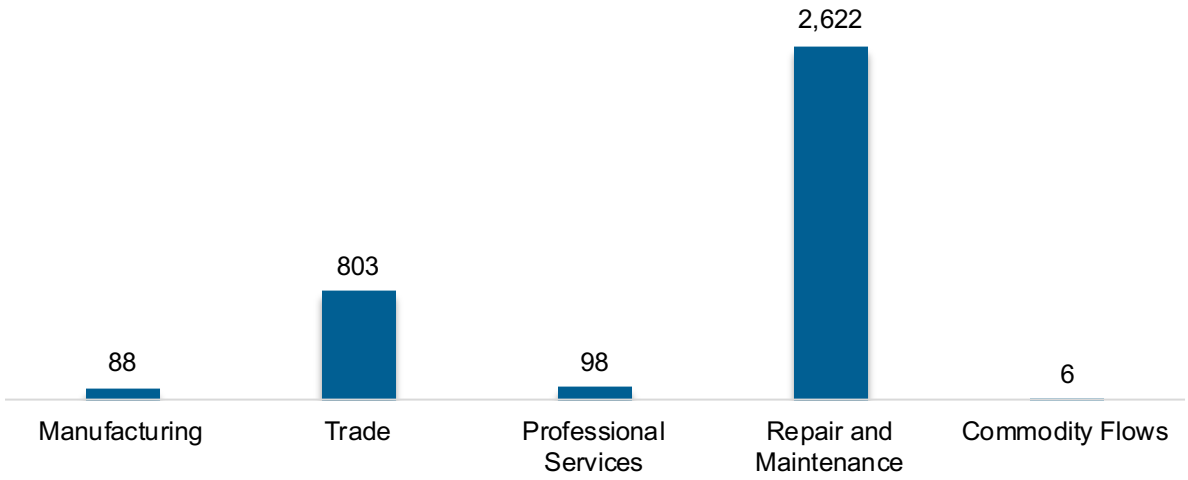
Figure DE-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 3,617 workers in Delaware, 0.1% of the national total for the sector. Motor vehicles and component parts added 5 jobs and increased 0.1% from 2021 to 2022. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure DE-10).

Figure DE-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 15,136 jobs in clean energy in Delaware if traditional transmission and distribution is included and 12,453 jobs if it is not.[8] These increased under either definition, growing 2.9% with traditional transmission and distribution and 1.6% without.

Employer Perspectives

Expected Growth

Employers in Delaware are similarly optimistic than their peers across the country about energy sector job growth over the next year (Table DE-1).

Table DE-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	6.4	6.0
Electric Power Transmission, Distribution, and Storage	5.4	3.9
Energy Efficiency	6.6	6.4
Fuels	4.2	1.6
Motor Vehicles	6.2	5.5

[8] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in Delaware reported 48% overall hiring difficulty (Table DE-2).

Table DE-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	20	28	4	47	48

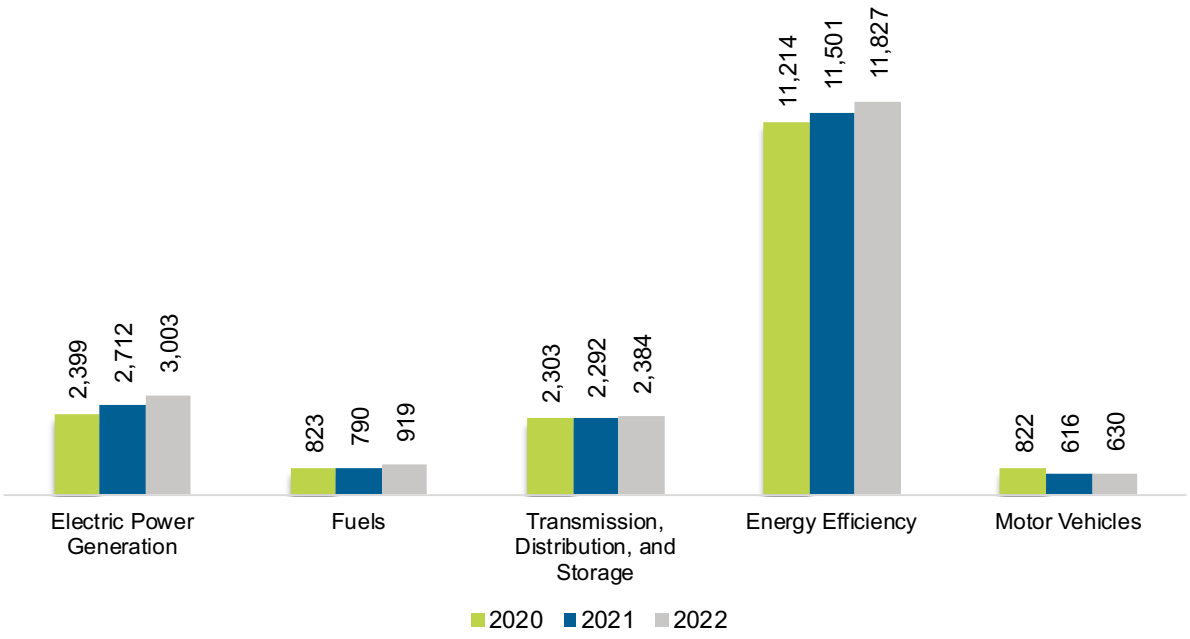
District of Columbia

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

District of Columbia had 18,763 energy workers statewide in 2022, representing 0.2% of all U.S. energy jobs. Of these energy jobs, 3,003 were in electric power generation; 919 in fuels; 2,384 in transmission, distribution, and storage; 11,827 in energy efficiency; and 630 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 852 jobs, or 4.8% (Figure DC-1). The energy sector in District of Columbia represented 2.5% of total state employment.

Figure DC-1. Employment by Major Energy Technology Application

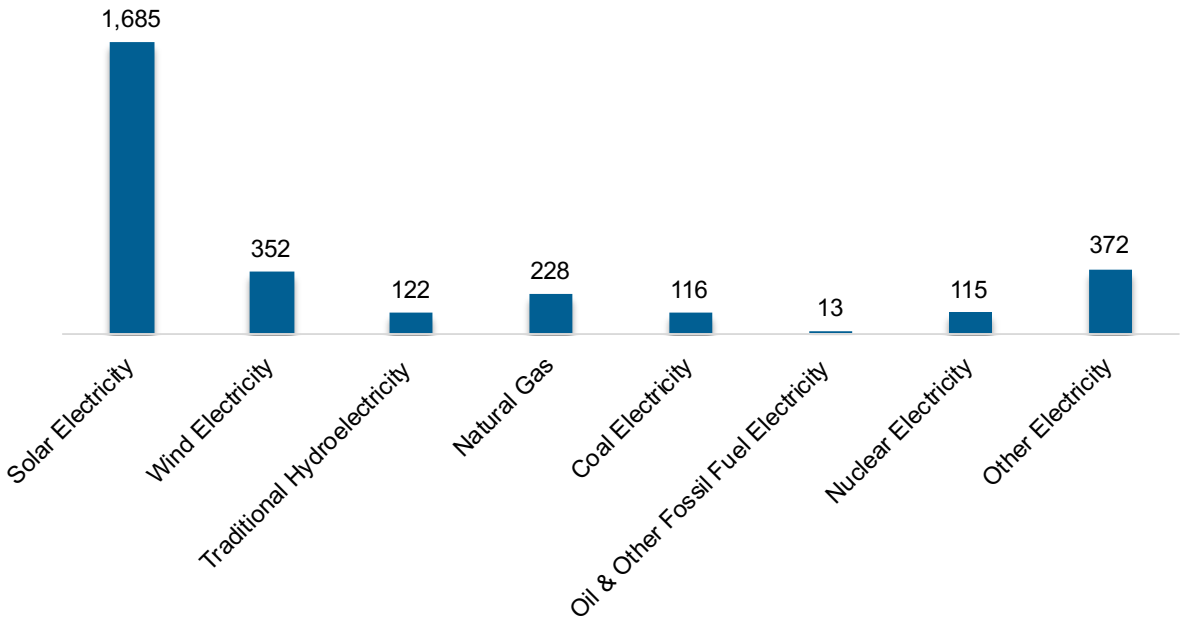


Breakdown by Technology Applications

Electric Power Generation

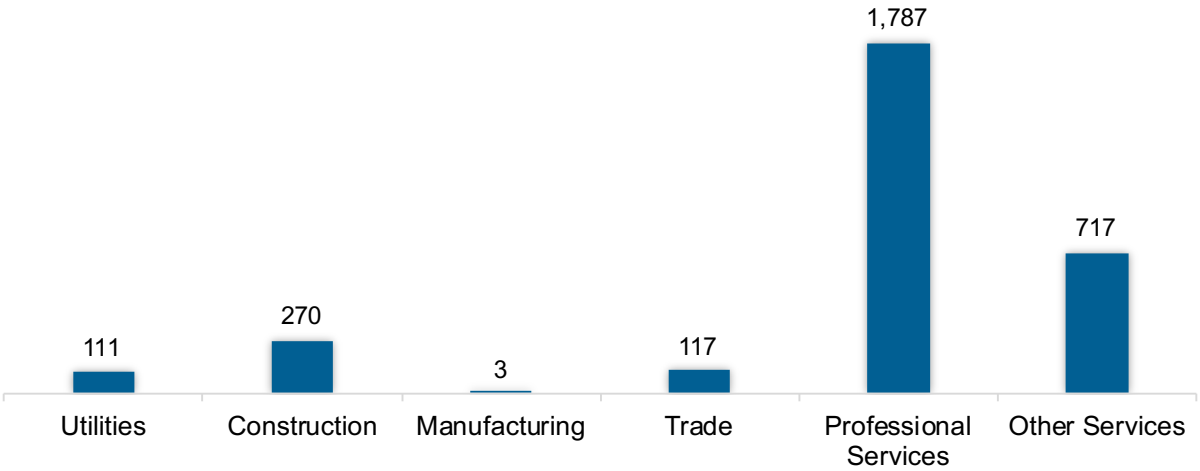
As shown in Figure DC-2, the electric power generation sector employed 3,003 workers in District of Columbia, 0.3% of the national electricity total, and added 291 jobs from 2021 to 2022 (10.7%).

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



Professional and business services was the largest industry sector in the electric power generation sector, with 59.5% of jobs. Other services second largest with 23.9% (Figure DC-3).

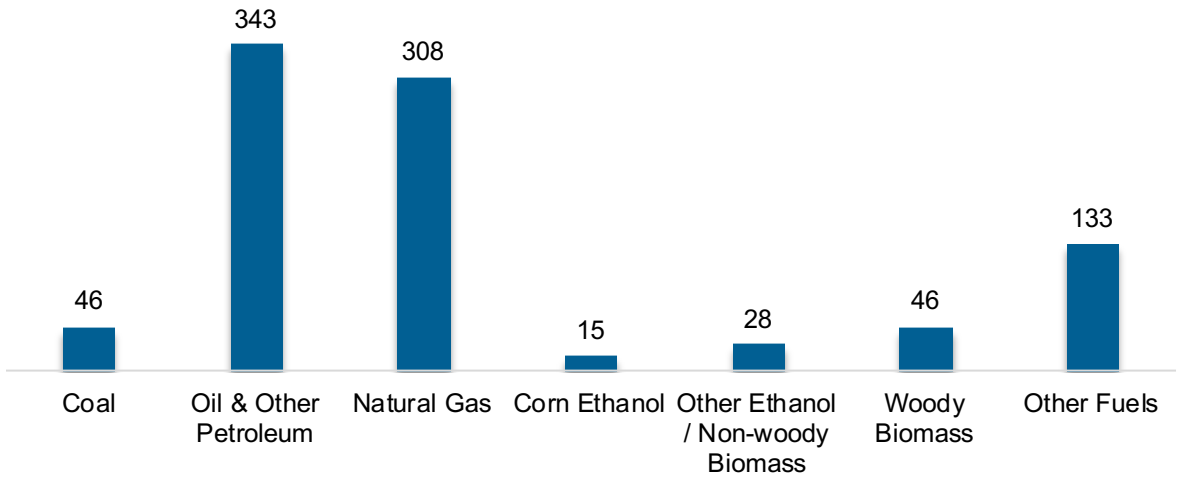
Figure DC-3. Electric Power Generation Employment by Industry Sector



Fuels

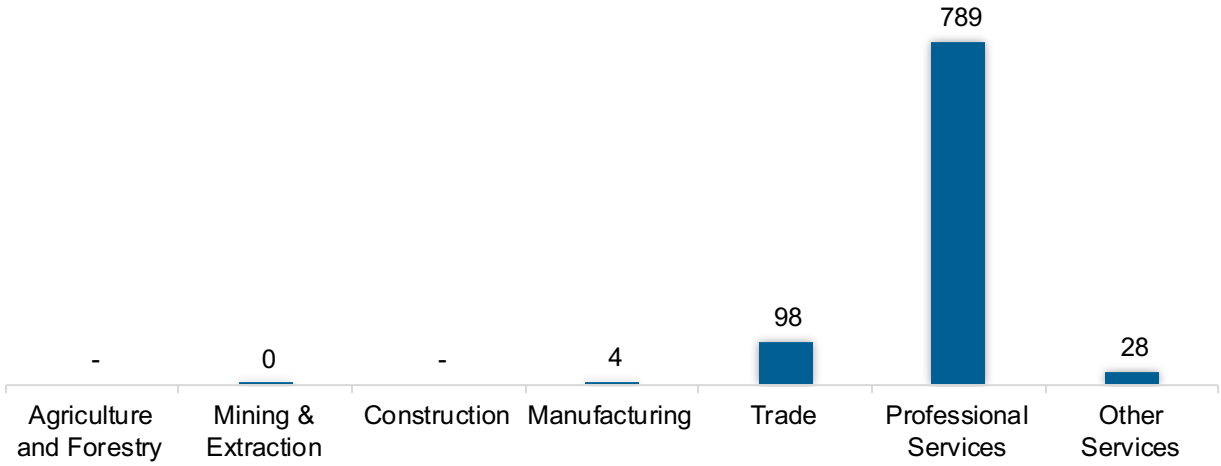
The Fuel sector employed 919 workers in District of Columbia, 0.1% of the national total in fuels (Figure DC-4). The sector gained 129 jobs and increased 16.3% from 2021 to 2022.

Figure DC-4. Fuels Employment by Detailed Technology Application



Professional and business services jobs represented 85.9% of fuel jobs in District of Columbia (Figure DC-5).

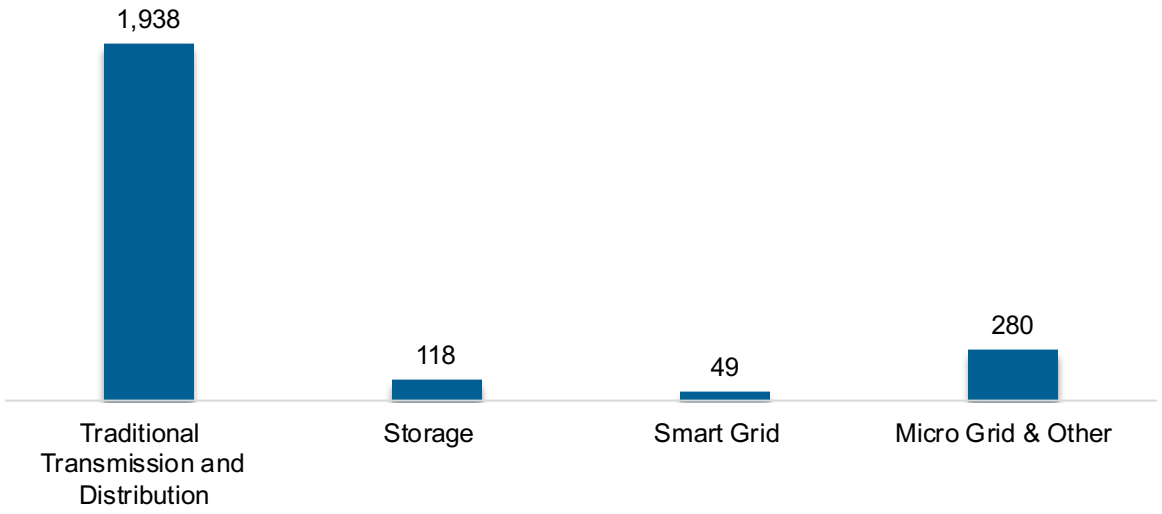
Figure DC-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

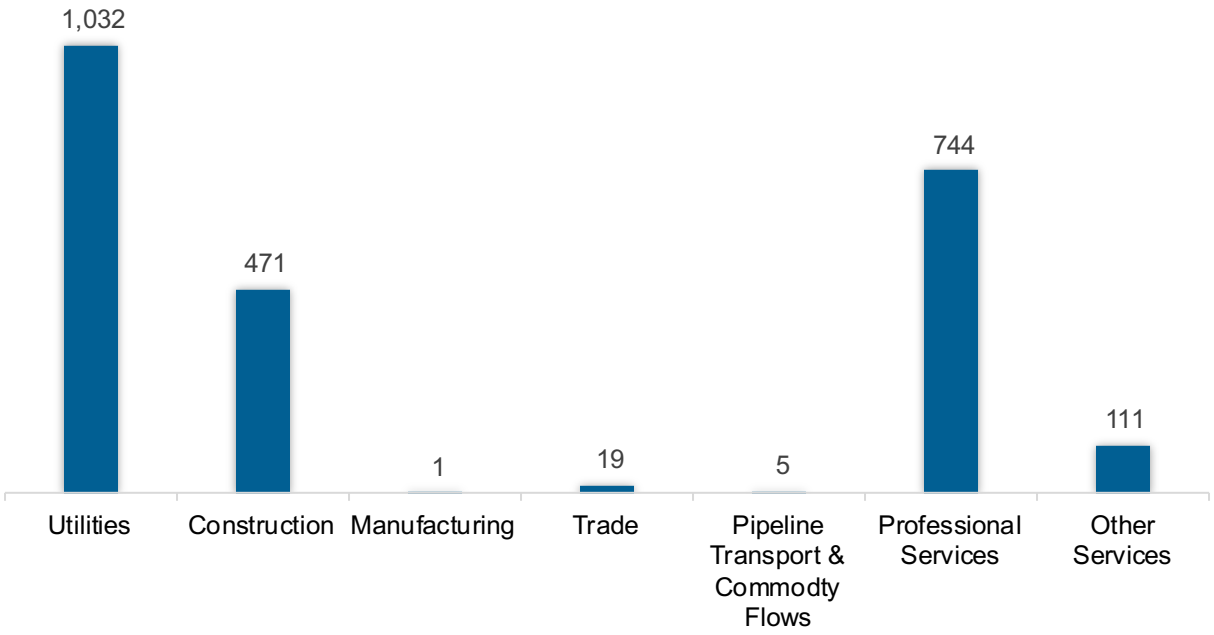
The transmission, distribution, and storage (TDS) sector employed 2,384 workers in District of Columbia, 0.1% of the national TDS total (Figure DC-6). The sector gained 92 jobs and increased 4.0% from 2021 to 2022.

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



Utilities was the largest proportion of TDS jobs in District of Columbia, accounting for 43.3% of the sector's jobs statewide (Figure DC-7).

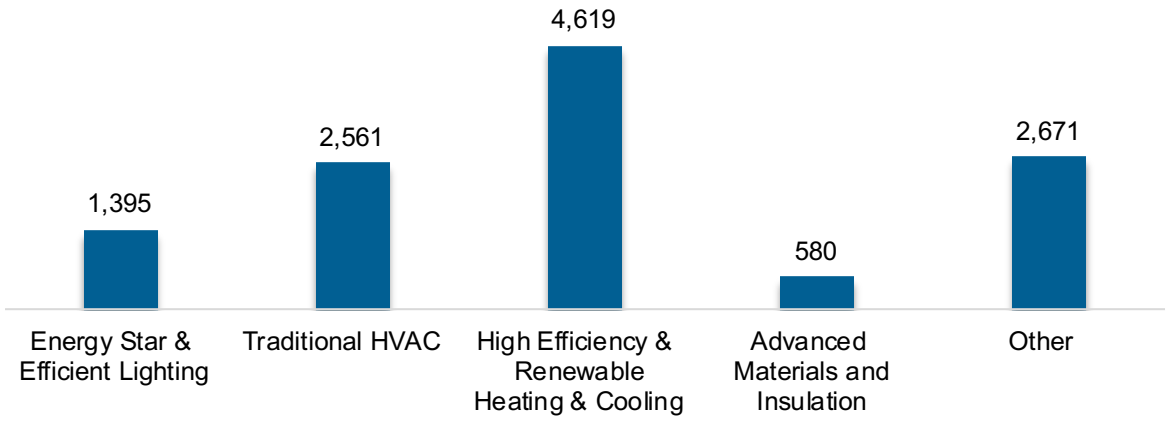
Figure DC-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

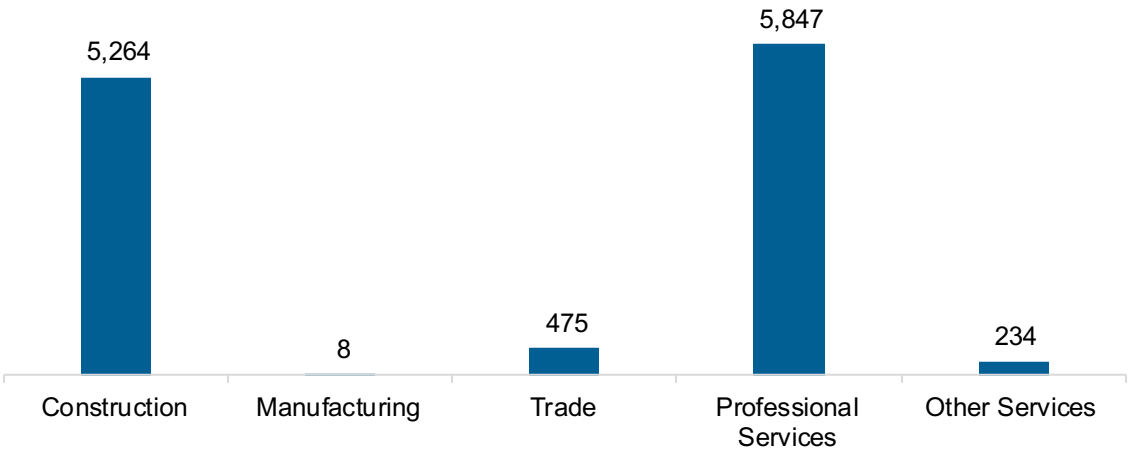
The energy efficiency (EE) sector employed 11,827 workers in District of Columbia, 0.5% of the national EE total. The EE sector added 326 jobs and increased 2.8% from 2021 to 2022 (Figure DC-8).

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



Energy efficiency employment was primarily found in the professional and business services industry (Figure DC-9).

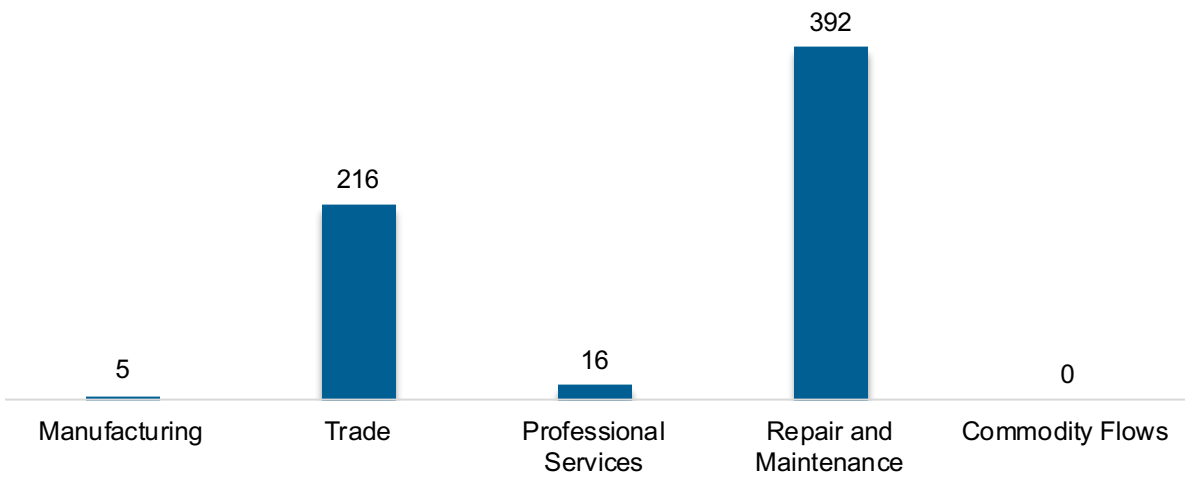
Figure DC-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 630 workers in District of Columbia, 0.0% of the national total for the sector. Motor vehicles and component parts added 14 jobs and increased 2.2% from 2021 to 2022. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure DC-10).

Figure DC-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 17,068 jobs in clean energy in District of Columbia if traditional transmission and distribution is included and 15,125 jobs if it is not.[9] These increased under either definition, growing 4.7% with traditional transmission and distribution and 5.1% without.

Employer Perspectives

Expected Growth

Employers in District of Columbia were less optimistic than their peers across the country about energy sector job growth over the next year (Table DC-1).

Table DC-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	4.6	6.0
Electric Power Transmission, Distribution, and Storage	3.5	3.9
Energy Efficiency	4.8	6.4
Fuels	2.4	1.6
Motor Vehicles	4.3	5.5

[9] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in District of Columbia reported 48% overall hiring difficulty (Table DC-2).

Table DC-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	20	28	8	43	48

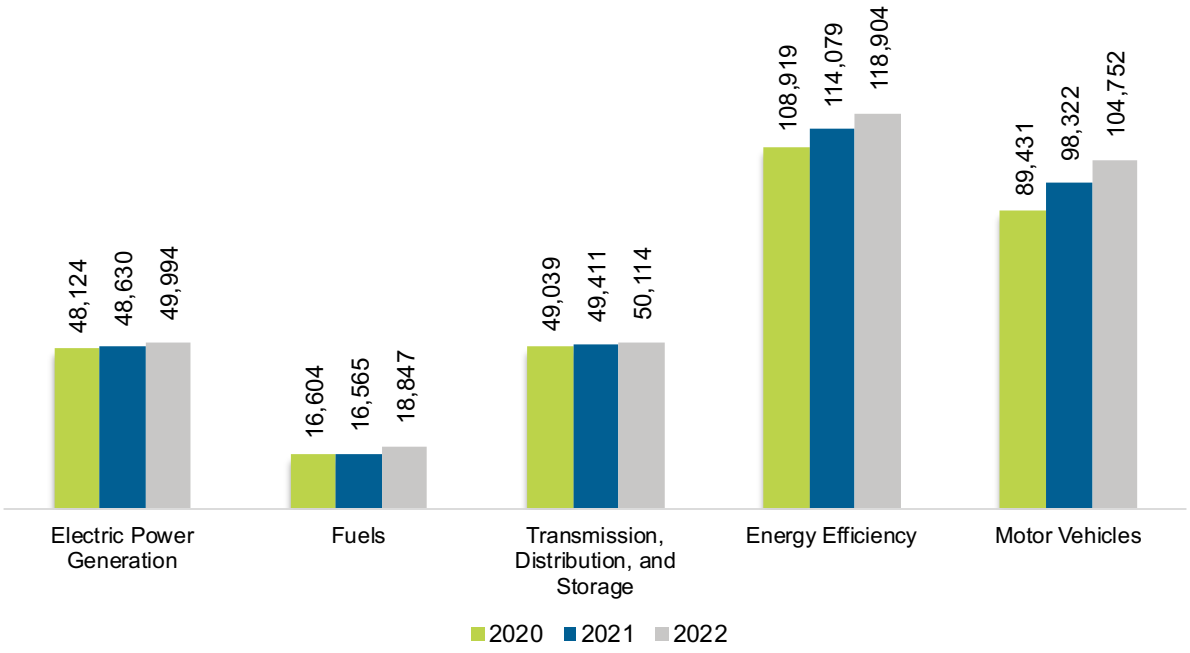
Florida

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

Florida had 342,611 energy workers statewide in 2022, representing 4.2% of all U.S. energy jobs. Of these energy jobs, 49,994 were in electric power generation; 18,847 in fuels; 50,114 in transmission, distribution, and storage; 118,904 in energy efficiency; and 104,752 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 15,605 jobs, or 4.8% (Figure FL-1). The energy sector in Florida represented 3.6% of total state employment.

Figure FL-1. Employment by Major Energy Technology Application

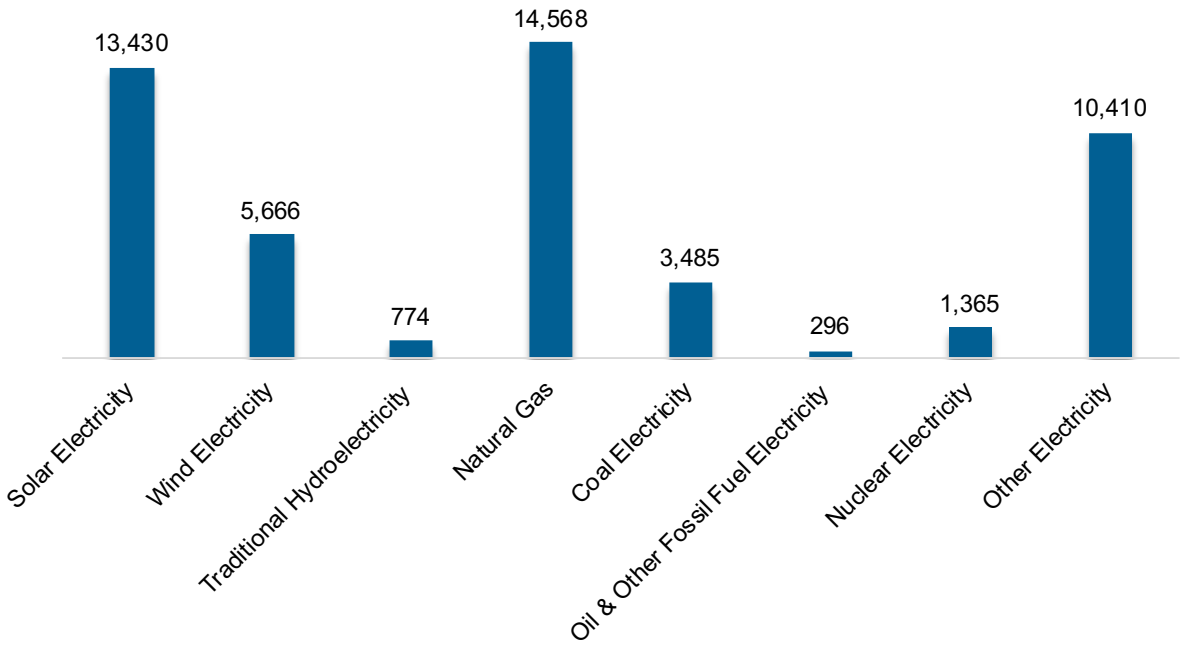


Breakdown by Technology Applications

Electric Power Generation

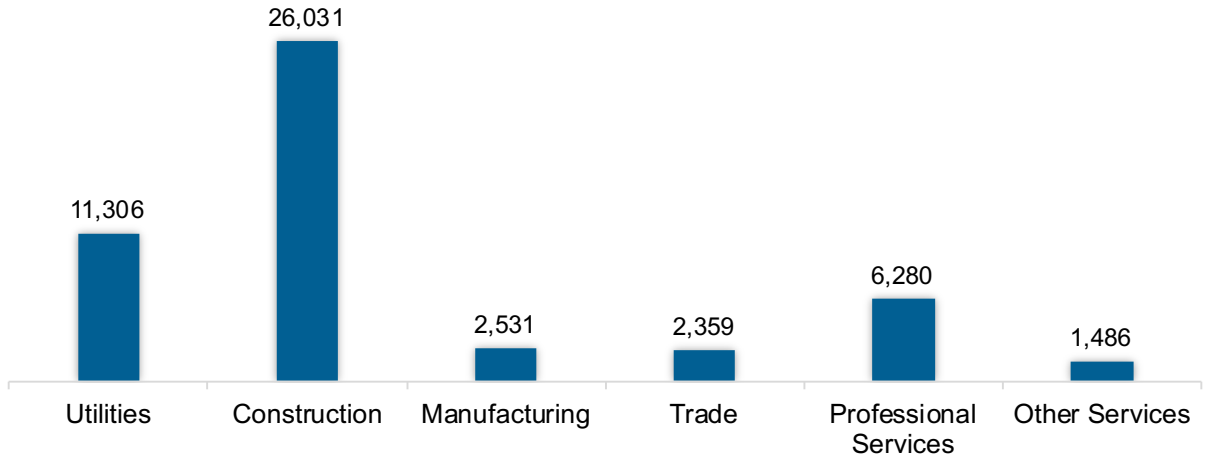
As shown in Figure FL-2, the electric power generation sector employed 49,994 workers in Florida, 5.7% of the national electricity total, and added 1,363 jobs from 2021 to 2022 (2.8%).

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



Construction was the largest industry sector in the electric power generation sector, with 52.1% of jobs. Utilities was second largest with 22.6% (Figure FL-3).

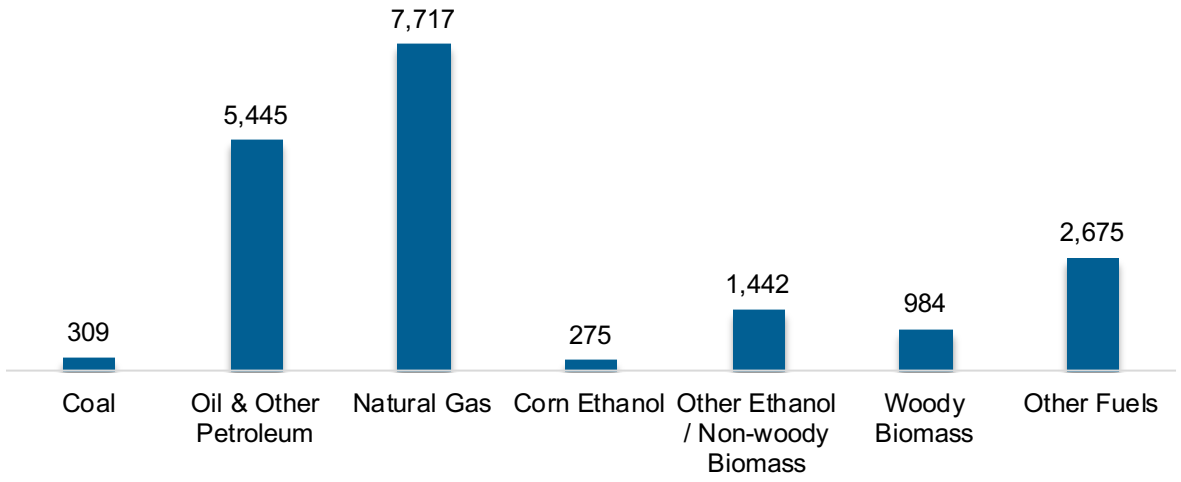
Figure FL-3. Electric Power Generation Employment by Industry Sector



Fuels

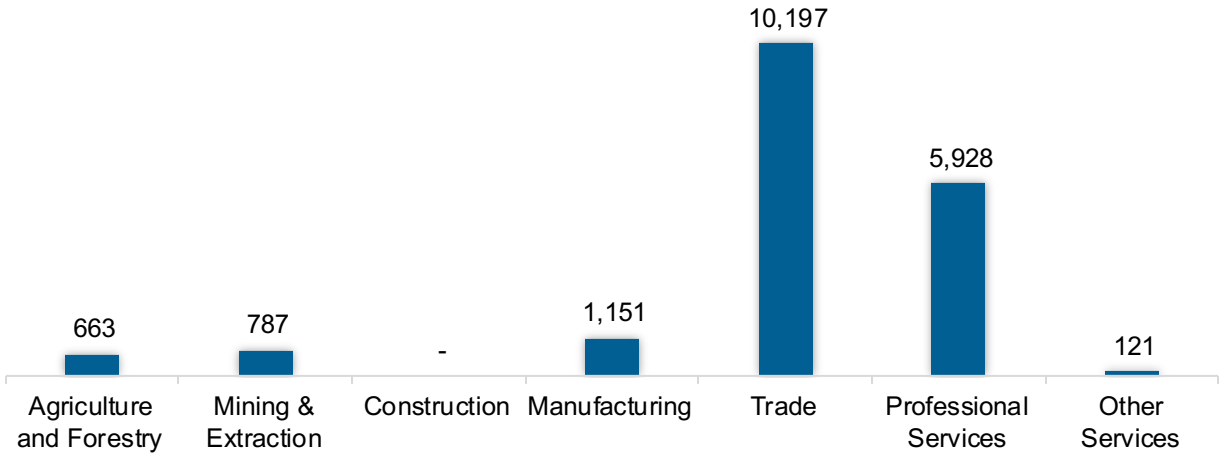
The Fuel sector employed 18,847 workers in Florida, 1.8% of the national total in fuels (Figure FL-4). The sector gained 2,283 jobs and increased 13.8% from 2021 to 2022.

Figure FL-4. Fuels Employment by Detailed Technology Application



Wholesale trade jobs represented 54.1% of fuel jobs in Florida (Figure FL-5).

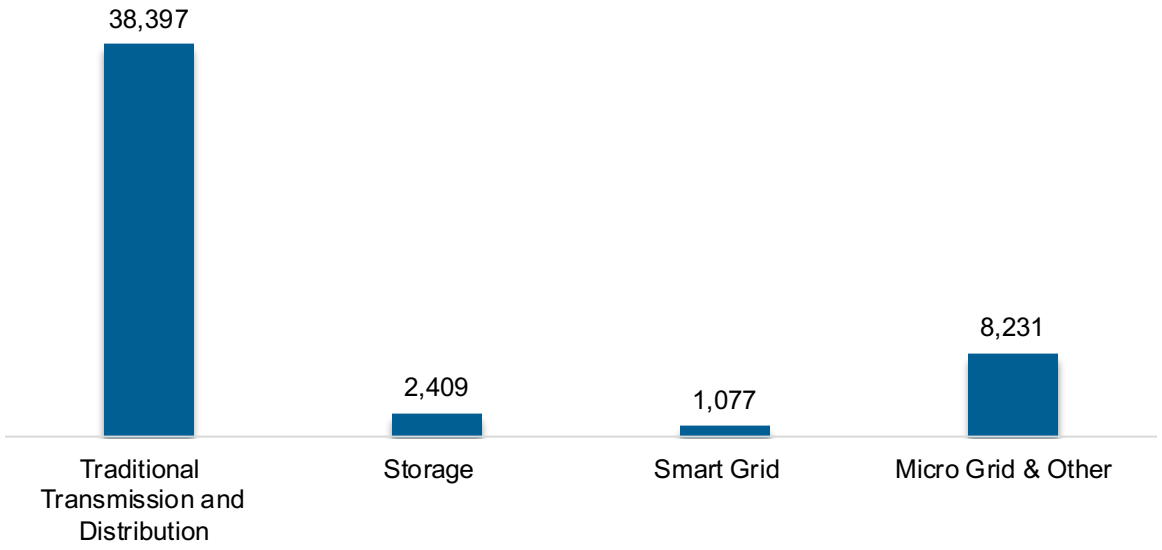
Figure FL-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

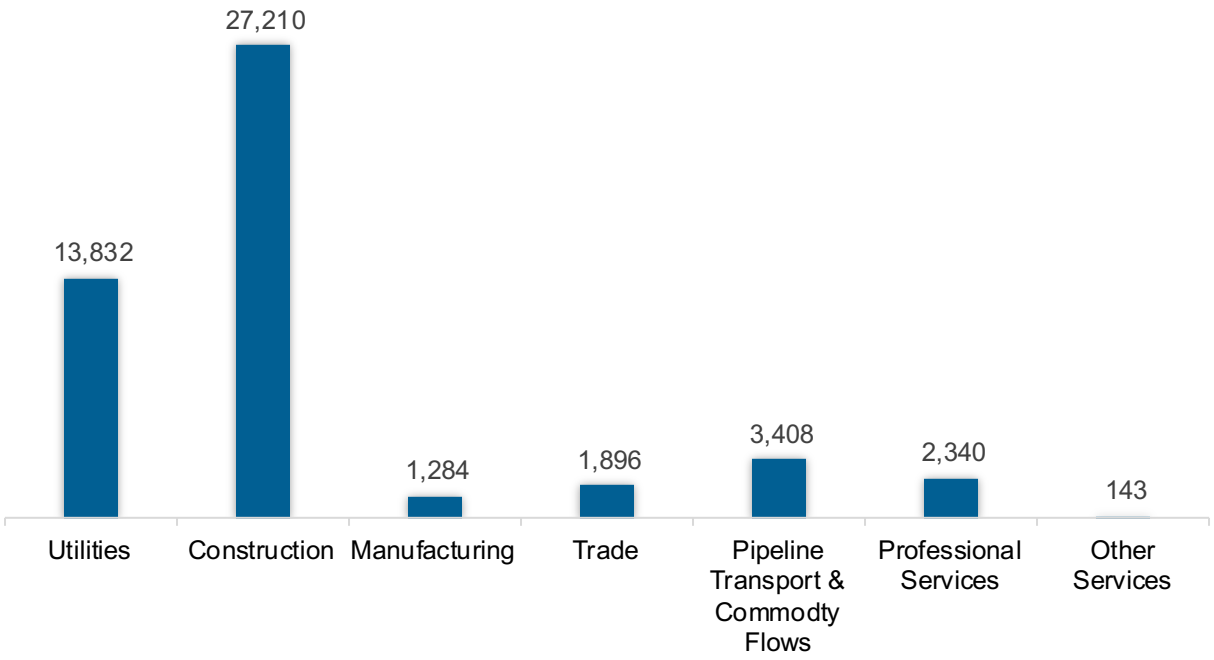
The transmission, distribution, and storage (TDS) sector employed 50,114 workers in Florida, 1.8% of the national TDS total (Figure FL-6). The sector gained 703 jobs and increased 1.4% from 2021 to 2022.

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



Construction was the largest proportion of TDS jobs in Florida, accounting for 54.3% of the sector's jobs statewide (Figure FL-7).

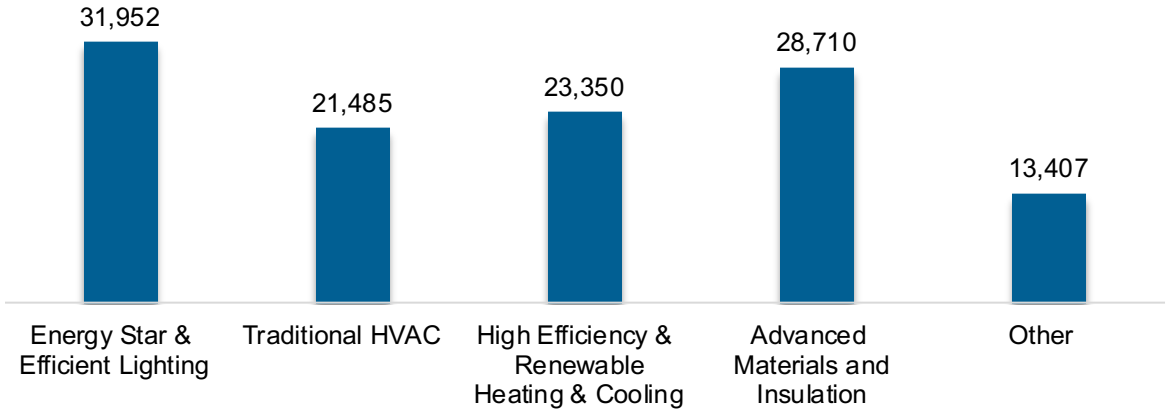
Figure FL-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

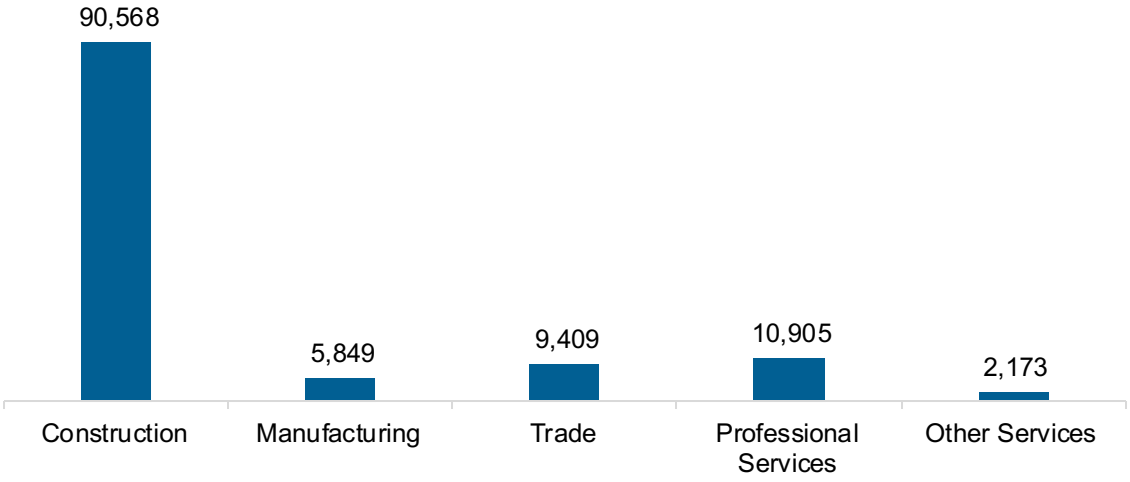
The energy efficiency (EE) sector employed 118,904 workers in Florida, 5.4% of the national EE total. The EE sector added 4,825 jobs and increased 4.2% from 2021 to 2022 (Figure FL-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure FL-9).

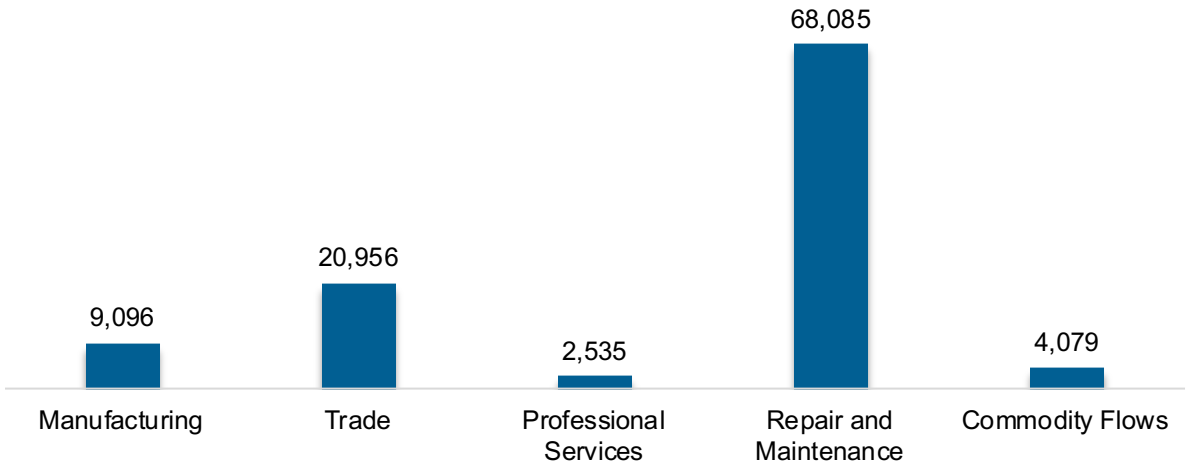
Figure FL-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 104,752 workers in Florida, 4.0% of the national total for the sector. Motor vehicles and component parts added 6,430 jobs and increased 6.5% from 2021 to 2022. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure FL-10).

Figure FL-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 202,556 jobs in clean energy in Florida if traditional transmission and distribution is included and 164,037 jobs if it is not.[10] These increased under either definition, growing 3.9% with traditional transmission and distribution and 4.8% without.

Employer Perspectives

Expected Growth

Employers in Florida were more optimistic than their peers across the country about energy sector job growth over the next year (Table FL-1).

Table FL-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	7.3	6.0
Electric Power Transmission, Distribution, and Storage	6.3	3.9
Energy Efficiency	7.5	6.4
Fuels	5.1	1.6
Motor Vehicles	7.1	5.5

[10] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in Florida reported 50% overall hiring difficulty (Table FL-2).

Table FL-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	24	26	7	43	50

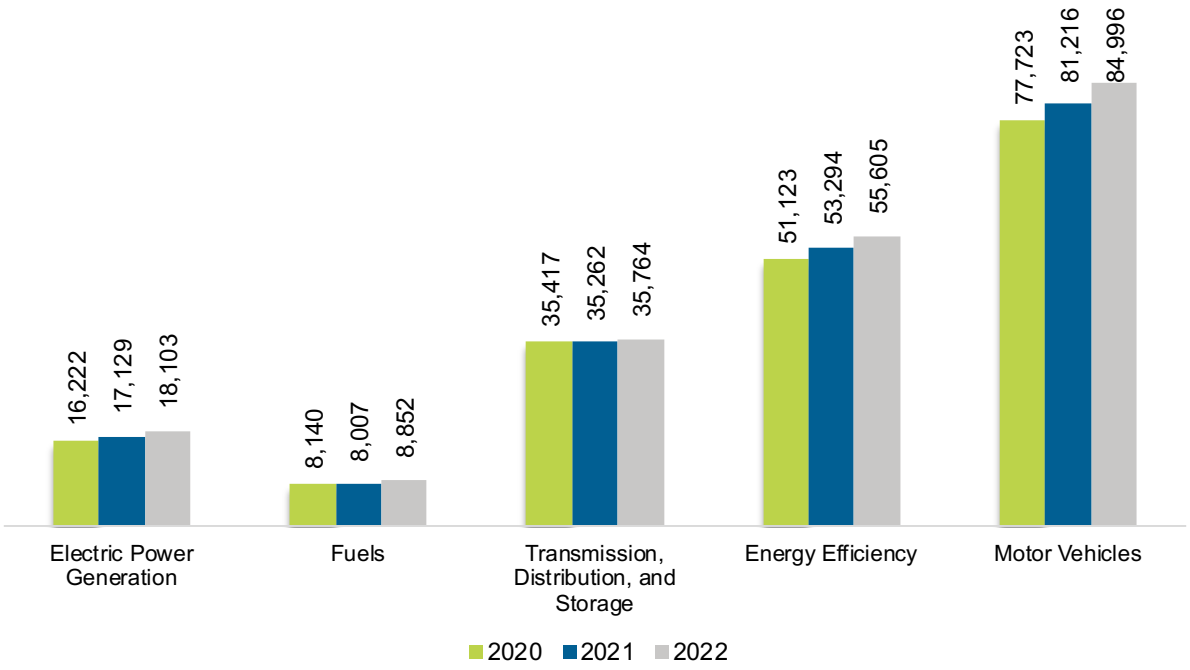
Georgia

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

Georgia had 203,319 energy workers statewide in 2022, representing 2.5% of all U.S. energy jobs. Of these energy jobs, 18,103 were in electric power generation; 8,852 in fuels; 35,764 in transmission, distribution, and storage; 55,605 in energy efficiency; and 84,996 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 8,412 jobs, or 4.3% (Figure GA-1). The energy sector in Georgia represented 4.3% of total state employment.

Figure GA-1. Employment by Major Energy Technology Application

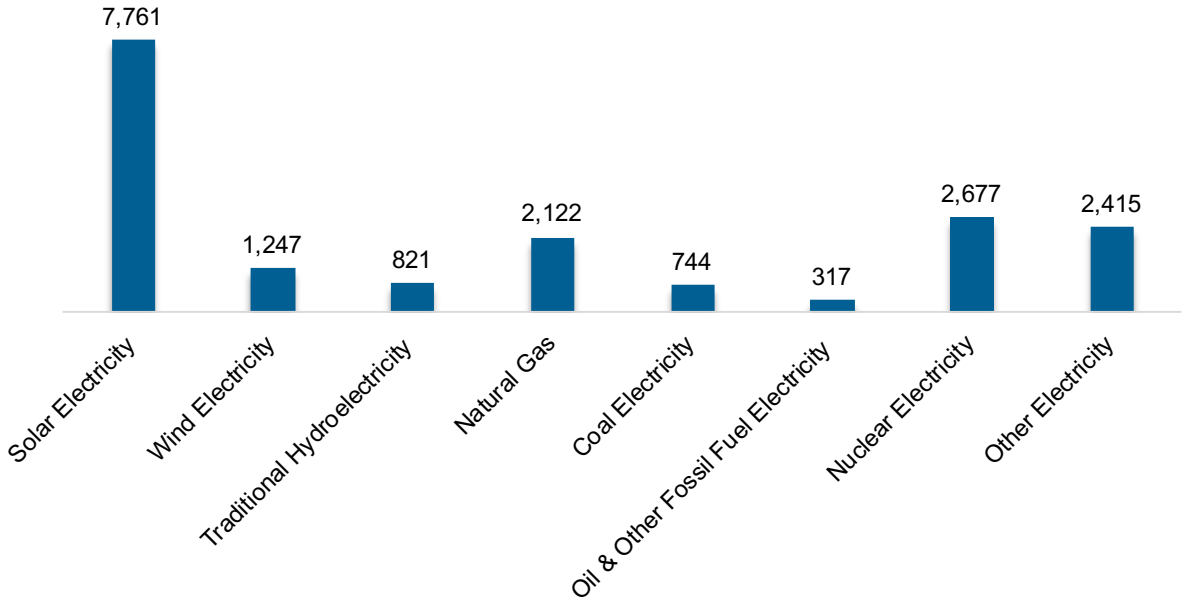


Breakdown by Technology Applications

Electric Power Generation

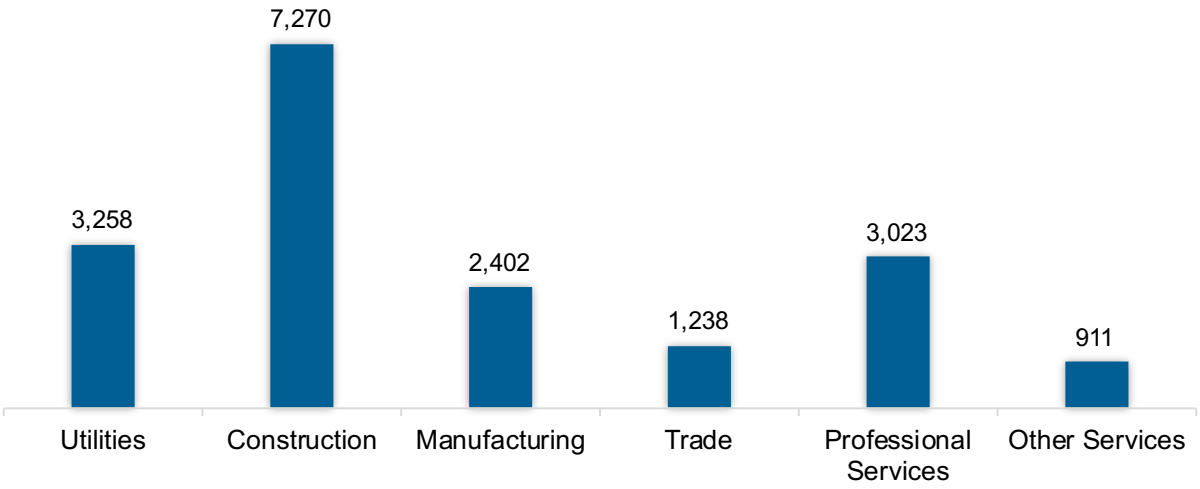
As shown in Figure GA-2, the electric power generation sector employed 18,103 workers in Georgia, 2.0% of the national electricity total, and added 974 jobs from 2021 to 2022 (5.7%).

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



Construction was the largest industry sector in the electric power generation sector, with 40.2% of jobs. Utilities was second largest with 18.0% (Figure GA-3).

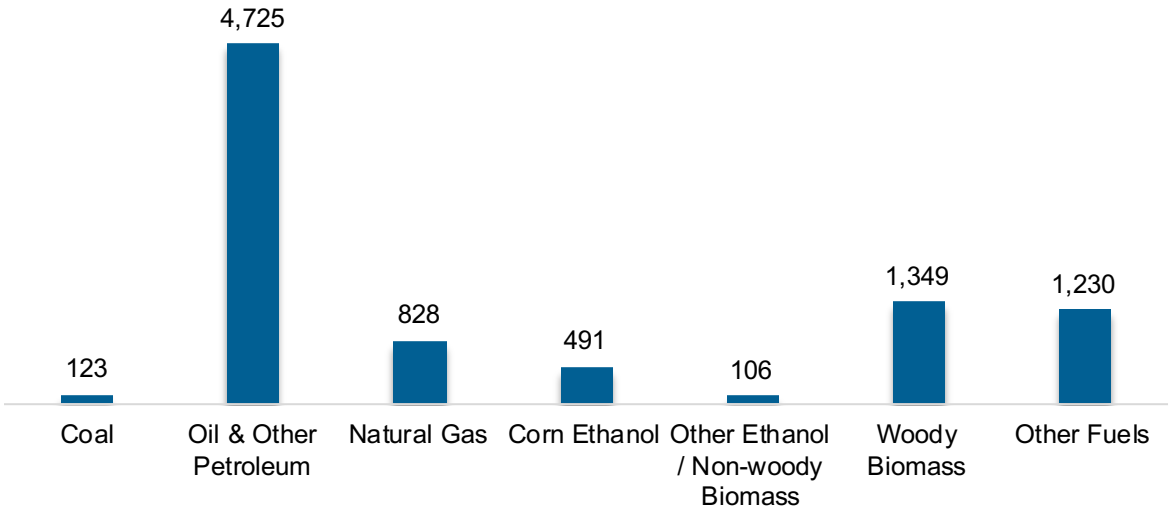
Figure GA-3. Electric Power Generation Employment by Industry Sector



Fuels

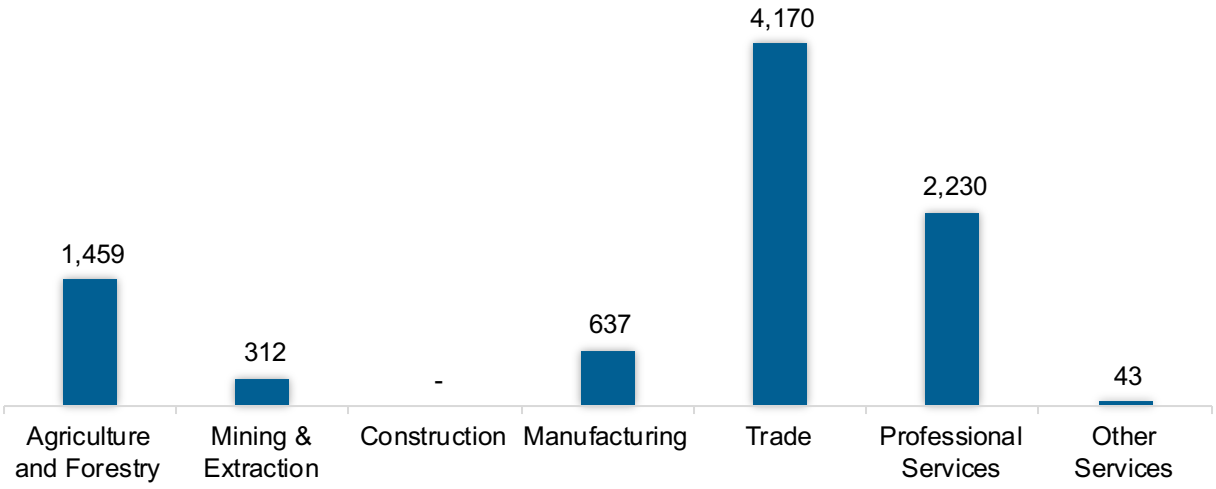
The Fuel sector employed 8,852 workers in Georgia, 0.9% of the national total in fuels (Figure GA-4). The sector gained 845 jobs and increased 10.6% from 2021 to 2022.

Figure GA-4. Fuels Employment by Detailed Technology Application



Wholesale trade jobs represented 47.1% of fuel jobs in Georgia (Figure GA-5).

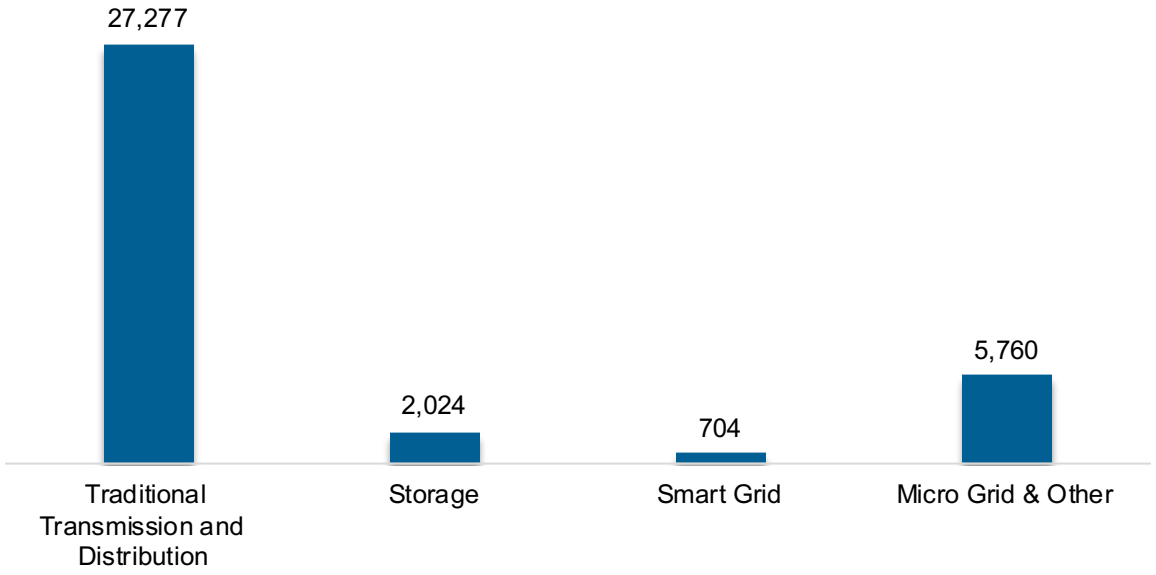
Figure GA-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

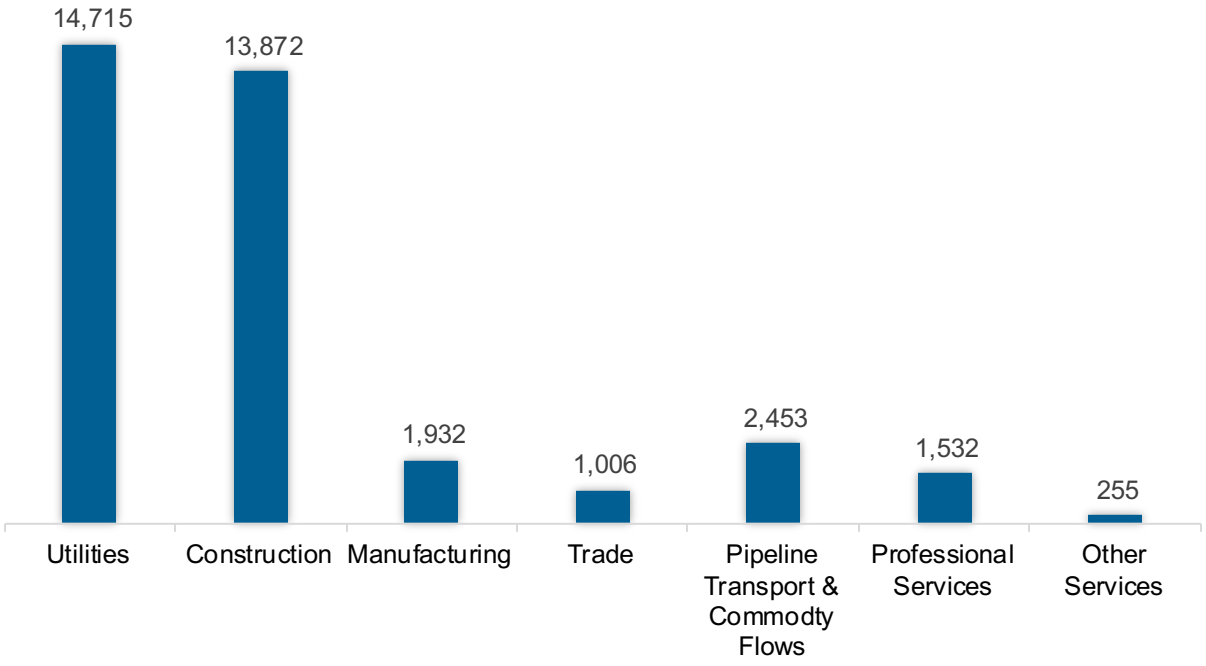
The transmission, distribution, and storage (TDS) sector employed 35,764 workers in Georgia, 0.9% of the national TDS total (Figure GA-6). The sector gained 503 jobs and increased 1.4% from 2021 to 2022.

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



Utilities was the largest proportion of TDS jobs in Georgia, accounting for 41.1% of the sector's jobs statewide (Figure GA-7).

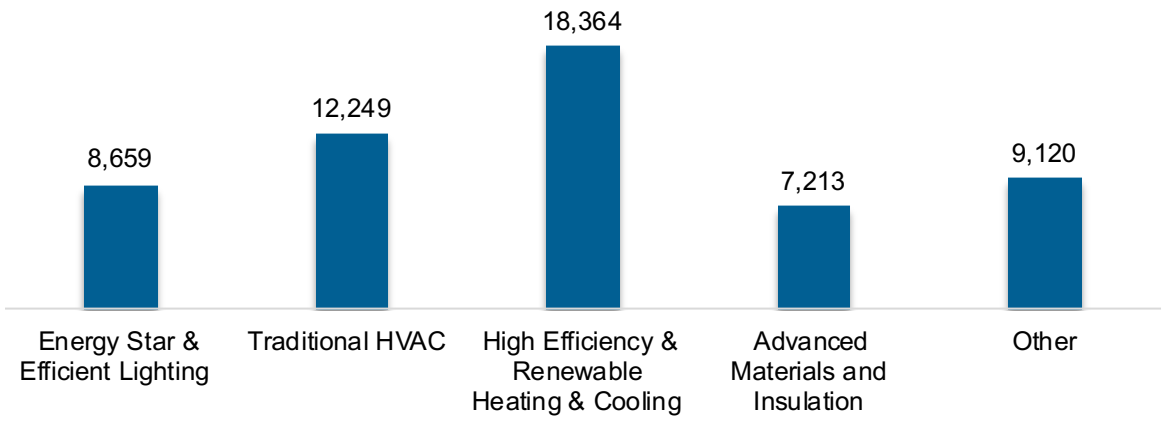
Figure GA-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

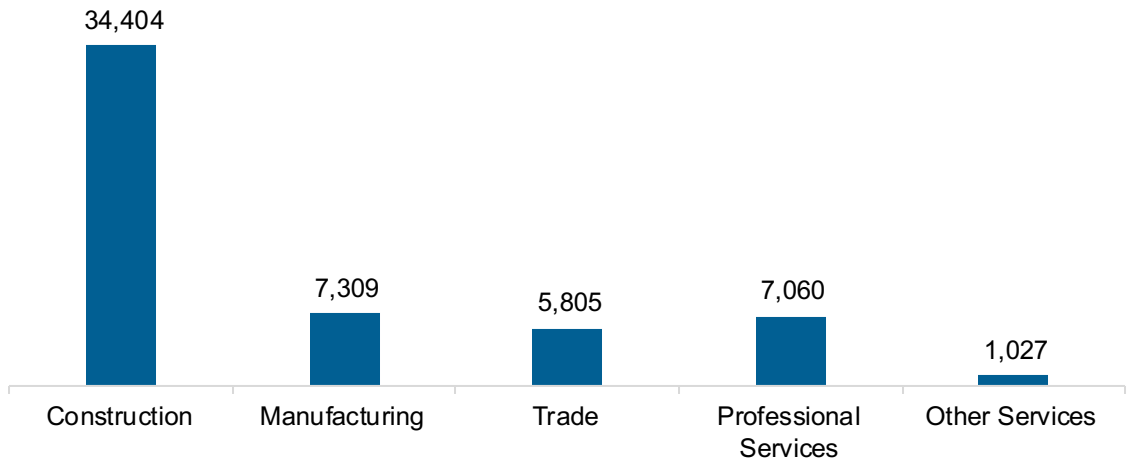
The energy efficiency (EE) sector employed 55,605 workers in Georgia, 2.5% of the national EE total. The EE sector added 2,310 jobs and increased 4.3% from 2021 to 2022 (Figure GA-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure GA-9).

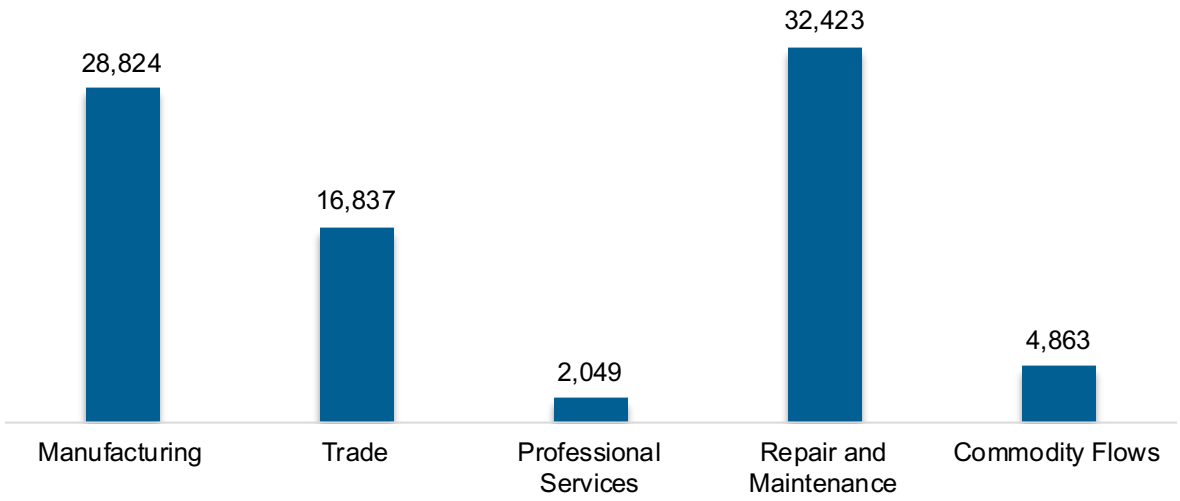
Figure GA-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 84,996 workers in Georgia, 3.2% of the national total for the sector. Motor vehicles and component parts added 3,779 jobs and increased 4.7% from 2021 to 2022. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure GA-10).

Figure GA-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 108,089 jobs in clean energy in Georgia if traditional transmission and distribution is included and 80,710 jobs if it is not.[11] These increased under either definition, growing 3.9% with traditional transmission and distribution and 5.0% without.

Employer Perspectives

Expected Growth

Employers in Georgia were more optimistic than their peers across the country about energy sector job growth over the next year (Table GA-1).

Table GA-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	6.3	6.0
Electric Power Transmission, Distribution, and Storage	5.2	3.9
Energy Efficiency	6.5	6.4
Fuels	4.1	1.6
Motor Vehicles	6.0	5.5

[11] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in Georgia reported 55% overall hiring difficulty (Table GA-2).

Table GA-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	28	27	5	39	55

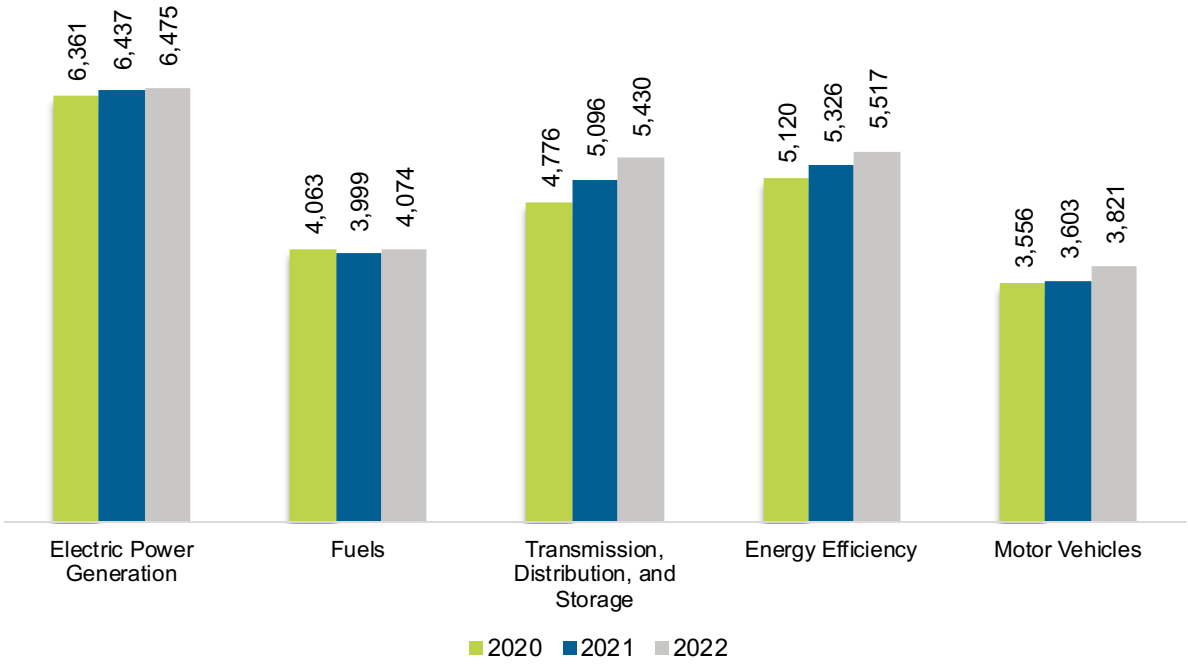
Hawaii

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

Hawaii had 25,316 energy workers statewide in 2022, representing 0.3% of all U.S. energy jobs. Of these energy jobs, 6,475 were in electric power generation; 4,074 in fuels; 5,430 in transmission, distribution, and storage; 5,517 in energy efficiency; and 3,821 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 856 jobs, or 3.5% (Figure HI-1). The energy sector in Hawaii represented 4.1% of total state employment.

Figure HI-1. Employment by Major Energy Technology Application

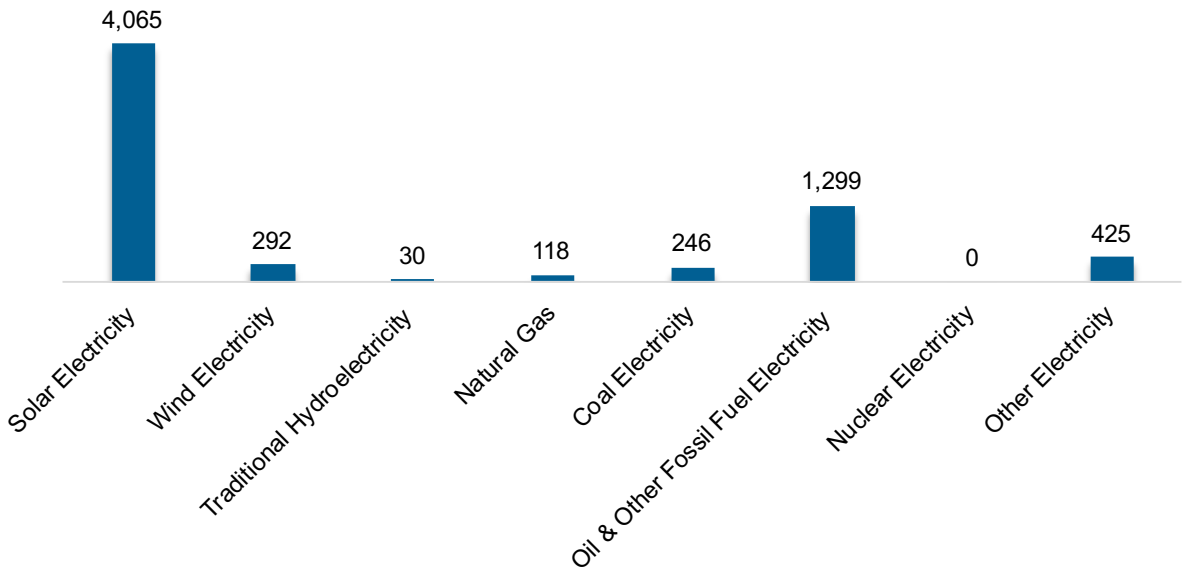


Breakdown by Technology Applications

Electric Power Generation

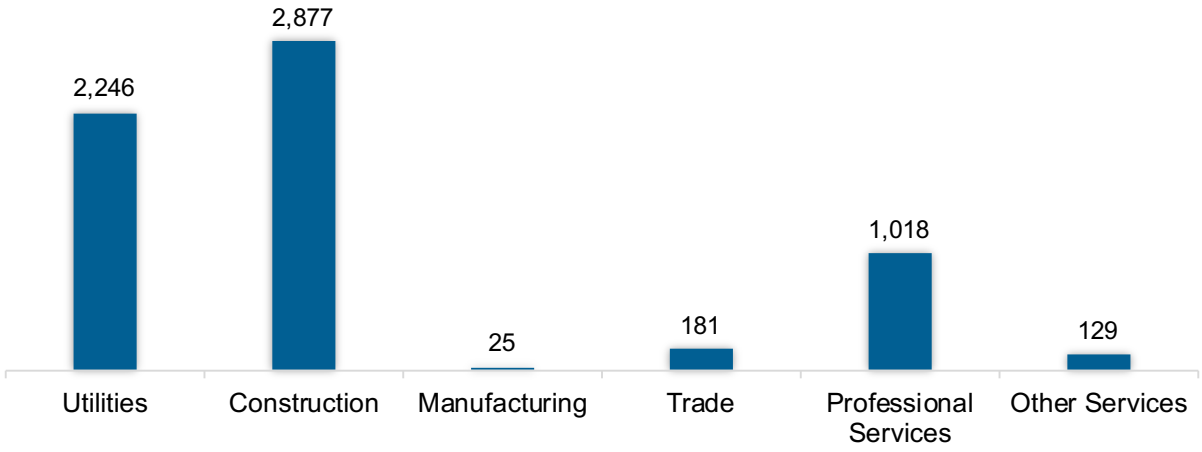
As shown in Figure HI-2, the electric power generation sector employed 6,475 workers in Hawaii, 0.7% of the national electricity total, and added 38 jobs from 2021 to 2022 (0.6%).

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



Construction was the largest industry sector in the electric power generation sector, with 44.4% of jobs. Utilities was second largest with 34.7% (Figure HI-3).

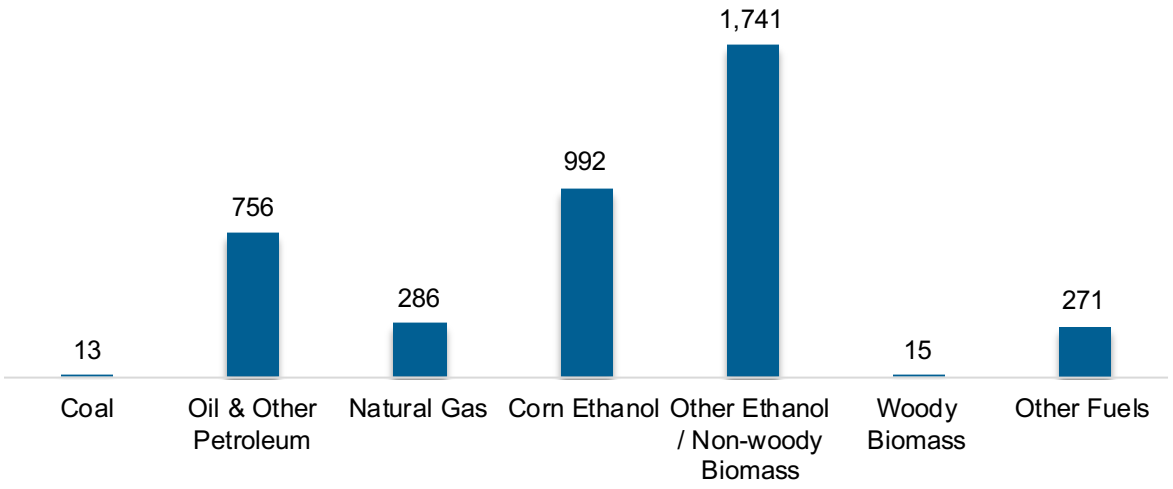
Figure HI-3. Electric Power Generation Employment by Industry Sector



Fuels

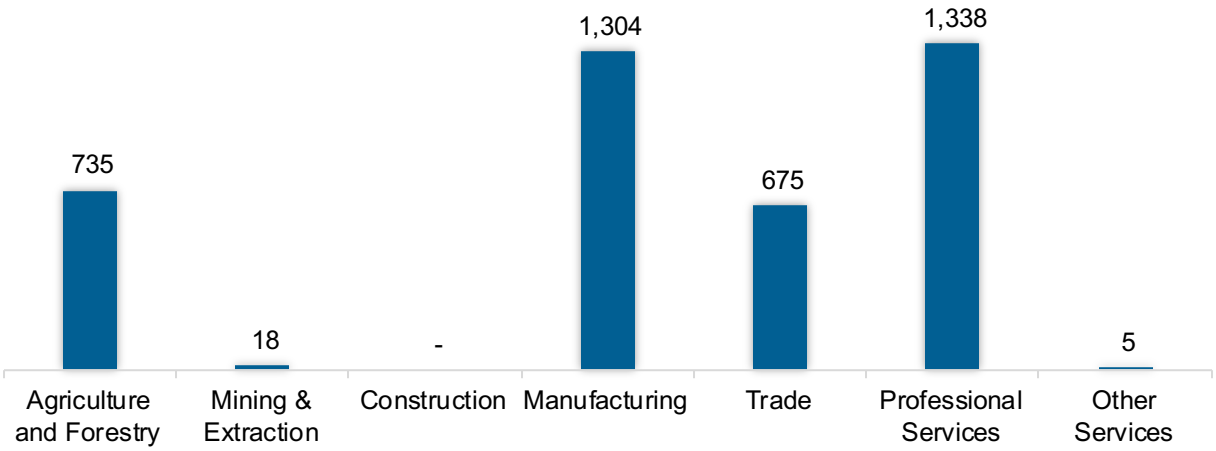
The Fuel sector employed 4,074 workers in Hawaii, 0.4% of the national total in fuels (Figure HI-4). The sector gained 75 jobs and increased 1.9% from 2021 to 2022.

Figure HI-4. Fuels Employment by Detailed Technology Application



Professional and business services jobs represented 32.8% of fuel jobs in Hawaii (Figure HI-5).

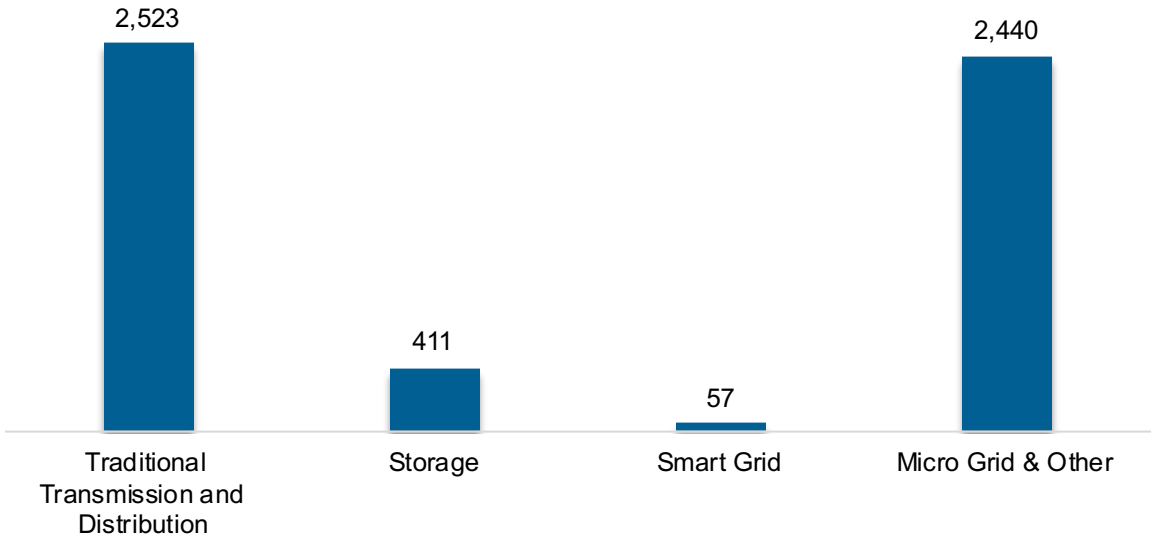
Figure HI-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

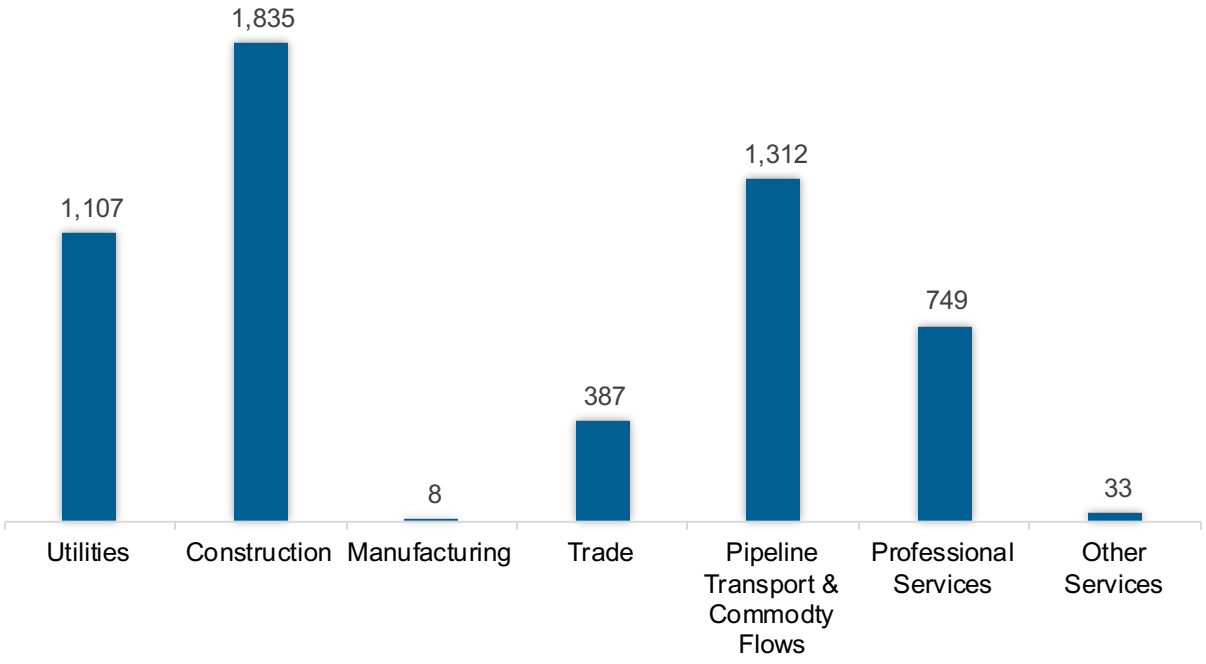
The transmission, distribution, and storage (TDS) sector employed 5,430 workers in Hawaii, 0.4% of the national TDS total (Figure HI-6). The sector gained 334 jobs and increased 6.6% from 2021 to 2022.

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



Construction was the largest proportion of TDS jobs in Hawaii, accounting for 33.8% of the sector's jobs statewide (Figure HI-7).

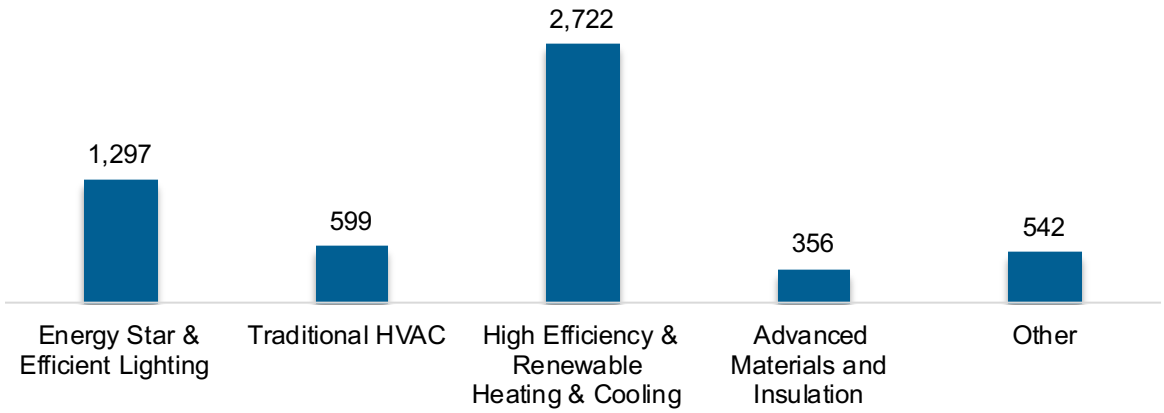
Figure HI-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

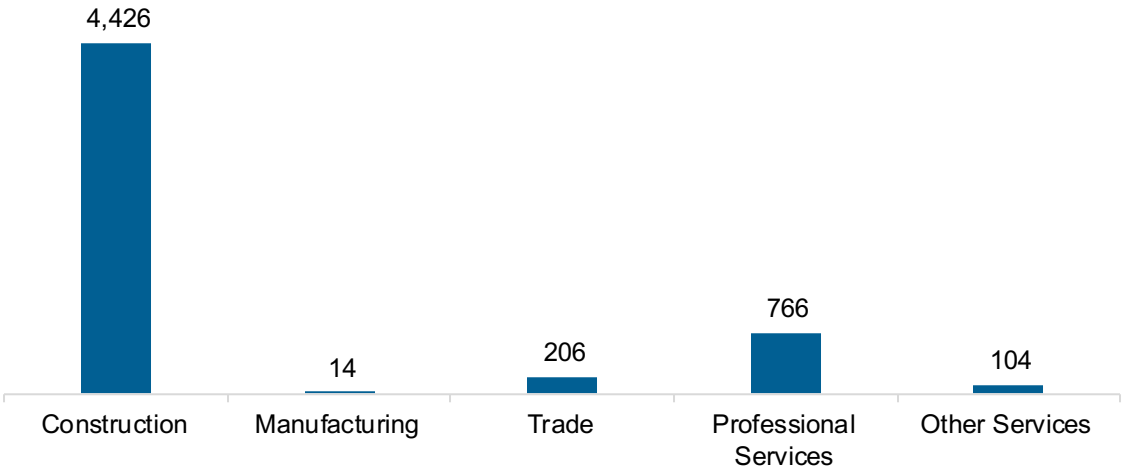
The energy efficiency (EE) sector employed 5,517 workers in Hawaii, 0.2% of the national EE total. The EE sector added 191 jobs and increased 3.6% from 2021 to 2022 (Figure HI-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure HI-9).

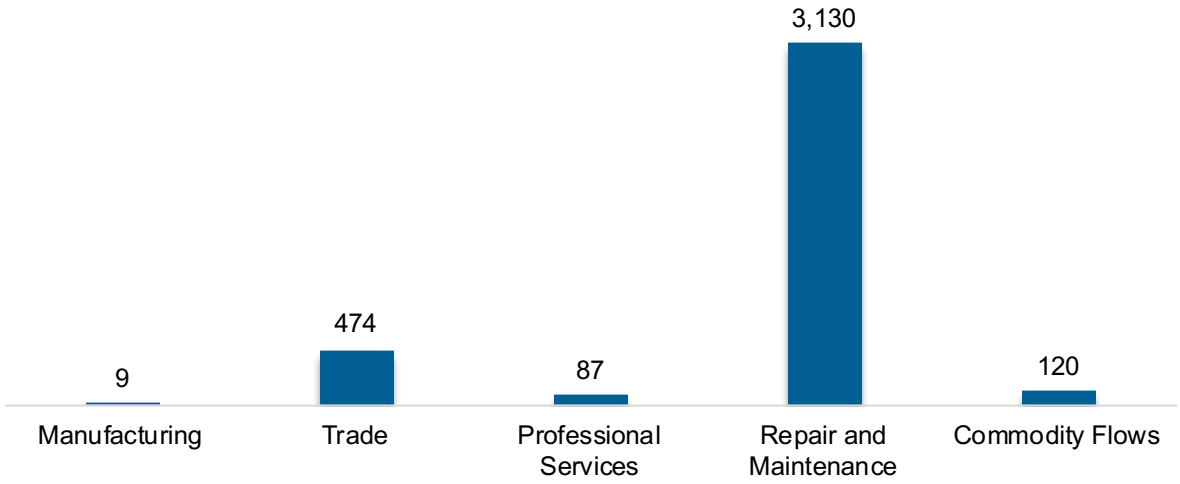
Figure HI-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 3,821 workers in Hawaii, 0.1% of the national total for the sector. Motor vehicles and component parts added 217 jobs and increased 6.0% from 2021 to 2022. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure HI-10).

Figure HI-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 16,468 jobs in clean energy in Hawaii if traditional transmission and distribution is included and 13,924 jobs if it is not.[12] These increased under either definition, growing 3.2% with traditional transmission and distribution and 1.7% without.

Employer Perspectives

Expected Growth

Employers in Hawaii are similarly optimistic than their peers across the country about energy sector job growth over the next year (Table HI-1).

Table HI-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	5.3	6.0
Electric Power Transmission, Distribution, and Storage	4.2	3.9
Energy Efficiency	5.5	6.4
Fuels	3.1	1.6
Motor Vehicles	5.0	5.5

[12] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in Hawaii reported 61% overall hiring difficulty (Table HI-2).

Table HI-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	33	28	4	34	61

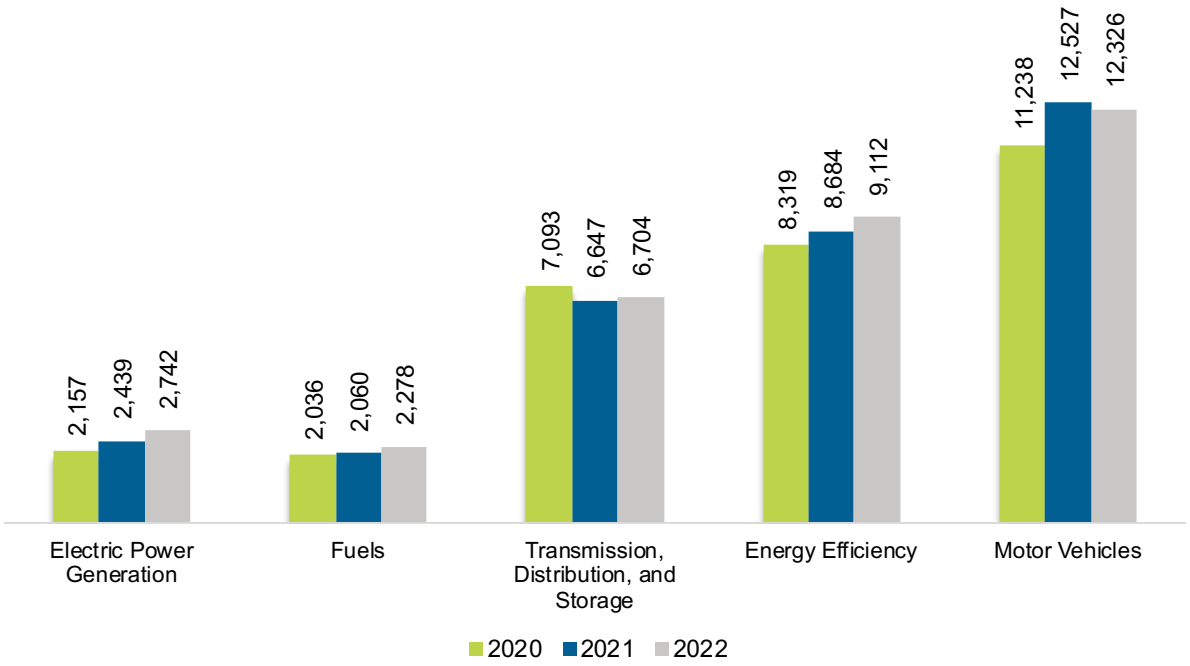
Idaho

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

Idaho had 33,162 energy workers statewide in 2022, representing 0.4% of all U.S. energy jobs. Of these energy jobs, 2,742 were in electric power generation; 2,278 in fuels; 6,704 in transmission, distribution, and storage; 9,112 in energy efficiency; and 12,326 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 806 jobs, or 2.5% (Figure ID-1). The energy sector in Idaho represented 4.0% of total state employment.

Figure ID-1. Employment by Major Energy Technology Application

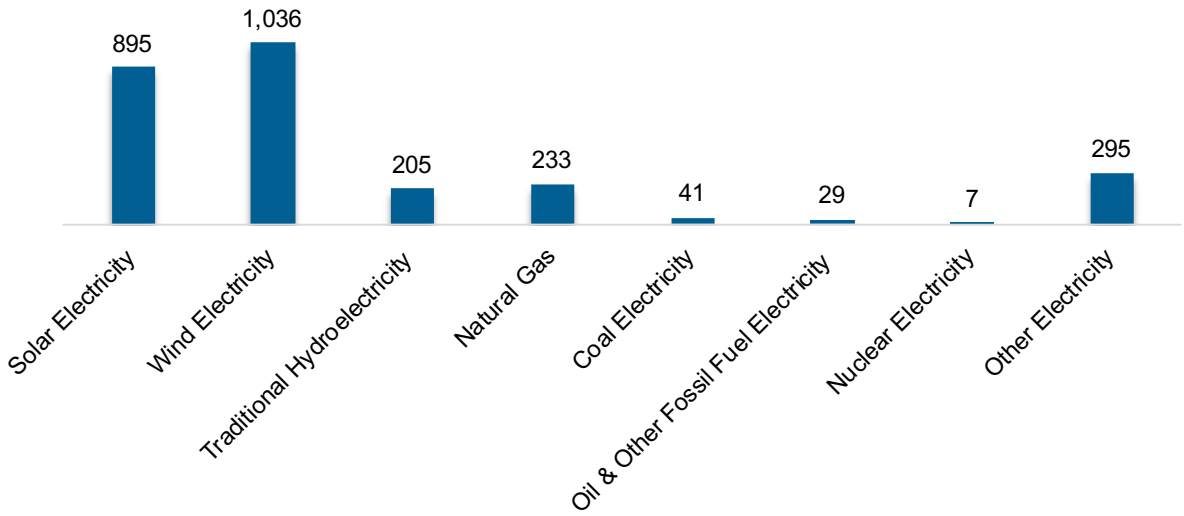


Breakdown by Technology Applications

Electric Power Generation

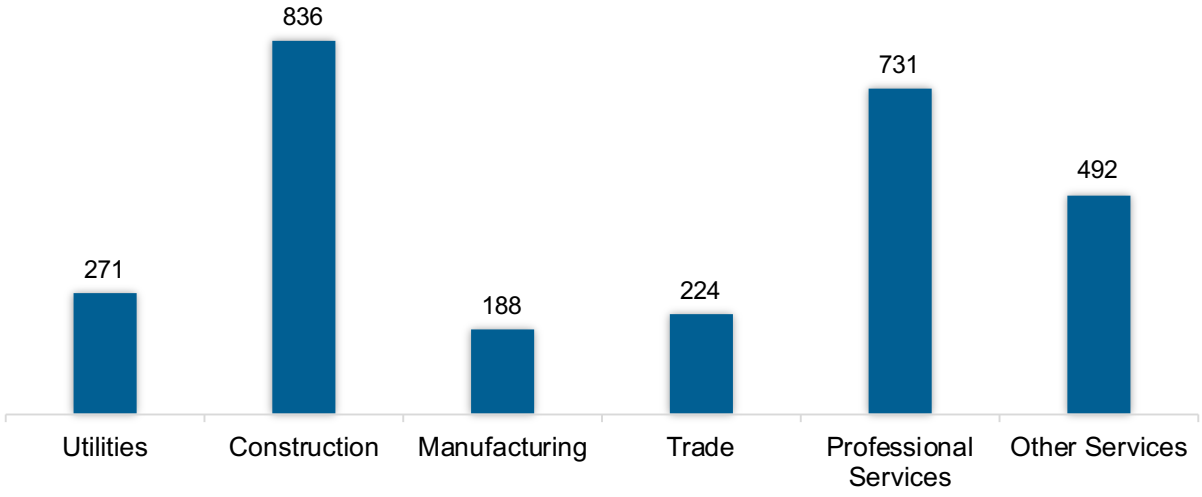
As shown in Figure ID-2, the electric power generation sector employed 2,742 workers in Idaho, 0.3% of the national electricity total, and added 303 jobs from 2021 to 2022 (12.4%).

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



Construction was the largest industry sector in the electric power generation sector, with 30.5% of jobs. Professional and business services was second largest with 26.7% (Figure ID-3).

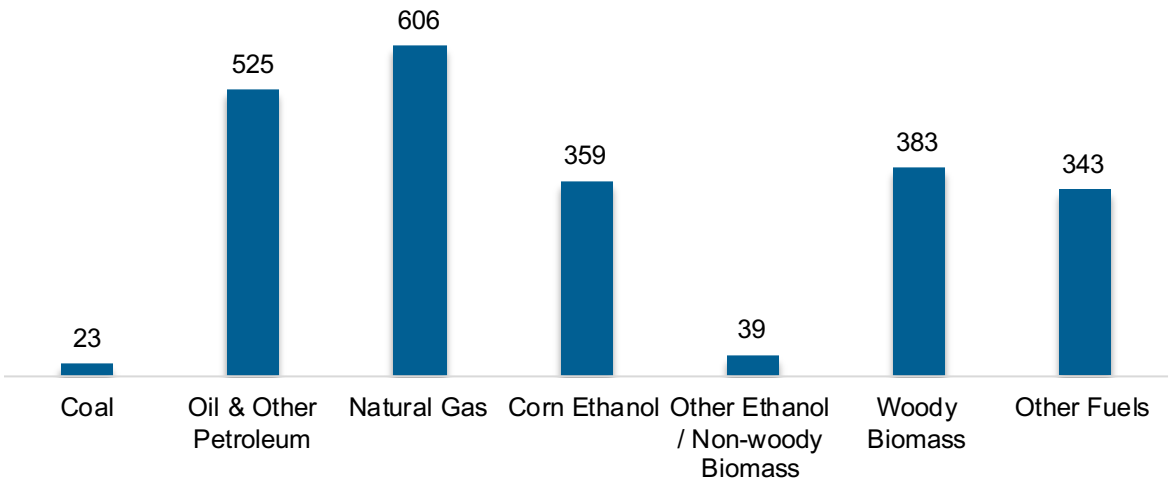
Figure ID-3. Electric Power Generation Employment by Industry Sector



Fuels

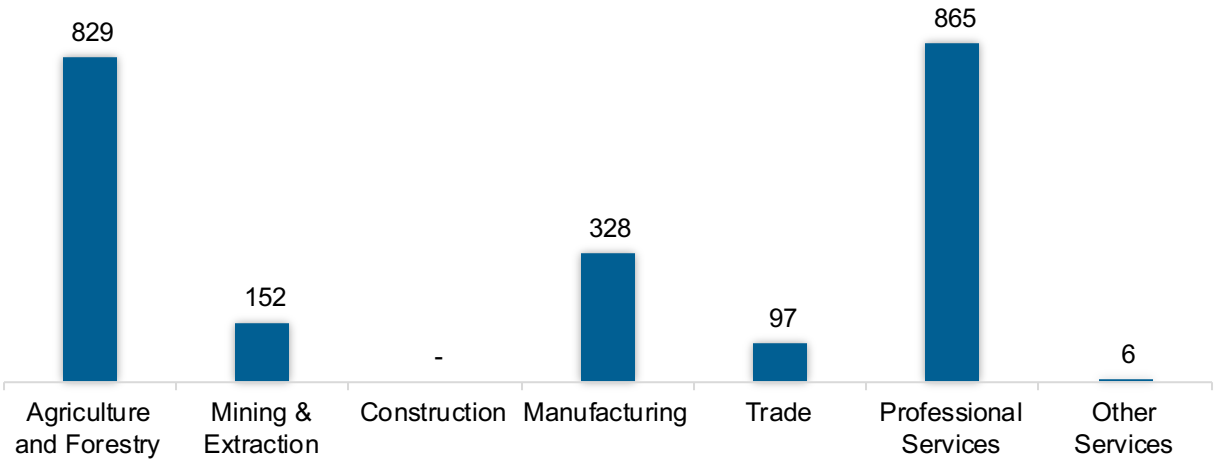
The Fuel sector employed 2,278 workers in Idaho, 0.2% of the national total in fuels (Figure ID-4). The sector gained 218 jobs and increased 10.6% from 2021 to 2022.

Figure ID-4. Fuels Employment by Detailed Technology Application



Professional and business services jobs represented 38.0% of fuel jobs in Idaho (Figure ID-5).

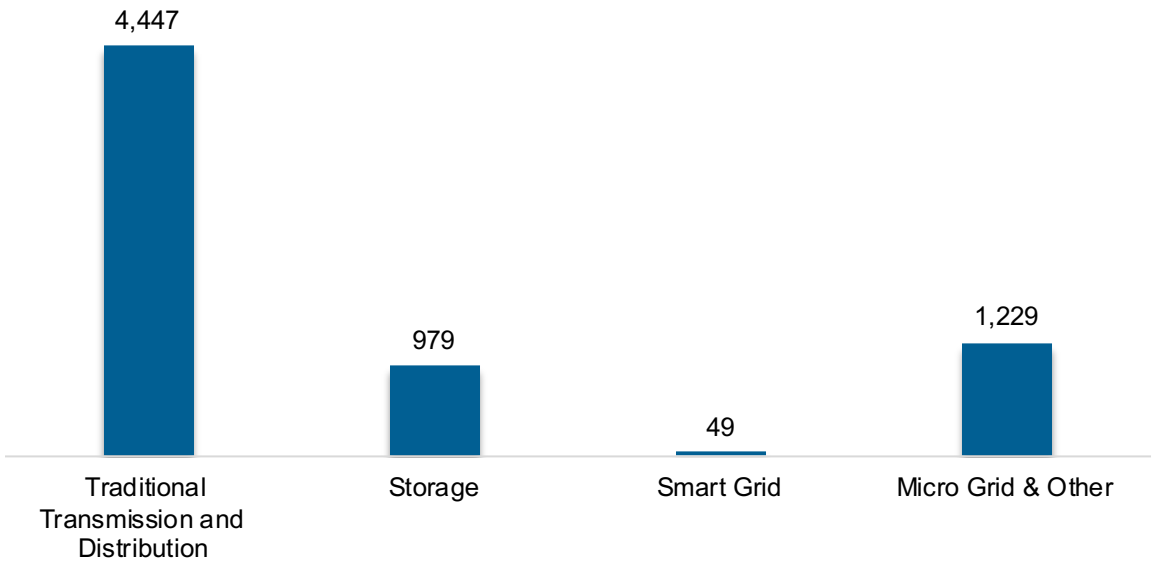
Figure ID-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

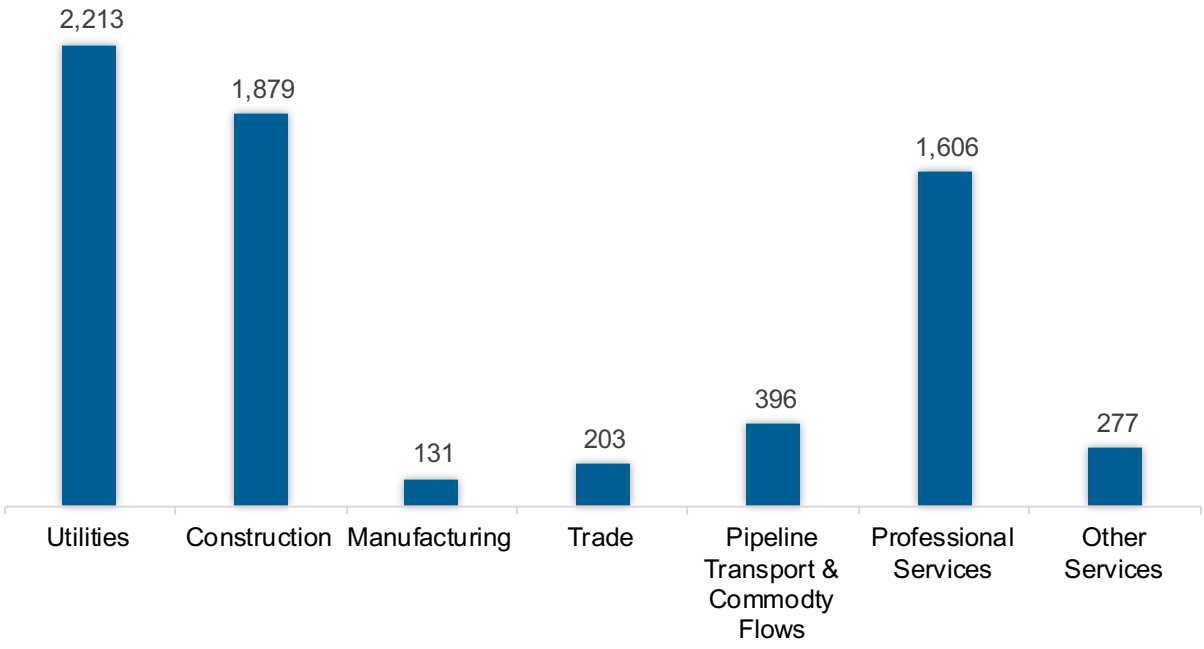
The transmission, distribution, and storage (TDS) sector employed 6,704 workers in Idaho, 0.2% of the national TDS total (Figure ID-6). The sector gained 58 jobs and increased 0.9% from 2021 to 2022.

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



Utilities was the largest proportion of TDS jobs in Idaho, accounting for 33.0% of the sector's jobs statewide (Figure ID-7).

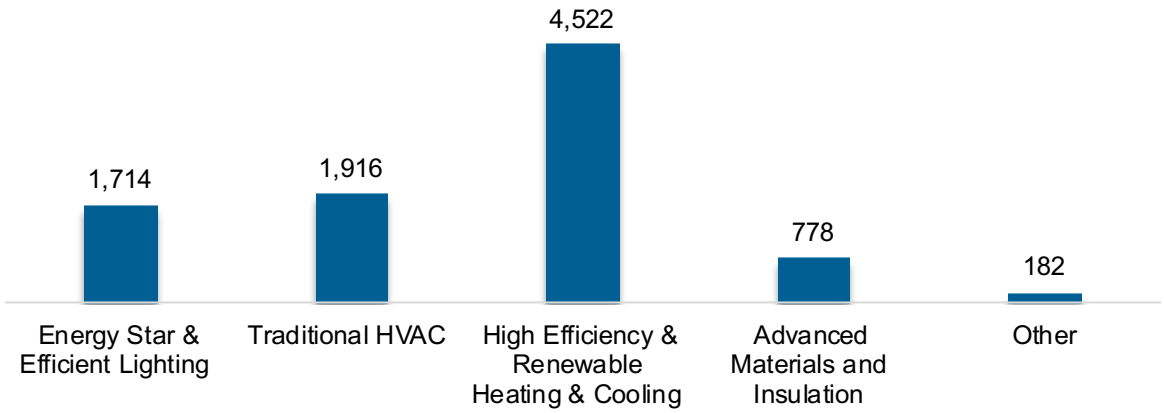
Figure ID-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

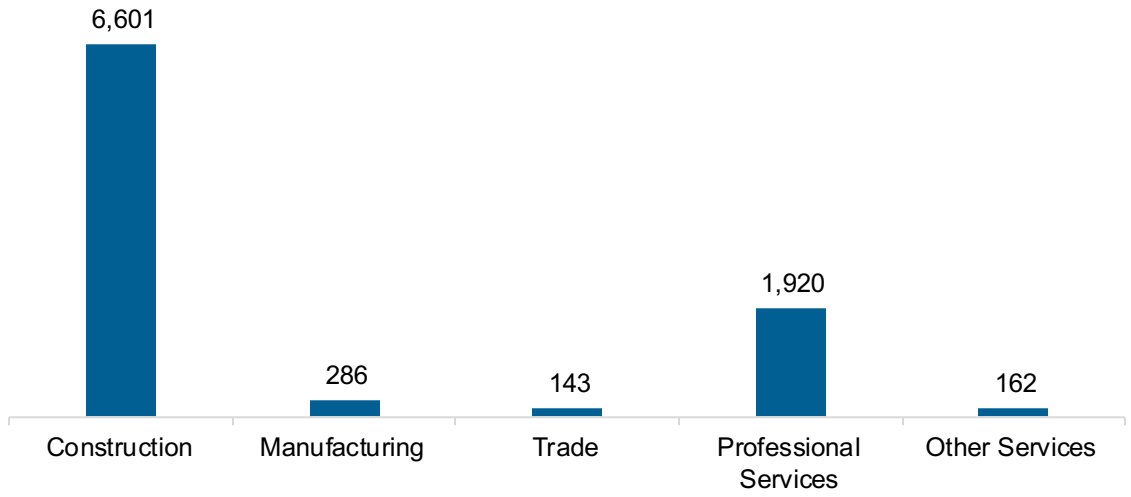
The energy efficiency (EE) sector employed 9,112 workers in Idaho, 0.4% of the national EE total. The EE sector added 428 jobs and decreased 4.9% from 2021 to 2022 (Figure ID-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure ID-9).

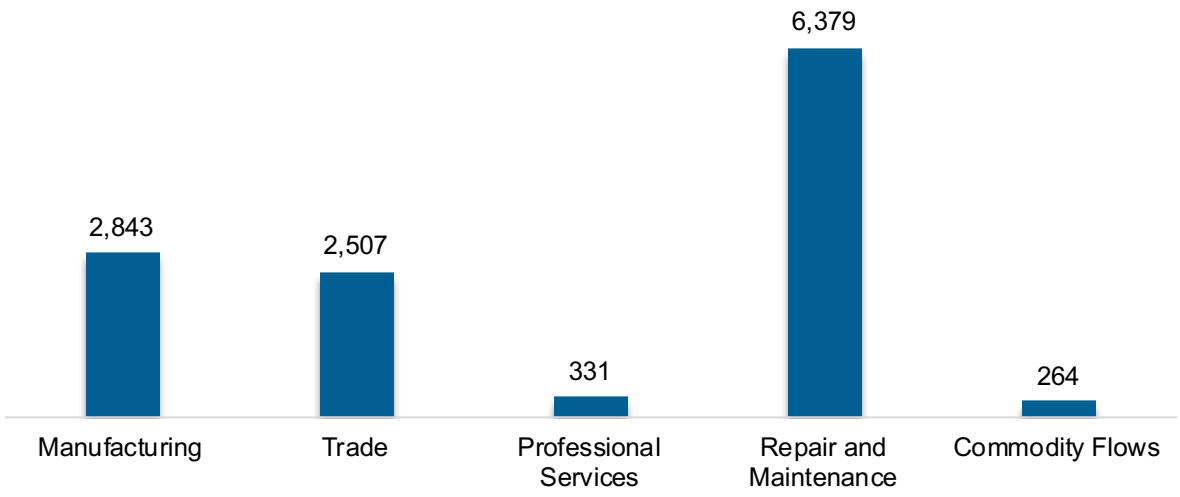
Figure ID-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 12,326 workers in Idaho, 0.5% of the national total for the sector. Motor vehicles and component parts lost 201 jobs and decreased 1.6% from 2021 to 2022. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure ID-10).

Figure ID-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 18,872 jobs in clean energy in Idaho if traditional transmission and distribution is included and 14,375 jobs if it is not.[13] These increased under either definition, growing 4.2% with traditional transmission and distribution and 5.3% without.

Employer Perspectives

Expected Growth

Employers in Idaho were less optimistic than their peers across the country about energy sector job growth over the next year (Table ID-1).

Table ID-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	4.9	6.0
Electric Power Transmission, Distribution, and Storage	3.9	3.9
Energy Efficiency	5.1	6.4
Fuels	2.7	1.6
Motor Vehicles	4.7	5.5

[13] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in Idaho reported 47% overall hiring difficulty (Table ID-2).

Table ID-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	25	22	4	49	47

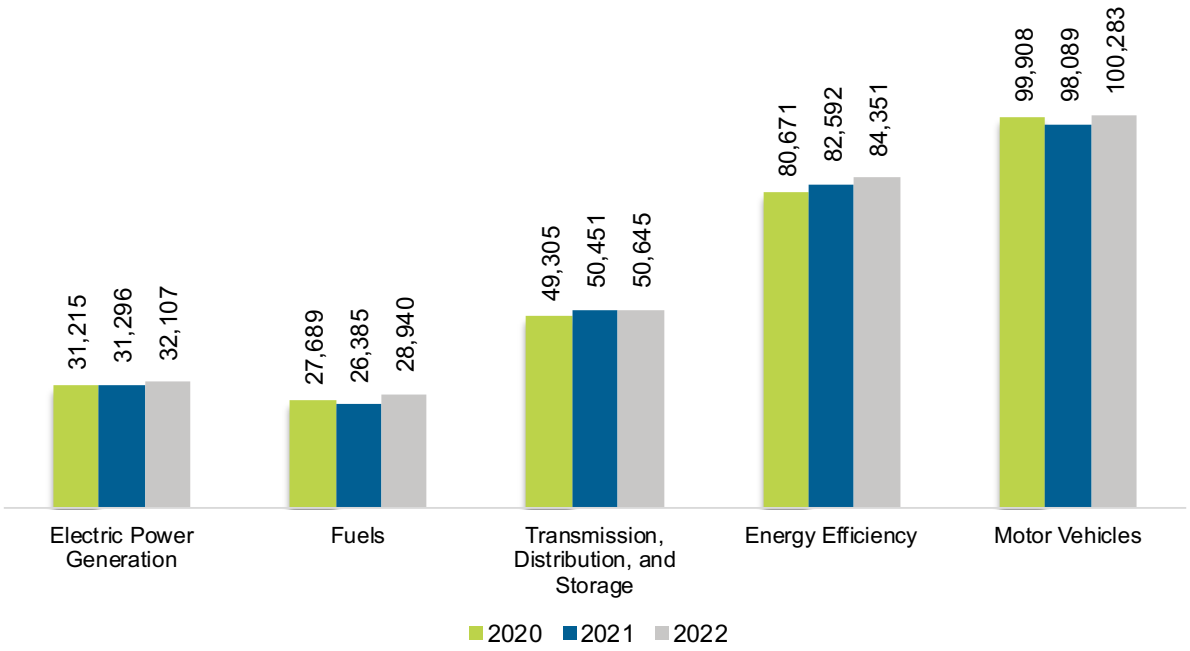
Illinois

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

Illinois had 296,326 energy workers statewide in 2022, representing 3.6% of all U.S. energy jobs. Of these energy jobs, 32,107 were in electric power generation; 28,940 in fuels; 50,645 in transmission, distribution, and storage; 84,351 in energy efficiency; and 100,283 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 7,512 jobs, or 2.6% (Figure IL-1). The energy sector in Illinois represented 5.0% of total state employment.

Figure IL-1. Employment by Major Energy Technology Application

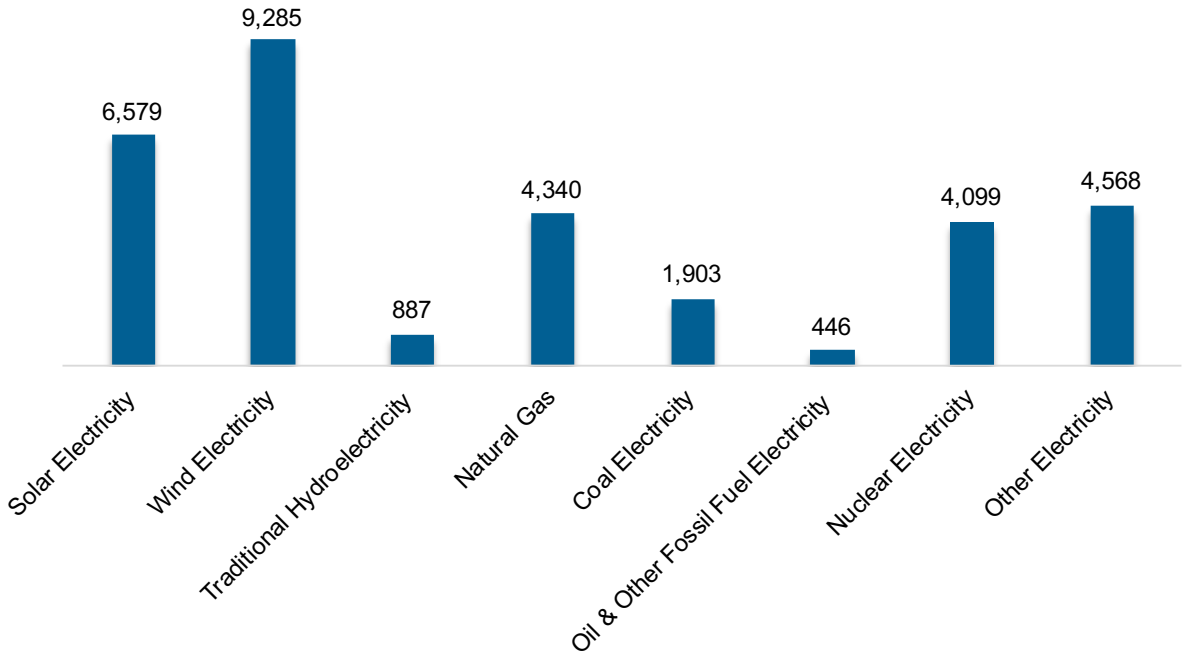


Breakdown by Technology Applications

Electric Power Generation

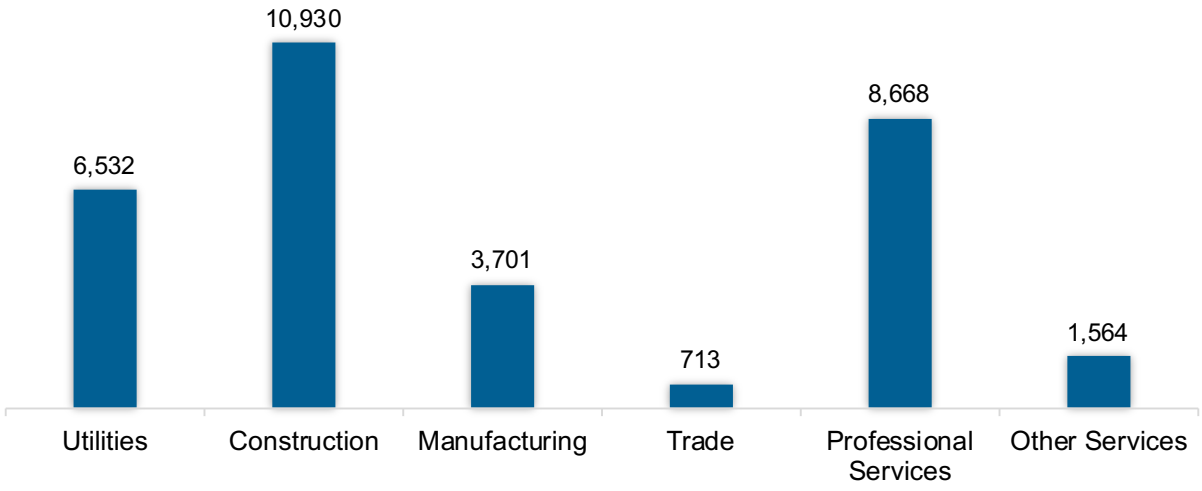
As shown in Figure IL-2, the electric power generation sector employed 32,107 workers in Illinois, 3.6% of the national electricity total, and added 811 jobs from 2021 to 2022 (2.6%).

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



Construction was the largest industry sector in the electric power generation sector, with 34.0% of jobs. Professional and business services was second largest with 27.0% (Figure IL-3).

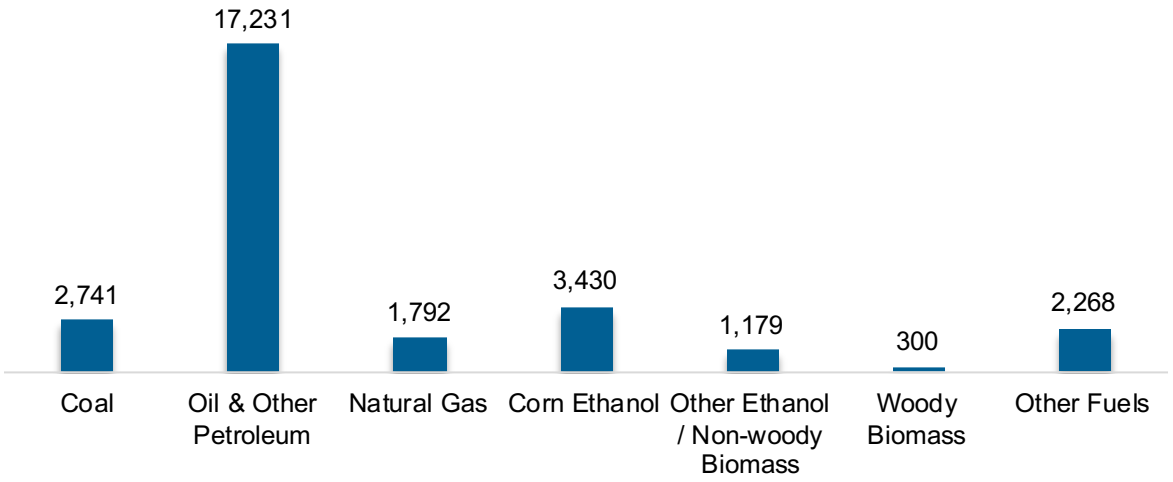
Figure IL-3. Electric Power Generation Employment by Industry Sector



Fuels

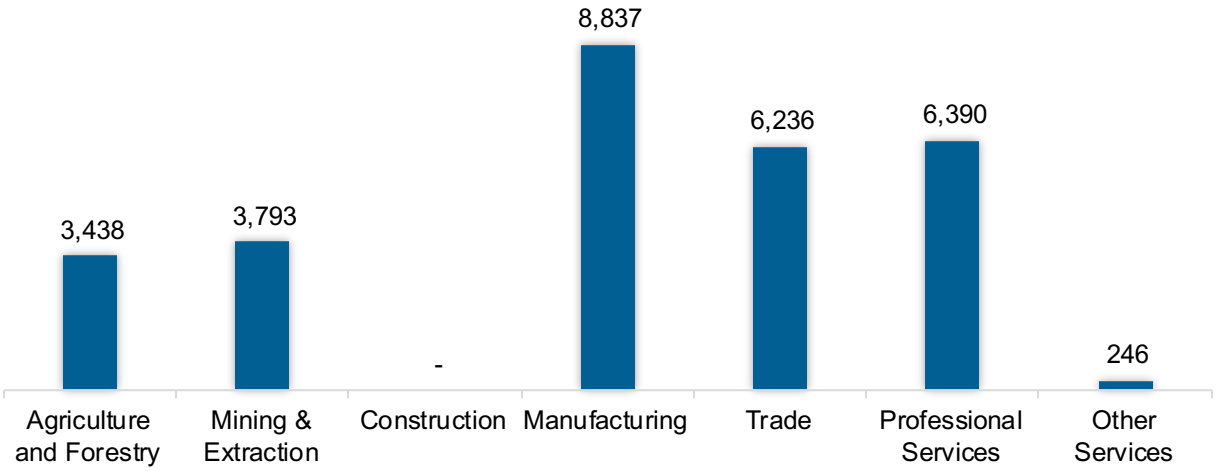
The Fuel sector employed 28,940 workers in Illinois, 2.8% of the national total in fuels (Figure IL-4). The sector gained 2,554 jobs and increased 9.7% from 2021 to 2022.

Figure IL-4. Fuels Employment by Detailed Technology Application



Manufacturing jobs represented 30.5% of fuel jobs in Illinois (Figure IL-5).

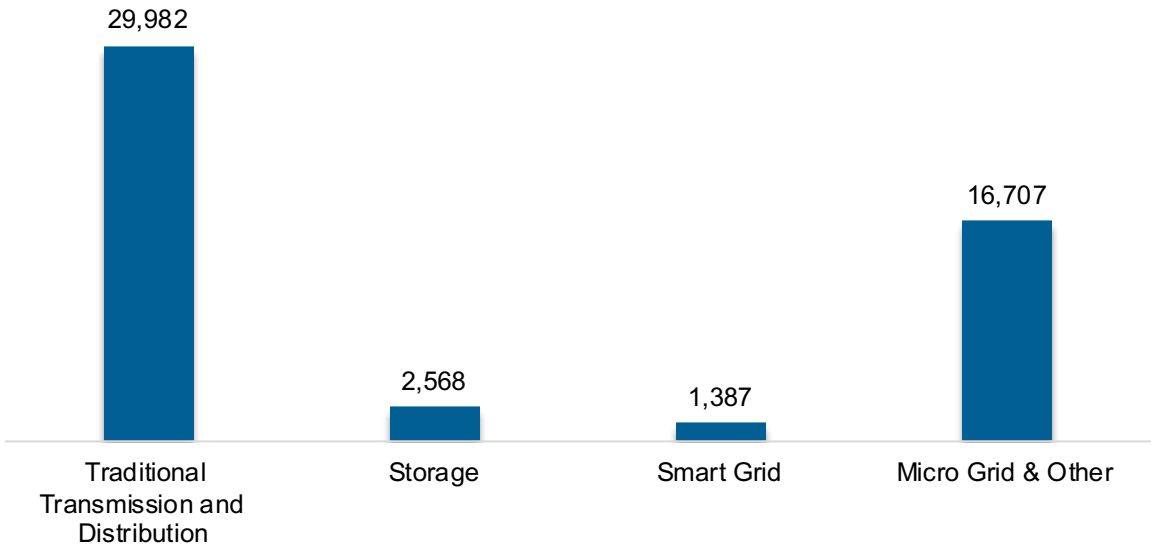
Figure IL-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

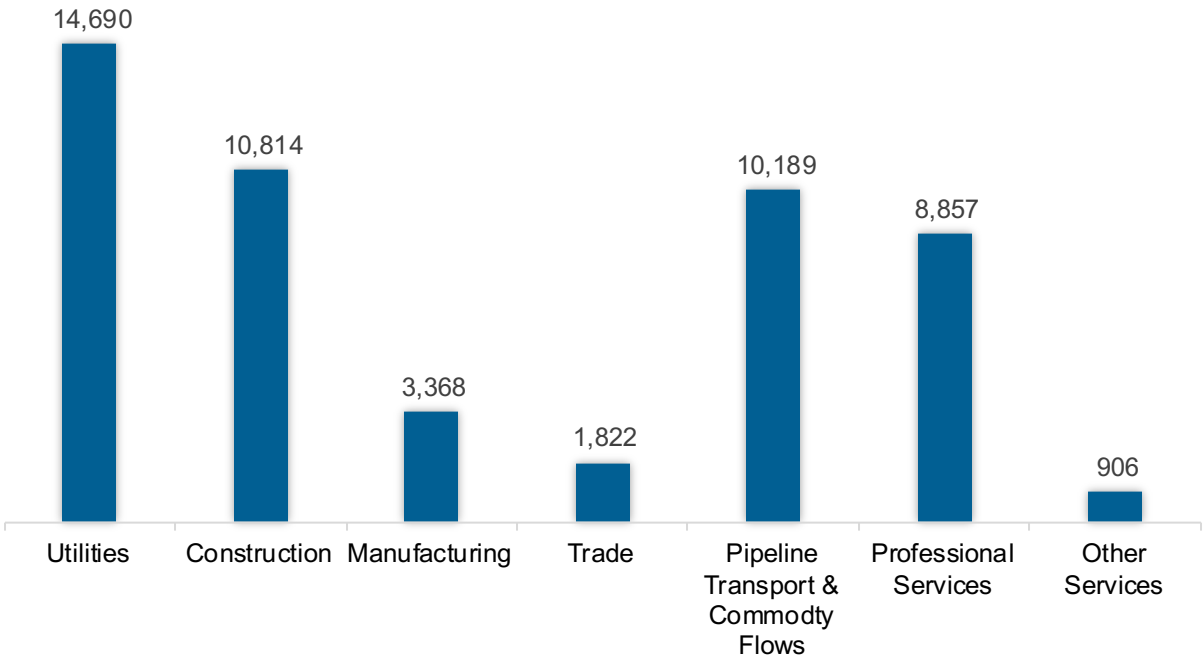
The transmission, distribution, and storage (TDS) sector employed 50,645 workers in Illinois, 2.8% of the national TDS total (Figure IL-6). The sector gained 193 jobs and increased 0.4% from 2021 to 2022.

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



Utilities was the largest proportion of TDS jobs in Illinois, accounting for 29.0% of the sector's jobs statewide (Figure IL-7).

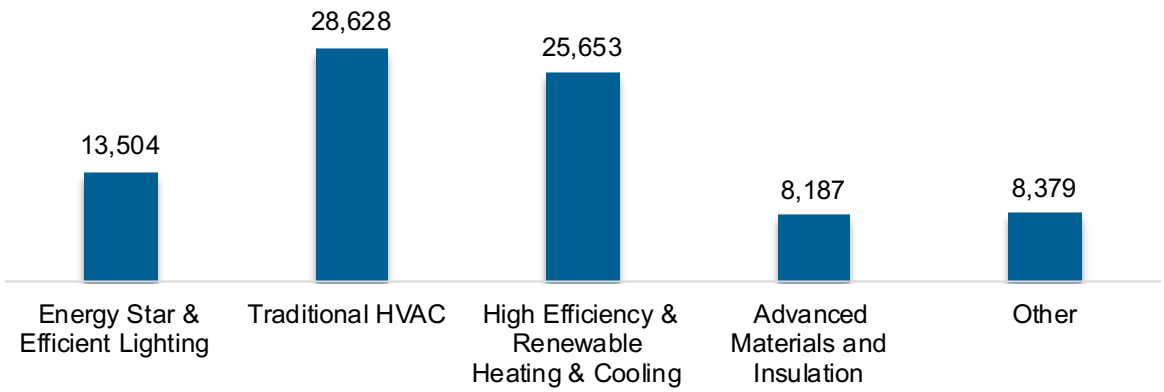
Figure IL-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

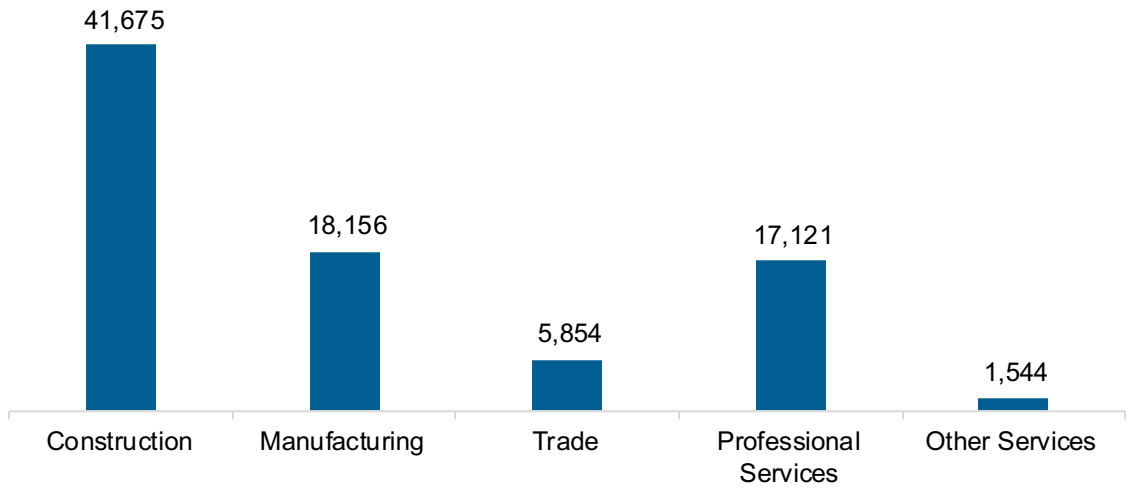
The energy efficiency (EE) sector employed 84,351 workers in Illinois, 3.8% of the national EE total. The EE sector added 1,759 jobs and increased 2.1% from 2021 to 2022 (Figure IL-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure IL-9).

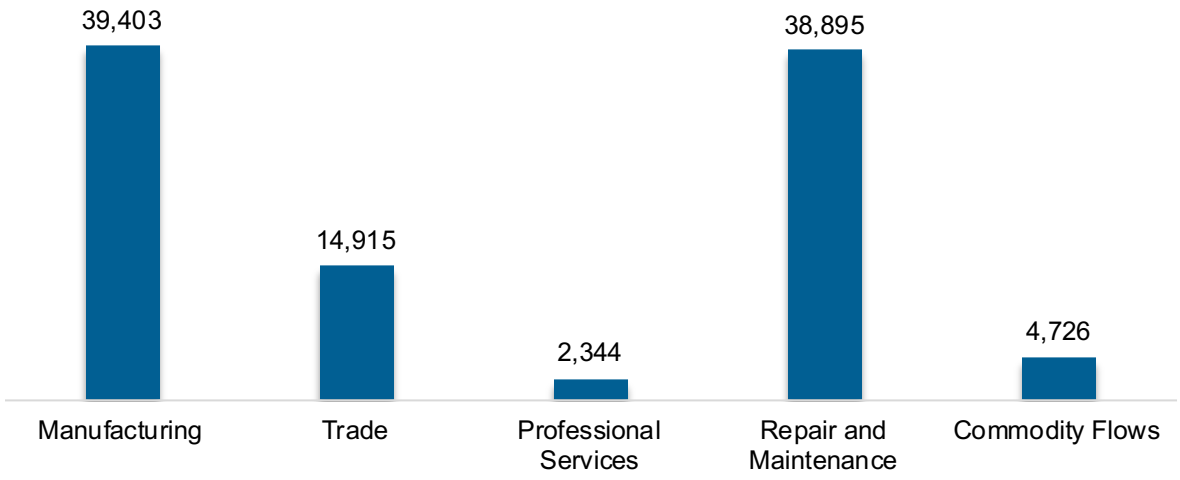
Figure IL-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 100,283 workers in Illinois, 3.8% of the national total for the sector. Motor vehicles and component parts added 2,194 jobs and increased 2.2% from 2021 to 2022. Manufacturing is the largest proportion of motor vehicle jobs (Figure IL-10).

Figure IL-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 156,919 jobs in clean energy in Illinois if traditional transmission and distribution is included and 126,806 jobs if it is not.[14] These increased under either definition, growing 2.5% with traditional transmission and distribution and 3.1% without.

Employer Perspectives

Expected Growth

Employers in Illinois were more optimistic than their peers across the country about energy sector job growth over the next year (Table IL-1).

Table IL-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	7.5	6.0
Electric Power Transmission, Distribution, and Storage	6.4	3.9
Energy Efficiency	7.7	6.4
Fuels	5.3	1.6
Motor Vehicles	7.2	5.5

[14] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in Illinois reported 50% overall hiring difficulty (Table IL-2).

Table IL-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	26	24	7	44	50

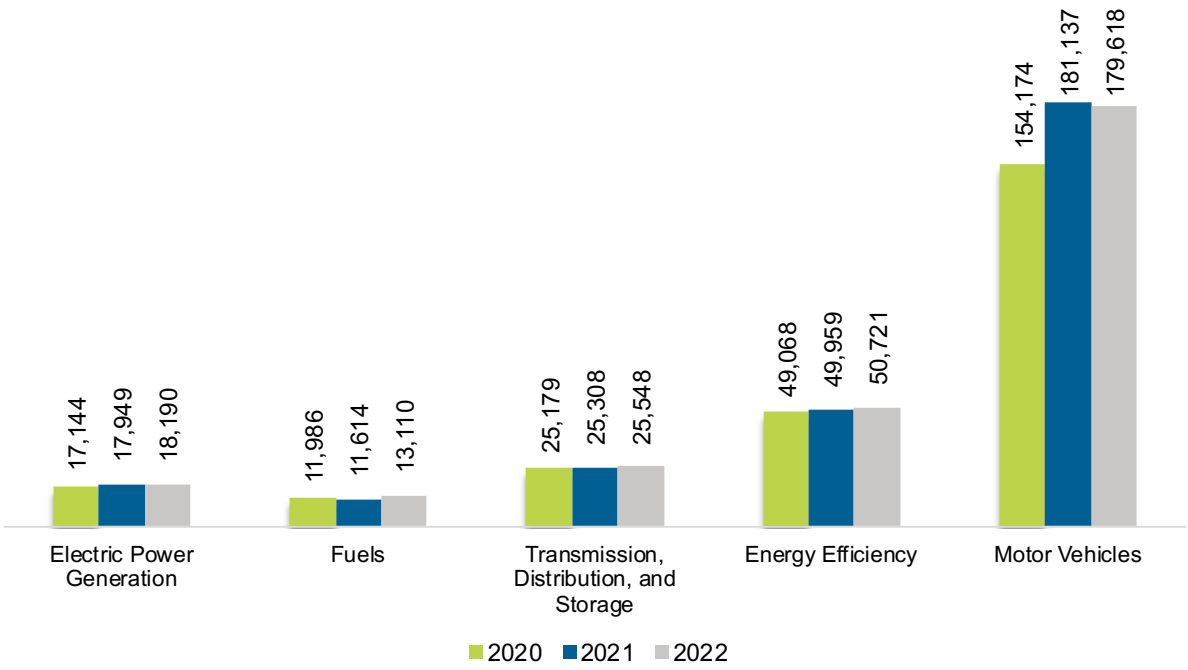
Indiana

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

Indiana had 287,187 energy workers statewide in 2022, representing 3.5% of all U.S. energy jobs. Of these energy jobs, 18,190 were in electric power generation; 13,110 in fuels; 25,548 in transmission, distribution, and storage; 50,721 in energy efficiency; and 179,618 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 1,220 jobs, or 0.4% (Figure IN-1). The energy sector in Indiana represented 9.1% of total state employment.

Figure IN-1. Employment by Major Energy Technology Application

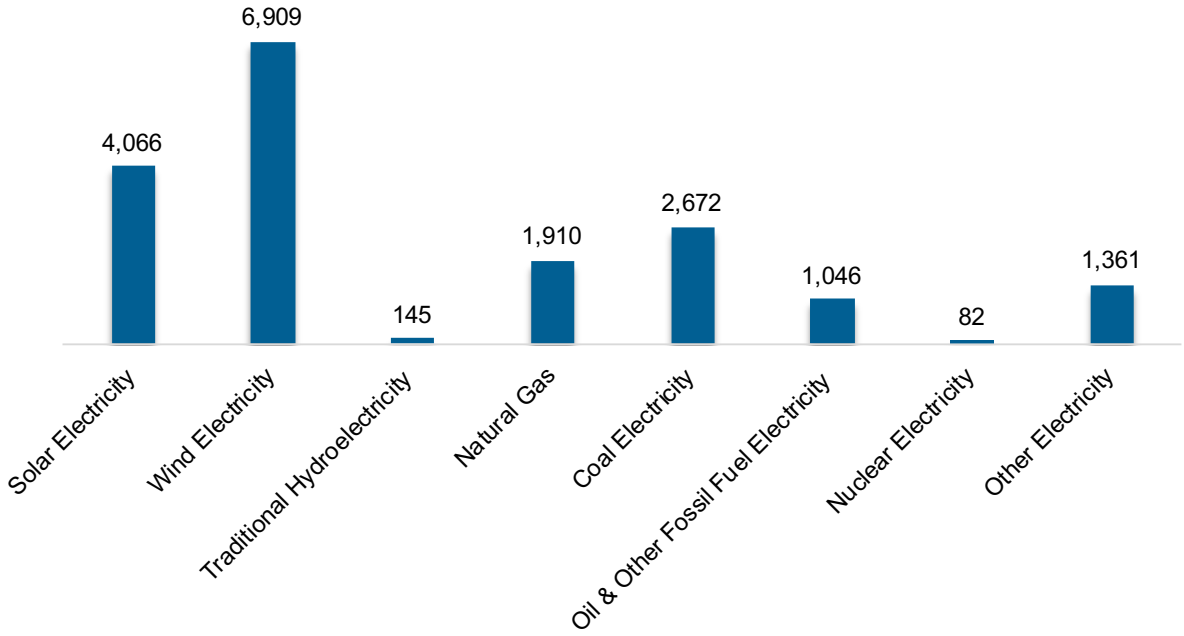


Breakdown by Technology Applications

Electric Power Generation

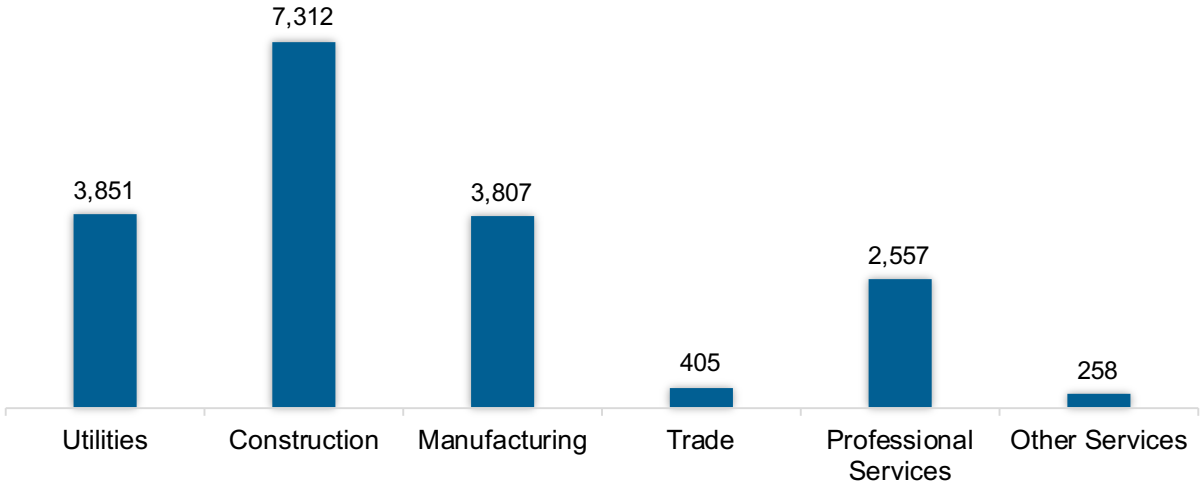
As shown in Figure IN-2, the electric power generation sector employed 18,190 workers in Indiana, 2.1% of the national electricity total, and added 242 jobs from 2021 to 2022 (1.3%).

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



Construction was the largest industry sector in the electric power generation sector, with 40.2% of jobs. Utilities was second largest with 21.2% (Figure IN-3).

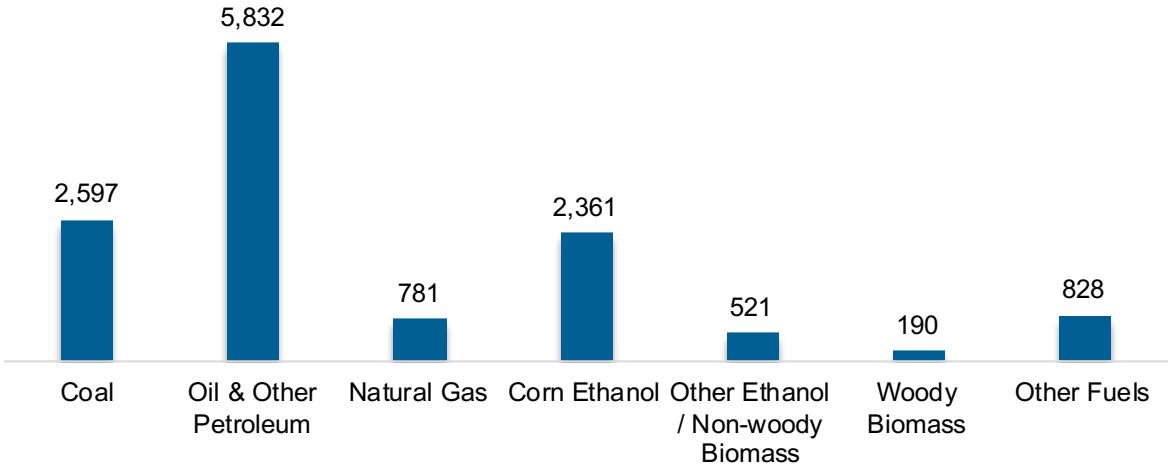
Figure IN-3. Electric Power Generation Employment by Industry Sector



Fuels

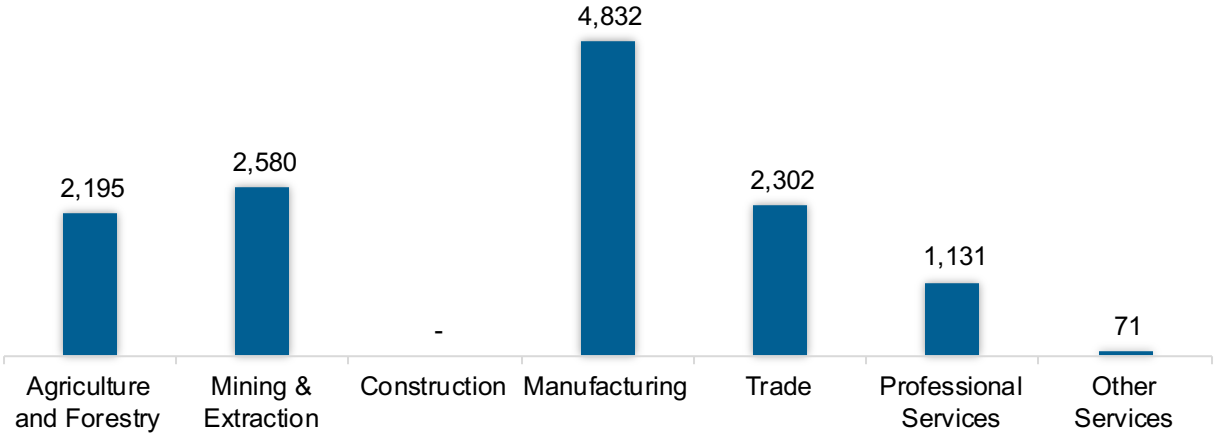
The Fuel sector employed 13,110 workers in Indiana, 1.3% of the national total in fuels (Figure IN-4). The sector gained 1,496 jobs and increased 12.9% from 2021 to 2022.

Figure IN-4. Fuels Employment by Detailed Technology Application



Manufacturing jobs represented 36.9% of fuel jobs in Indiana (Figure IN-5).

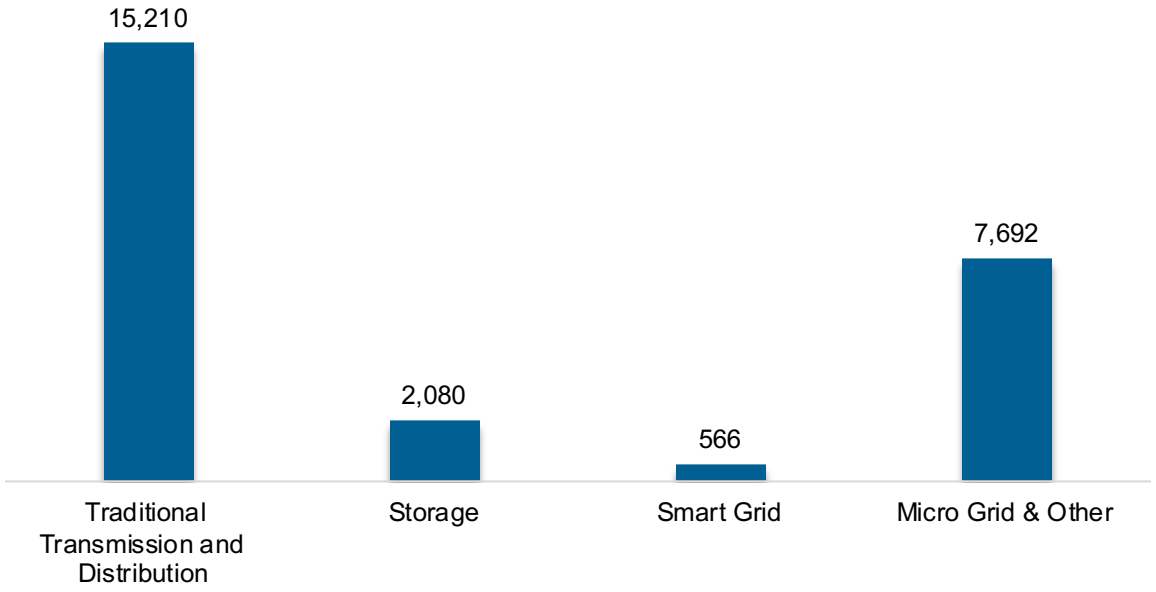
Figure IN-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

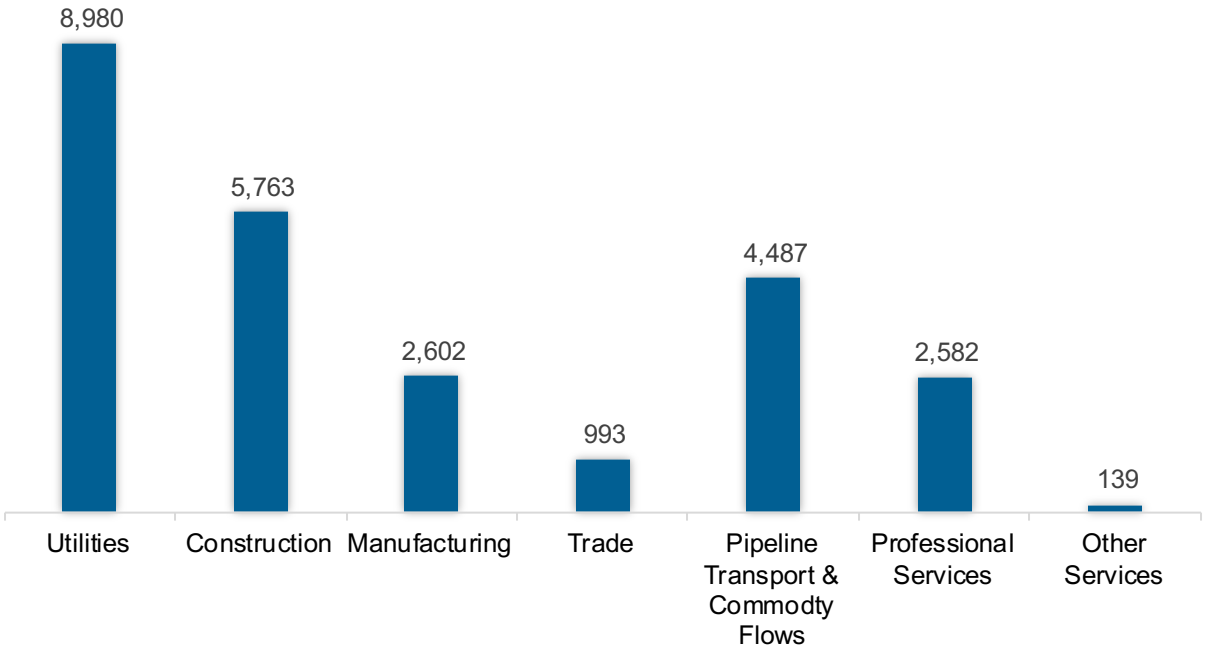
The transmission, distribution, and storage (TDS) sector employed 25,548 workers in Indiana, 1.3% of the national TDS total (Figure IN-6). The sector gained 240 jobs and increased 0.9% from 2021 to 2022.

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



Utilities was the largest proportion of TDS jobs in Indiana, accounting for 35.2% of the sector's jobs statewide (Figure IN-7).

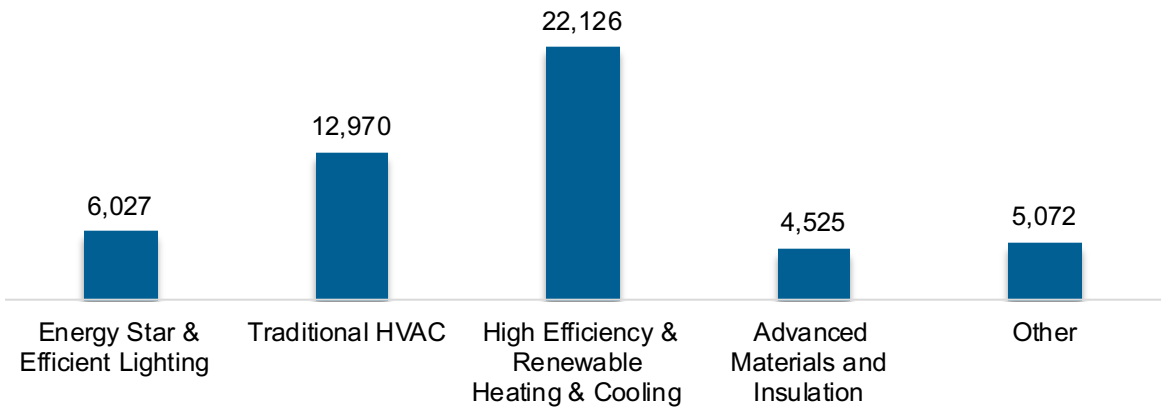
Figure IN-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

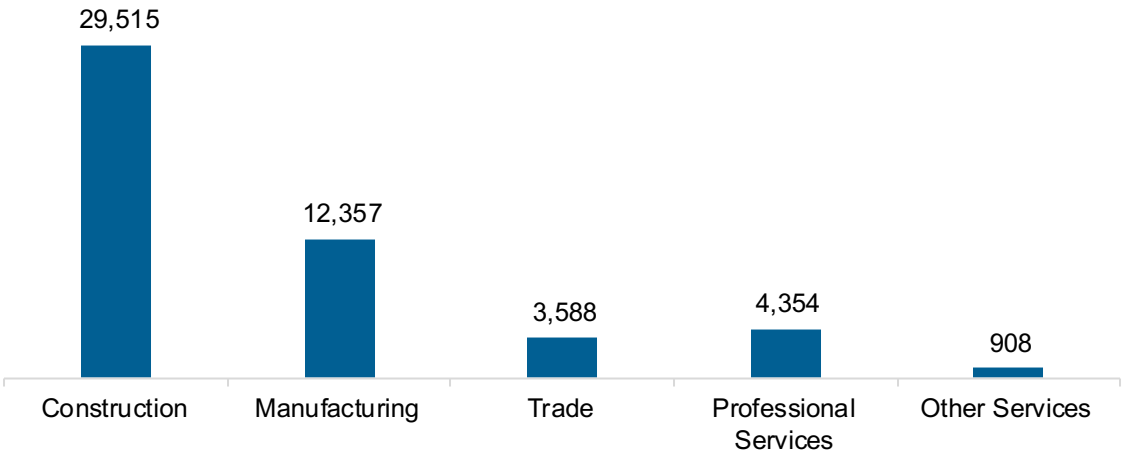
The energy efficiency (EE) sector employed 50,721 workers in Indiana, 2.3% of the national EE total. The EE sector added 762 jobs and decreased 1.5% from 2021 to 2022 (Figure IN-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure IN-9).

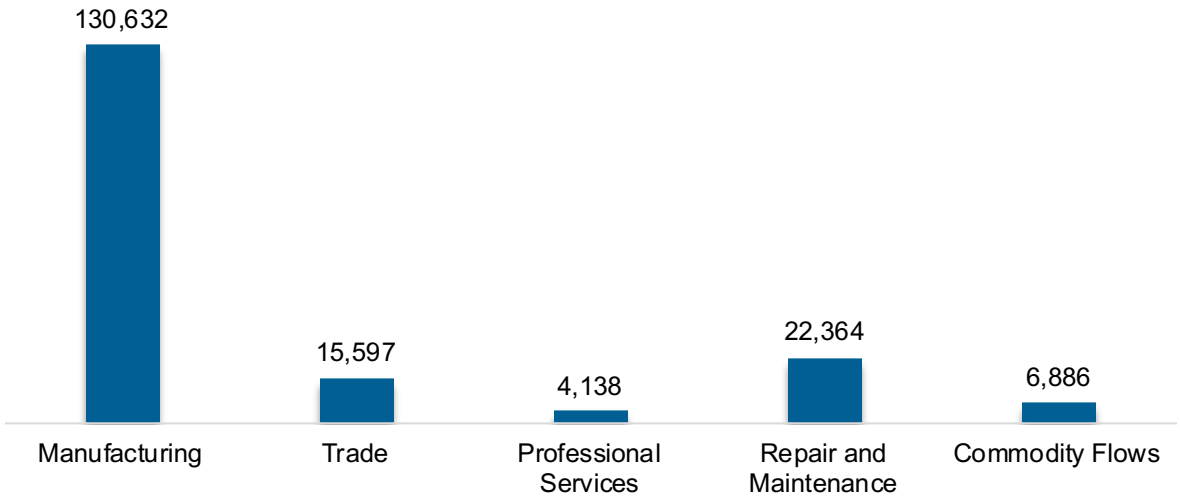
Figure IN-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 179,618 workers in Indiana, 6.9% of the national total for the sector. Motor vehicles and component parts lost 1,520 jobs and decreased 0.8% from 2021 to 2022. Manufacturing is the largest proportion of motor vehicle jobs (Figure IN-10).

Figure IN-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 96,565 jobs in clean energy in Indiana if traditional transmission and distribution is included and 81,249 jobs if it is not.[15] These increased under either definition, growing 3.3% with traditional transmission and distribution and 3.7% without.

Employer Perspectives

Expected Growth

Employers in Indiana were more optimistic than their peers across the country about energy sector job growth over the next year (Table IN-1).

Table IN-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	7.6	6.0
Electric Power Transmission, Distribution, and Storage	6.6	3.9
Energy Efficiency	7.8	6.4
Fuels	5.4	1.6
Motor Vehicles	7.4	5.5

[15] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in Indiana reported 45% overall hiring difficulty (Table IN-2).

Table IN-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	23	22	8	47	45

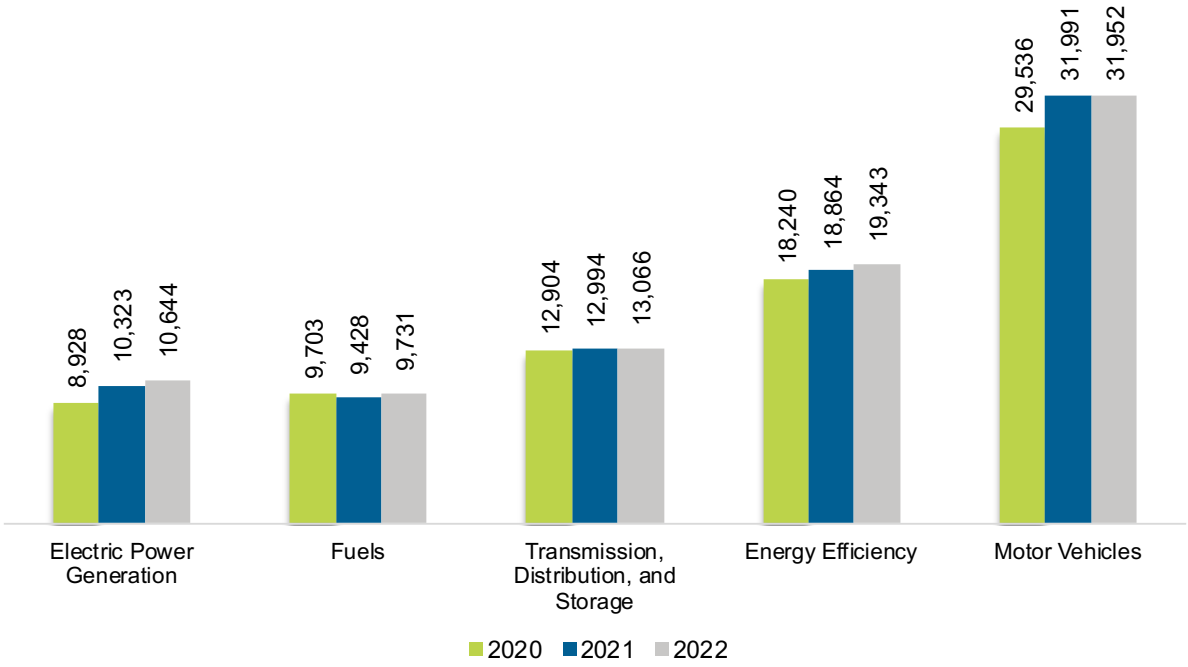
Iowa

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

Iowa had 84,737 energy workers statewide in 2022, representing 1.0% of all U.S. energy jobs. Of these energy jobs, 10,644 were in electric power generation; 9,731 in fuels; 13,066 in transmission, distribution, and storage; 19,343 in energy efficiency; and 31,952 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 1,138 jobs, or 1.4% (Figure IA-1). The energy sector in Iowa represented 5.5% of total state employment.

Figure IA-1. Employment by Major Energy Technology Application

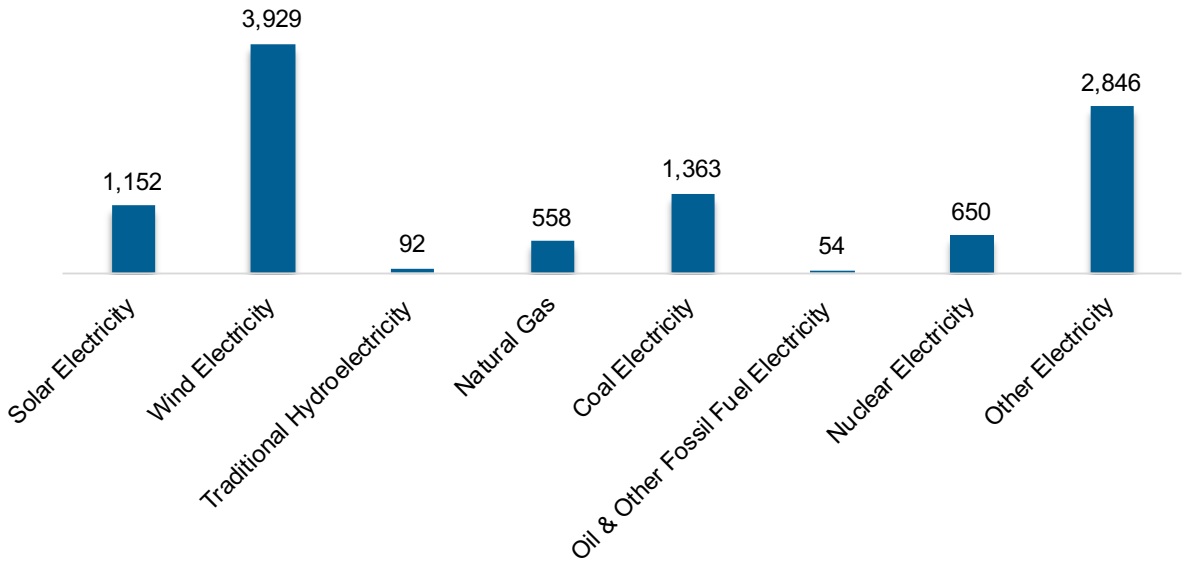


Breakdown by Technology Applications

Electric Power Generation

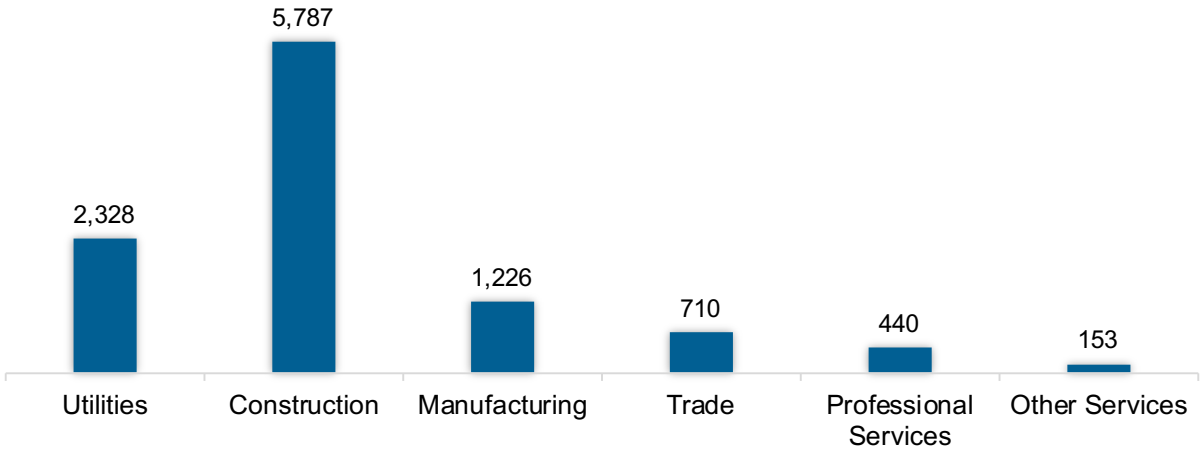
As shown in Figure IA-2, the electric power generation sector employed 10,644 workers in Iowa, 1.2% of the national electricity total, and added 321 jobs from 2021 to 2022 (3.1%).

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



Construction was the largest industry sector in the electric power generation sector, with 54.4% of jobs. Utilities was second largest with 21.9% (Figure IA-3).

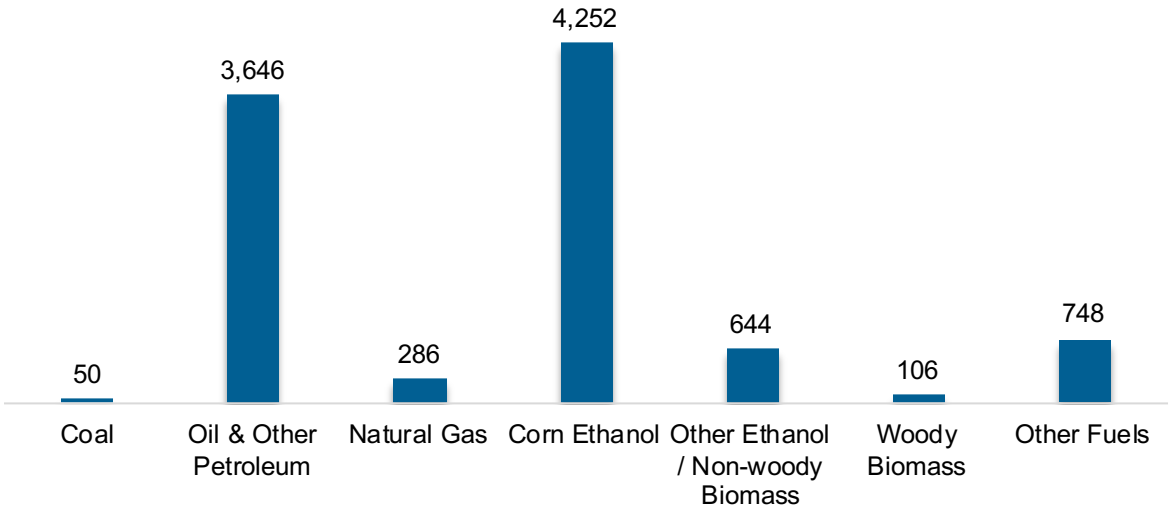
Figure IA-3. Electric Power Generation Employment by Industry Sector



Fuels

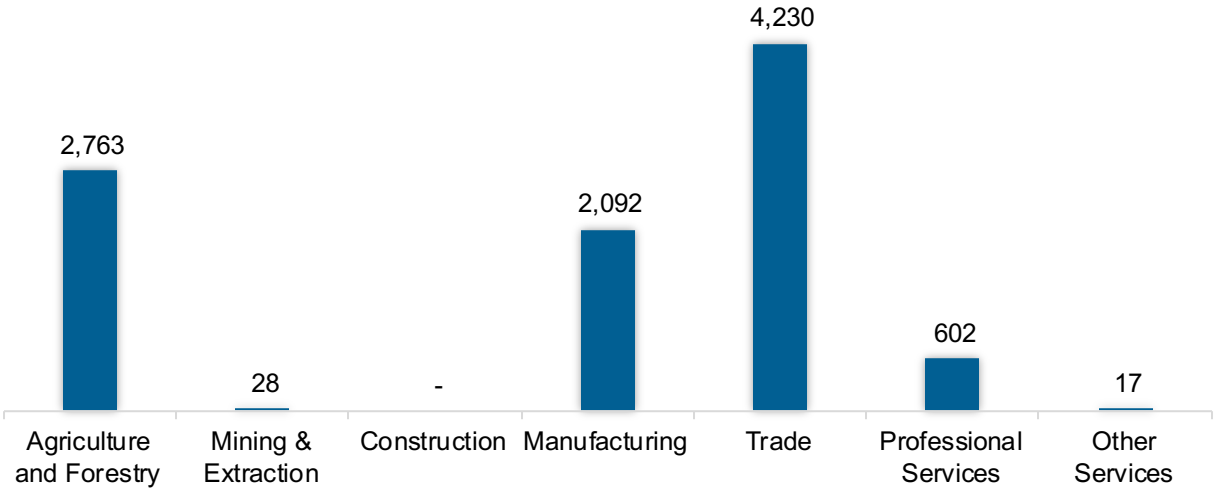
The Fuel sector employed 9,731 workers in Iowa, 0.9% of the national total in fuels (Figure IA-4). The sector gained 303 jobs and increased 3.2% from 2021 to 2022.

Figure IA-4. Fuels Employment by Detailed Technology Application



Wholesale trade jobs represented 43.5% of fuel jobs in Iowa (Figure IA-5).

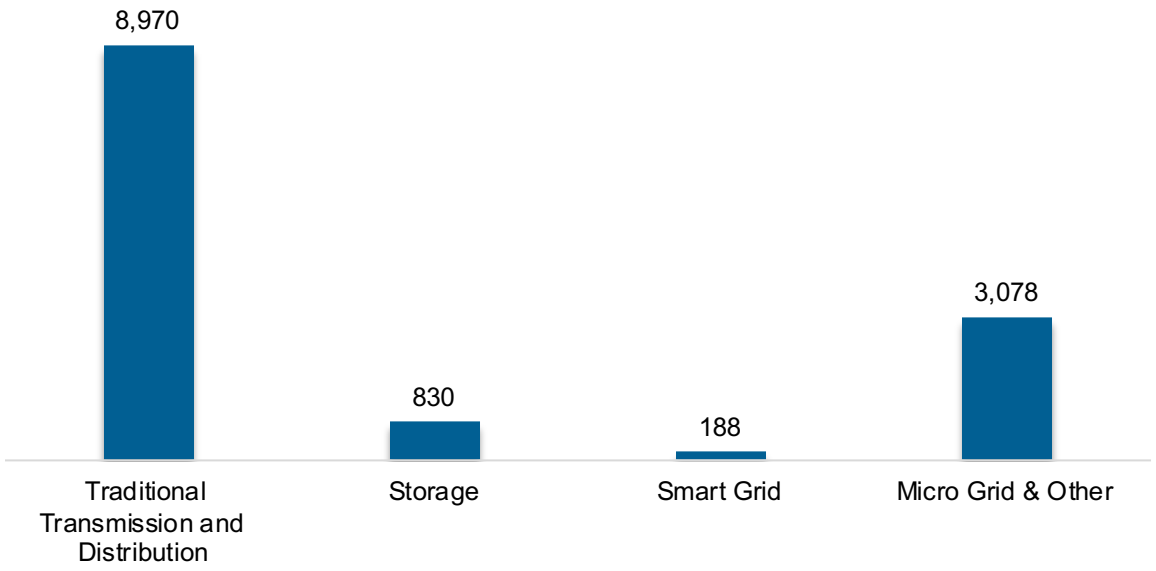
Figure IA-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

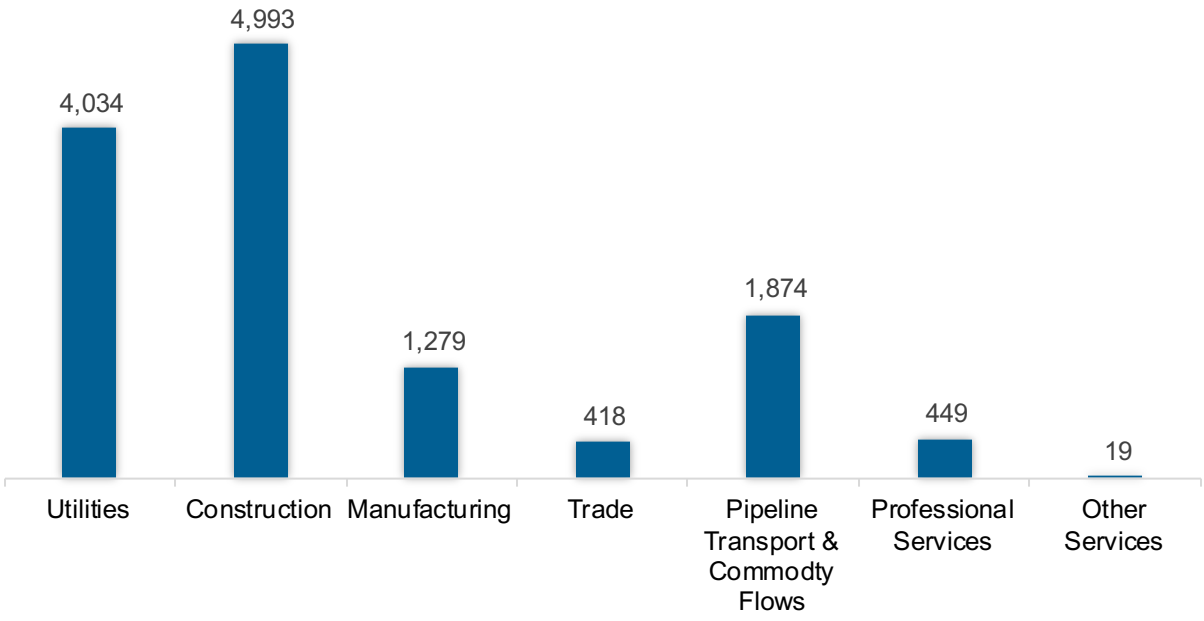
The transmission, distribution, and storage (TDS) sector employed 13,066 workers in Iowa, 0.9% of the national TDS total (Figure IA-6). The sector gained 72 jobs and increased 0.6% from 2021 to 2022.

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



Construction was the largest proportion of TDS jobs in Iowa, accounting for 38.2% of the sector's jobs statewide (Figure IA-7).

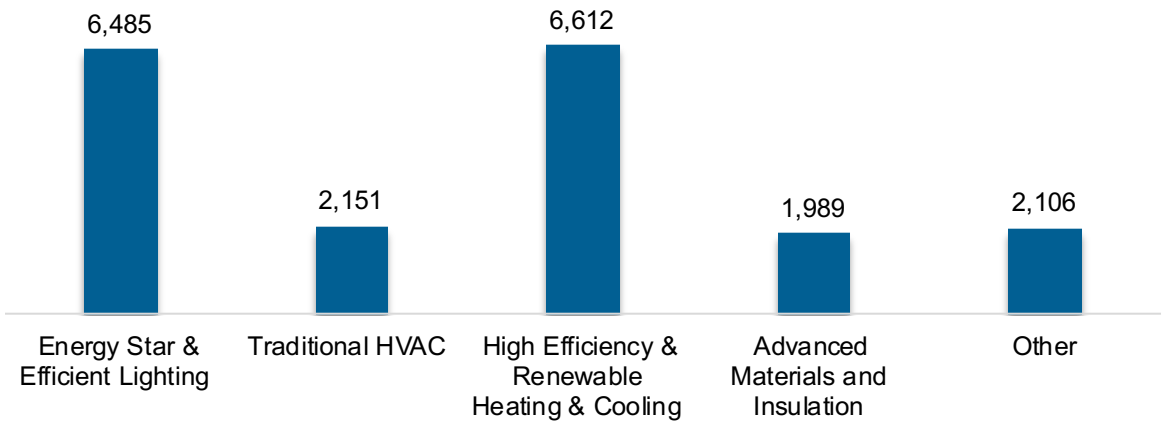
Figure IA-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

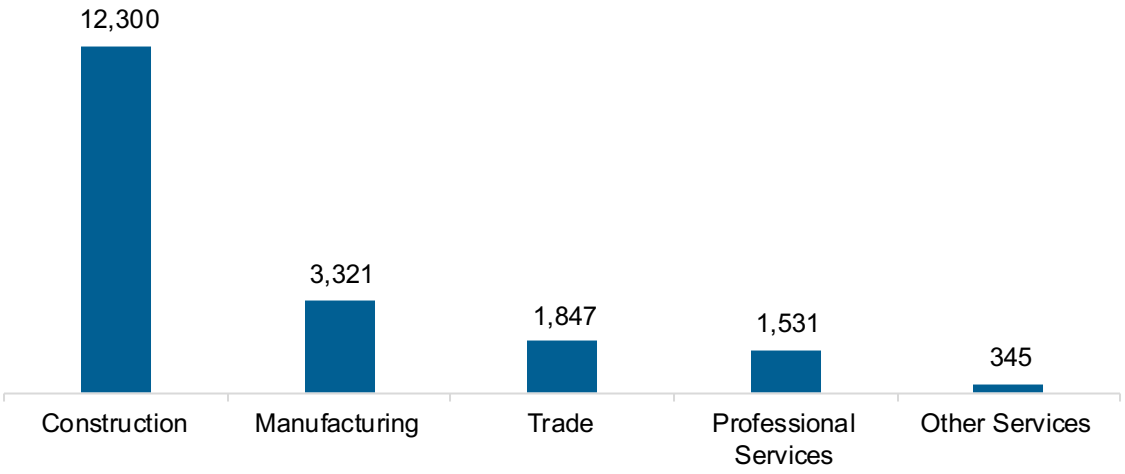
The energy efficiency (EE) sector employed 19,343 workers in Iowa, 0.9% of the national EE total. The EE sector added 479 jobs and decreased 2.5% from 2021 to 2022 (Figure IA-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure IA-9).

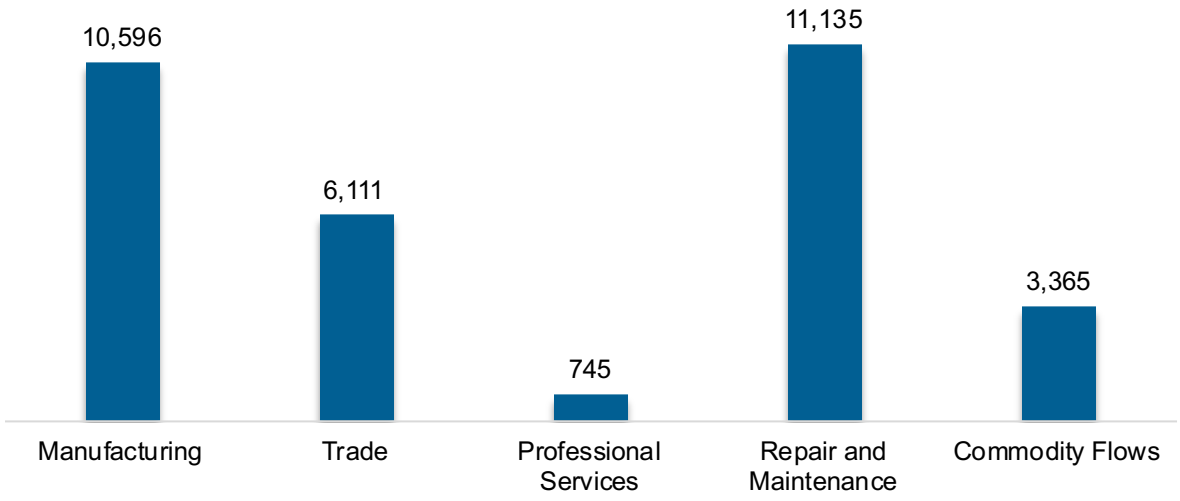
Figure IA-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 31,952 workers in Iowa, 1.2% of the national total for the sector. Motor vehicles and component parts lost 38 jobs and decreased 0.1% from 2021 to 2022. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure IA-10).

Figure IA-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 43,768 jobs in clean energy in Iowa if traditional transmission and distribution is included and 34,756 jobs if it is not.[16] These increased under either definition, growing 2.3% with traditional transmission and distribution and 2.8% without.

Employer Perspectives

Expected Growth

Employers in Iowa were less optimistic than their peers across the country about energy sector job growth over the next year (Table IA-1).

Table IA-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	3.5	6.0
Electric Power Transmission, Distribution, and Storage	2.5	3.9
Energy Efficiency	3.7	6.4
Fuels	1.3	1.6
Motor Vehicles	3.3	5.5

[16] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in Iowa reported 44% overall hiring difficulty (Table IA-2).

Table IA-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	21	23	8	48	44

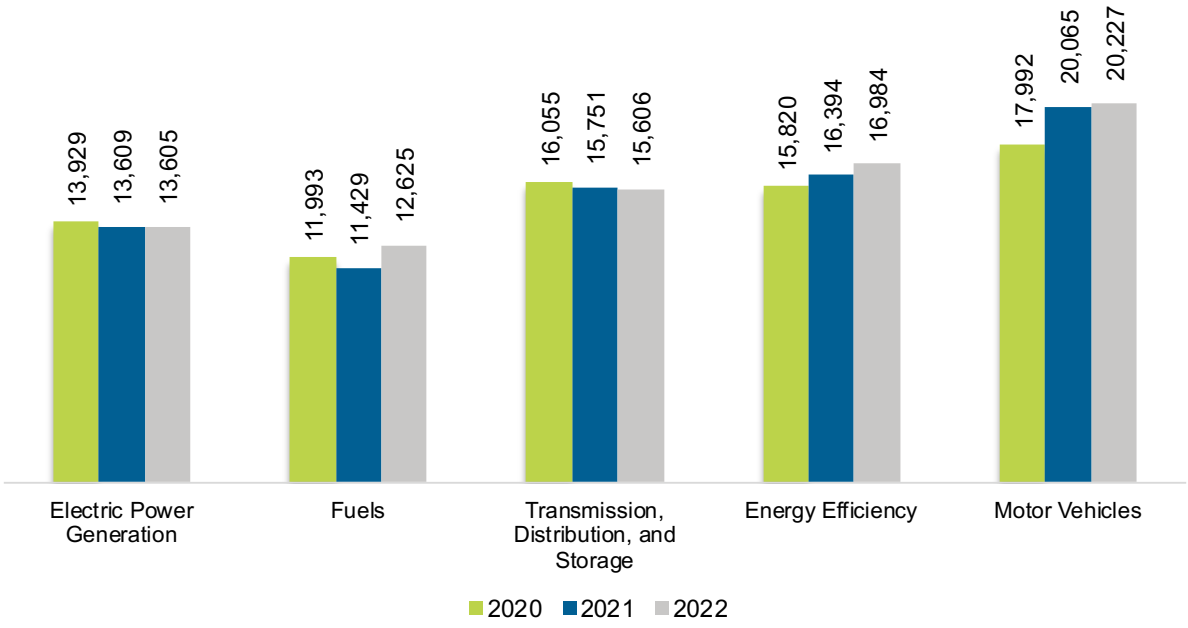
Kansas

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

Kansas had 79,048 energy workers statewide in 2022, representing 1.0% of all U.S. energy jobs. Of these energy jobs, 13,605 were in electric power generation; 12,625 in fuels; 15,606 in transmission, distribution, and storage; 16,984 in energy efficiency; and 20,227 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 1,800 jobs, or 2.3% (Figure KS-1). The energy sector in Kansas represented 5.6% of total state employment.

Figure KS-1. Employment by Major Energy Technology Application

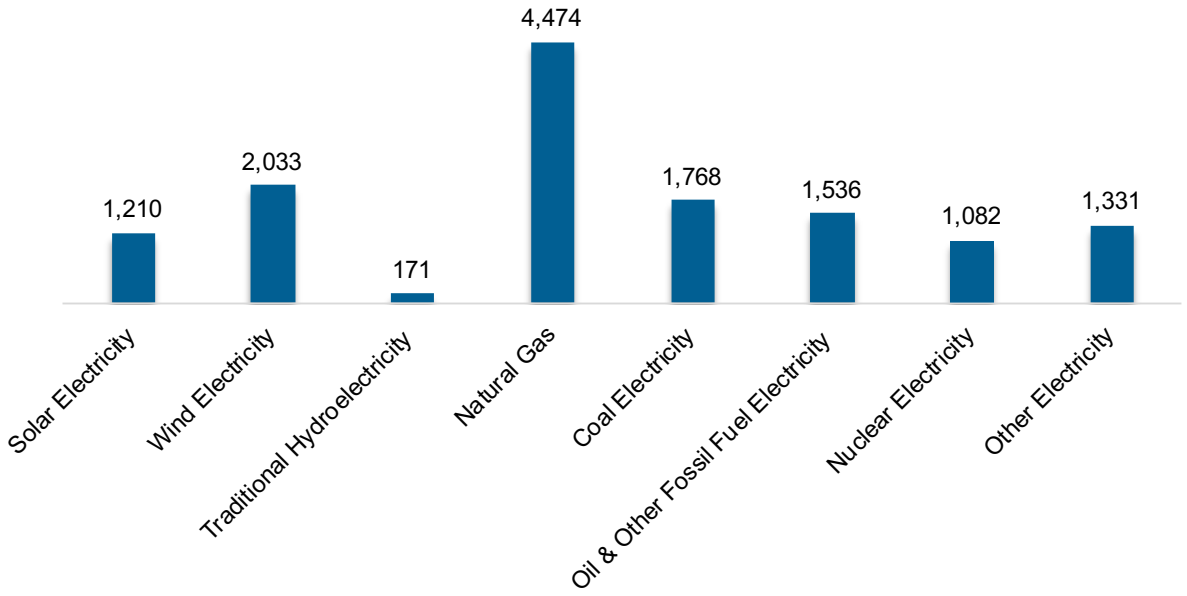


Breakdown by Technology Applications

Electric Power Generation

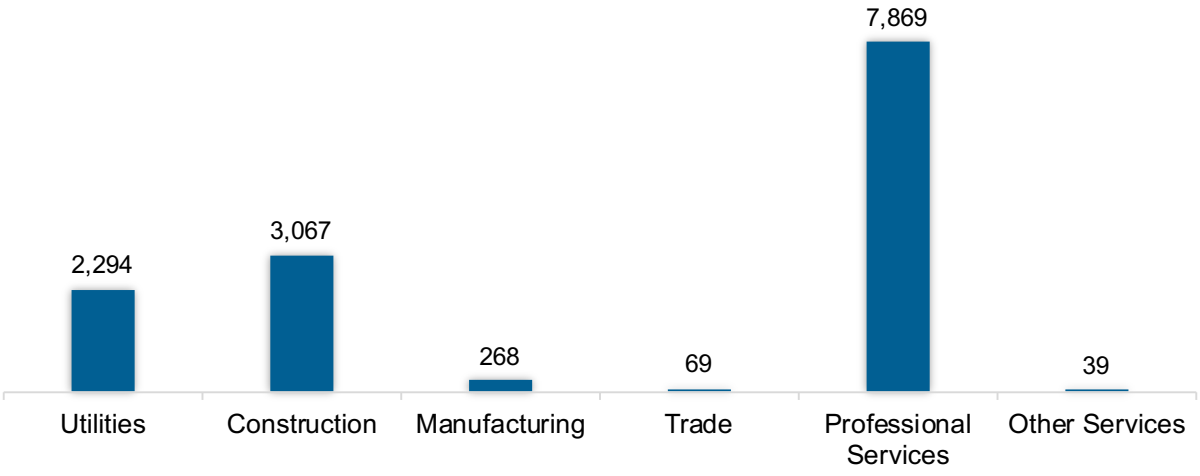
As shown in Figure KS-2, the electric power generation sector employed 13,605 workers in Kansas, 1.5% of the national electricity total, and lost 4 jobs from 2021 to 2022 (0.0%).

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



Professional and business services was the largest industry sector in the electric power generation sector, with 57.8% of jobs. Construction was second largest with 22.5% (Figure KS-3).

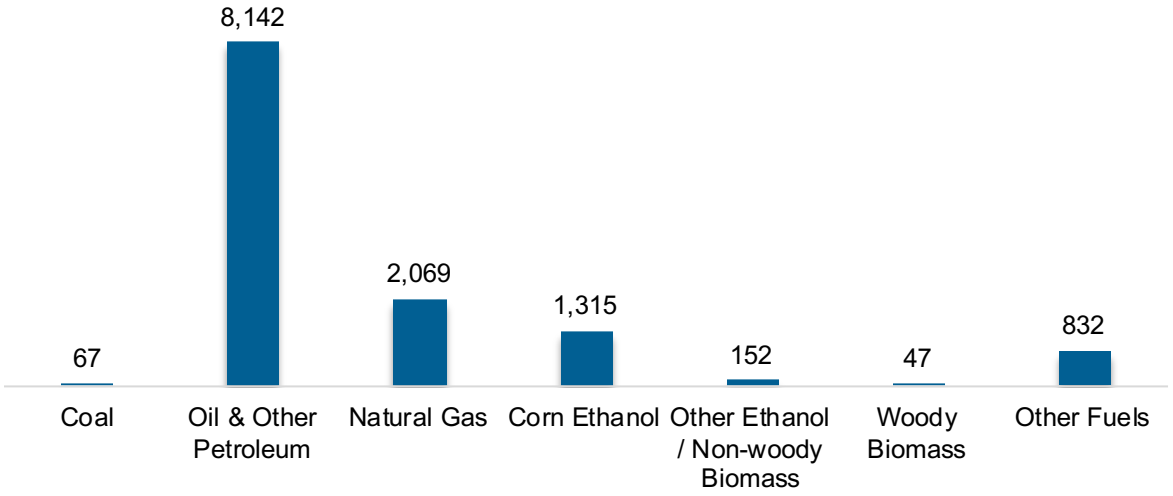
Figure KS-3. Electric Power Generation Employment by Industry Sector



Fuels

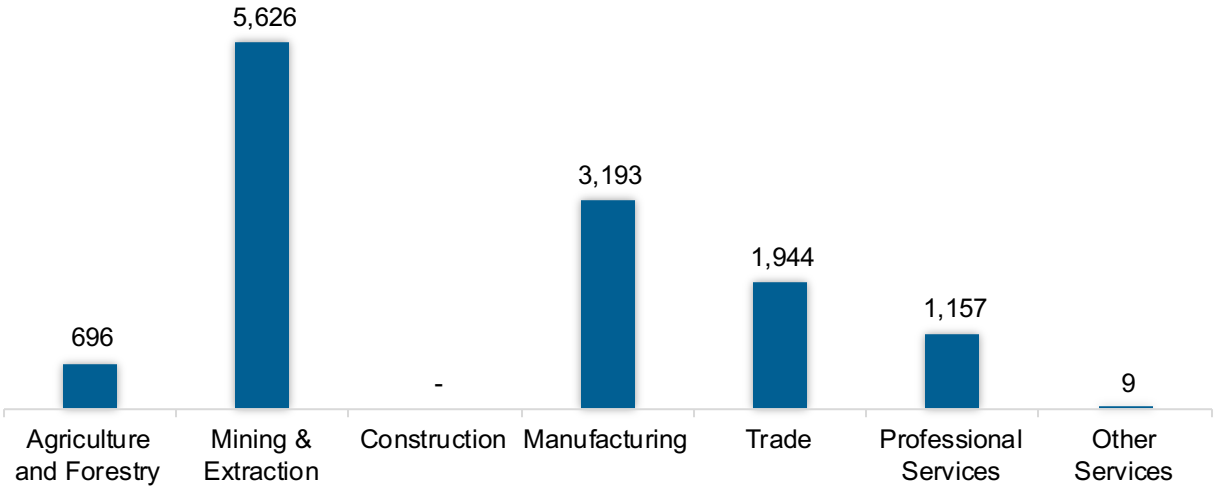
The Fuel sector employed 12,625 workers in Kansas, 1.2% of the national total in fuels (Figure KS-4). The sector gained 1,196 jobs and increased 10.5% from 2021 to 2022.

Figure KS-4. Fuels Employment by Detailed Technology Application



Mining and extraction jobs represented 44.6% of fuel jobs in Kansas (Figure KS-5).

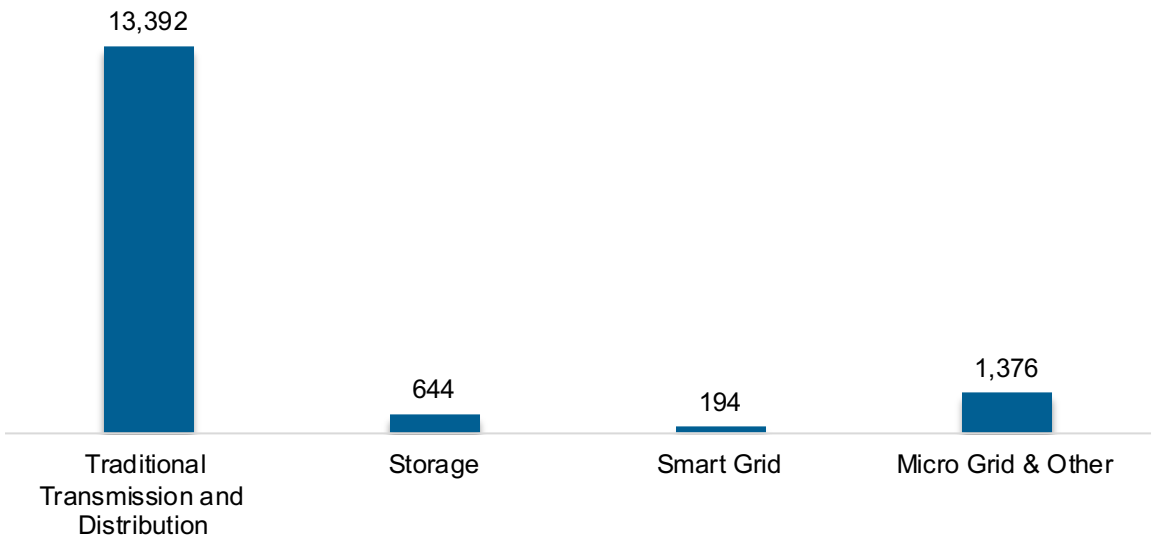
Figure KS-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

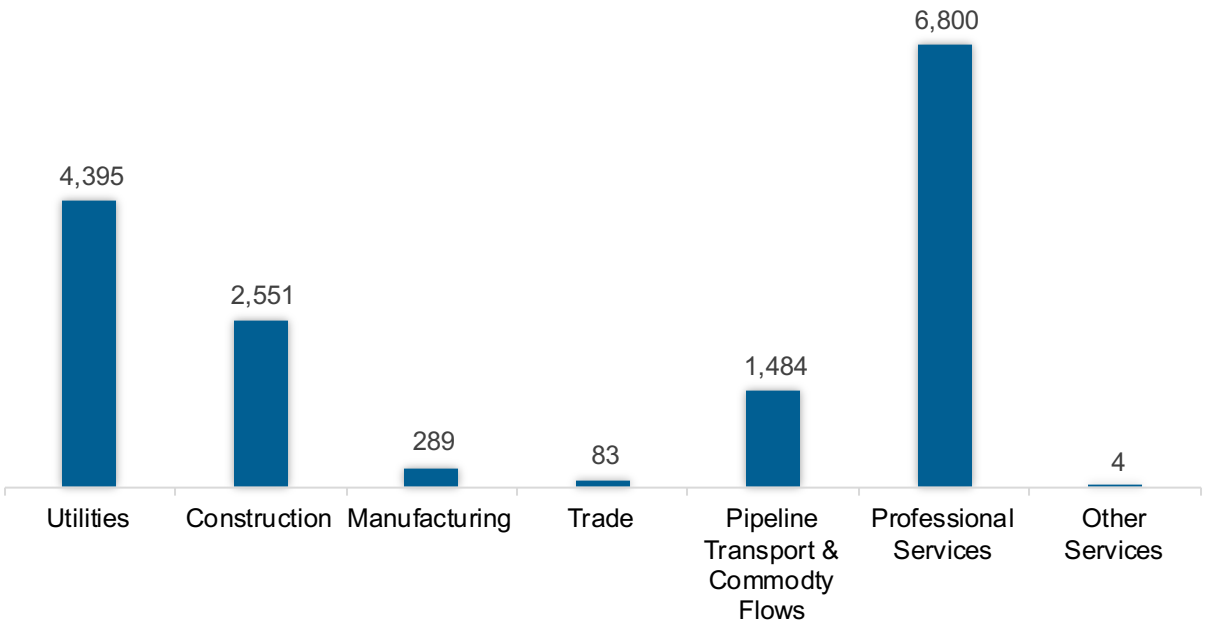
The transmission, distribution, and storage (TDS) sector employed 15,606 workers in Kansas, 1.2% of the national TDS total (Figure KS-6). The sector lost 145 jobs and decreased 0.9% from 2021 to 2022.

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



Professional and business services was the largest proportion of TDS jobs in Kansas, accounting for 43.6% of the sector's jobs statewide (Figure KS-7).

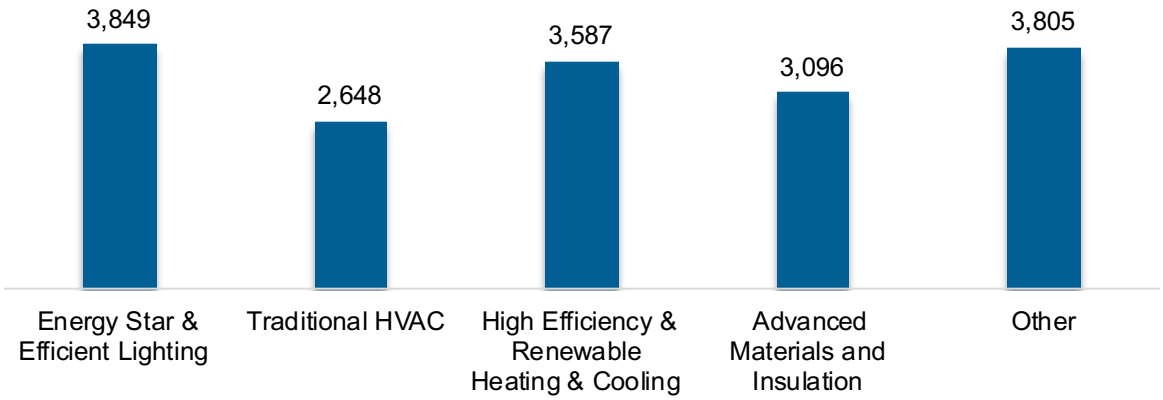
Figure KS-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

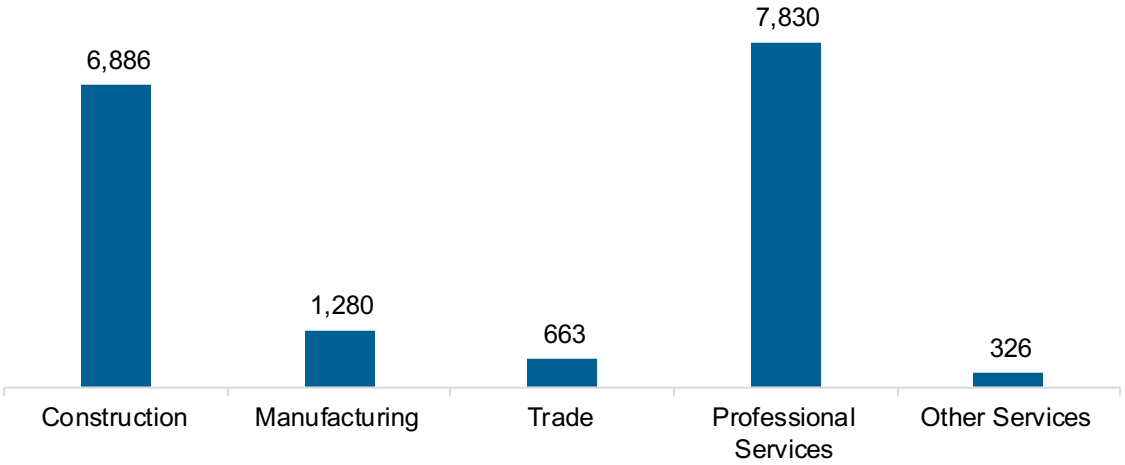
The energy efficiency (EE) sector employed 16,984 workers in Kansas, 0.8% of the national EE total. The EE sector added 590 jobs and increased 3.6% from 2021 to 2022 (Figure KS-8).

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



Energy efficiency employment was primarily found in the professional and business services industry (Figure KS-9).

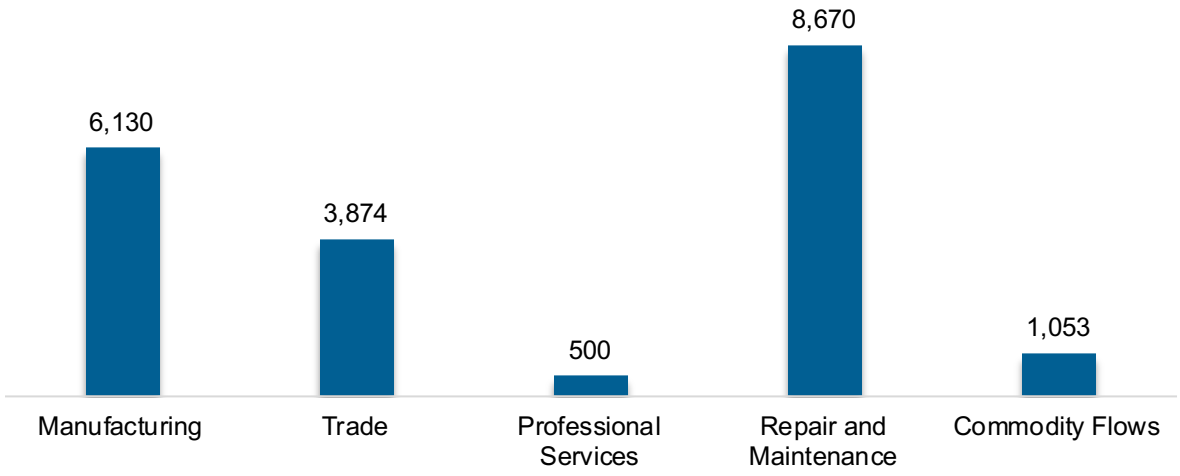
Figure KS-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 20,227 workers in Kansas, 0.8% of the national total for the sector. Motor vehicles and component parts added 163 jobs and increased 0.8% from 2021 to 2022. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure KS-10).

Figure KS-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 39,855 jobs in clean energy in Kansas if traditional transmission and distribution is included and 26,430 jobs if it is not.[17] These increased under either definition, growing 2.2% with traditional transmission and distribution and 4.2% without.

Employer Perspectives

Expected Growth

Employers in Kansas were less optimistic than their peers across the country about energy sector job growth over the next year (Table KS-1).

Table KS-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	4.9	6.0
Electric Power Transmission, Distribution, and Storage	3.8	3.9
Energy Efficiency	5.1	6.4
Fuels	2.7	1.6
Motor Vehicles	4.6	5.5

[17] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in Kansas reported 52% overall hiring difficulty (Table KS-2).

Table KS-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	24	28	6	43	52

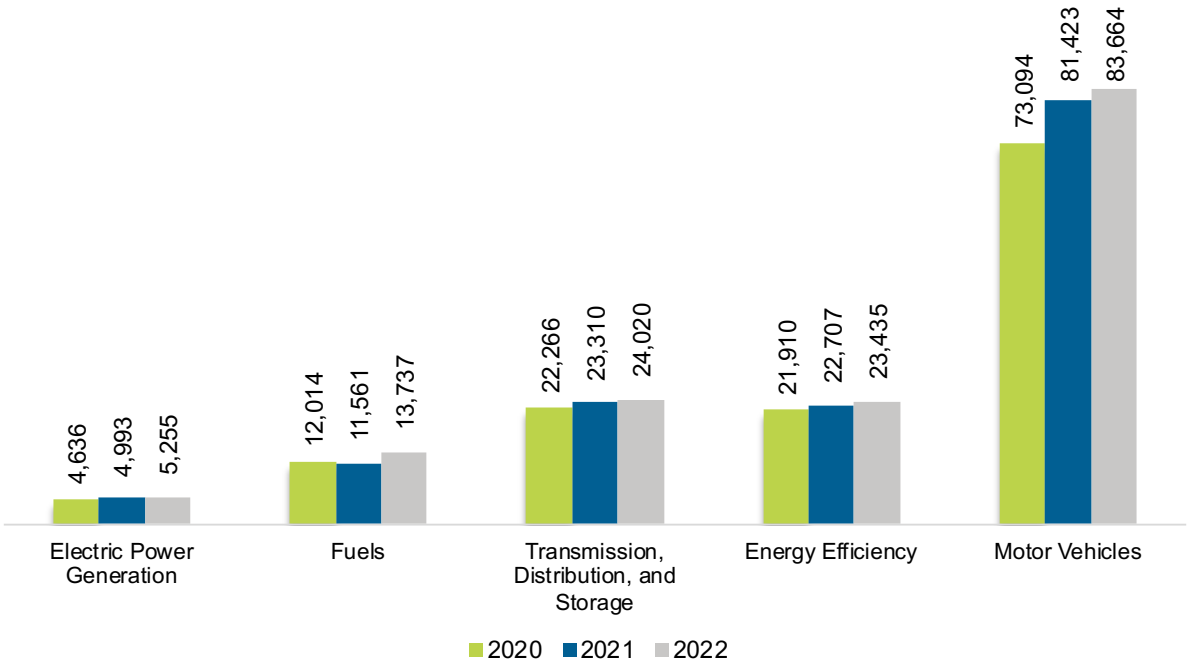
Kentucky

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

Kentucky had 150,111 energy workers statewide in 2022, representing 1.8% of all U.S. energy jobs. Of these energy jobs, 5,255 were in electric power generation; 13,737 in fuels; 24,020 in transmission, distribution, and storage; 23,435 in energy efficiency; and 83,664 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 6,117 jobs, or 4.2% (Figure KY-1). The energy sector in Kentucky represented 7.7% of total state employment.

Figure KY-1. Employment by Major Energy Technology Application

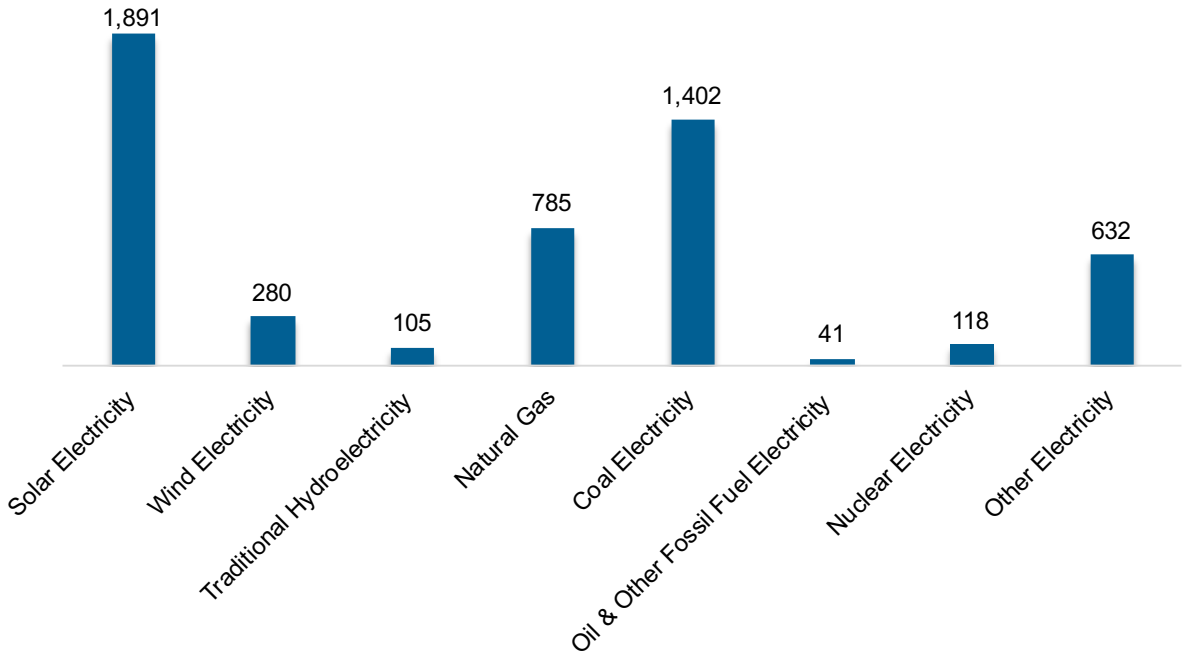


Breakdown by Technology Applications

Electric Power Generation

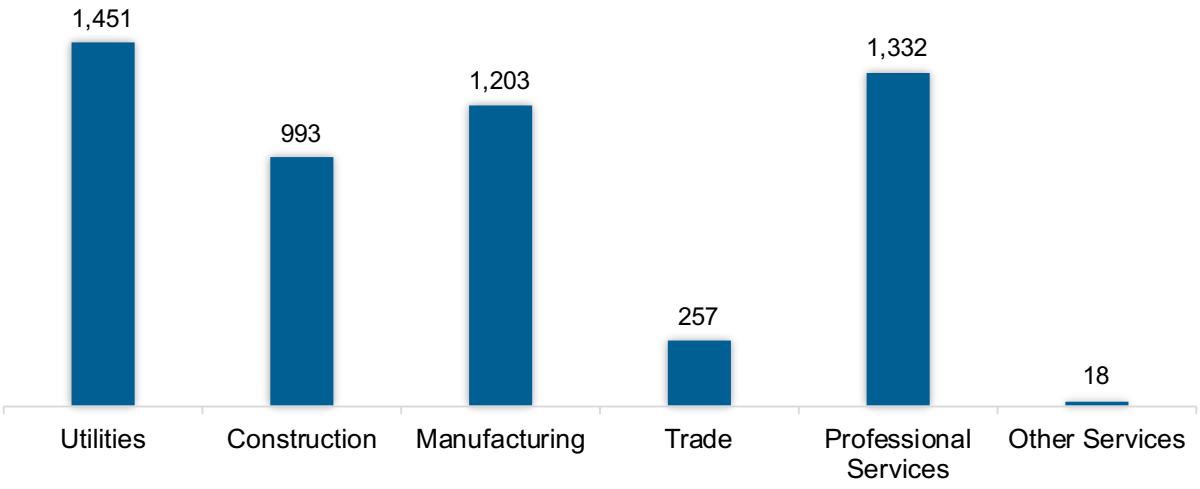
As shown in Figure KY-2, the electric power generation sector employed 5,255 workers in Kentucky, 0.6% of the national electricity total, and added 262 jobs from 2021 to 2022 (5.2%).

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



Utilities was the largest industry sector in the electric power generation sector, with 27.6% of jobs. Professional and business services was second largest with 25.3% (Figure KY-3).

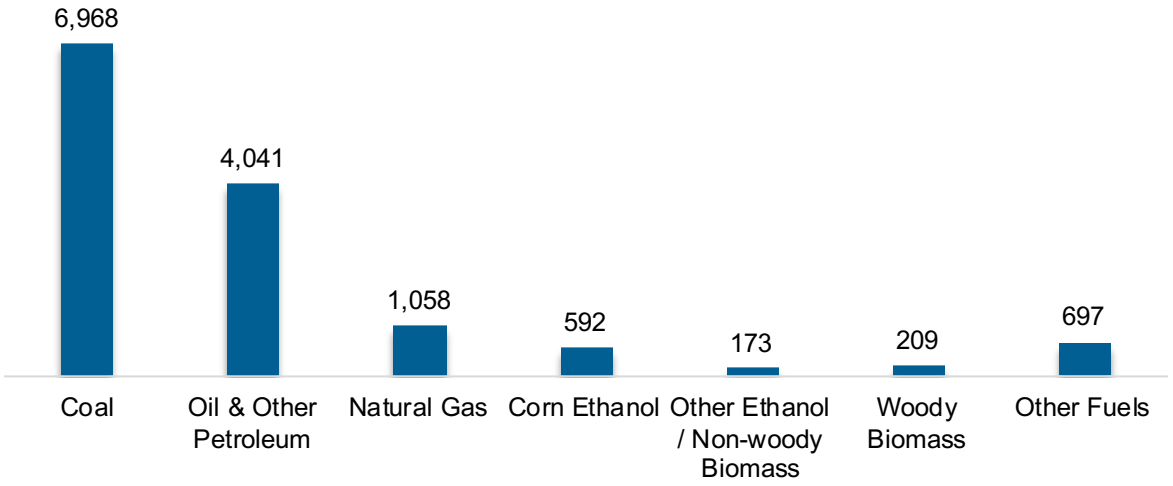
Figure KY-3. Electric Power Generation Employment by Industry Sector



Fuels

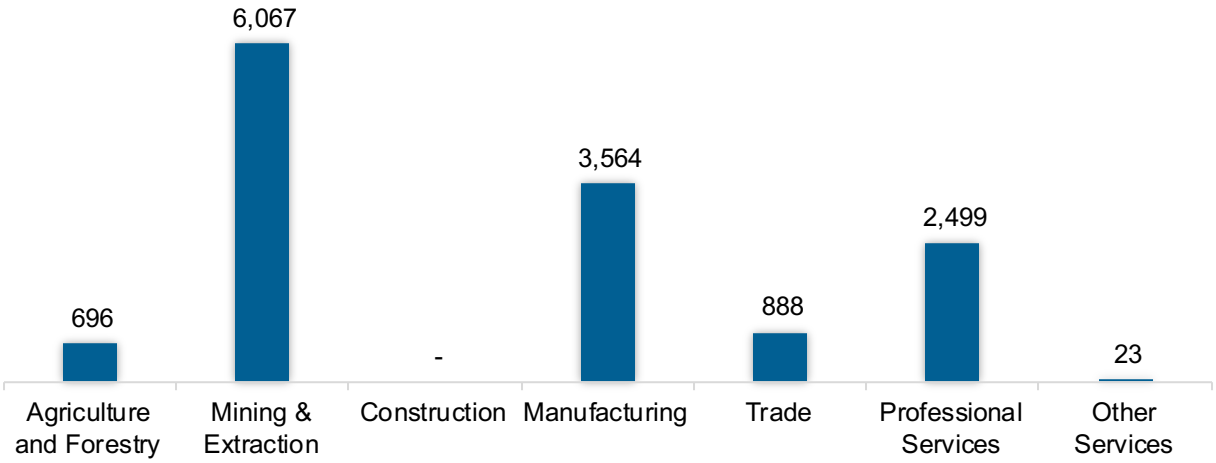
The Fuel sector employed 13,737 workers in Kentucky, 1.3% of the national total in fuels (Figure KY-4). The sector gained 2,176 jobs and increased 18.8% from 2021 to 2022.

Figure KY-4. Fuels Employment by Detailed Technology Application



Mining and extraction jobs represented 44.2% of fuel jobs in Kentucky (Figure KY-5).

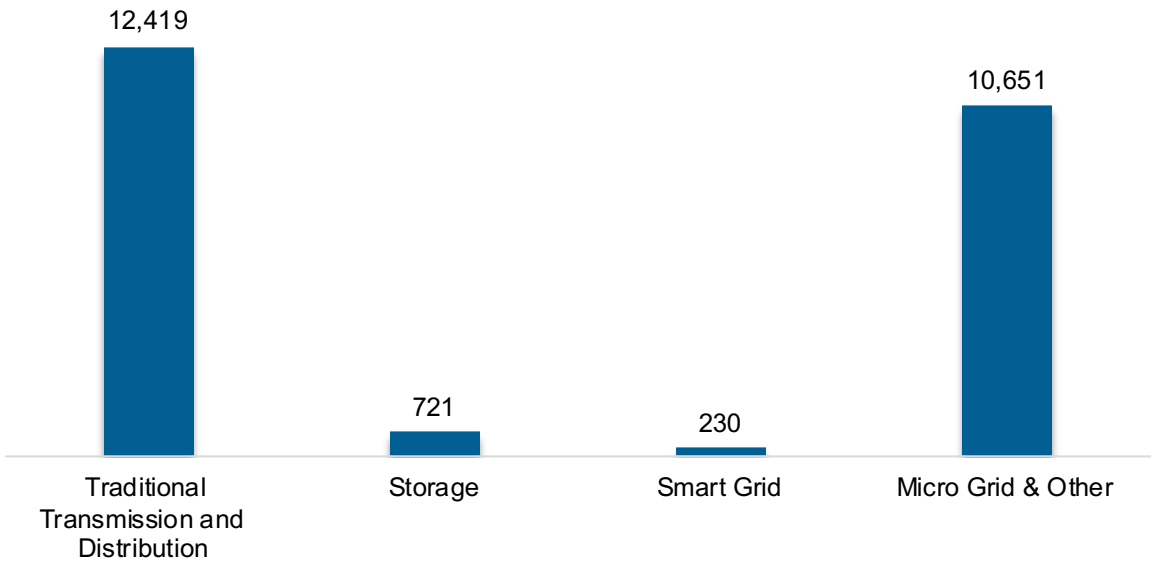
Figure KY-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

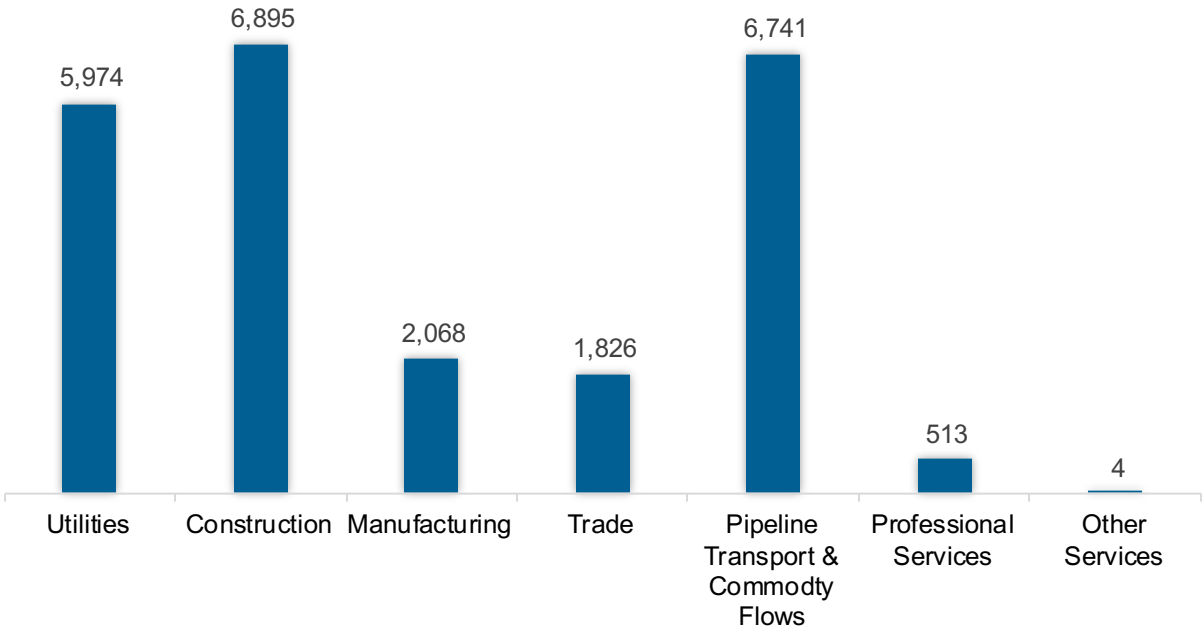
The transmission, distribution, and storage (TDS) sector employed 24,020 workers in Kentucky, 1.3% of the national TDS total (Figure KY-6). The sector gained 710 jobs and increased 3.0% from 2021 to 2022.

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



Construction was the largest proportion of TDS jobs in Kentucky, accounting for 28.7% of the sector's jobs statewide (Figure KY-7).

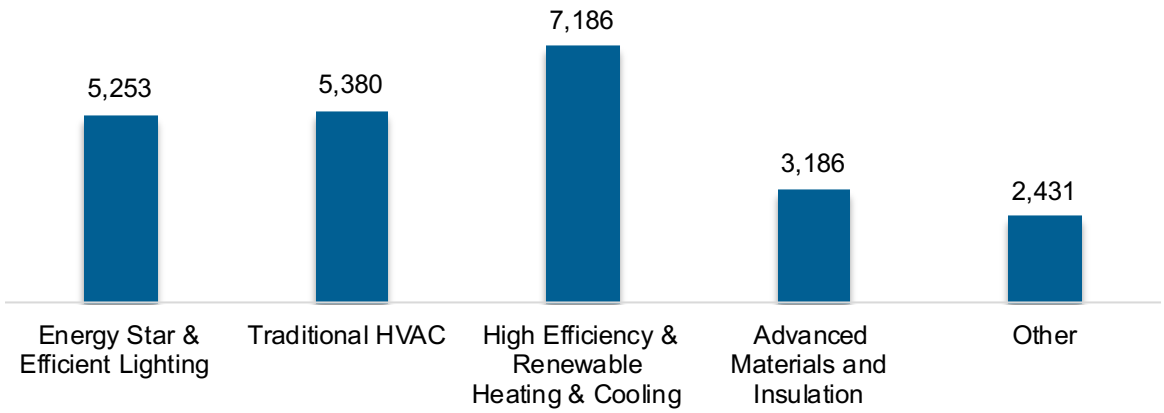
Figure KY-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

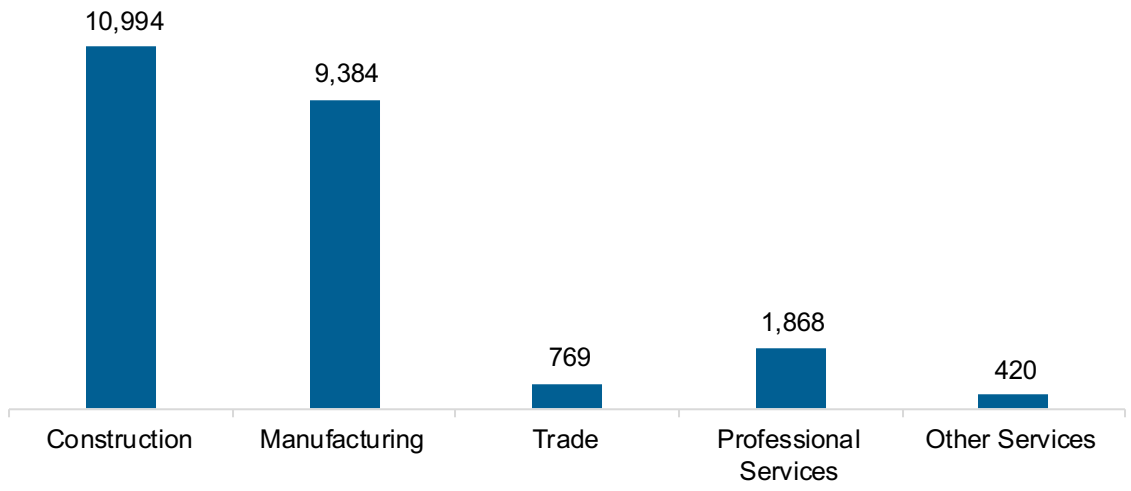
The energy efficiency (EE) sector employed 23,435 workers in Kentucky, 1.1% of the national EE total. The EE sector added 728 jobs and increased 3.2% from 2021 to 2022 (Figure KY-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure KY-9).

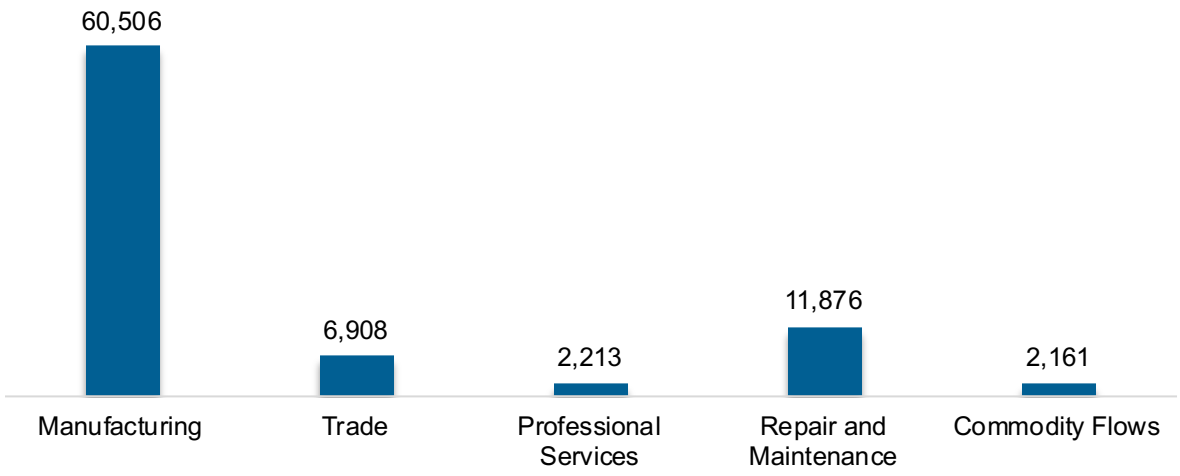
Figure KY-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 83,664 workers in Kentucky, 3.2% of the national total for the sector. Motor vehicles and component parts added 2,241 jobs and increased 2.8% from 2021 to 2022. Manufacturing is the largest proportion of motor vehicle jobs (Figure KY-10).

Figure KY-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 46,463 jobs in clean energy in Kentucky if traditional transmission and distribution is included and 34,008 jobs if it is not.[18] These increased under either definition, growing 4.6% with traditional transmission and distribution and 6.1% without.

Employer Perspectives

Expected Growth

Employers in Kentucky were less optimistic than their peers across the country about energy sector job growth over the next year (Table KY-1).

Table KY-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	3.4	6.0
Electric Power Transmission, Distribution, and Storage	2.3	3.9
Energy Efficiency	3.6	6.4
Fuels	1.2	1.6
Motor Vehicles	3.1	5.5

[18] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in Kentucky reported 57% overall hiring difficulty (Table KY-2).

Table KY-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	29	28	4	39	57

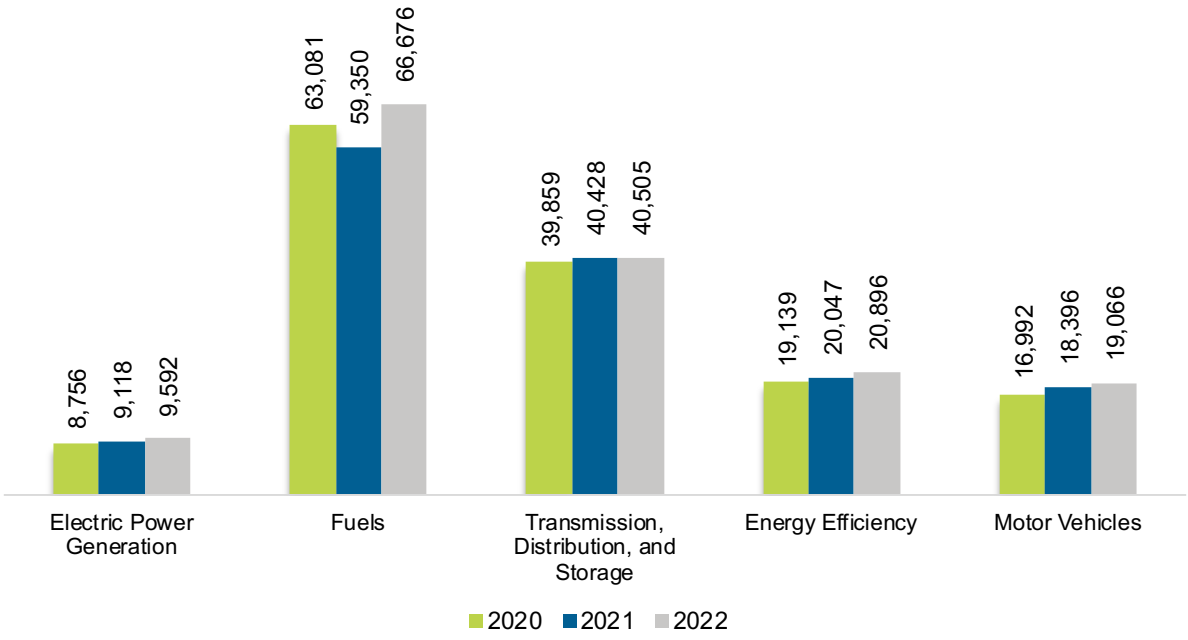
Louisiana

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

Louisiana had 156,736 energy workers statewide in 2022, representing 1.9% of all U.S. energy jobs. Of these energy jobs, 9,592 were in electric power generation; 66,676 in fuels; 40,505 in transmission, distribution, and storage; 20,896 in energy efficiency; and 19,066 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 9,397 jobs, or 6.4% (Figure LA-1). The energy sector in Louisiana represented 8.4% of total state employment.

Figure LA-1. Employment by Major Energy Technology Application

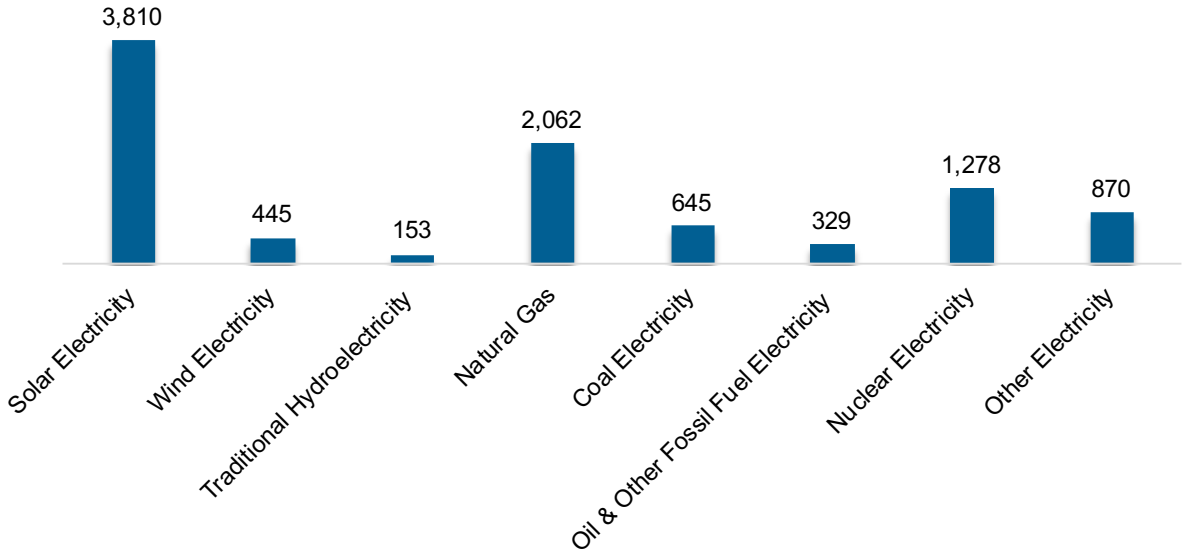


Breakdown by Technology Applications

Electric Power Generation

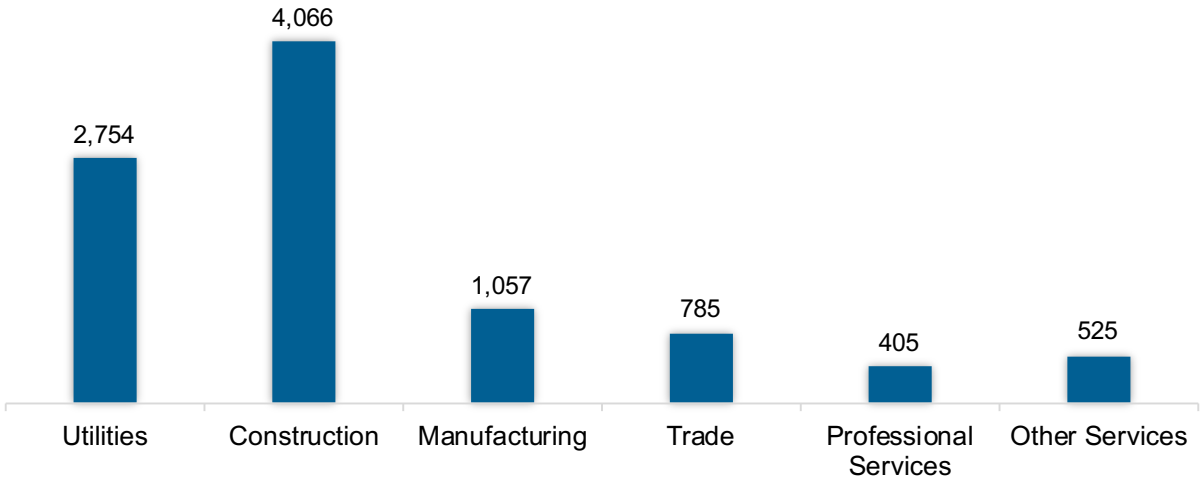
As shown in Figure LA-2, the electric power generation sector employed 9,592 workers in Louisiana, 1.1% of the national electricity total, and added 475 jobs from 2021 to 2022 (5.2%).

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



Construction was the largest industry sector in the electric power generation sector, with 42.4% of jobs. Utilities was second largest with 28.7% (Figure LA-3).

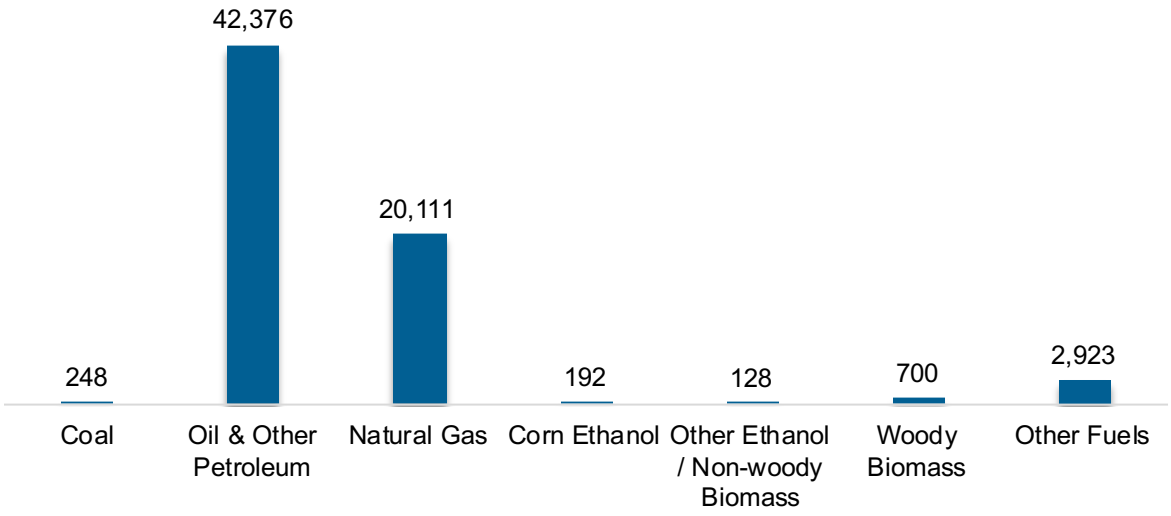
Figure LA-3. Electric Power Generation Employment by Industry Sector



Fuels

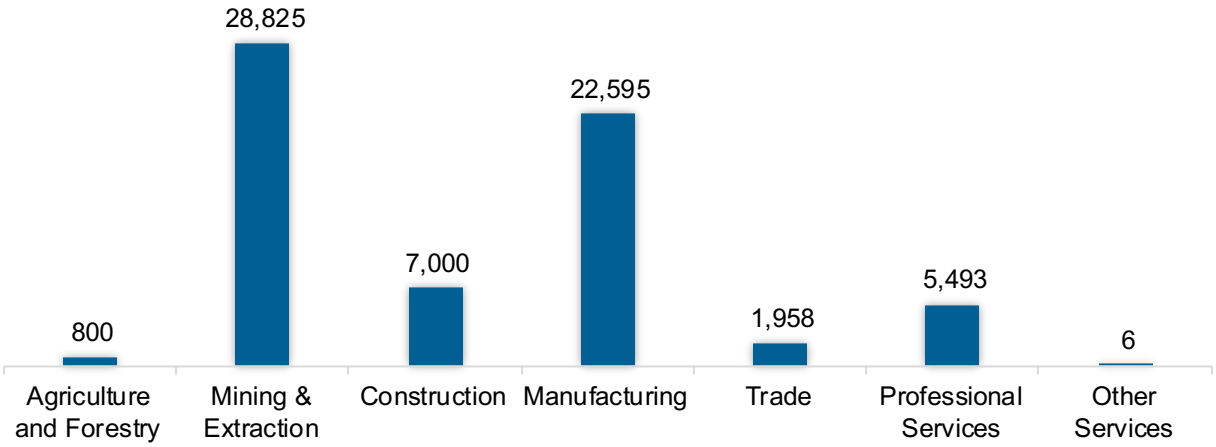
The Fuel sector employed 66,676 workers in Louisiana, 6.5% of the national total in fuels (Figure LA-4). The sector gained 7,326 jobs and increased 12.3% from 2021 to 2022.

Figure LA-4. Fuels Employment by Detailed Technology Application



Mining and extraction jobs represented 43.2% of fuel jobs in Louisiana (Figure LA-5).

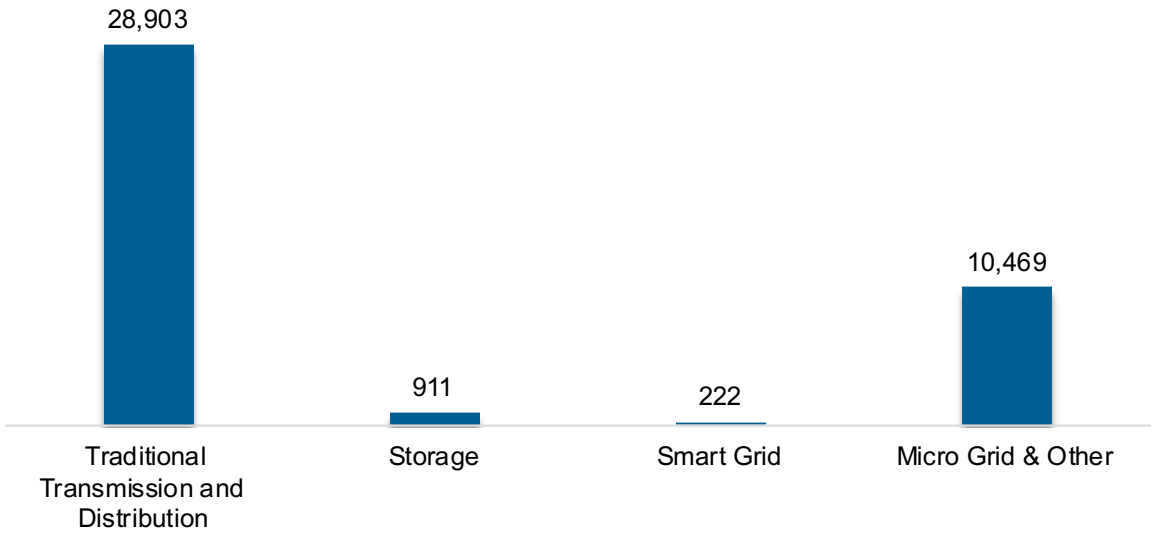
Figure LA-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

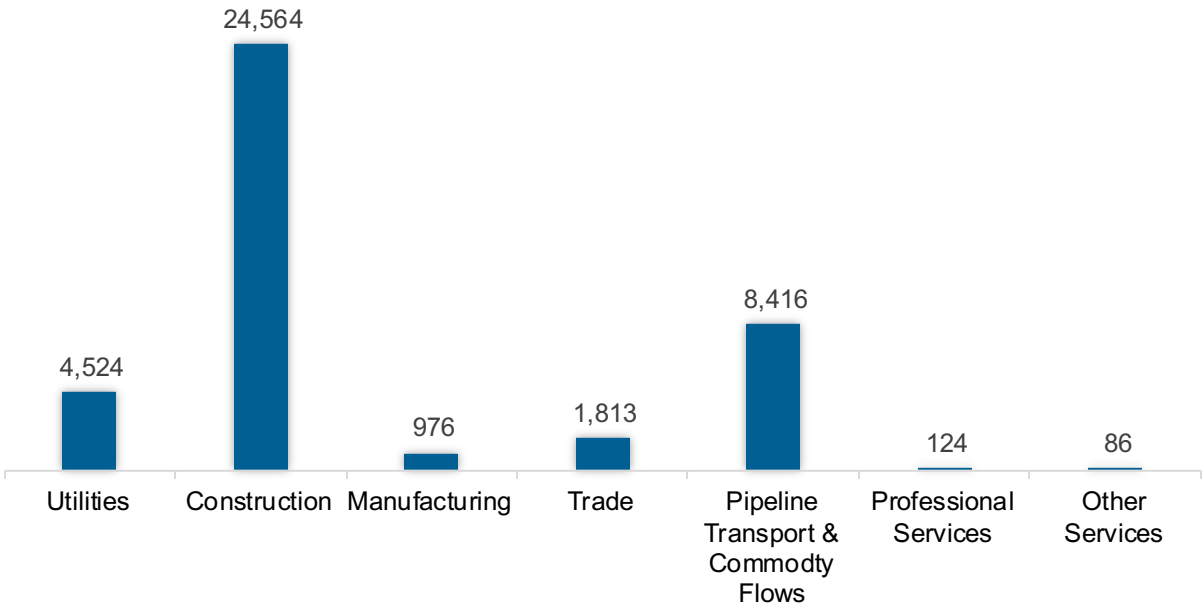
The transmission, distribution, and storage (TDS) sector employed 40,505 workers in Louisiana, 6.5% of the national TDS total (Figure LA-6). The sector gained 77 jobs and increased 0.2% from 2021 to 2022.

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



Construction was the largest proportion of TDS jobs in Louisiana, accounting for 60.6% of the sector's jobs statewide (Figure LA-7).

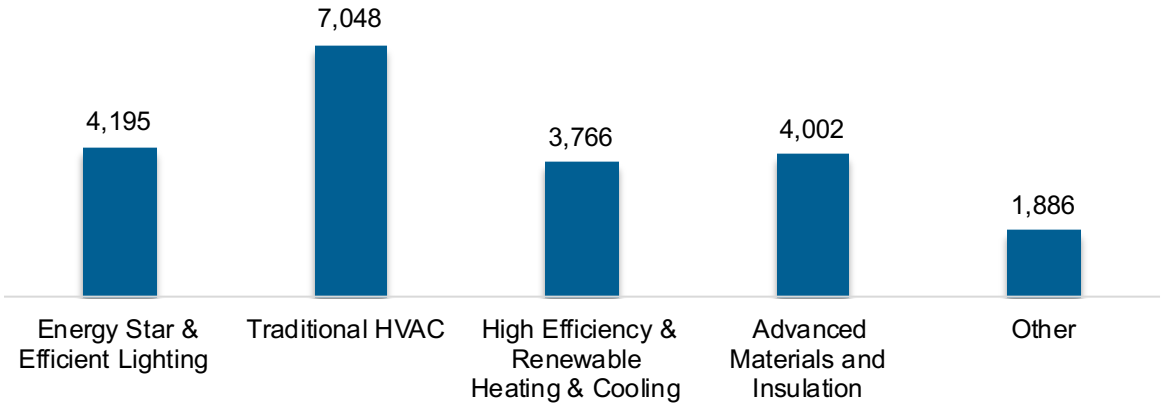
Figure LA-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

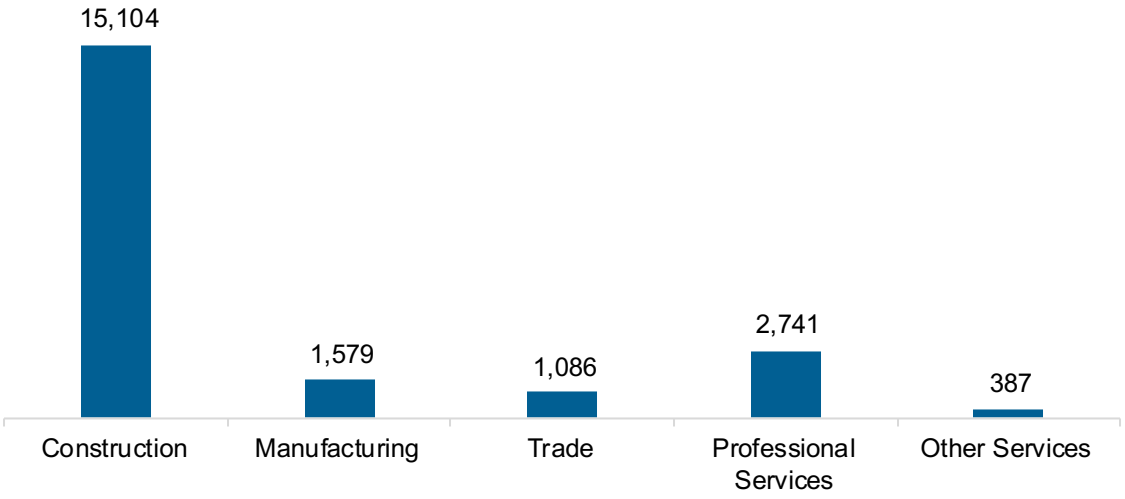
The energy efficiency (EE) sector employed 20,896 workers in Louisiana, 0.9% of the national EE total. The EE sector added 849 jobs and increased 4.2% from 2021 to 2022 (Figure LA-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure LA-9).

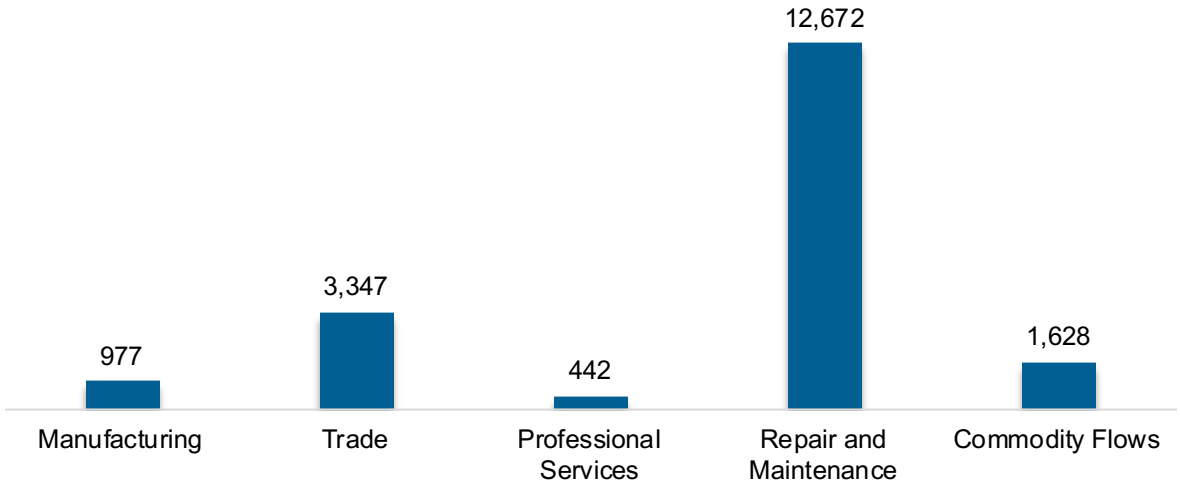
Figure LA-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 19,066 workers in Louisiana, 0.7% of the national total for the sector. Motor vehicles and component parts added 671 jobs and increased 3.6% from 2021 to 2022. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure LA-10).

Figure LA-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 60,091 jobs in clean energy in Louisiana if traditional transmission and distribution is included and 31,141 jobs if it is not.[19] These increased under either definition, growing 2.1% with traditional transmission and distribution and 5.3% without.

Employer Perspectives

Expected Growth

Employers in Louisiana were more optimistic than their peers across the country about energy sector job growth over the next year (Table LA-1).

Table LA-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	6.4	6.0
Electric Power Transmission, Distribution, and Storage	5.4	3.9
Energy Efficiency	6.6	6.4
Fuels	4.2	1.6
Motor Vehicles	6.2	5.5

[19] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in Louisiana reported 52% overall hiring difficulty (Table LA-2).

Table LA-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	26	26	6	42	52

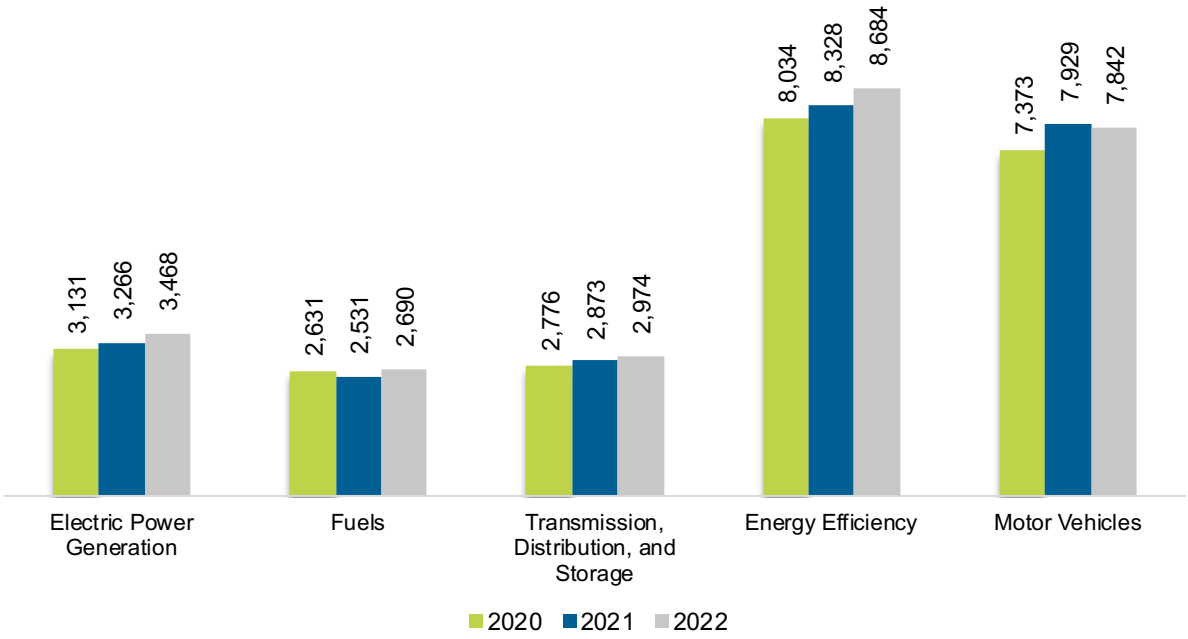
Maine

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

Maine had 25,658 energy workers statewide in 2022, representing 0.3% of all U.S. energy jobs. Of these energy jobs, 3,468 were in electric power generation; 2,690 in fuels; 2,974 in transmission, distribution, and storage; 8,684 in energy efficiency; and 7,842 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 730 jobs, or 2.9% (Figure ME-1). The energy sector in Maine represented 4.0% of total state employment.

Figure ME-1. Employment by Major Energy Technology Application

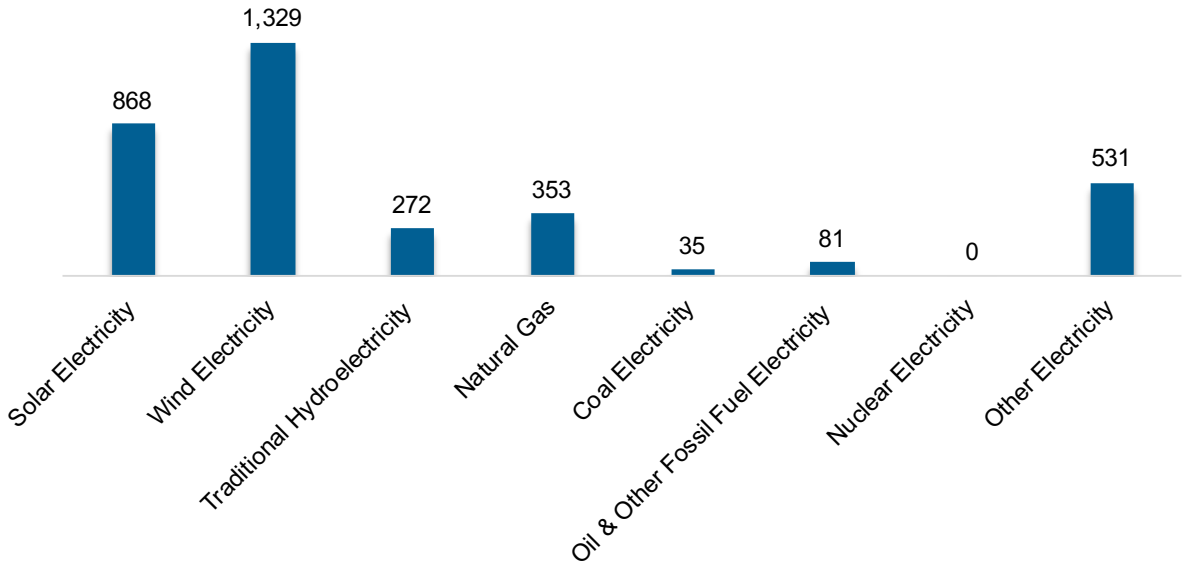


Breakdown by Technology Applications

Electric Power Generation

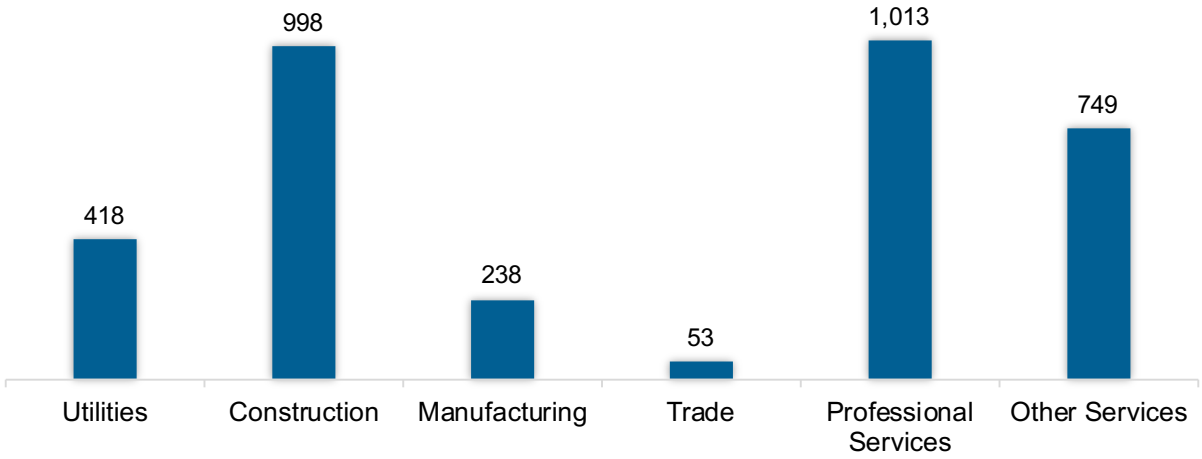
As shown in Figure ME-2, the electric power generation sector employed 3,468 workers in Maine, 0.4% of the national electricity total, and added 202 jobs from 2021 to 2022 (6.2%).

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



Professional and business services was the largest industry sector in the electric power generation sector, with 29.2% of jobs. Construction was second largest with 28.8% (Figure ME-3).

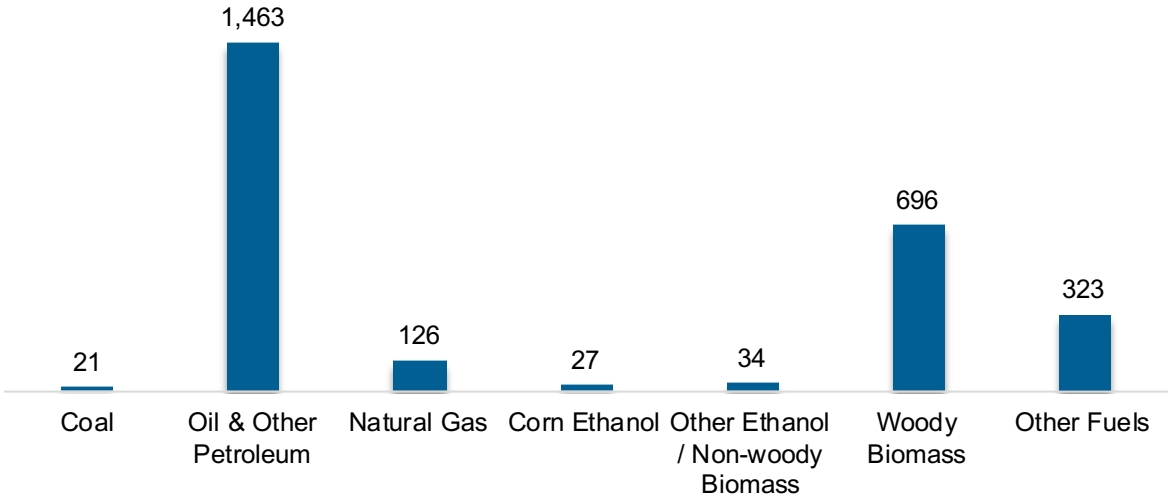
Figure ME-3. Electric Power Generation Employment by Industry Sector



Fuels

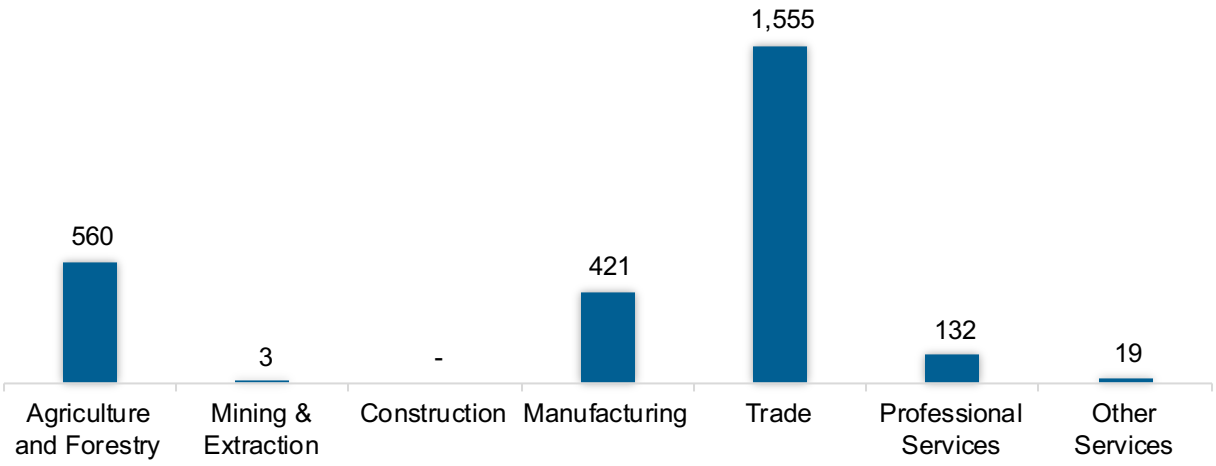
The Fuel sector employed 2,690 workers in Maine, 0.3% of the national total in fuels (Figure ME-4). The sector gained 159 jobs and increased 6.3% from 2021 to 2022.

Figure ME-4. Fuels Employment by Detailed Technology Application



Wholesale trade jobs represented 57.8% of fuel jobs in Maine (Figure ME-5).

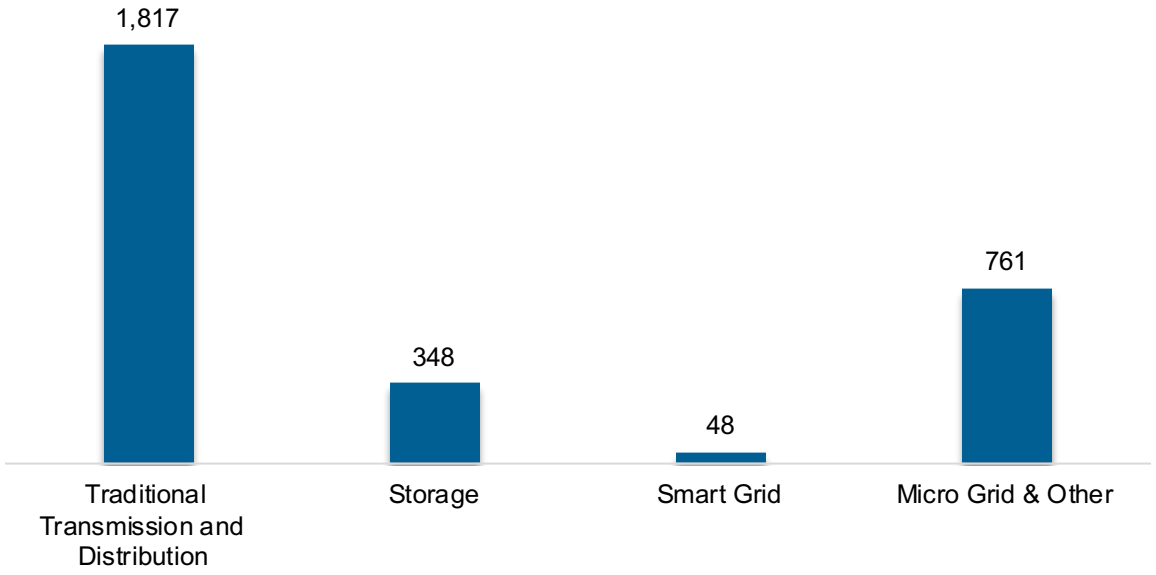
Figure ME-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

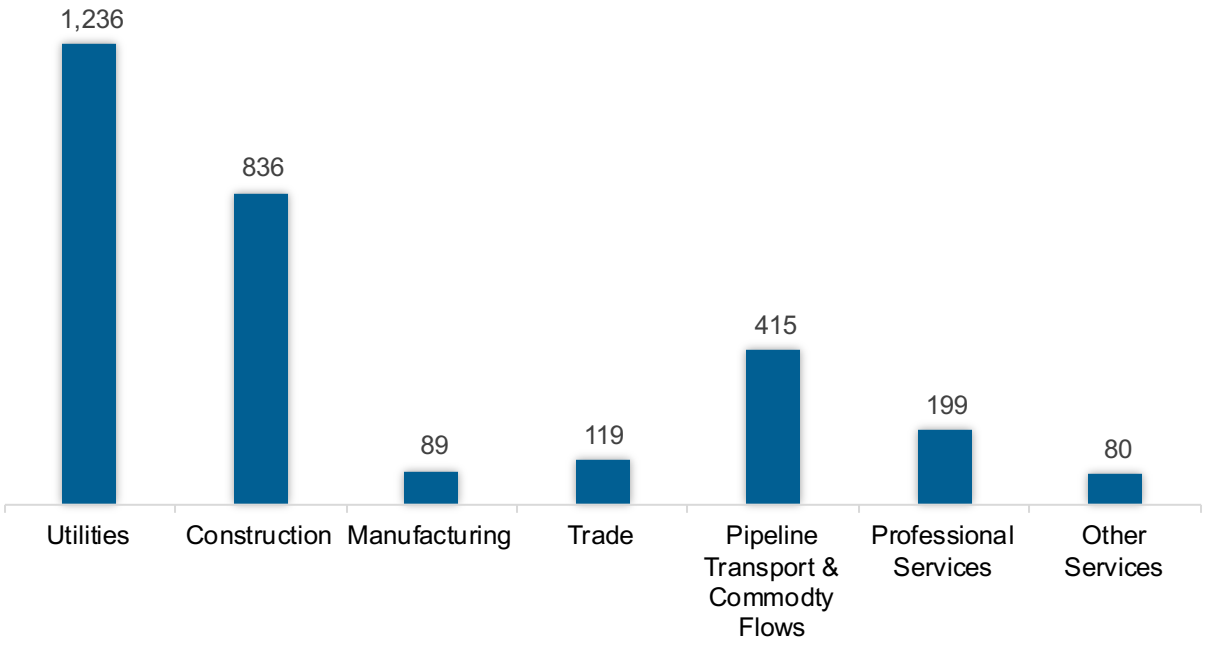
The transmission, distribution, and storage (TDS) sector employed 2,974 workers in Maine, 0.3% of the national TDS total (Figure ME-6). The sector gained 101 jobs and increased 3.5% from 2021 to 2022.

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



Utilities was the largest proportion of TDS jobs in Maine, accounting for 41.6% of the sector's jobs statewide (Figure ME-7).

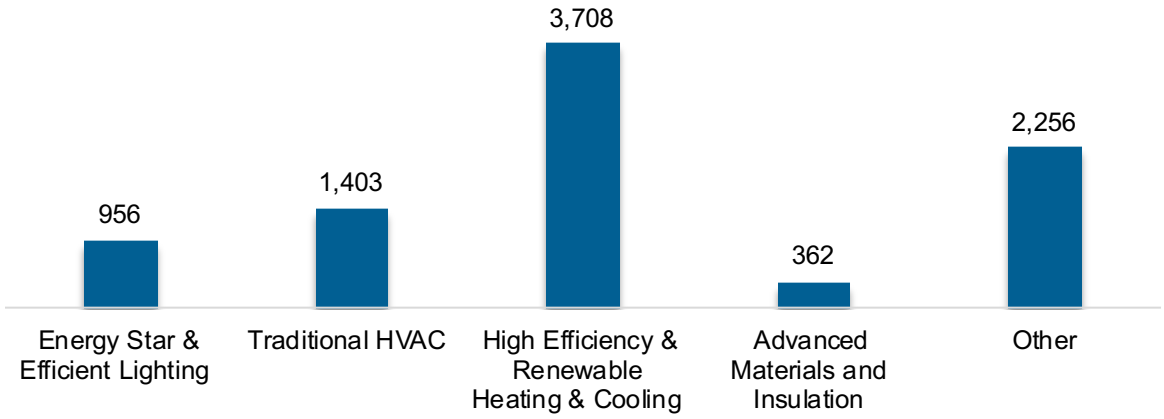
Figure ME-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

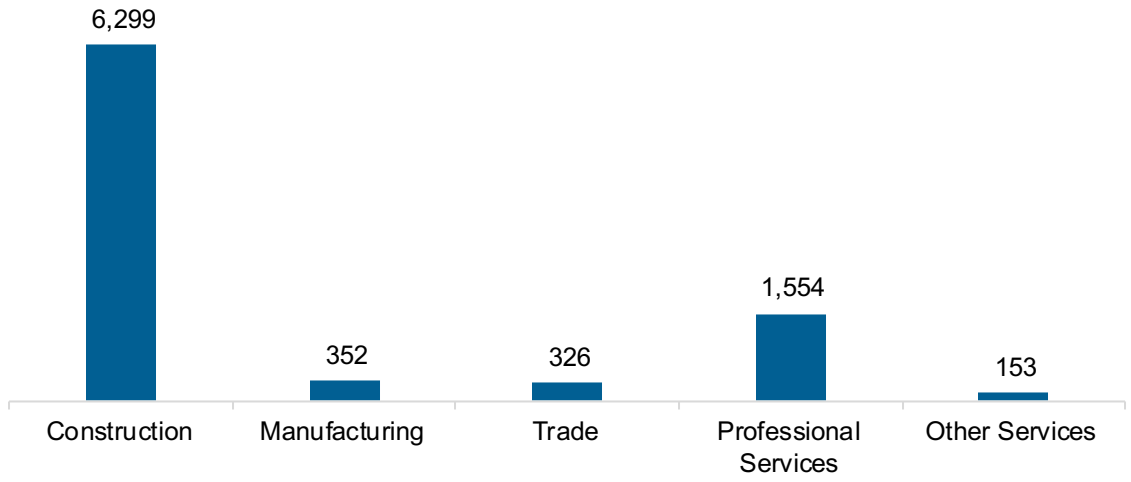
The energy efficiency (EE) sector employed 8,684 workers in Maine, 0.4% of the national EE total. The EE sector added 356 jobs and decreased 4.3% from 2021 to 2022 (Figure ME-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure ME-9).

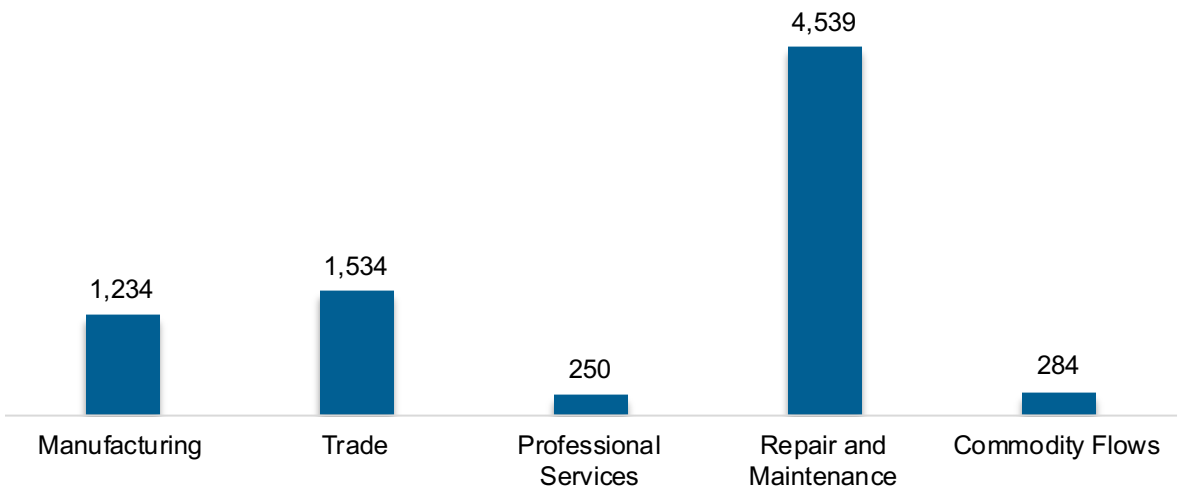
Figure ME-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 7,842 workers in Maine, 0.3% of the national total for the sector. Motor vehicles and component parts lost 88 jobs and decreased 1.1% from 2021 to 2022. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure ME-10).

Figure ME-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 15,395 jobs in clean energy in Maine if traditional transmission and distribution is included and 13,560 jobs if it is not.[20] These increased under either definition, growing 4.1% with traditional transmission and distribution and 4.1% without.

Employer Perspectives

Expected Growth

Employers in Maine were less optimistic than their peers across the country about energy sector job growth over the next year (Table ME-1).

Table ME-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	3.9	6.0
Electric Power Transmission, Distribution, and Storage	2.9	3.9
Energy Efficiency	4.1	6.4
Fuels	1.7	1.6
Motor Vehicles	3.7	5.5

[20] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in Maine reported 54% overall hiring difficulty (Table ME-2).

Table ME-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	27	27	4	41	54

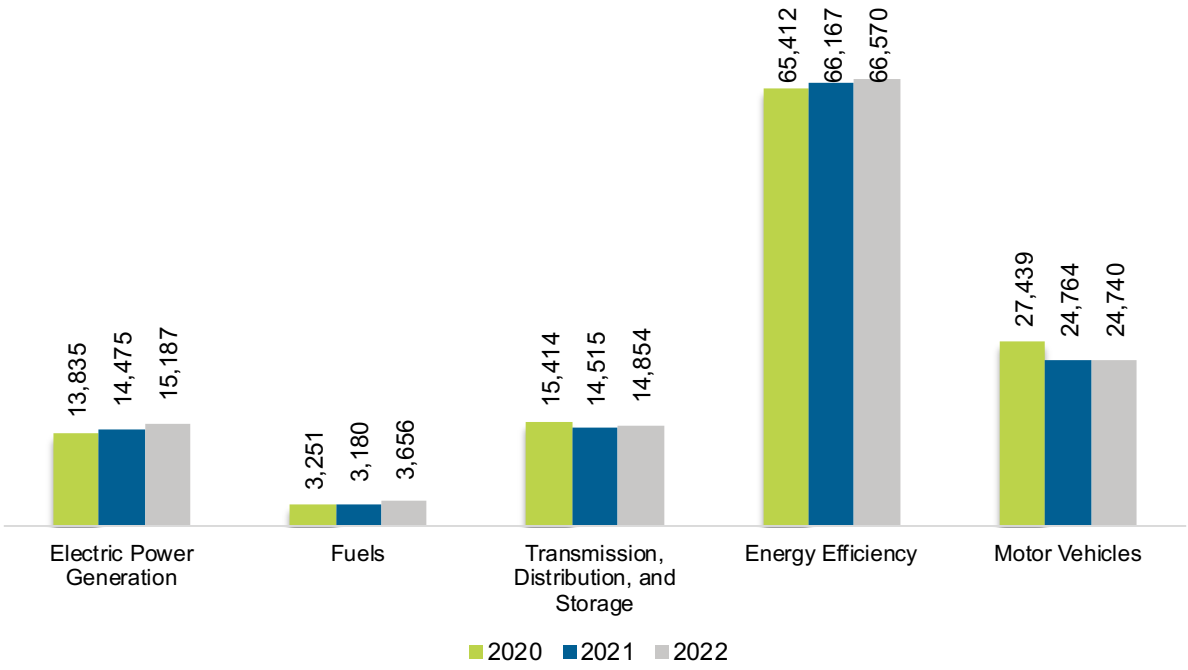
Maryland

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

Maryland had 125,007 energy workers statewide in 2022, representing 1.5% of all U.S. energy jobs. Of these energy jobs, 15,187 were in electric power generation; 3,656 in fuels; 14,854 in transmission, distribution, and storage; 66,570 in energy efficiency; and 24,740 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 1,907 jobs, or 1.5% (Figure MD-1). The energy sector in Maryland represented 4.7% of total state employment.

Figure MD-1. Employment by Major Energy Technology Application

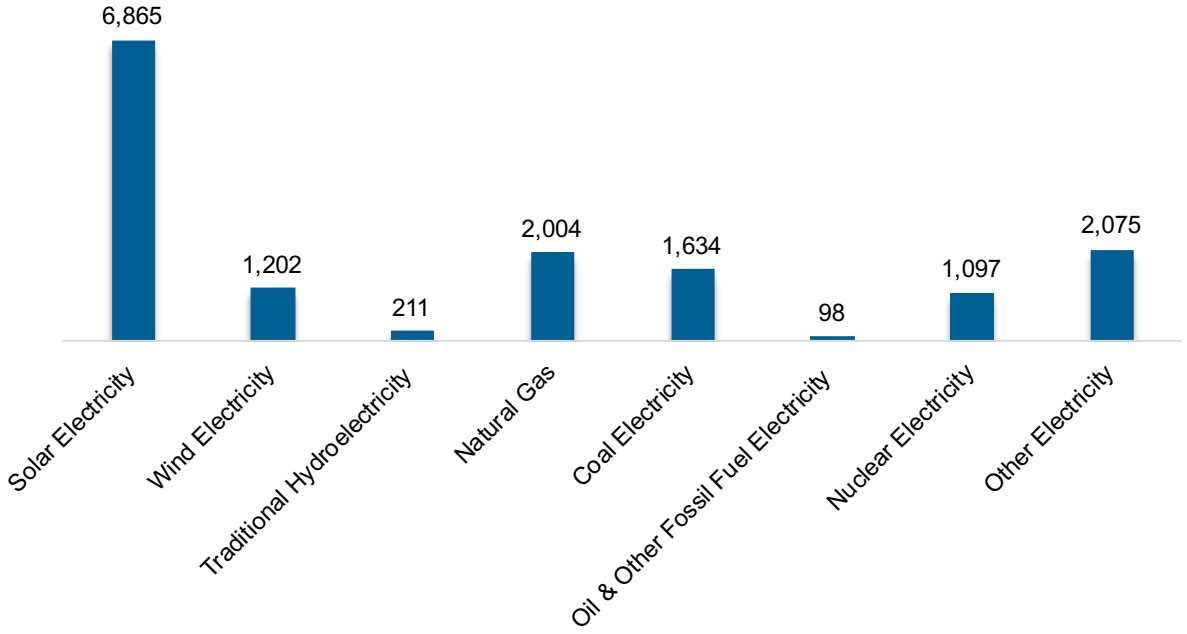


Breakdown by Technology Applications

Electric Power Generation

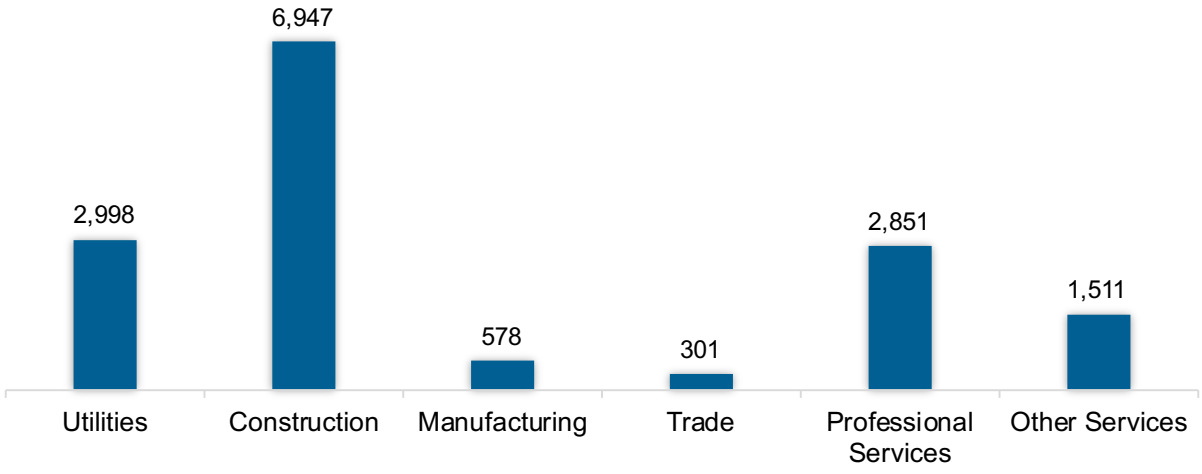
As shown in Figure MD-2, the electric power generation sector employed 15,187 workers in Maryland, 1.7% of the national electricity total, and added 712 jobs from 2021 to 2022 (4.9%).

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



Construction was the largest industry sector in the electric power generation sector, with 45.7% of jobs. Utilities was second largest with 19.7% (Figure MD-3).

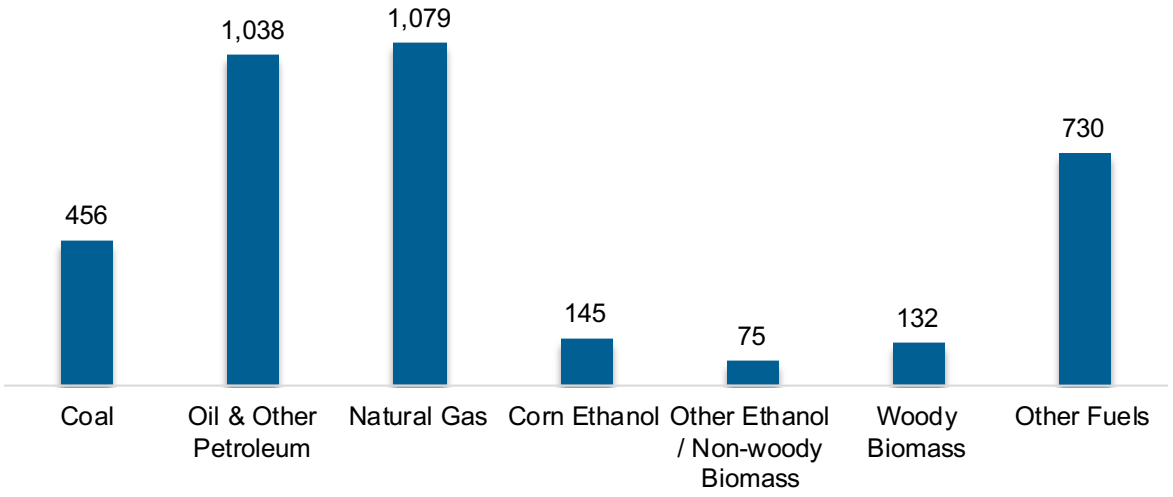
Figure MD-3. Electric Power Generation Employment by Industry Sector



Fuels

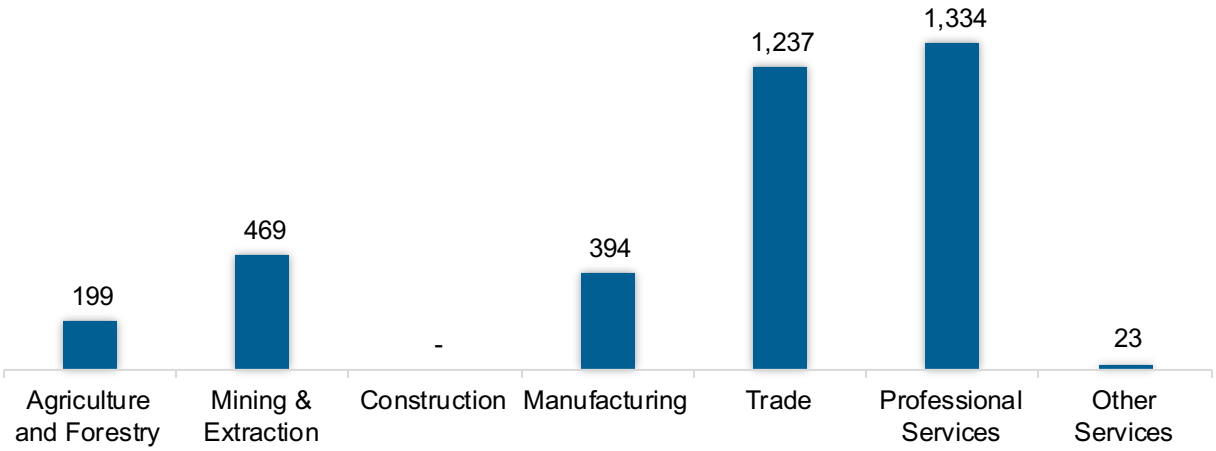
The Fuel sector employed 3,656 workers in Maryland, 0.4% of the national total in fuels (Figure MD-4). The sector gained 477 jobs and increased 15.0% from 2021 to 2022.

Figure MD-4. Fuels Employment by Detailed Technology Application



Professional and business services jobs represented 36.5% of fuel jobs in Maryland (Figure MD-5).

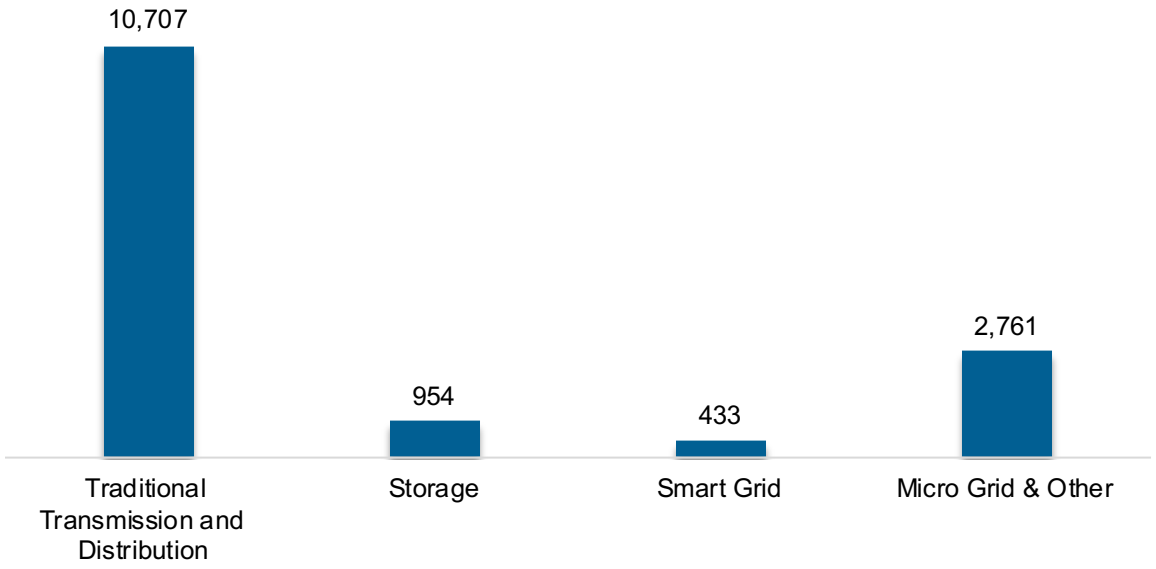
Figure MD-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

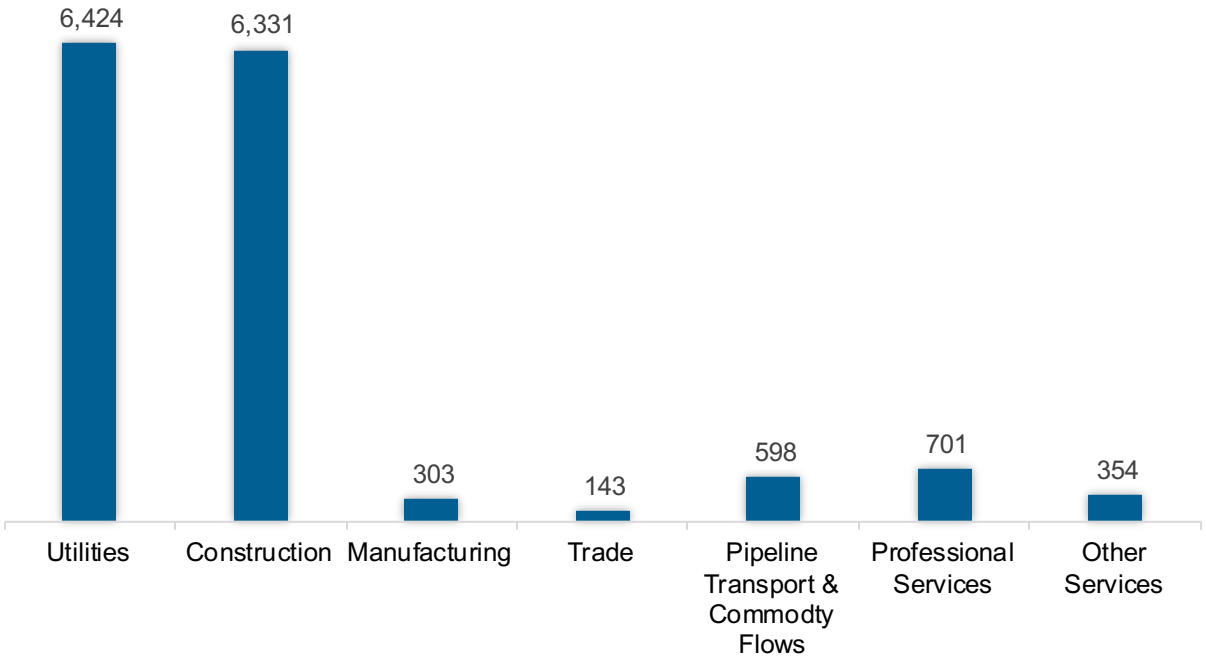
The transmission, distribution, and storage (TDS) sector employed 14,854 workers in Maryland, 0.4% of the national TDS total (Figure MD-6). The sector gained 339 jobs and increased 2.3% from 2021 to 2022.

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



Utilities was the largest proportion of TDS jobs in Maryland, accounting for 43.2% of the sector's jobs statewide (Figure MD-7).

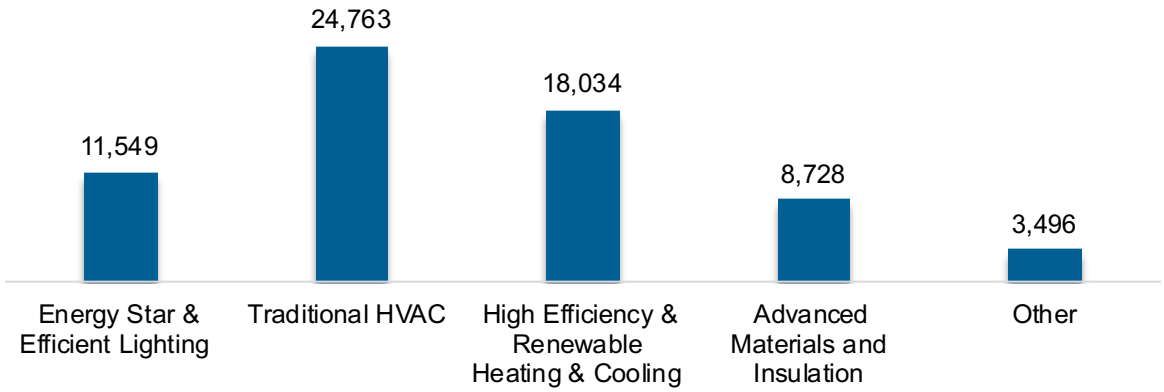
Figure MD-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

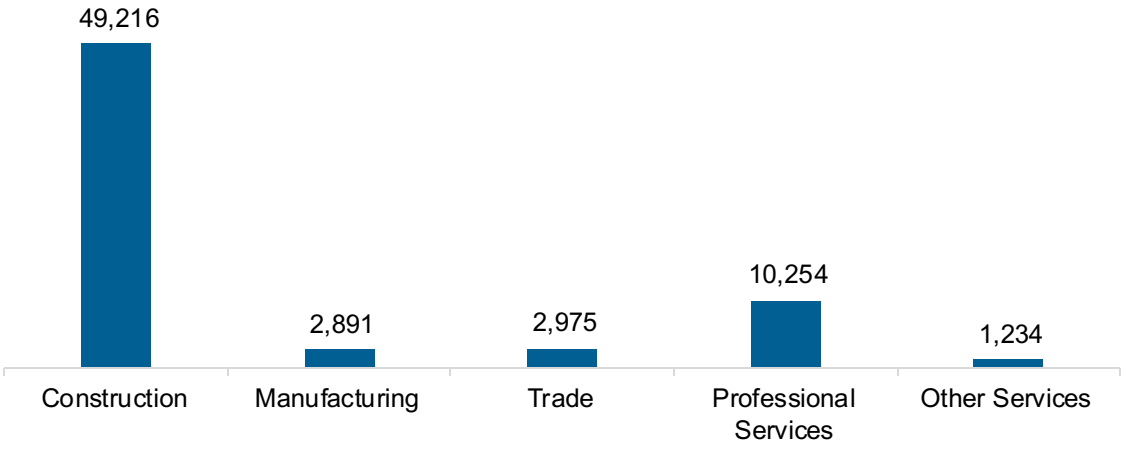
The energy efficiency (EE) sector employed 66,570 workers in Maryland, 3.0% of the national EE total. The EE sector added 402 jobs and decreased 0.6% from 2021 to 2022 (Figure MD-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure MD-9).

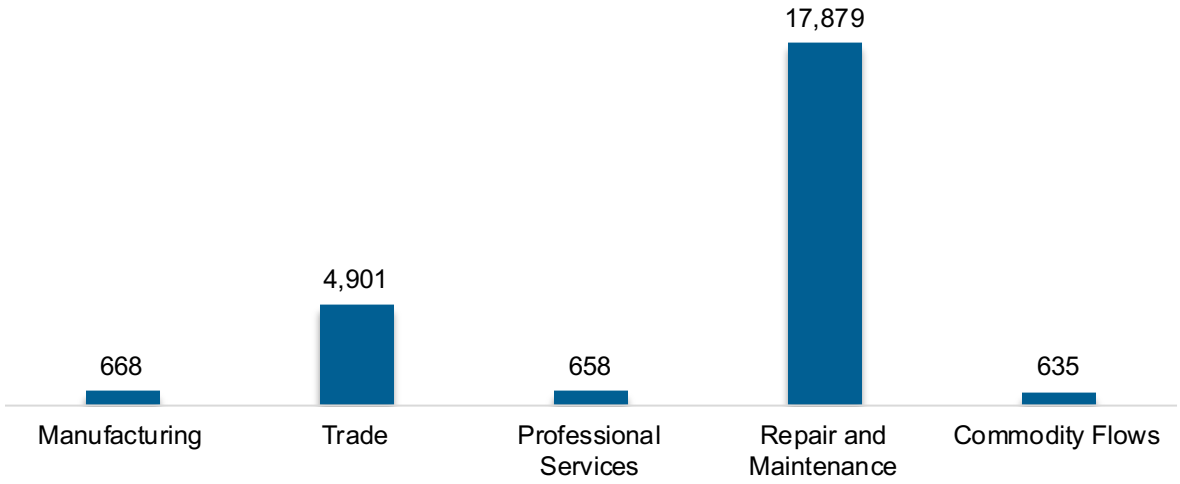
Figure MD-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 24,740 workers in Maryland, 0.9% of the national total for the sector. Motor vehicles and component parts lost 23 jobs and decreased 0.1% from 2021 to 2022. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure MD-10).

Figure MD-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 92,139 jobs in clean energy in Maryland if traditional transmission and distribution is included and 81,383 jobs if it is not.[21] These increased under either definition, growing 1.7% with traditional transmission and distribution and 1.7% without.

Employer Perspectives

Expected Growth

Employers in Maryland were more optimistic than their peers across the country about energy sector job growth over the next year (Table MD-1).

Table MD-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	6.8	6.0
Electric Power Transmission, Distribution, and Storage	5.8	3.9
Energy Efficiency	7.0	6.4
Fuels	4.6	1.6
Motor Vehicles	6.6	5.5

[21] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in Maryland reported 50% overall hiring difficulty (Table MD-2).

Table MD-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	28	22	8	42	50

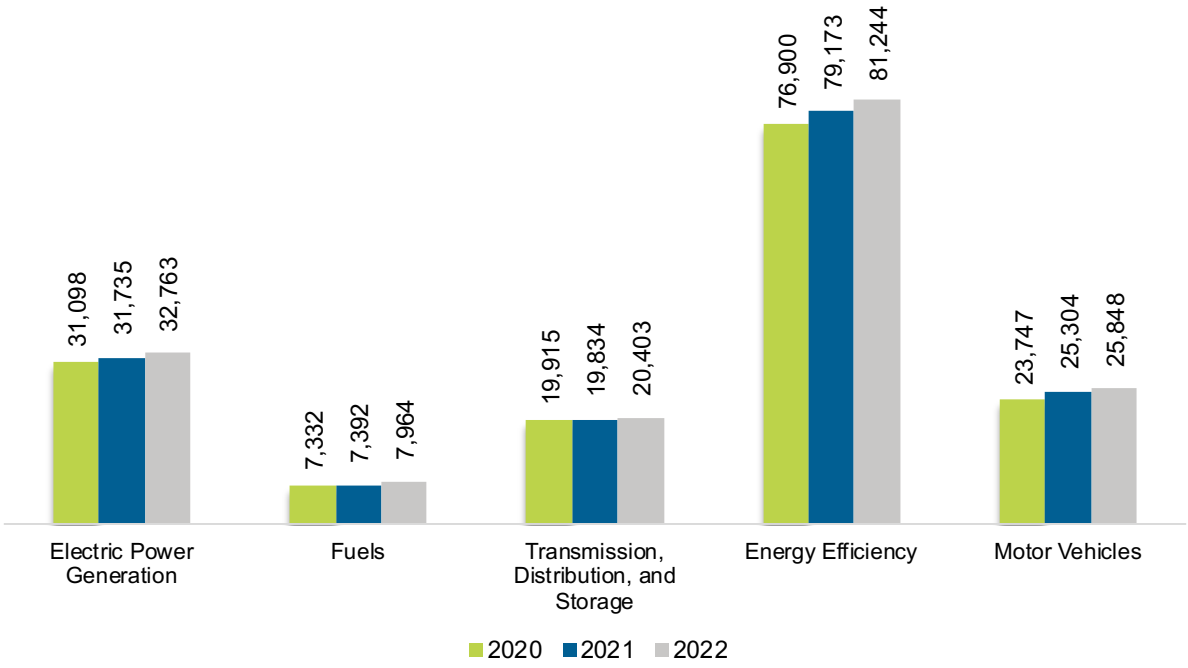
Massachusetts

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

Massachusetts had 168,222 energy workers statewide in 2022, representing 2.1% of all U.S. energy jobs. Of these energy jobs, 32,763 were in electric power generation; 7,964 in fuels; 20,403 in transmission, distribution, and storage; 81,244 in energy efficiency; and 25,848 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 4,786 jobs, or 2.9% (Figure MA-1). The energy sector in Massachusetts represented 4.6% of total state employment.

Figure MA-1. Employment by Major Energy Technology Application

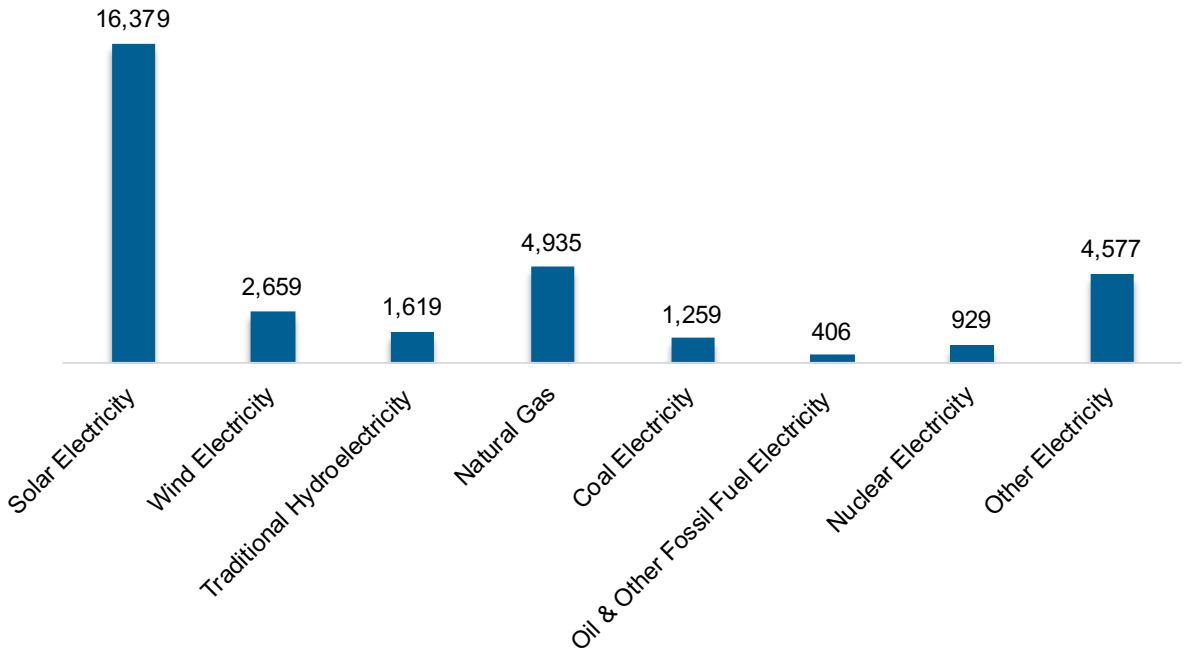


Breakdown by Technology Applications

Electric Power Generation

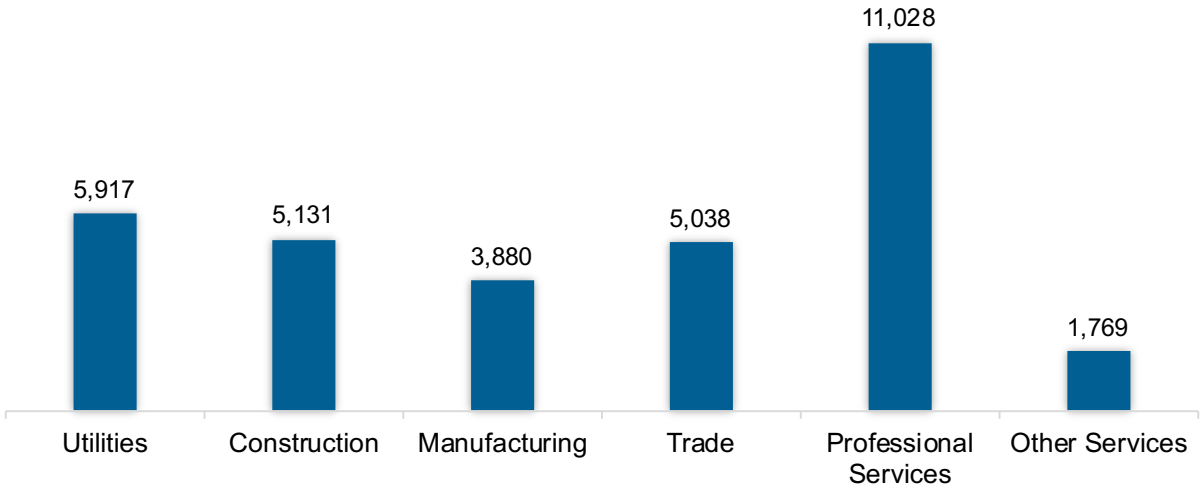
As shown in Figure MA-2, the electric power generation sector employed 32,763 workers in Massachusetts, 3.7% of the national electricity total, and added 1,028 jobs from 2021 to 2022 (3.2%).

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



Professional and business services was the largest industry sector in the electric power generation sector, with 33.7% of jobs. Utilities was second largest with 18.1% (Figure MA-3).

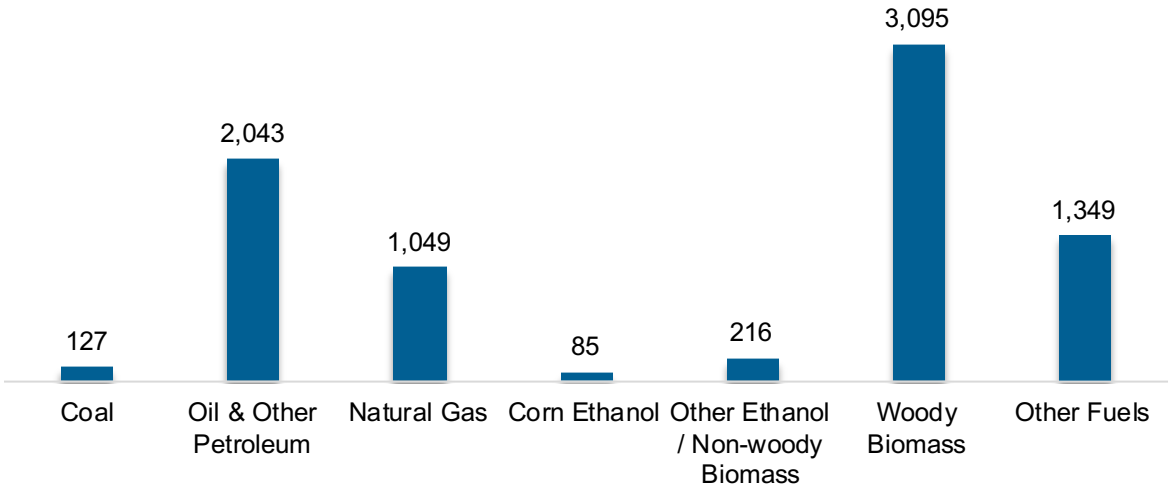
Figure MA-3. Electric Power Generation Employment by Industry Sector



Fuels

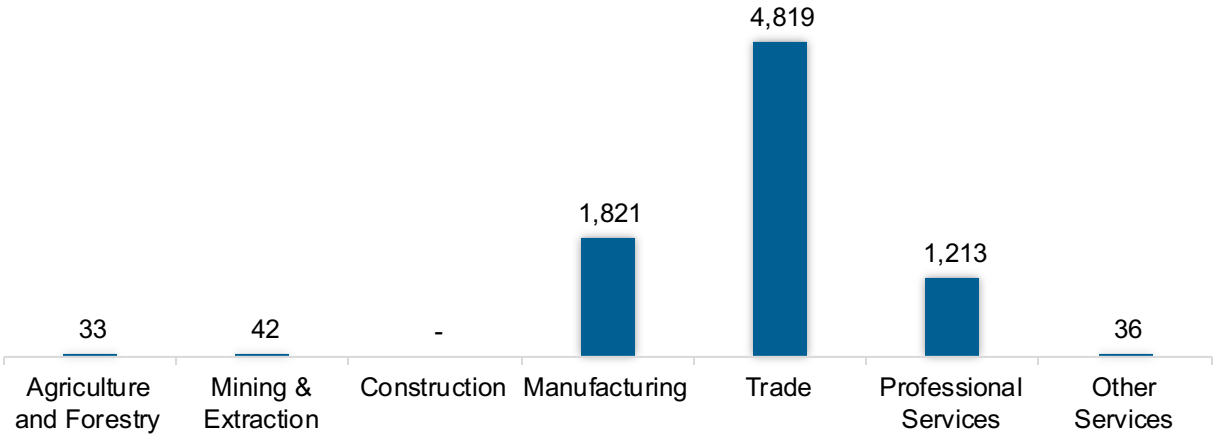
The Fuel sector employed 7,964 workers in Massachusetts, 0.8% of the national total in fuels (Figure MA-4). The sector gained 572 jobs and increased 7.7% from 2021 to 2022.

Figure MA-4. Fuels Employment by Detailed Technology Application



Wholesale trade jobs represented 60.5% of fuel jobs in Massachusetts (Figure MA-5).

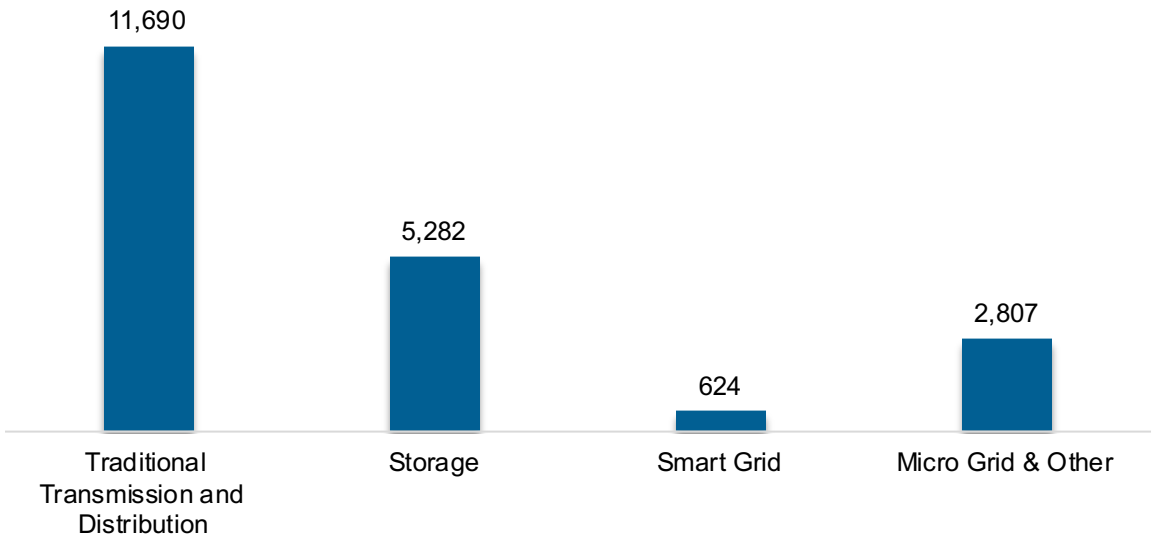
Figure MA-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

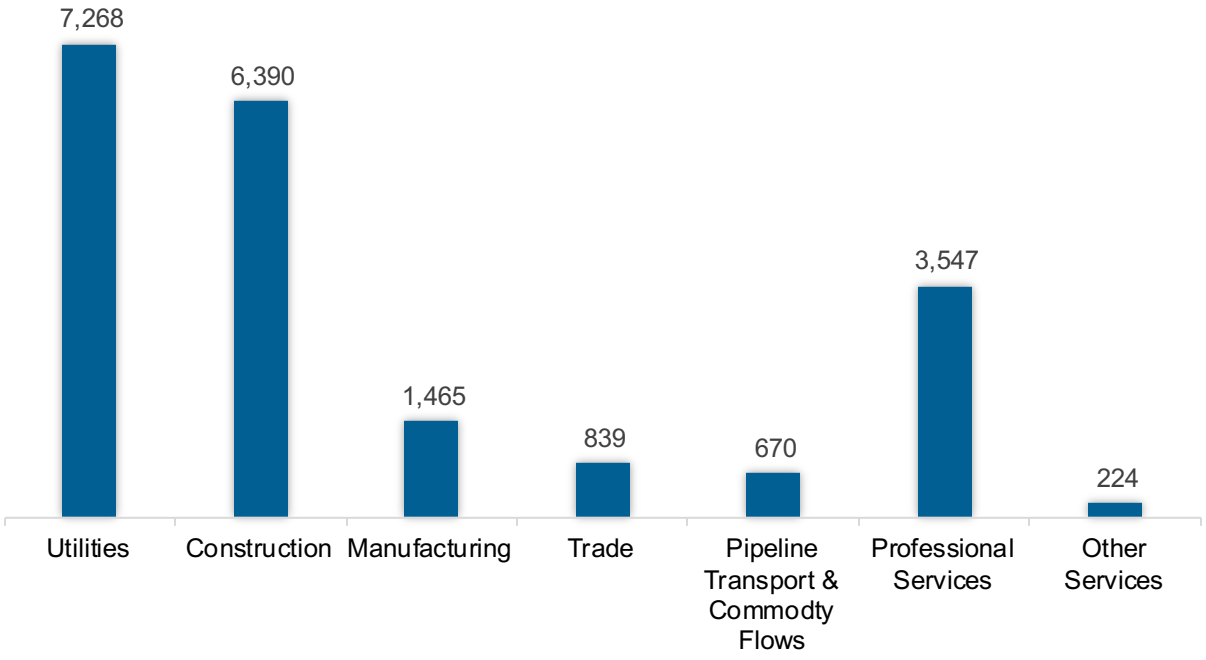
The transmission, distribution, and storage (TDS) sector employed 20,403 workers in Massachusetts, 0.8% of the national TDS total (MA-6). The sector gained 570 jobs and increased 2.9% from 2021 to 2022.

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



Utilities was the largest proportion of TDS jobs in Massachusetts, accounting for 35.6% of the sector's jobs statewide (Figure MA-7).

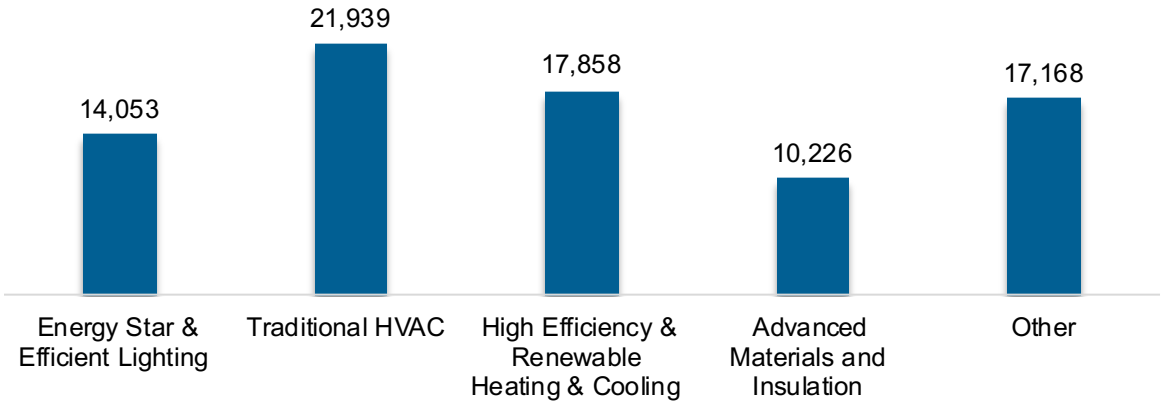
Figure MA-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

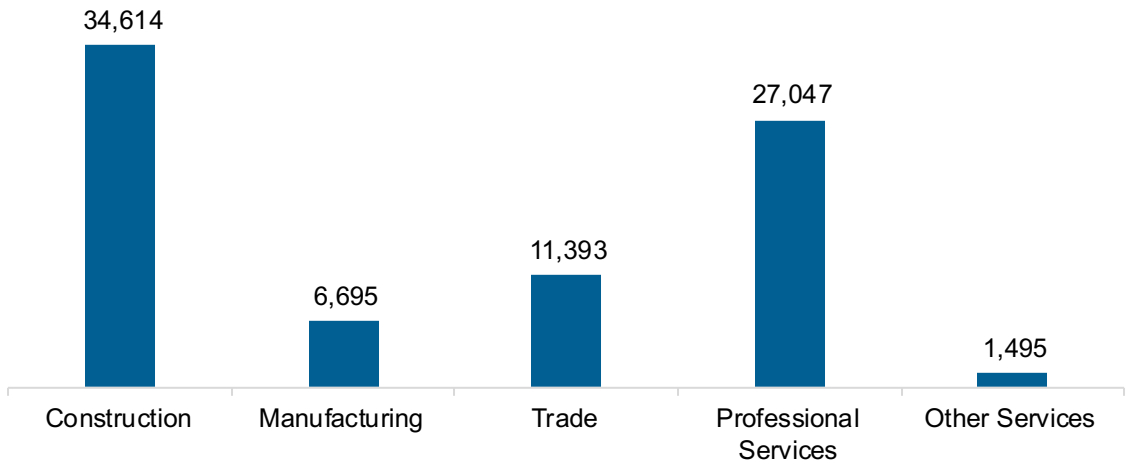
The energy efficiency (EE) sector employed 81,244 workers in Massachusetts, 3.7% of the national EE total. The EE sector added 2,071 jobs and increased 2.6% from 2021 to 2022 (Figure MA-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure MA-9).

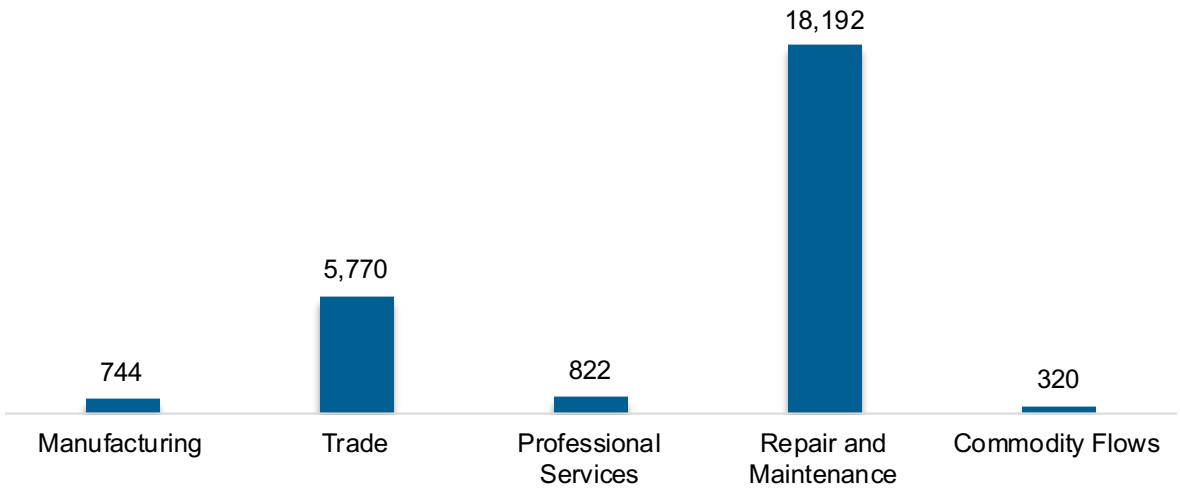
Figure MA-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 25,848 workers in Massachusetts, 1.0% of the national total for the sector. Motor vehicles and component parts added 545 jobs and increased 2.2% from 2021 to 2022. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure MA-10).

Figure MA-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 133,897 jobs in clean energy in Massachusetts if traditional transmission and distribution is included and 121,939 jobs if it is not.[22] These increased under either definition, growing 3.9% with traditional transmission and distribution and 3.9% without.

Employer Perspectives

Expected Growth

Employers in Massachusetts are similarly optimistic than their peers across the country about energy sector job growth over the next year (Table MA-1).

Table MA-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	6.2	6.0
Electric Power Transmission, Distribution, and Storage	5.1	3.9
Energy Efficiency	6.4	6.4
Fuels	4.0	1.6
Motor Vehicles	5.9	5.5

[22] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in Massachusetts reported 49% overall hiring difficulty (Table MA-2).

Table MA-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	22	27	7	44	49

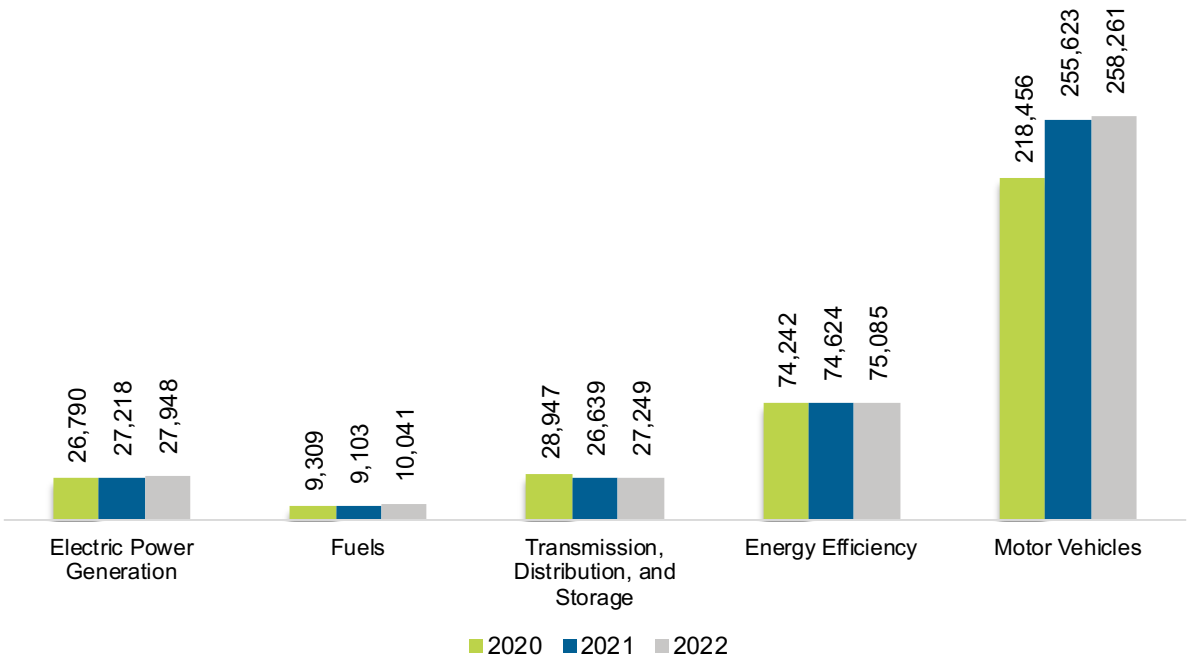
Michigan

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

Michigan had 398,583 energy workers statewide in 2022, representing 4.9% of all U.S. energy jobs. Of these energy jobs, 27,948 were in electric power generation; 10,041 in fuels; 27,249 in transmission, distribution, and storage; 75,085 in energy efficiency; and 258,261 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 5,376 jobs, or 1.4% (Figure MI-1). The energy sector in Michigan represented 9.2% of total state employment.

Figure MI-1. Employment by Major Energy Technology Application

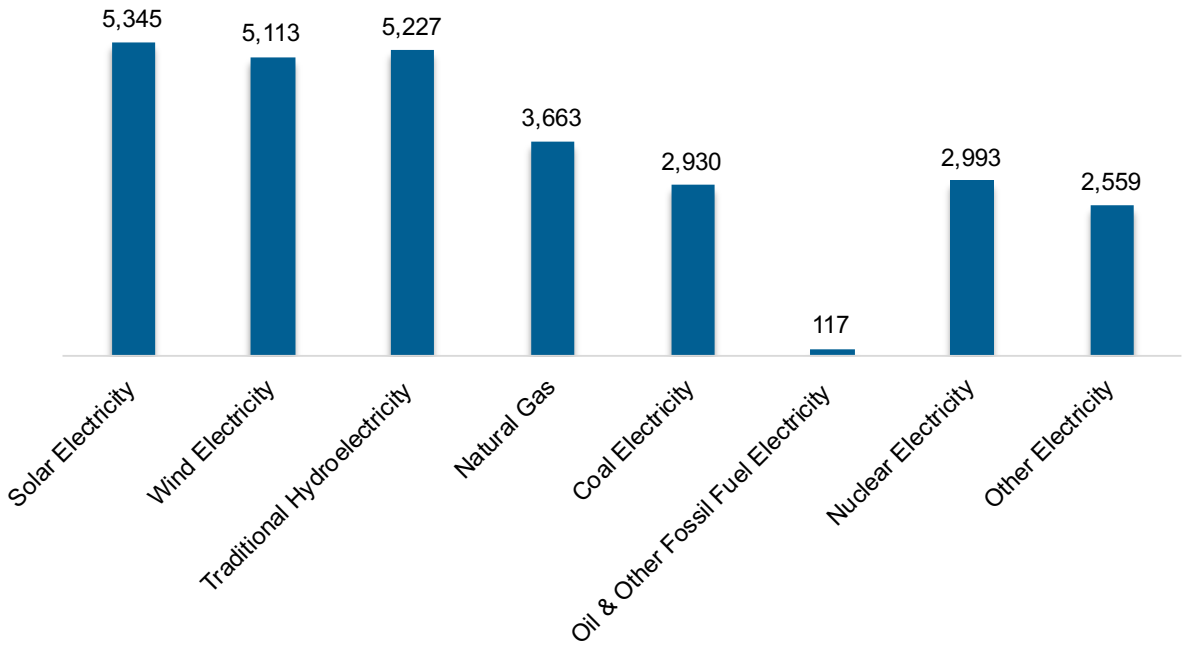


Breakdown by Technology Applications

Electric Power Generation

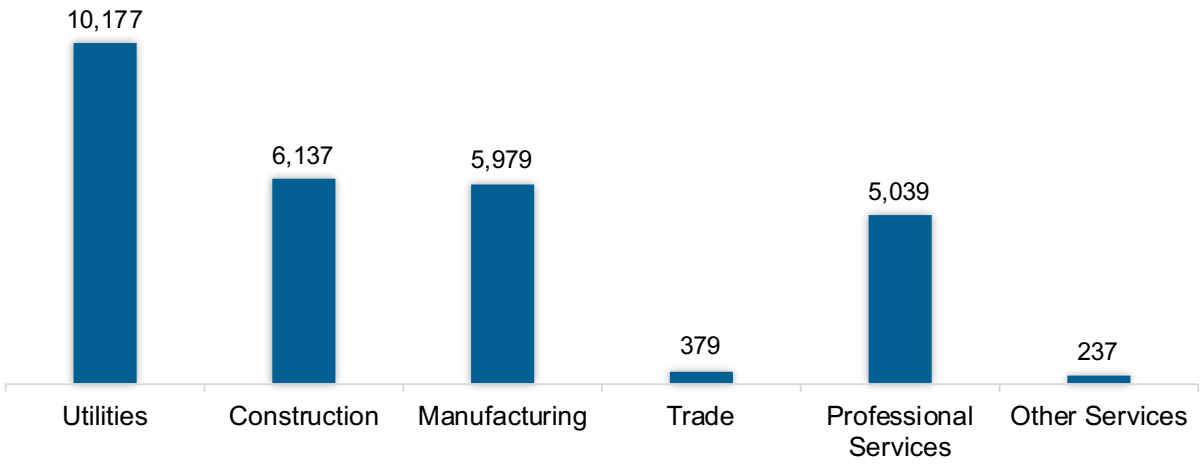
As shown in Figure MI-2, the electric power generation sector employed 27,948 workers in Michigan, 3.2% of the national electricity total, and added 729 jobs from 2021 to 2022 (2.7%).

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



Utilities was the largest industry sector in the electric power generation sector, with 36.4% of jobs. Construction was second largest with 22.0% (Figure MI-3).

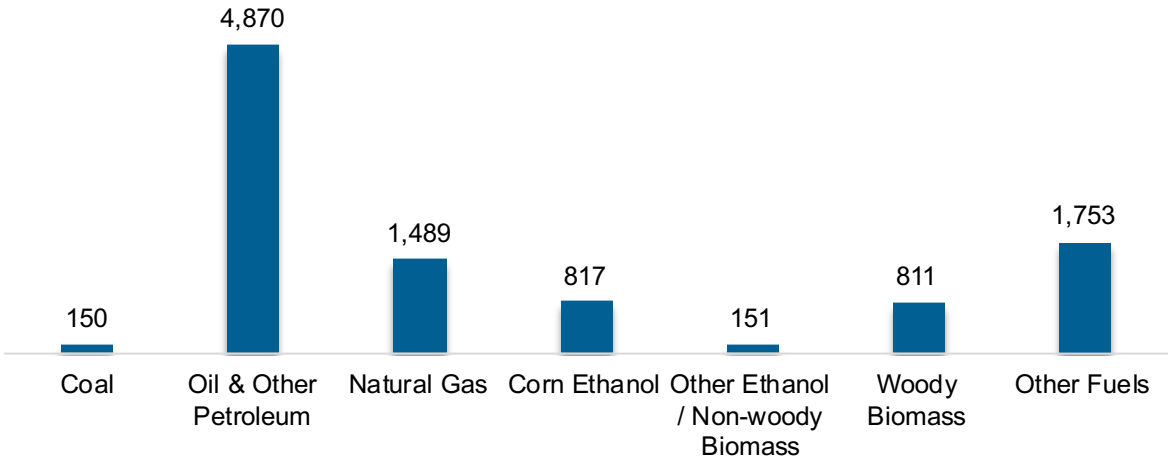
Figure MI-3. Electric Power Generation Employment by Industry Sector



Fuels

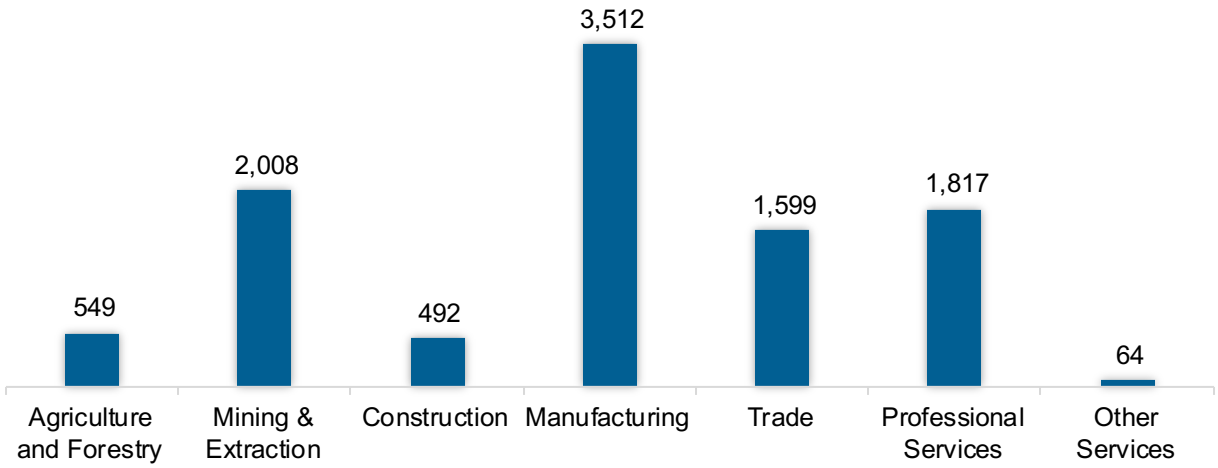
The Fuel sector employed 10,041 workers in Michigan, 1.0% of the national total in fuels (Figure MI-4). The sector gained 938 jobs and increased 10.3% from 2021 to 2022.

Figure MI-4. Fuels Employment by Detailed Technology Application



Manufacturing jobs represented 35.0% of fuel jobs in Michigan (Figure MI-5).

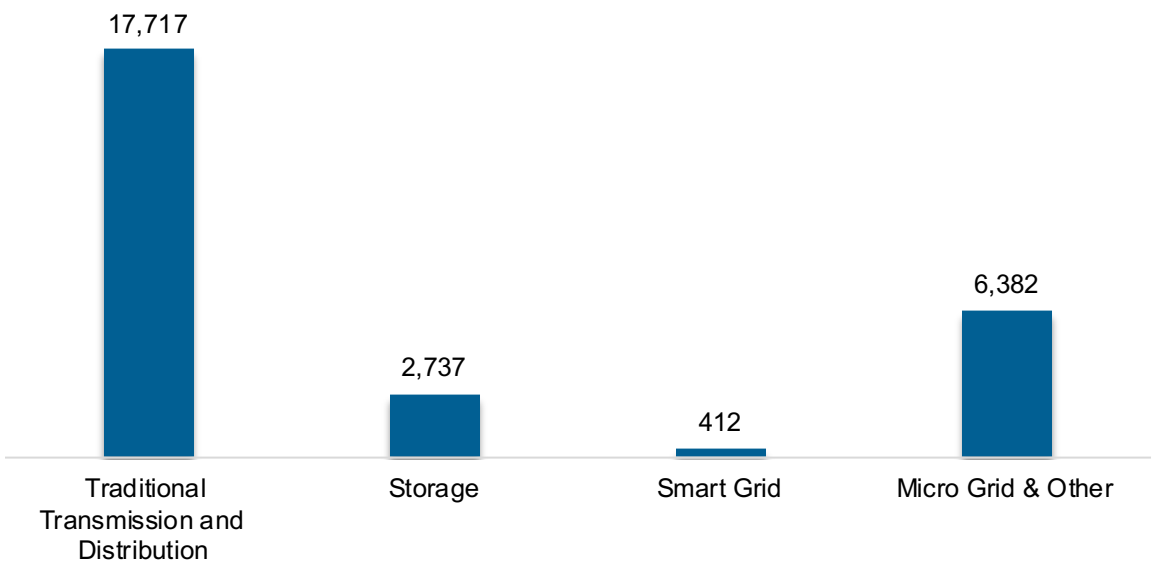
Figure MI-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

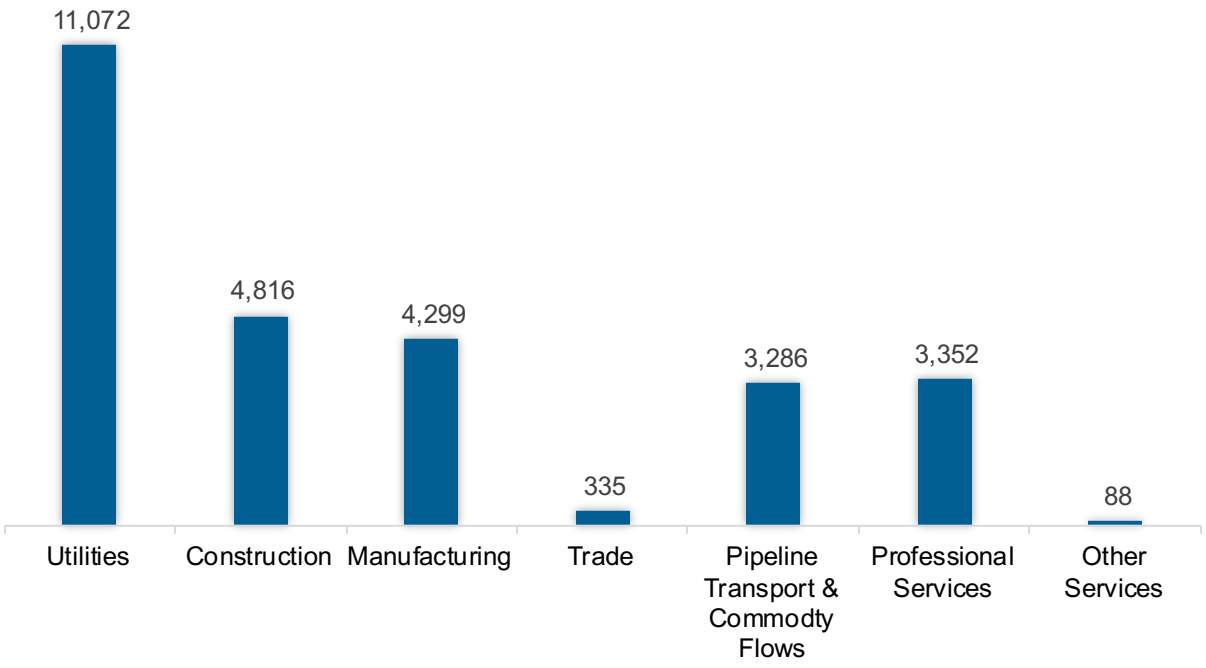
The transmission, distribution, and storage (TDS) sector employed 27,249 workers in Michigan, 1.0% of the national TDS total (Figure MI-6). The sector gained 610 jobs and increased 2.3% from 2021 to 2022.

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



Utilities was the largest proportion of TDS jobs in Michigan, accounting for 40.6% of the sector's jobs statewide (Figure MI-7).

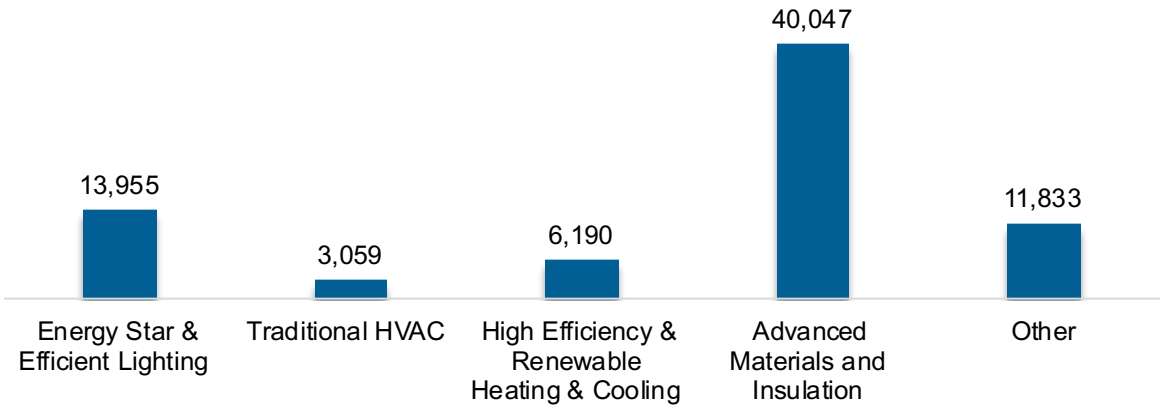
Figure MI-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

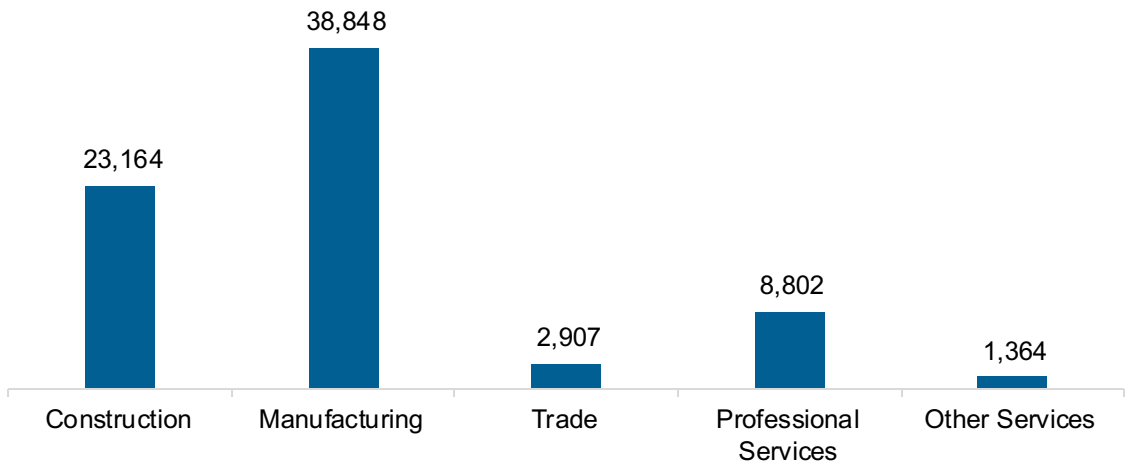
The energy efficiency (EE) sector employed 75,085 workers in Michigan, 3.4% of the national EE total. The EE sector added 461 jobs and increased 0.6% from 2021 to 2022 (Figure MI-8).

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



Energy efficiency employment was primarily found in the manufacturing industry (Figure MI-9).

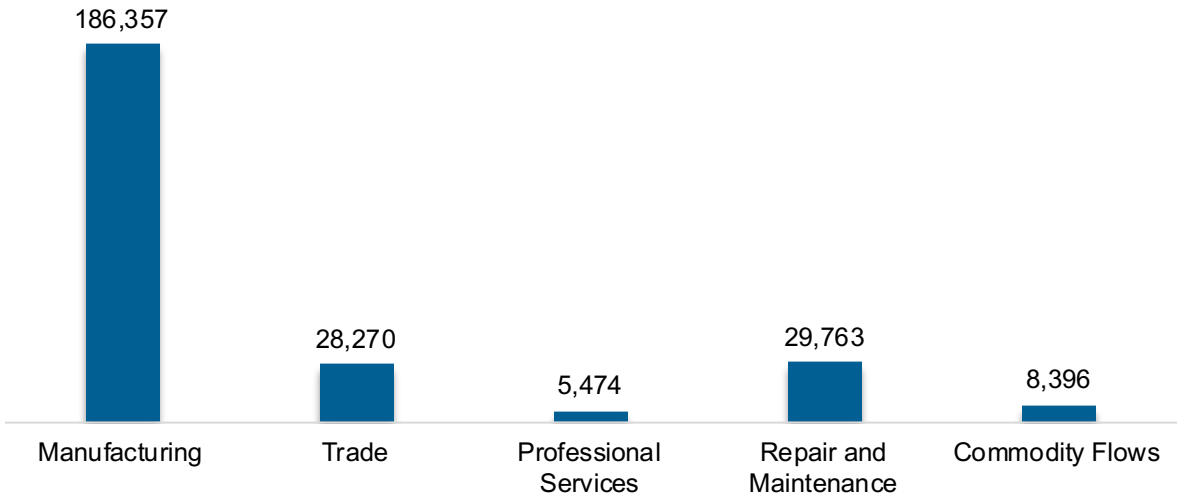
Figure MI-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 258,261 workers in Michigan, 9.9% of the national total for the sector. Motor vehicles and component parts added 2,638 jobs and increased 1.0% from 2021 to 2022. Manufacturing is the largest proportion of motor vehicle jobs (Figure MI-10).

Figure MI-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 137,479 jobs in clean energy in Michigan if traditional transmission and distribution is included and 119,623 jobs if it is not.[23] These increased under either definition, growing 3.6% with traditional transmission and distribution and 3.8% without.

Employer Perspectives

Expected Growth

Employers in Michigan are similarly optimistic than their peers across the country about energy sector job growth over the next year (Table MI-1).

Table MI-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	6.0	6.0
Electric Power Transmission, Distribution, and Storage	5.0	3.9
Energy Efficiency	6.2	6.4
Fuels	3.8	1.6
Motor Vehicles	5.8	5.5

[23] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in Michigan reported 46% overall hiring difficulty (Table MI-2).

Table MI-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	22	24	7	47	46

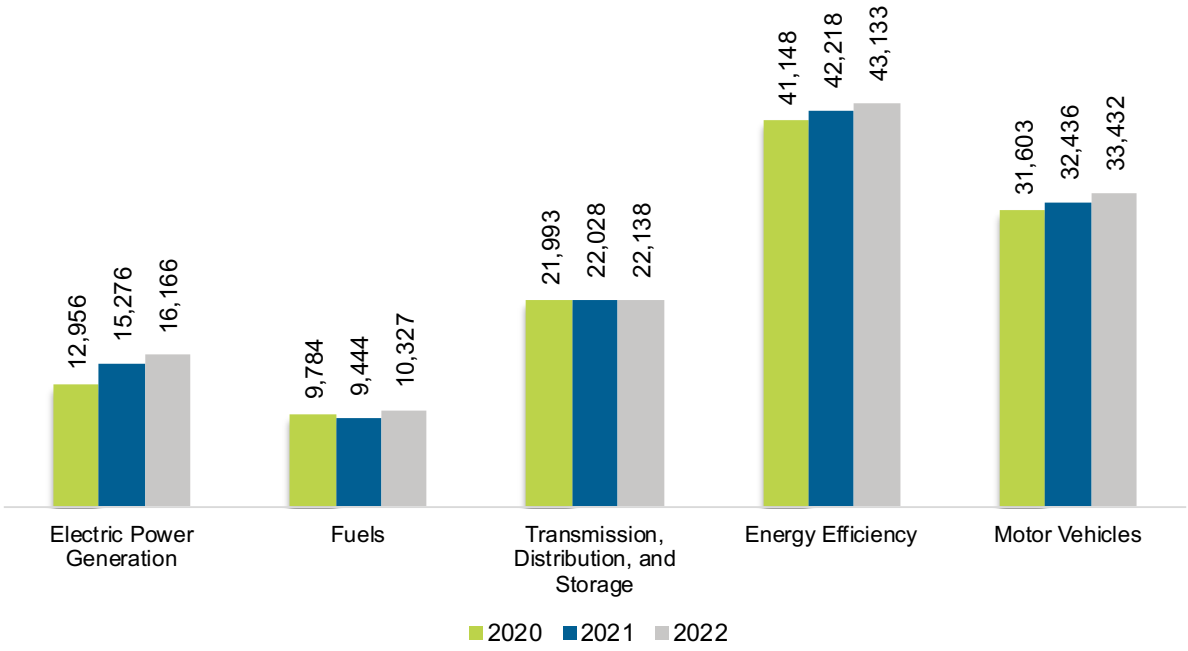
Minnesota

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

Minnesota had 125,194 energy workers statewide in 2022, representing 1.5% of all U.S. energy jobs. Of these energy jobs, 16,166 were in electric power generation; 10,327 in fuels; 22,138 in transmission, distribution, and storage; 43,133 in energy efficiency; and 33,432 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 3,792 jobs, or 3.1% (Figure MN-1). The energy sector in Minnesota represented 4.3% of total state employment.

Figure MN-1. Employment by Major Energy Technology Application

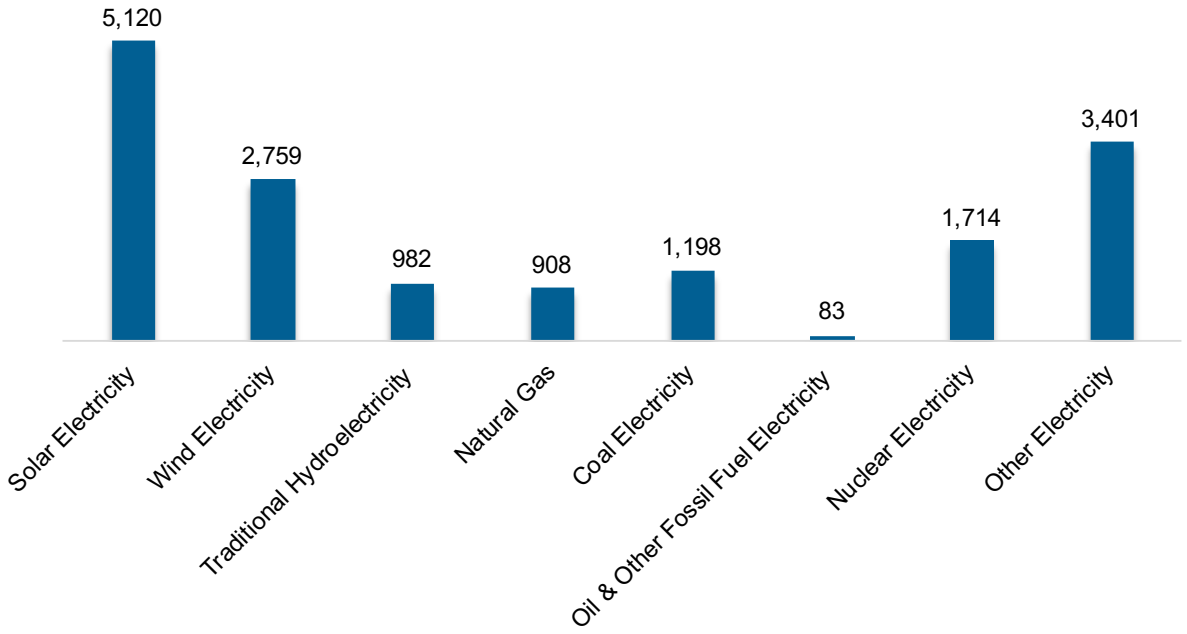


Breakdown by Technology Applications

Electric Power Generation

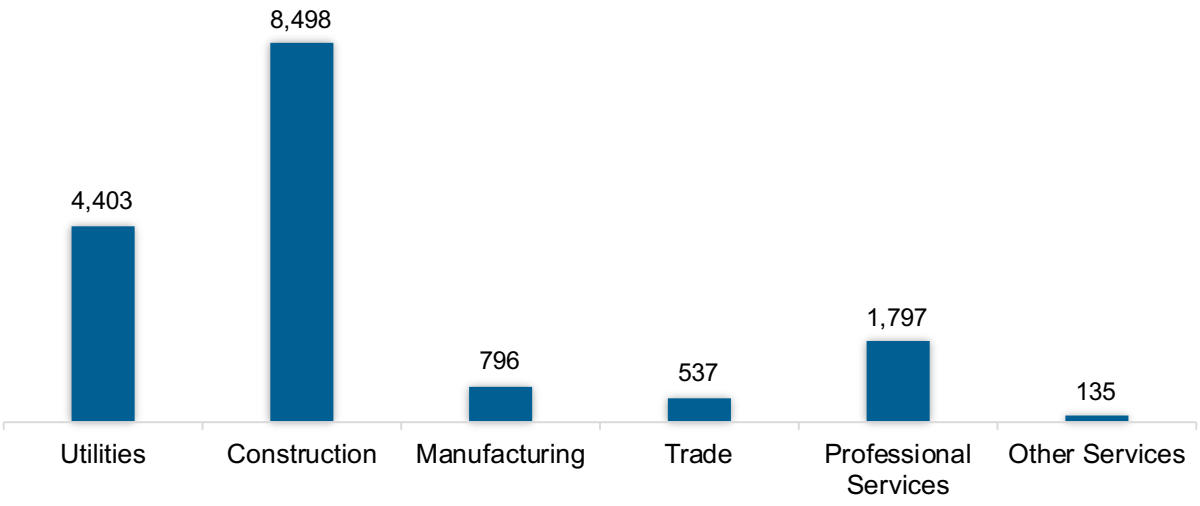
As shown in Figure MN-2, the electric power generation sector employed 16,166 workers in Minnesota, 1.8% of the national electricity total, and added 890 jobs from 2021 to 2022 (5.8%).

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



Construction was the largest industry sector in the electric power generation sector, with 52.6% of jobs. Utilities was second largest with 27.2% (Figure MN-3).

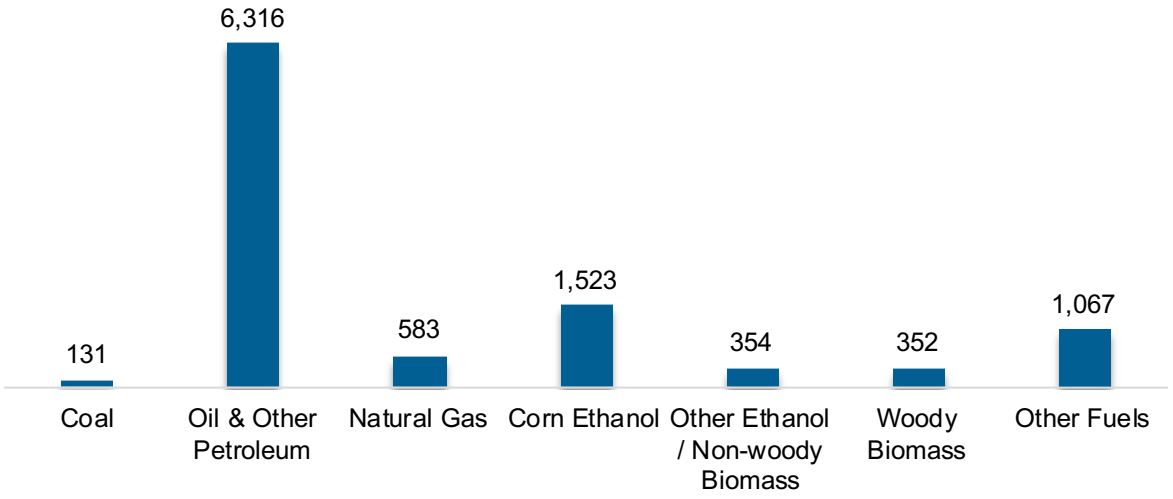
Figure MN-3. Electric Power Generation Employment by Industry Sector



Fuels

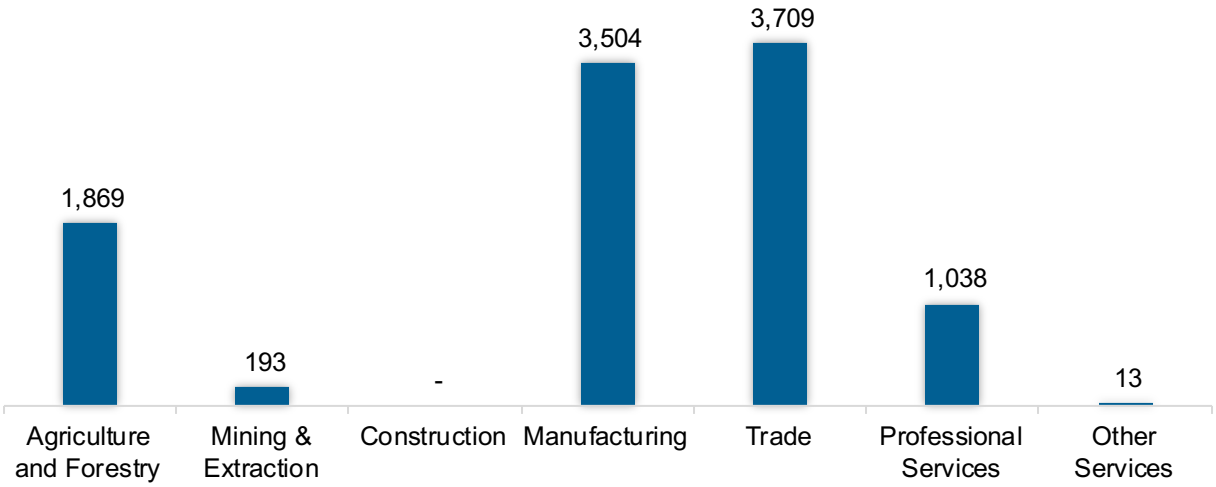
The Fuel sector employed 10,327 workers in Minnesota, 1.0% of the national total in fuels (Figure MN-4). The sector gained 882 jobs and increased 9.3% from 2021 to 2022.

Figure MN-4. Fuels Employment by Detailed Technology Application



Wholesale trade jobs represented 35.9% of fuel jobs in Minnesota (Figure MN-5).

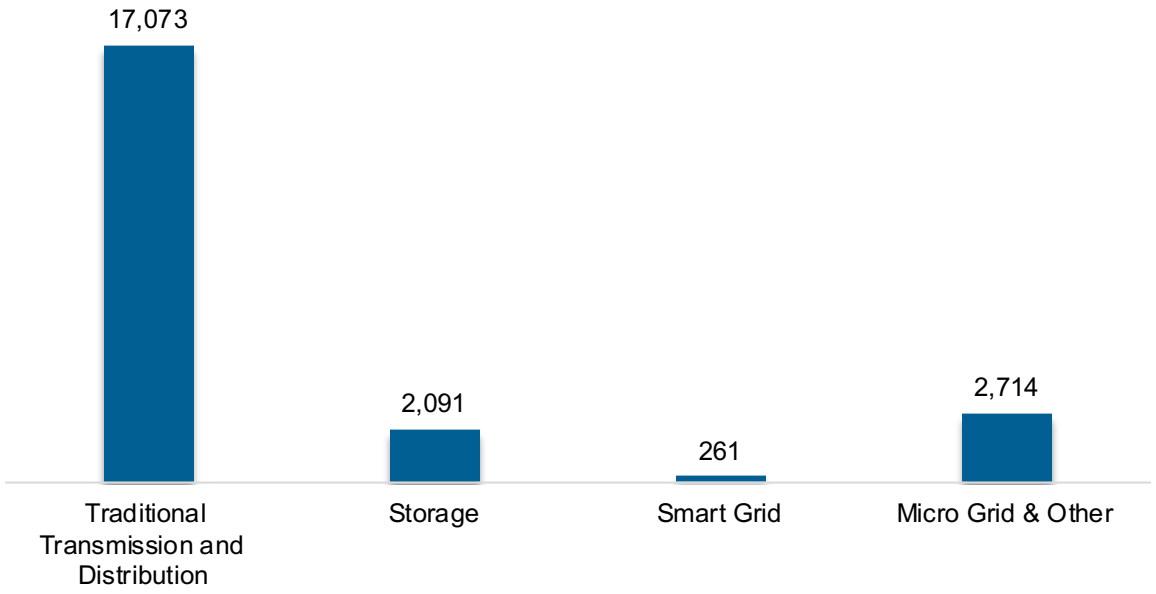
Figure MN-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

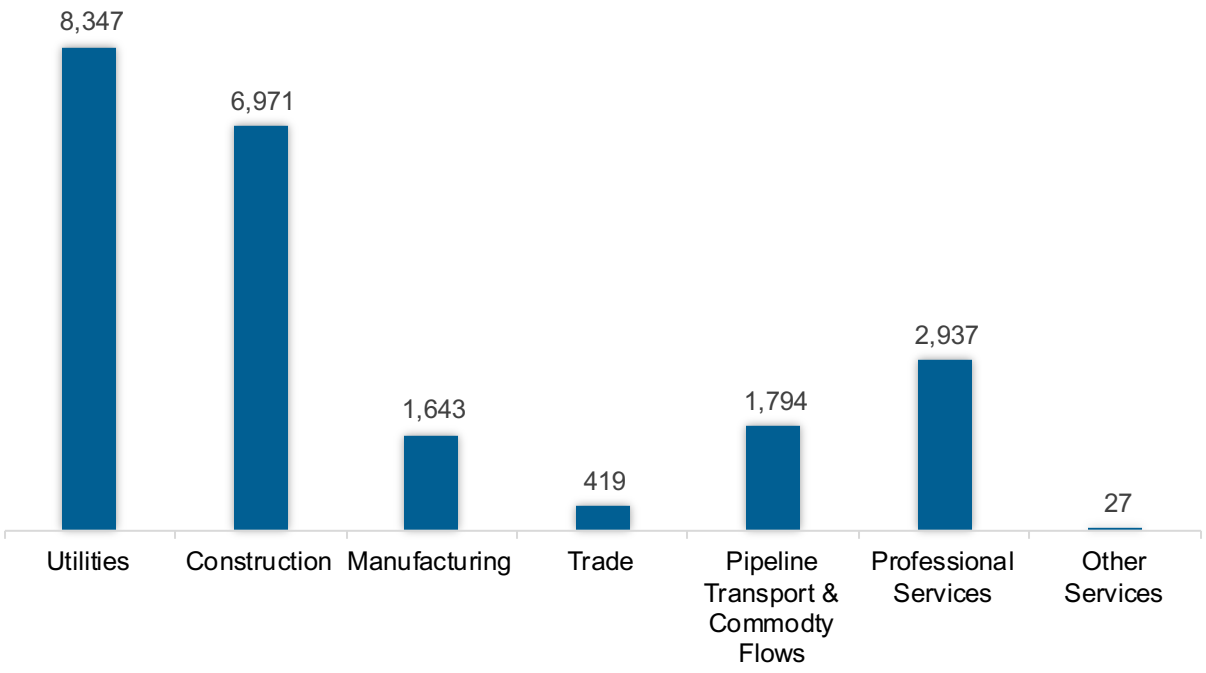
The transmission, distribution, and storage (TDS) sector employed 22,138 workers in Minnesota, 1.0% of the national TDS total (Figure MN-6). The sector gained 110 jobs and increased 0.5% from 2021 to 2022.

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



Utilities was the largest proportion of TDS jobs in Minnesota, accounting for 37.7% of the sector's jobs statewide (Figure MN-7).

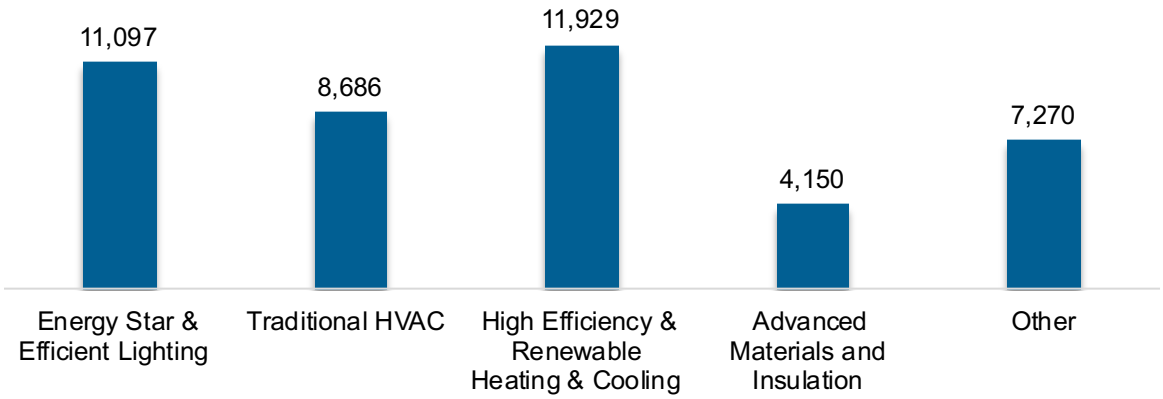
Figure MN-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

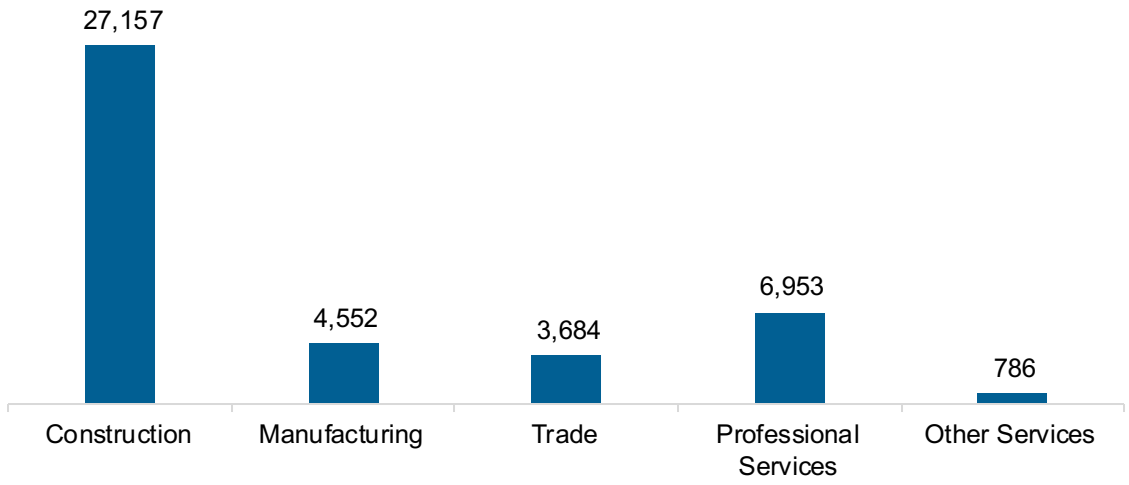
The energy efficiency (EE) sector employed 43,133 workers in Minnesota, 1.9% of the national EE total. The EE sector added 914 jobs and increased 2.2% from 2021 to 2022 (Figure MN-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure MN-9).

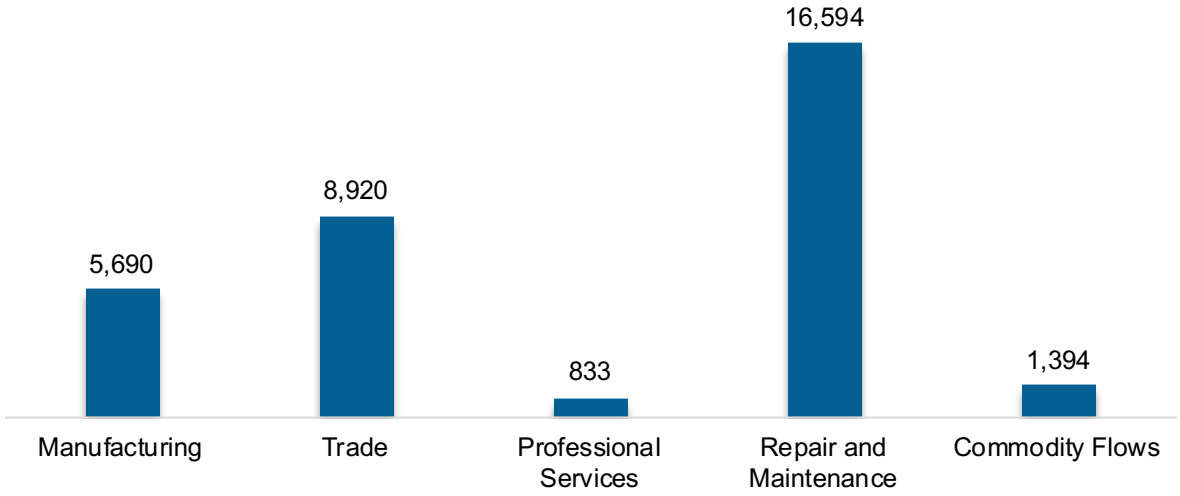
Figure MN-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 33,432 workers in Minnesota, 1.3% of the national total for the sector. Motor vehicles and component parts added 996 jobs and increased 3.1% from 2021 to 2022. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure MN-10).

Figure MN-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 79,798 jobs in clean energy in Minnesota if traditional transmission and distribution is included and 62,619 jobs if it is not.[24] These increased under either definition, growing 2.6% with traditional transmission and distribution and 3.3% without.

Employer Perspectives

Expected Growth

Employers in Minnesota were less optimistic than their peers across the country about energy sector job growth over the next year (Table MN-1).

Table MN-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	3.7	6.0
Electric Power Transmission, Distribution, and Storage	2.7	3.9
Energy Efficiency	3.9	6.4
Fuels	1.5	1.6
Motor Vehicles	3.5	5.5

[24] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in Minnesota reported 48% overall hiring difficulty (Table MN-2).

Table MN-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	24	24	8	43	48

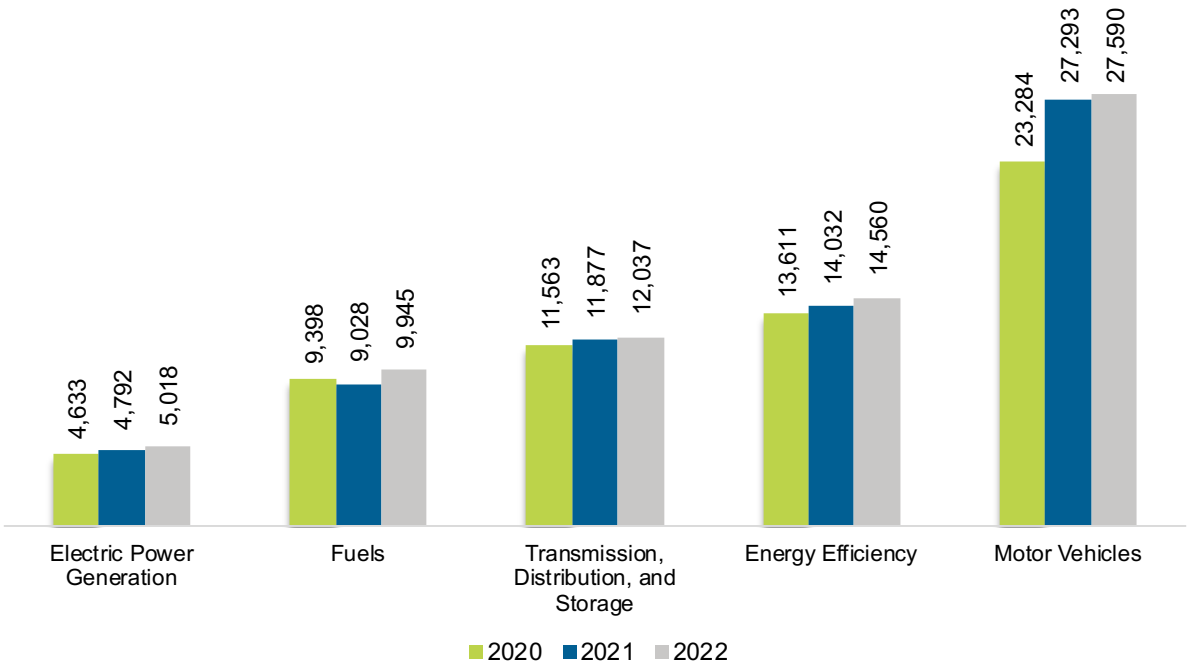
Mississippi

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

Mississippi had 69,151 energy workers statewide in 2022, representing 0.9% of all U.S. energy jobs. Of these energy jobs, 5,018 were in electric power generation; 9,945 in fuels; 12,037 in transmission, distribution, and storage; 14,560 in energy efficiency; and 27,590 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 2,129 jobs, or 3.2% (Figure MS-1). The energy sector in Mississippi represented 6.0% of total state employment.

Figure MS-1. Employment by Major Energy Technology Application

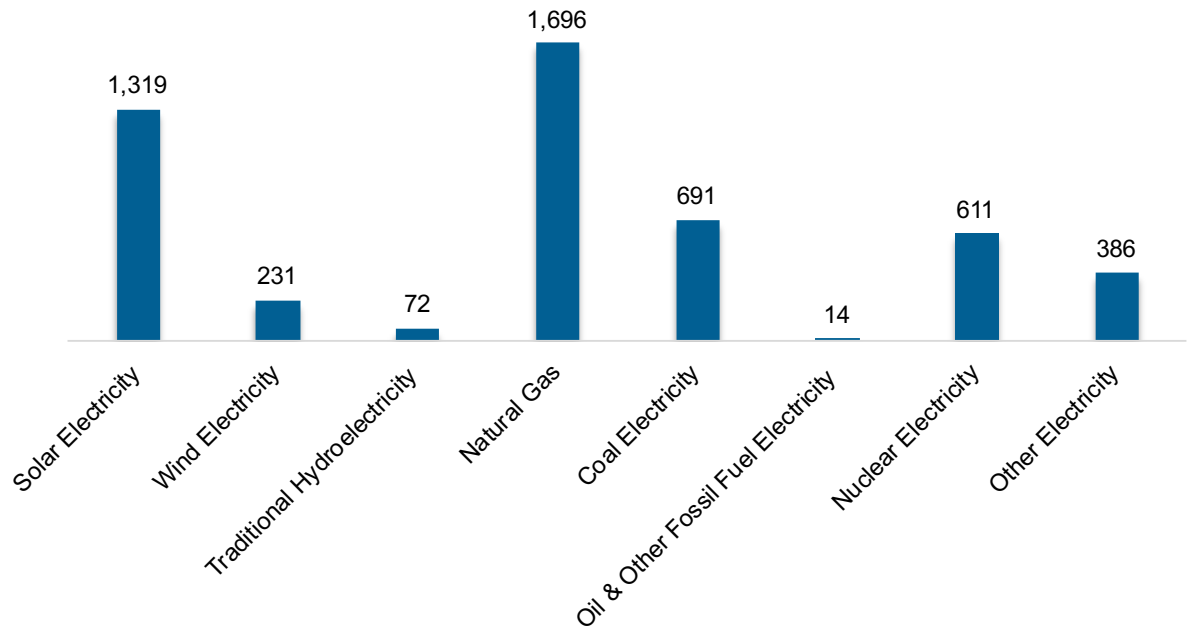


Breakdown by Technology Applications

Electric Power Generation

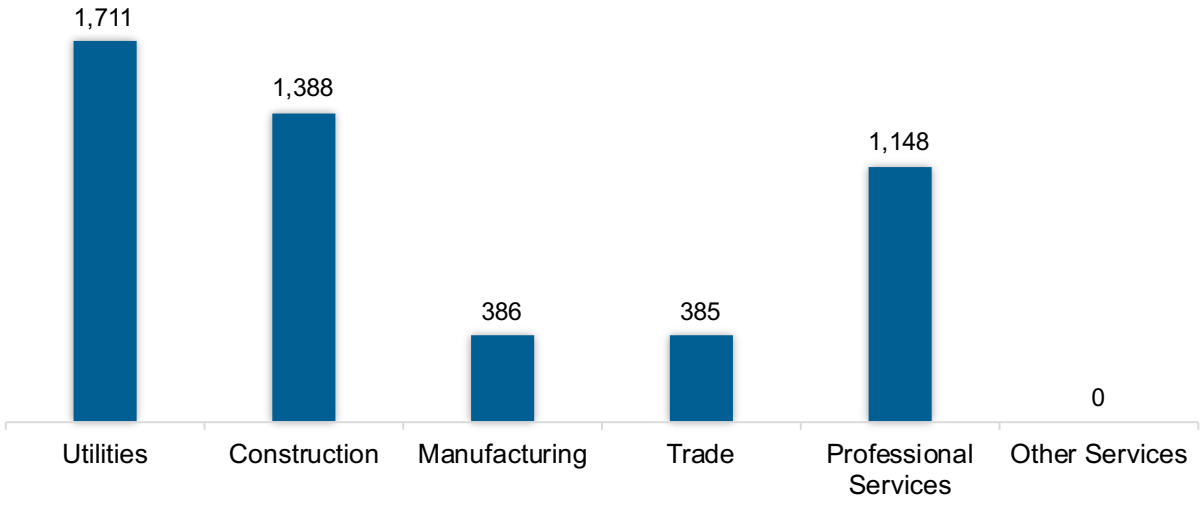
As shown in Figure MS-2, the electric power generation sector employed 5,018 workers in Mississippi, 0.6% of the national electricity total, and added 227 jobs from 2021 to 2022 (4.7%).

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



Utilities was the largest industry sector in the electric power generation sector, with 34.1% of jobs. Construction was second largest with 27.6% (Figure MS-3).

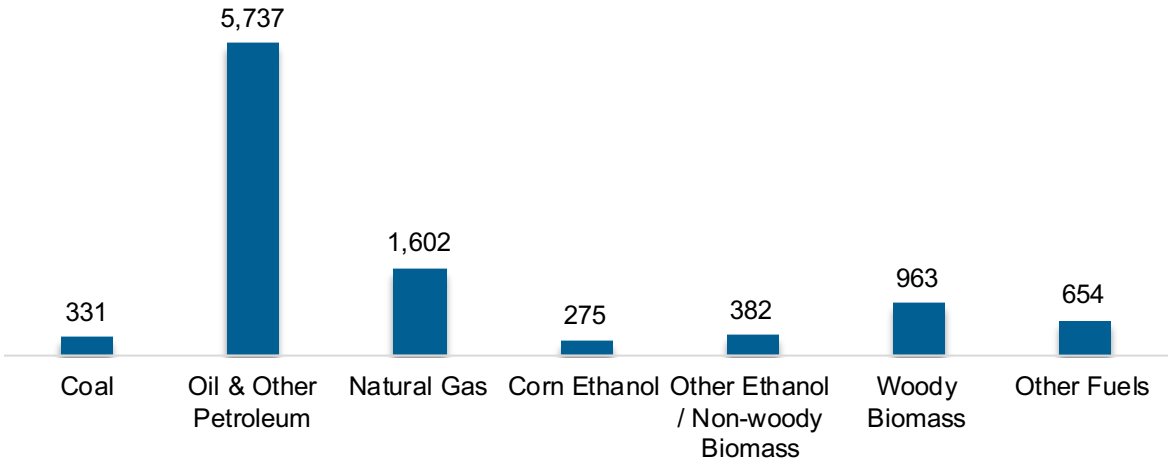
Figure MS-3. Electric Power Generation Employment by Industry Sector



Fuels

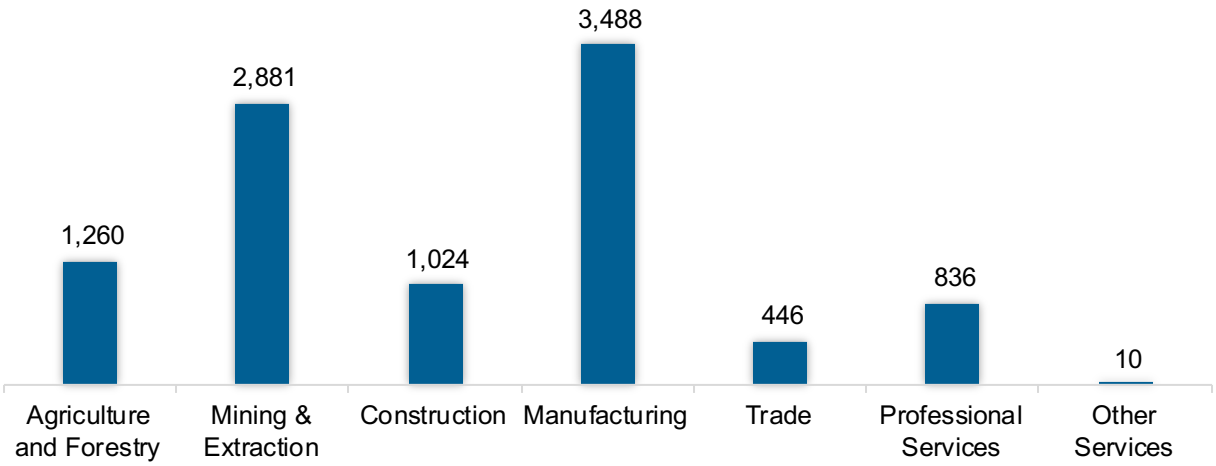
The Fuel sector employed 9,945 workers in Mississippi, 1.0% of the national total in fuels (Figure MS-4). The sector gained 916 jobs and increased 10.2% from 2021 to 2022.

Figure MS-4. Fuels Employment by Detailed Technology Application



Manufacturing jobs represented 35.1% of fuel jobs in Mississippi (Figure MS-5).

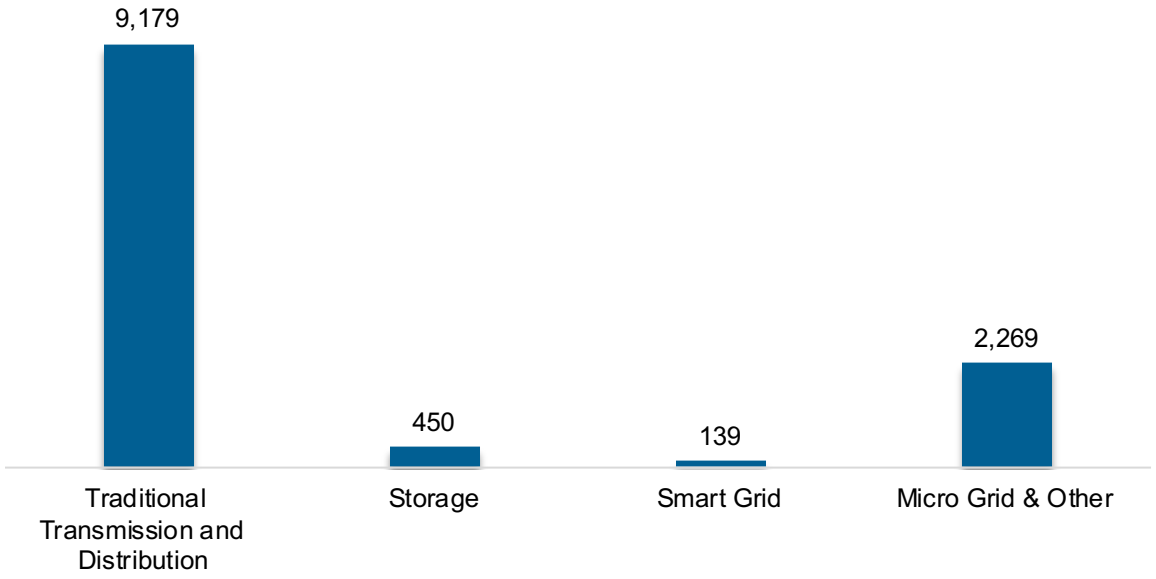
Figure MS-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

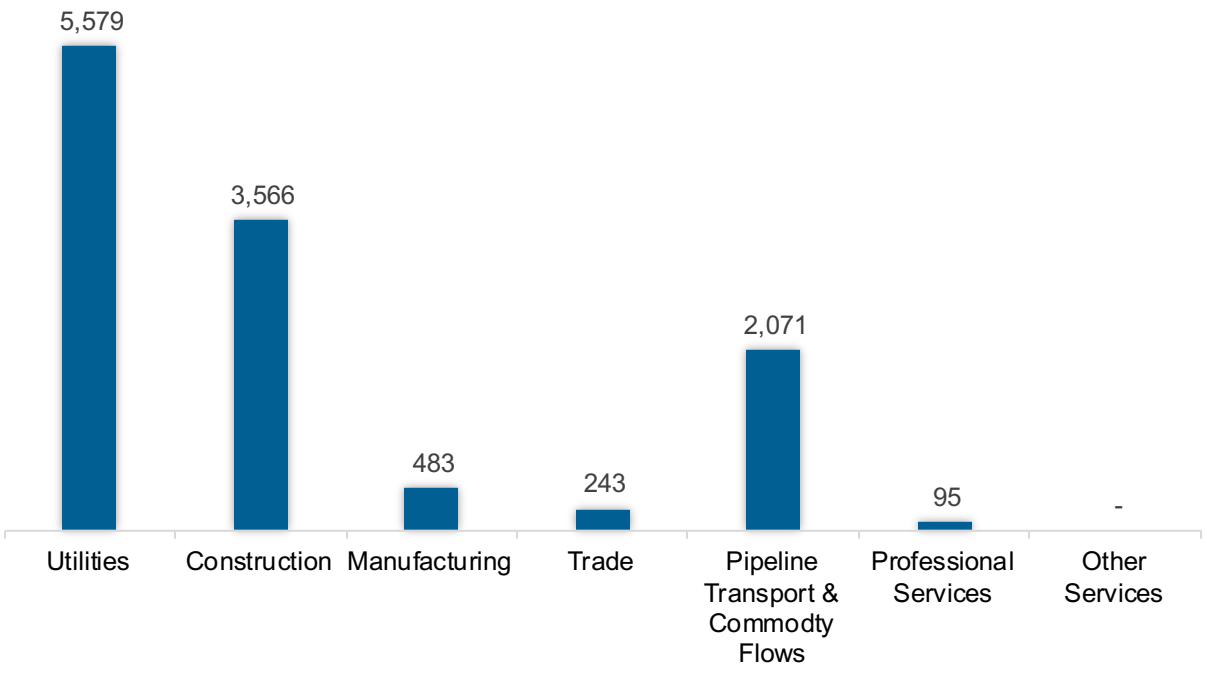
The transmission, distribution, and storage (TDS) sector employed 12,037 workers in Mississippi, 1.0% of the national TDS total (Figure MS-6). The sector gained 160 jobs and increased 1.4% from 2021 to 2022.

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



Utilities was the largest proportion of TDS jobs in Mississippi, accounting for 46.4% of the sector's jobs statewide (Figure MS-7).

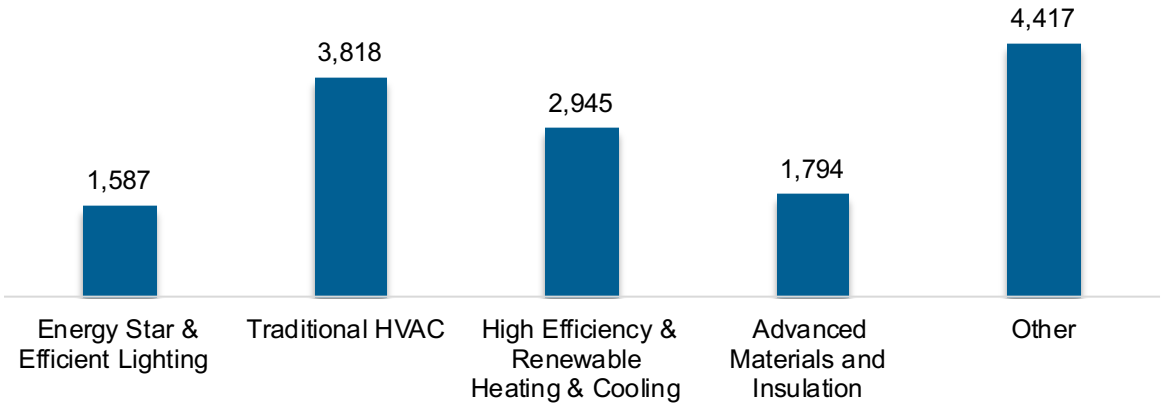
Figure MS-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

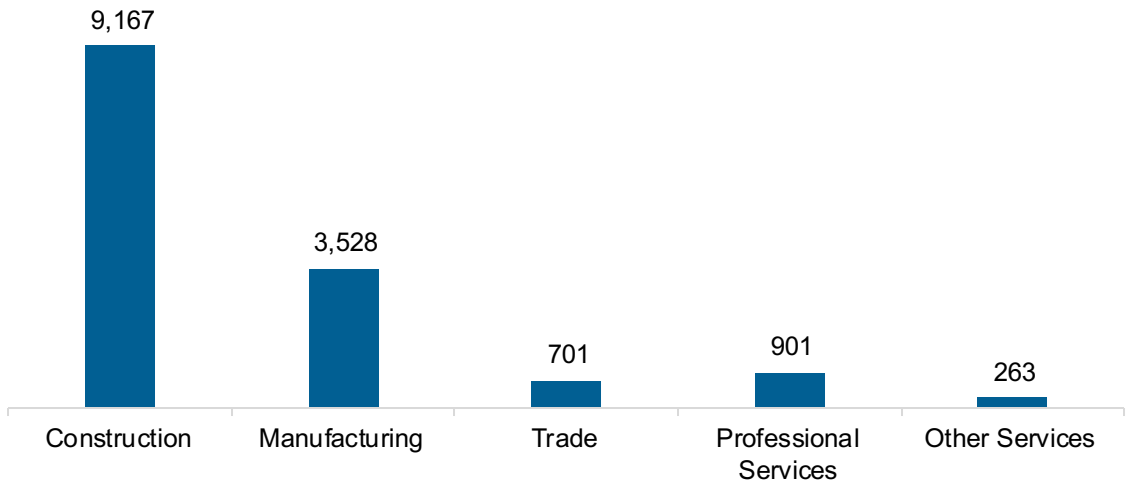
The energy efficiency (EE) sector employed 14,560 workers in Mississippi, 0.7% of the national EE total. The EE sector added 528 jobs and increased 3.8% from 2021 to 2022 (Figure MS-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure MS-9).

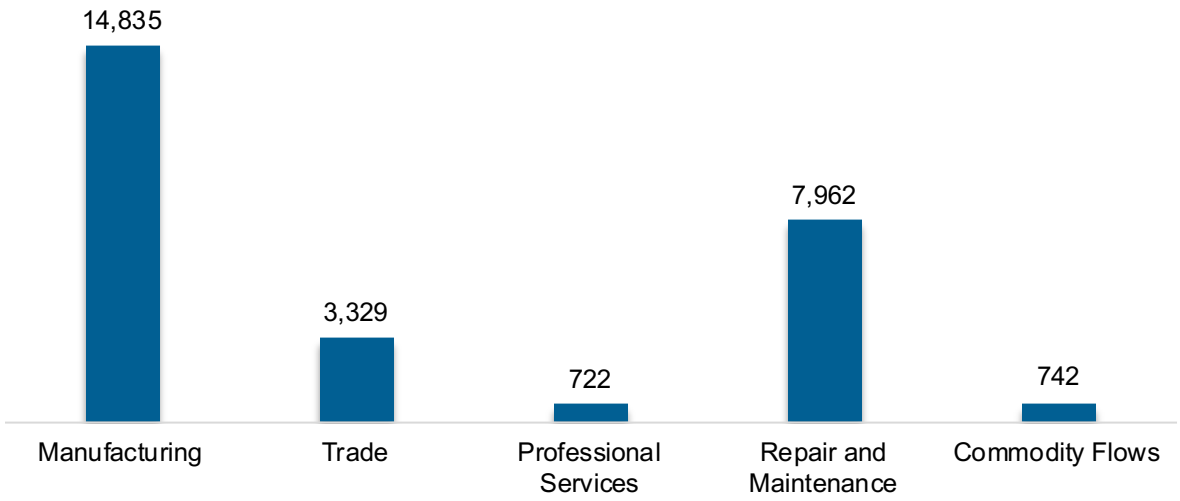
Figure MS-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 27,590 workers in Mississippi, 1.1% of the national total for the sector. Motor vehicles and component parts added 297 jobs and increased 1.1% from 2021 to 2022. Manufacturing is the largest proportion of motor vehicle jobs (Figure MS-10).

Figure MS-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 30,705 jobs in clean energy in Mississippi if traditional transmission and distribution is included and 21,503 jobs if it is not.[25] These increased under either definition, growing 4.1% with traditional transmission and distribution and 5.3% without.

Employer Perspectives

Expected Growth

Employers in Mississippi were less optimistic than their peers across the country about energy sector job growth over the next year (Table MS-1).

Table MS-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	3.8	6.0
Electric Power Transmission, Distribution, and Storage	2.8	3.9
Energy Efficiency	4.0	6.4
Fuels	1.6	1.6
Motor Vehicles	3.6	5.5

[25] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in Mississippi reported 51% overall hiring difficulty (Table MS-2).

Table MS-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	20	31	4	45	51

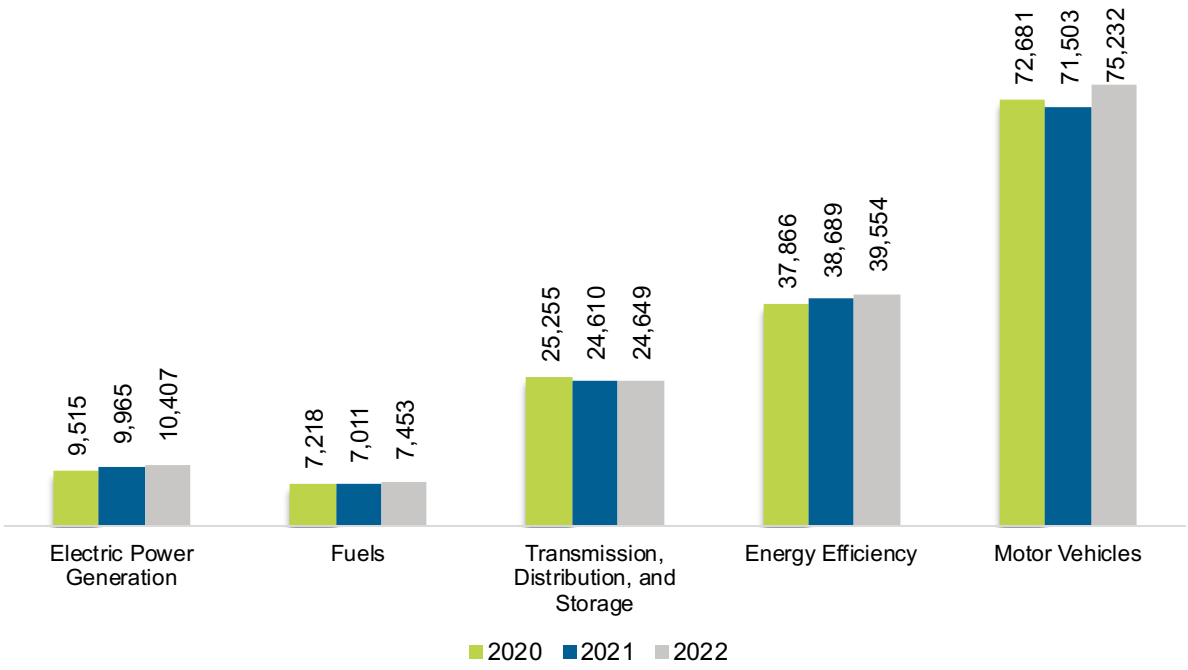
Missouri

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

Missouri had 157,296 energy workers statewide in 2022, representing 1.9% of all U.S. energy jobs. Of these energy jobs, 10,407 were in electric power generation; 7,453 in fuels; 24,649 in transmission, distribution, and storage; 39,554 in energy efficiency; and 75,232 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 5,518 jobs, or 3.6% (Figure MO-1). The energy sector in Missouri represented 5.5% of total state employment.

Figure MO-1. Employment by Major Energy Technology Application

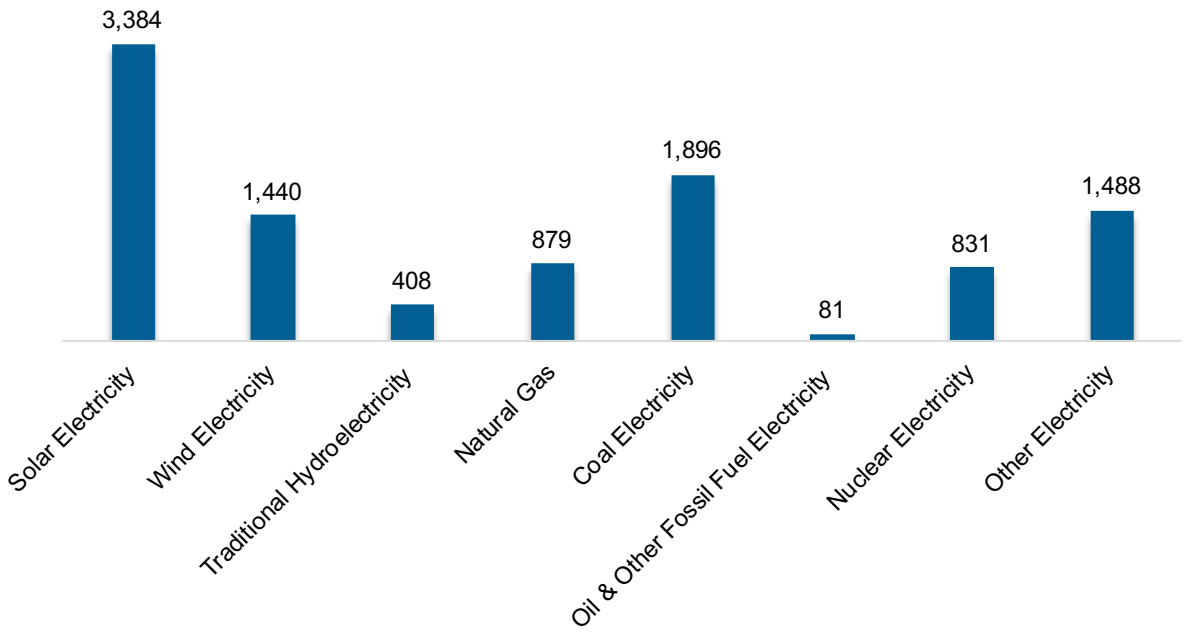


Breakdown by Technology Applications

Electric Power Generation

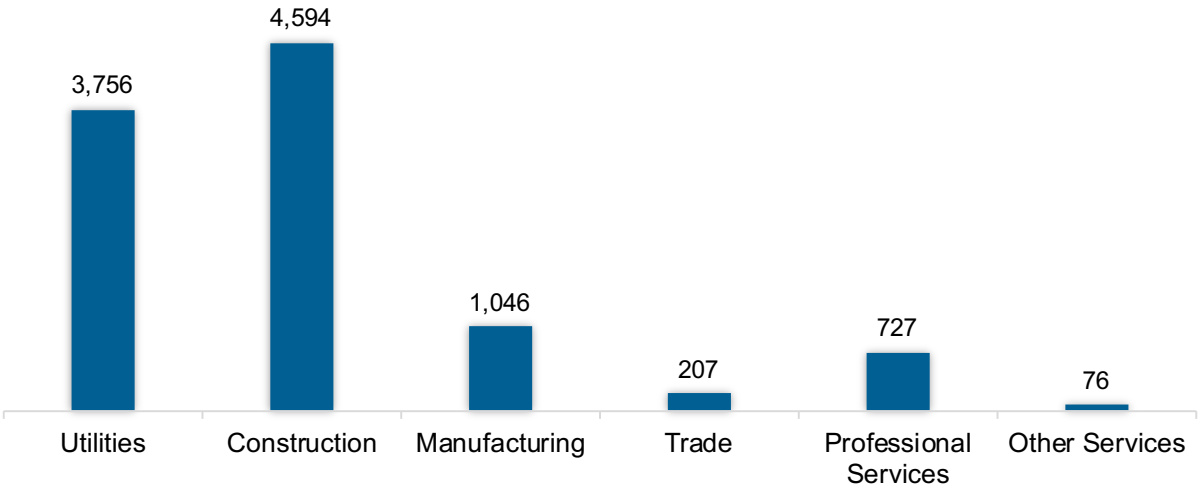
As shown in Figure MO-2, the electric power generation sector employed 10,407 workers in Missouri, 1.2% of the national electricity total, and added 442 jobs from 2021 to 2022 (4.4%).

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



Construction was the largest industry sector in the electric power generation sector, with 44.1% of jobs. Utilities was second largest with 36.1% (Figure MO-3).

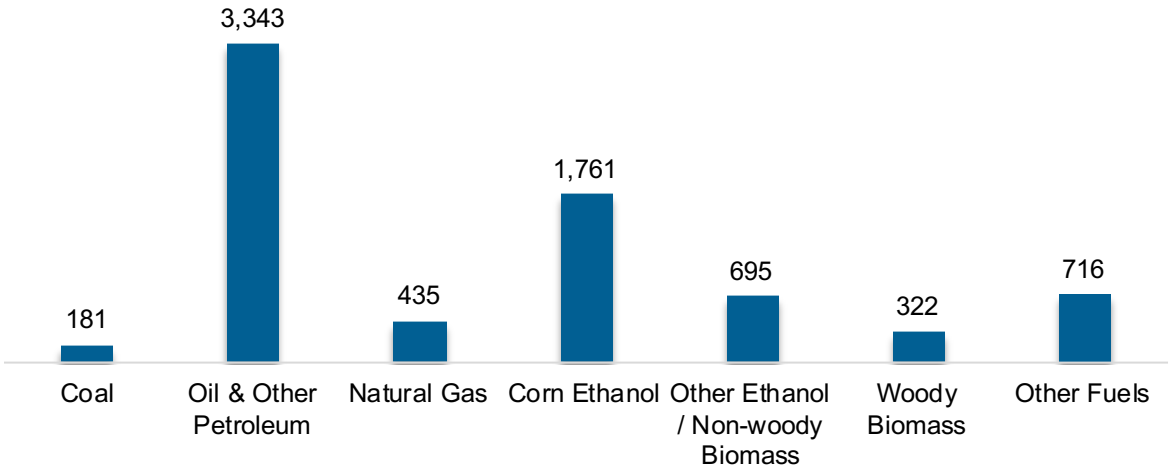
Figure MO-3. Electric Power Generation Employment by Industry Sector



Fuels

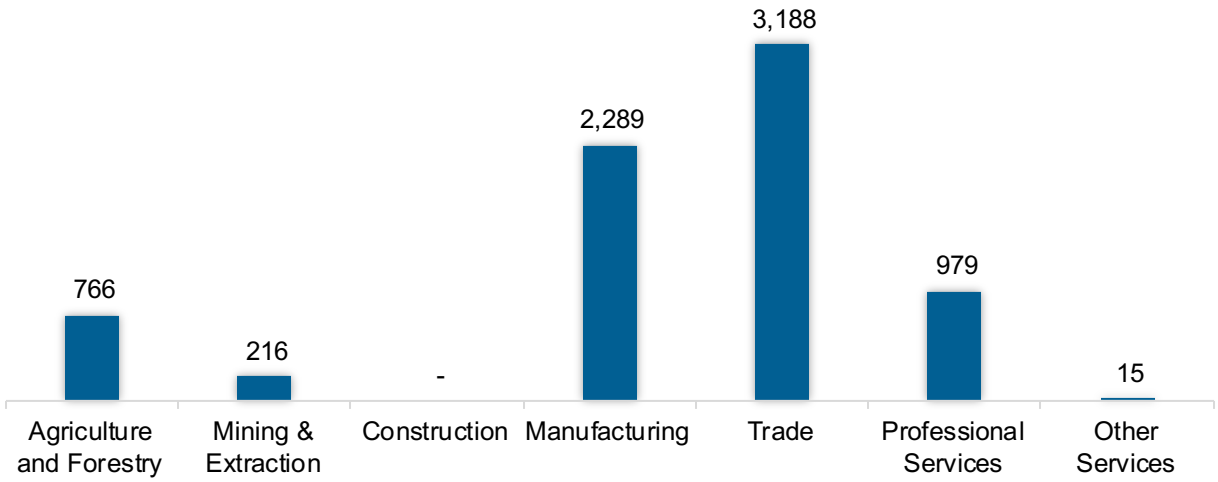
The Fuel sector employed 7,453 workers in Missouri, 0.7% of the national total in fuels (Figure MO-4). The sector gained 442 jobs and increased 6.3% from 2021 to 2022.

Figure MO-4. Fuels Employment by Detailed Technology Application



Wholesale trade jobs represented 42.8% of fuel jobs in Missouri (Figure MO-5).

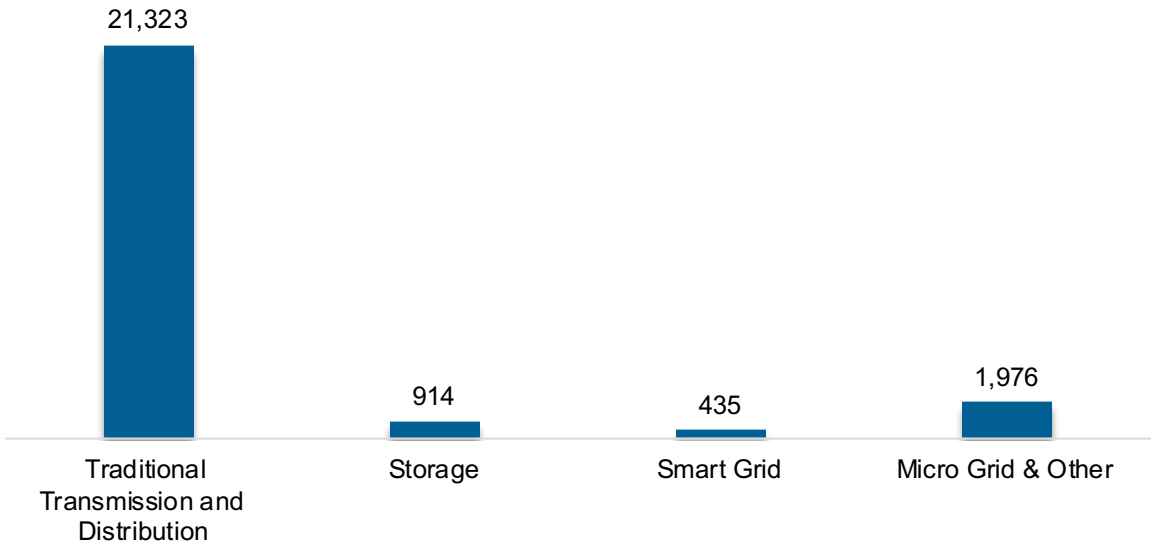
Figure MO-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

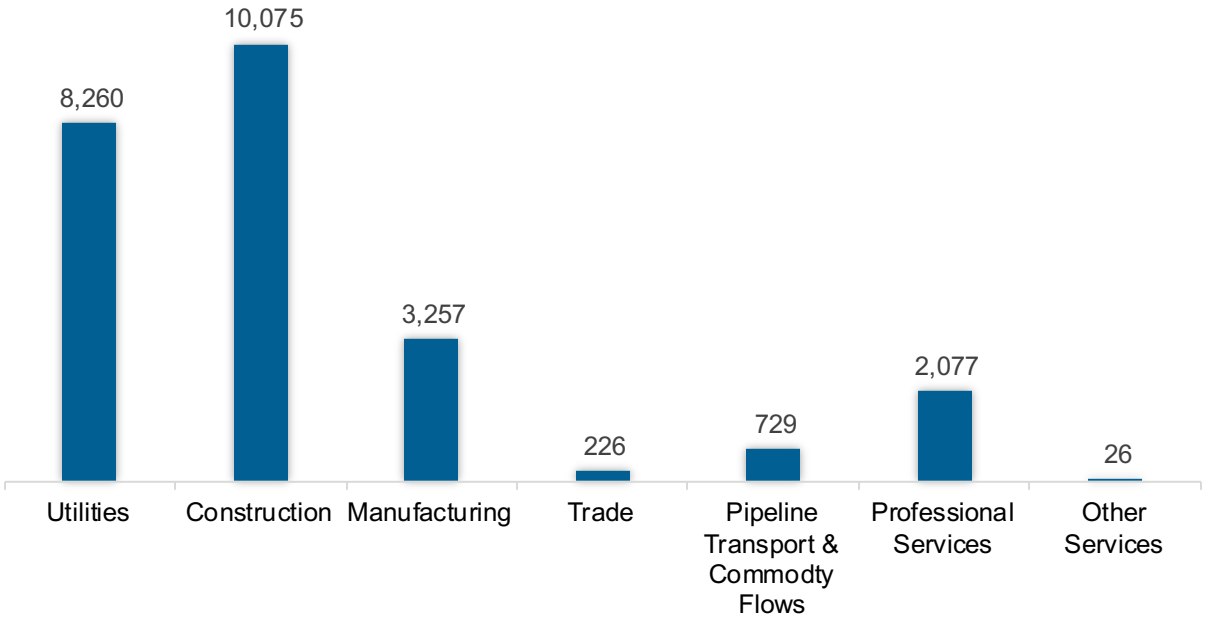
The transmission, distribution, and storage (TDS) sector employed 24,649 workers in Missouri, 0.7% of the national TDS total (Figure MO-6). The sector gained 39 jobs and increased 0.2% from 2021 to 2022.

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



Construction was the largest proportion of TDS jobs in Missouri, accounting for 40.9% of the sector's jobs statewide (Figure MO-7).

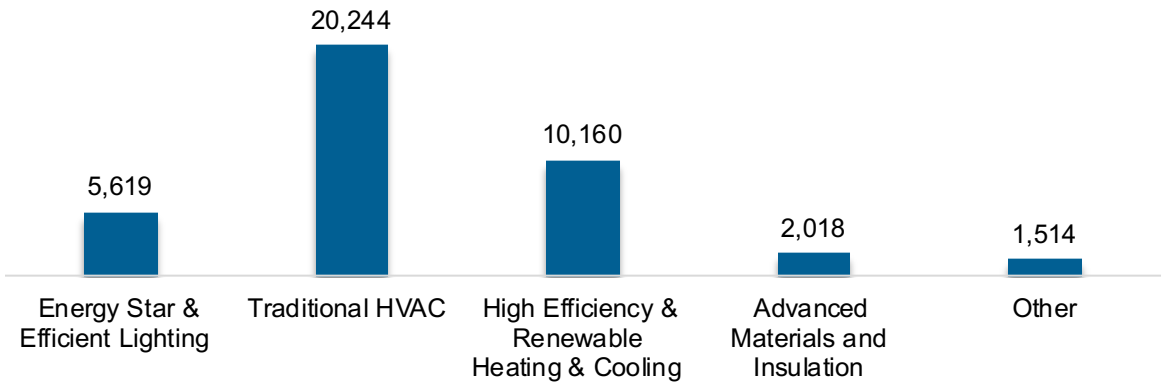
Figure MO-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

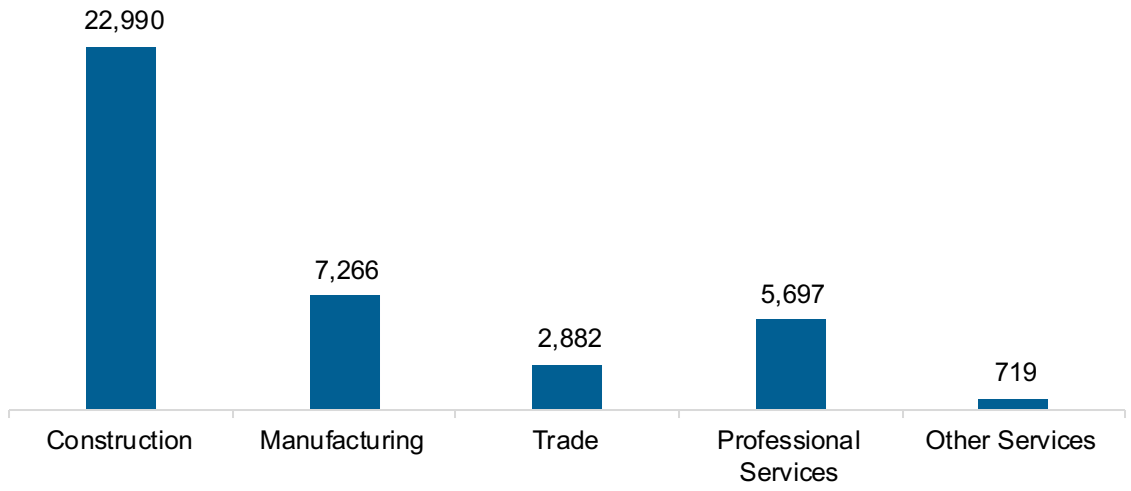
The energy efficiency (EE) sector employed 39,554 workers in Missouri, 1.8% of the national EE total. The EE sector added 865 jobs and increased 2.2% from 2021 to 2022 (Figure MO-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure MO-9).

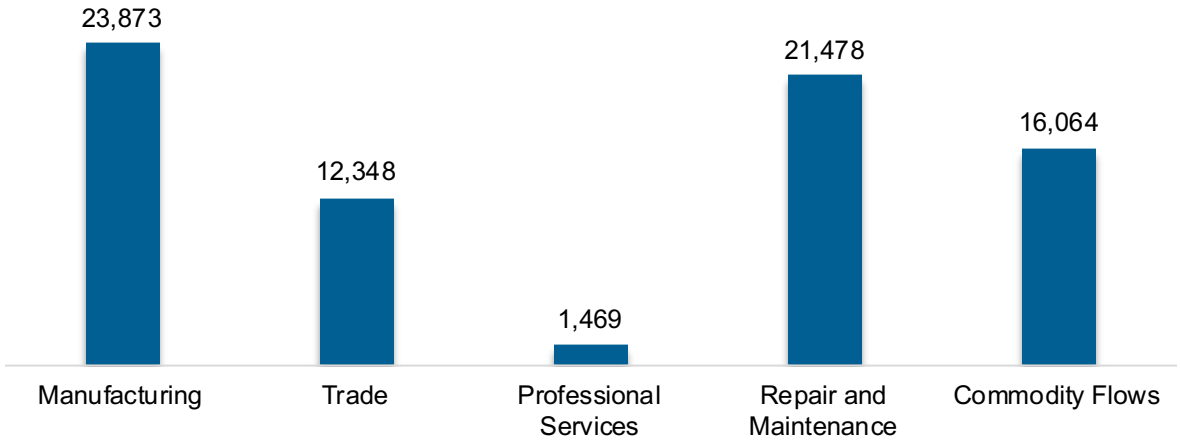
Figure MO-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 75,232 workers in Missouri, 2.9% of the national total for the sector. Motor vehicles and component parts added 3,729 jobs and increased 5.2% from 2021 to 2022. Manufacturing is the largest proportion of motor vehicle jobs (Figure MO-10).

Figure MO-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 77,649 jobs in clean energy in Missouri if traditional transmission and distribution is included and 56,279 jobs if it is not.[26] These increased under either definition, growing 2.7% with traditional transmission and distribution and 4.1% without.

Employer Perspectives

Expected Growth

Employers in Missouri are similarly optimistic than their peers across the country about energy sector job growth over the next year (Table MO-1).

Table MO-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	5.5	6.0
Electric Power Transmission, Distribution, and Storage	4.4	3.9
Energy Efficiency	5.7	6.4
Fuels	3.3	1.6
Motor Vehicles	5.2	5.5

[26] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in Missouri reported 51% overall hiring difficulty (Table MO-2).

Table MO-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	26	25	7	42	51

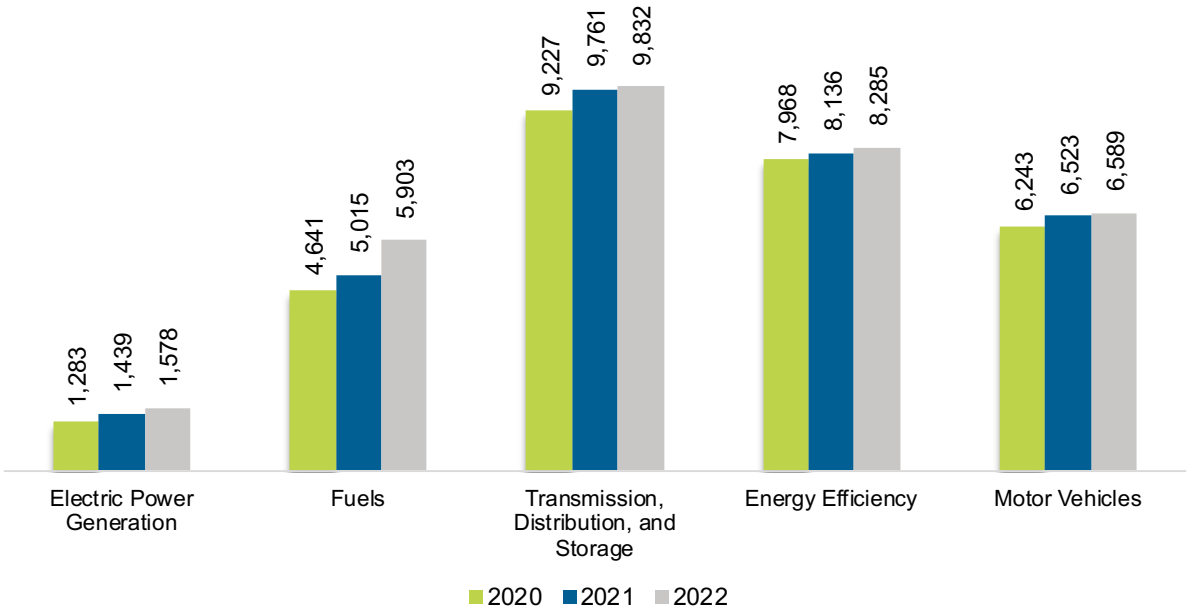
Montana

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

Montana had 32,187 energy workers statewide in 2022, representing 0.4% of all U.S. energy jobs. Of these energy jobs, 1,578 were in electric power generation; 5,903 in fuels; 9,832 in transmission, distribution, and storage; 8,285 in energy efficiency; and 6,589 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 1,312 jobs, or 4.3% (Figure MT-1). The energy sector in Montana represented 6.4% of total state employment.

Figure MT-1. Employment by Major Energy Technology Application

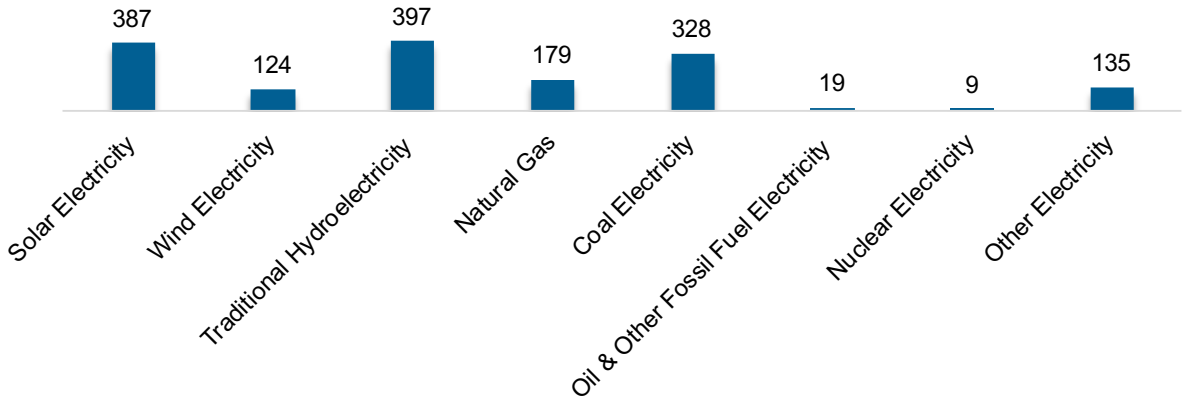


Breakdown by Technology Applications

Electric Power Generation

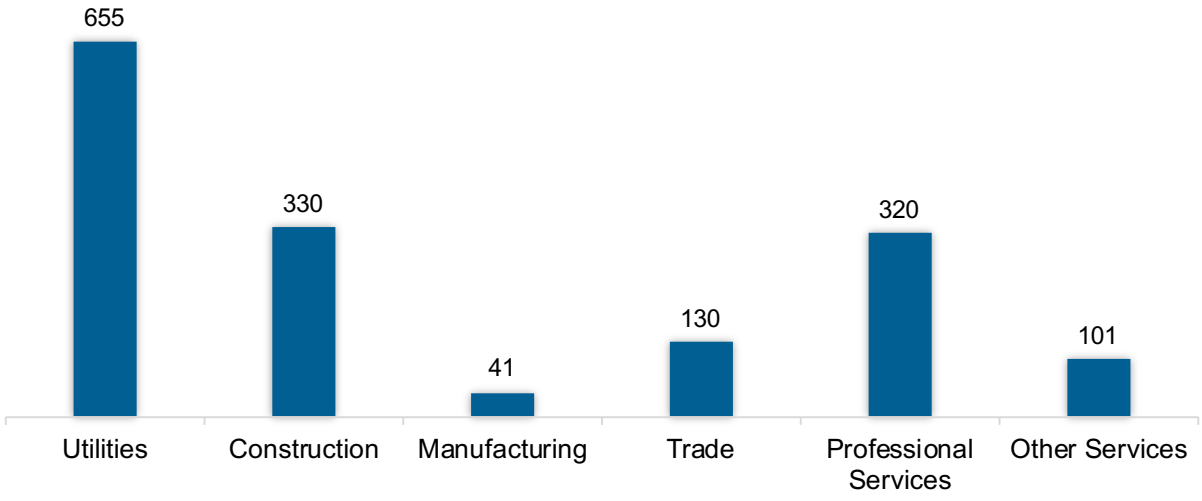
As shown in Figure MT-2, the electric power generation sector employed 1,578 workers in Montana, 0.2% of the national electricity total, and added 139 jobs from 2021 to 2022 (9.6%).

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



Utilities was the largest industry sector in the electric power generation sector, with 41.5% of jobs. Construction was second largest with 20.9% (Figure MT-3).

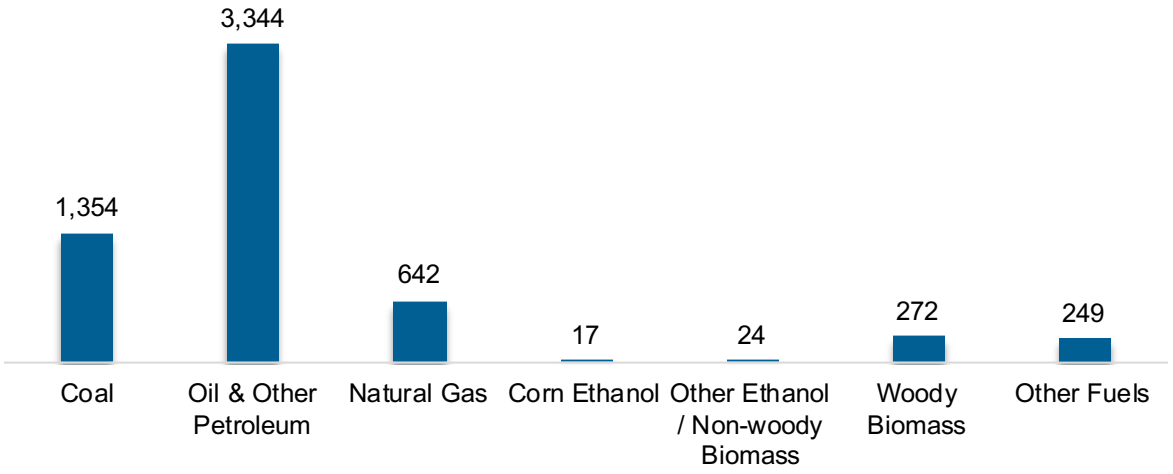
Figure MT-3. Electric Power Generation Employment by Industry Sector



Fuels

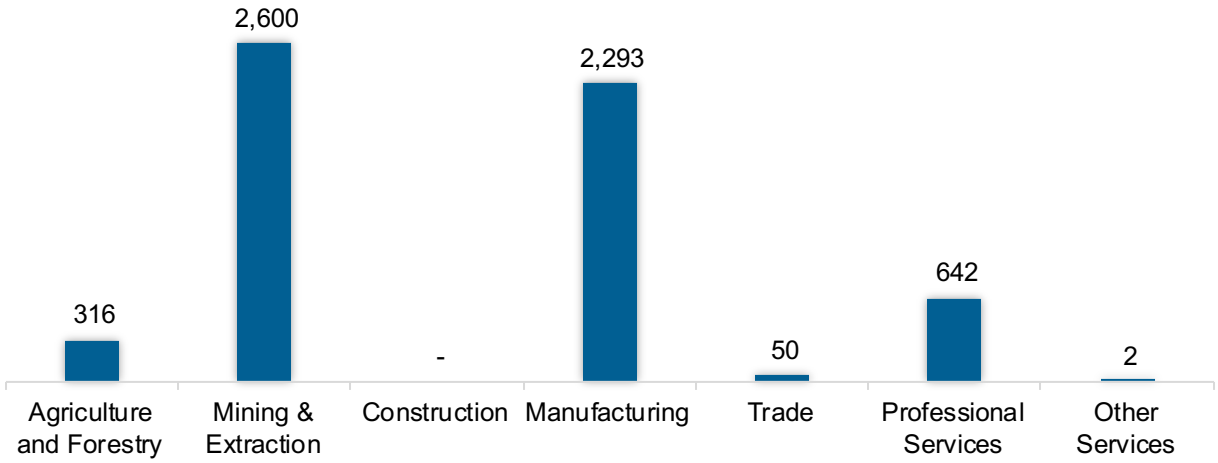
The Fuel sector employed 5,903 workers in Montana, 0.6% of the national total in fuels (Figure MT-4). The sector gained 888 jobs and increased 17.7% from 2021 to 2022.

Figure MT-4. Fuels Employment by Detailed Technology Application



Mining and extraction jobs represented 44.0% of fuel jobs in Montana (Figure MT-5).

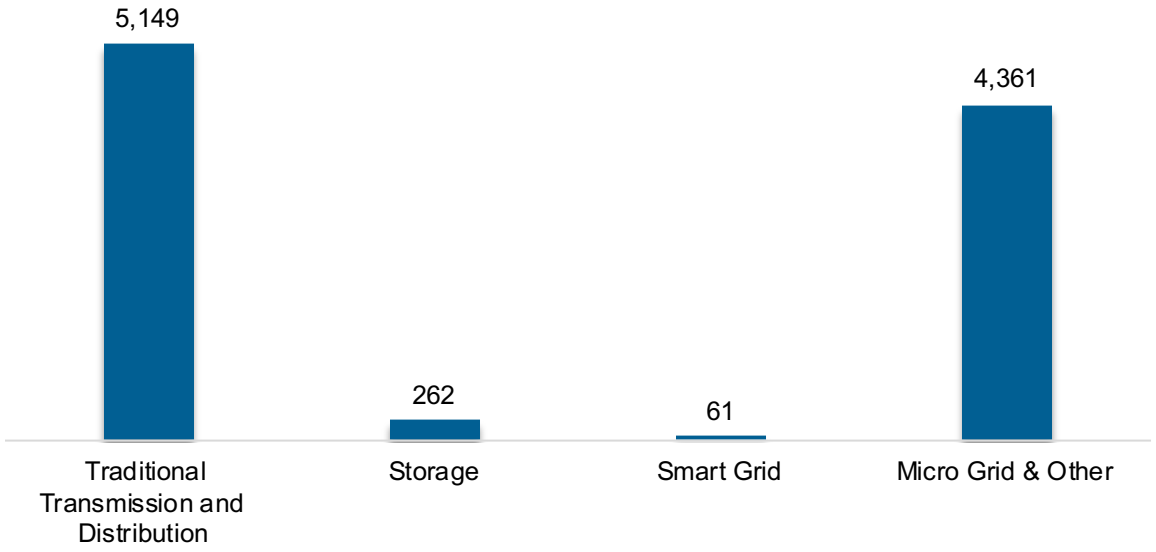
Figure MT-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

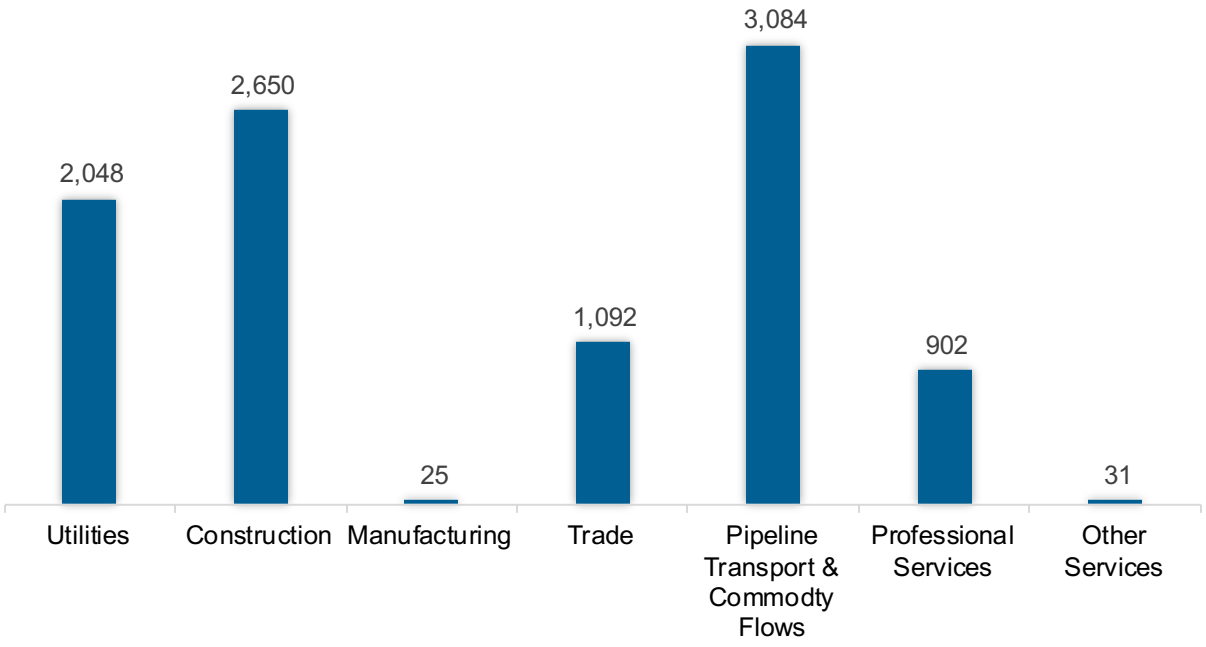
The transmission, distribution, and storage (TDS) sector employed 9,832 workers in Montana, 0.6% of the national TDS total (Figure MT-6). The sector gained 71 jobs and increased 0.7% from 2021 to 2022.

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



Pipeline transport and commodity flows was the largest proportion of TDS jobs in Montana, accounting for 31.4% of the sector's jobs statewide (Figure MT-7).

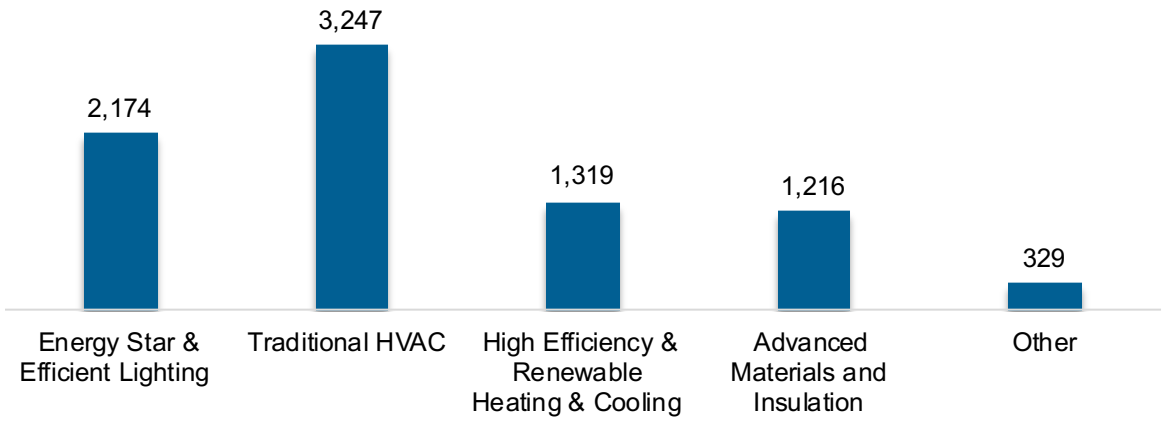
Figure MT-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

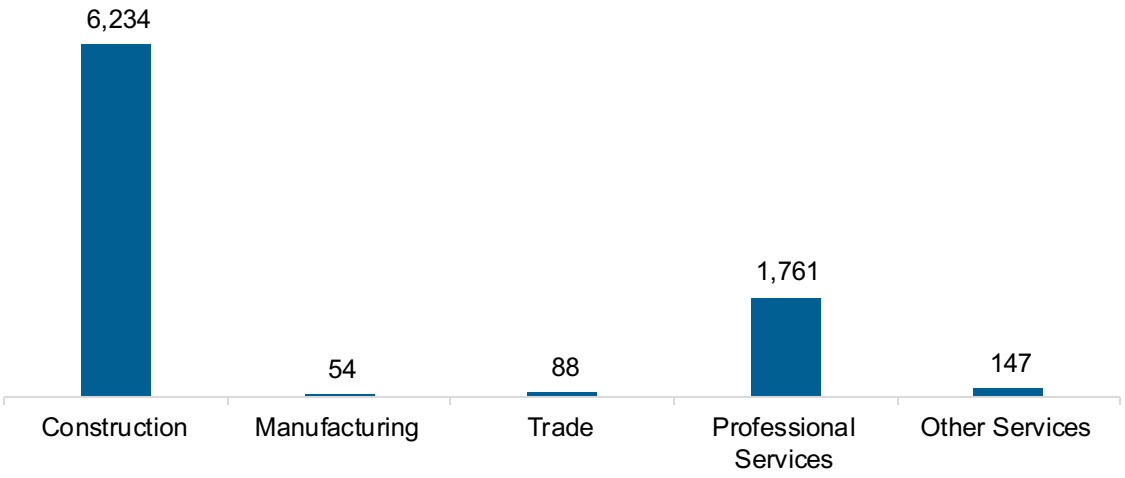
The energy efficiency (EE) sector employed 8,285 workers in Montana, 0.4% of the national EE total. The EE sector added 149 jobs and increased 1.8% from 2021 to 2022 (Figure MT-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure MT-9).

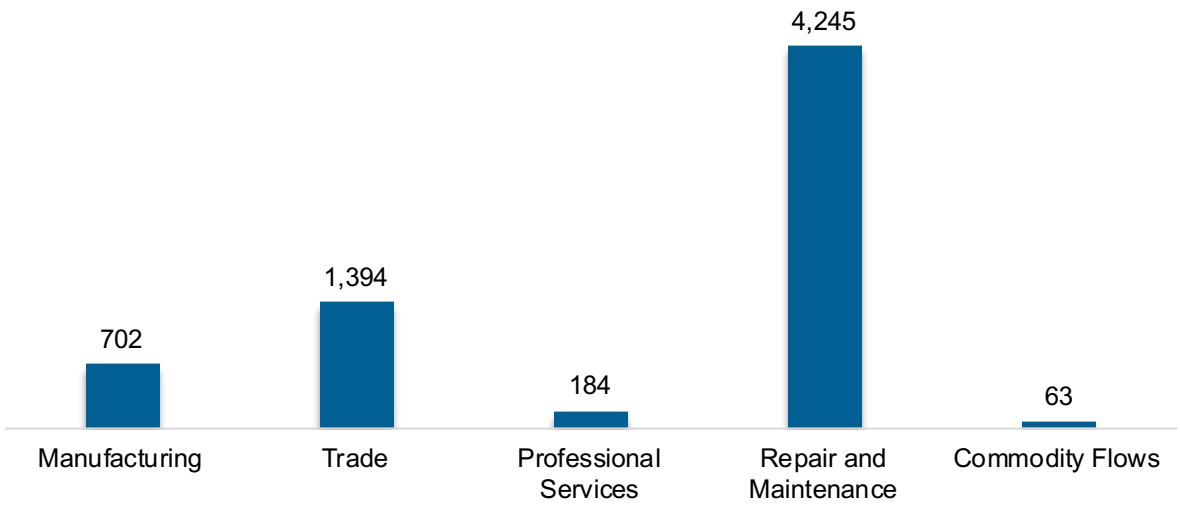
Figure MT-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 6,589 workers in Montana, 0.3% of the national total for the sector. Motor vehicles and component parts added 66 jobs and increased 1.0% from 2021 to 2022. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure MT-10).

Figure MT-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 15,696 jobs in clean energy in Montana if traditional transmission and distribution is included and 10,535 jobs if it is not.[27] These increased under either definition, growing 2.8% with traditional transmission and distribution and 3.3% without.

Employer Perspectives

Expected Growth

Employers in Montana were more optimistic than their peers across the country about energy sector job growth over the next year (Table MT-1).

Table MT-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	6.5	6.0
Electric Power Transmission, Distribution, and Storage	5.4	3.9
Energy Efficiency	6.7	6.4
Fuels	4.3	1.6
Motor Vehicles	6.2	5.5

[27] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in Montana reported 53% overall hiring difficulty (Table MT-2).

Table MT-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	29	24	6	41	53

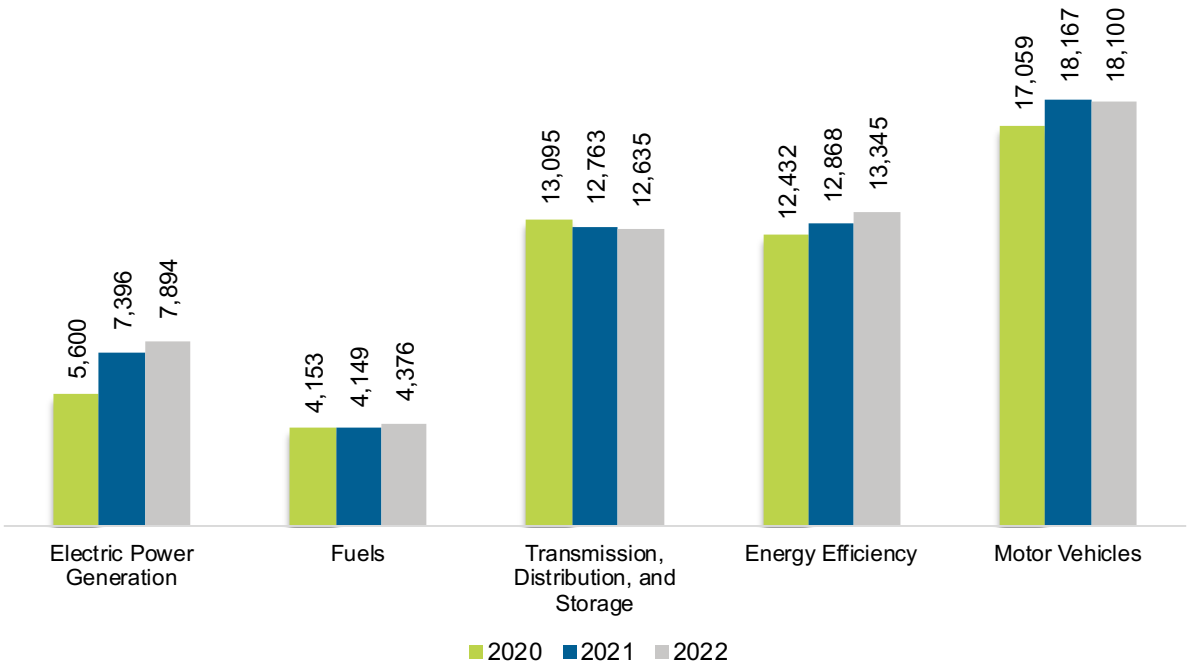
Nebraska

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

Nebraska had 56,351 energy workers statewide in 2022, representing 0.7% of all U.S. energy jobs. Of these energy jobs, 7,894 were in electric power generation; 4,376 in fuels; 12,635 in transmission, distribution, and storage; 13,345 in energy efficiency; and 18,100 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 1,007 jobs, or 1.8% (Figure NE-1). The energy sector in Nebraska represented 5.7% of total state employment.

Figure NE-1. Employment by Major Energy Technology Application

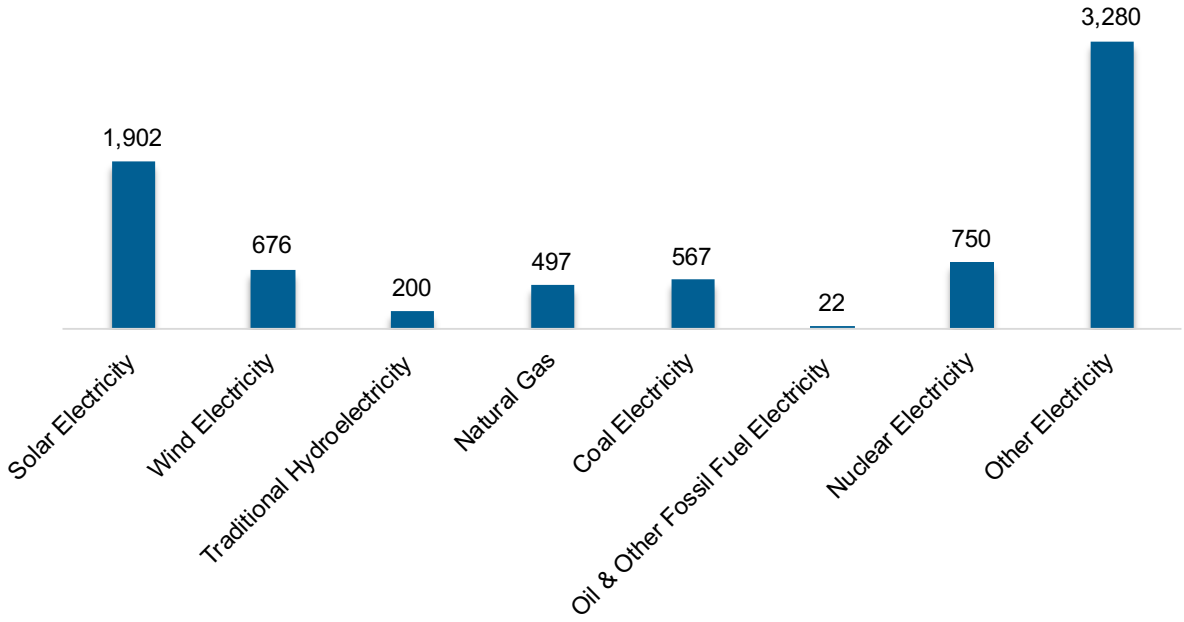


Breakdown by Technology Applications

Electric Power Generation

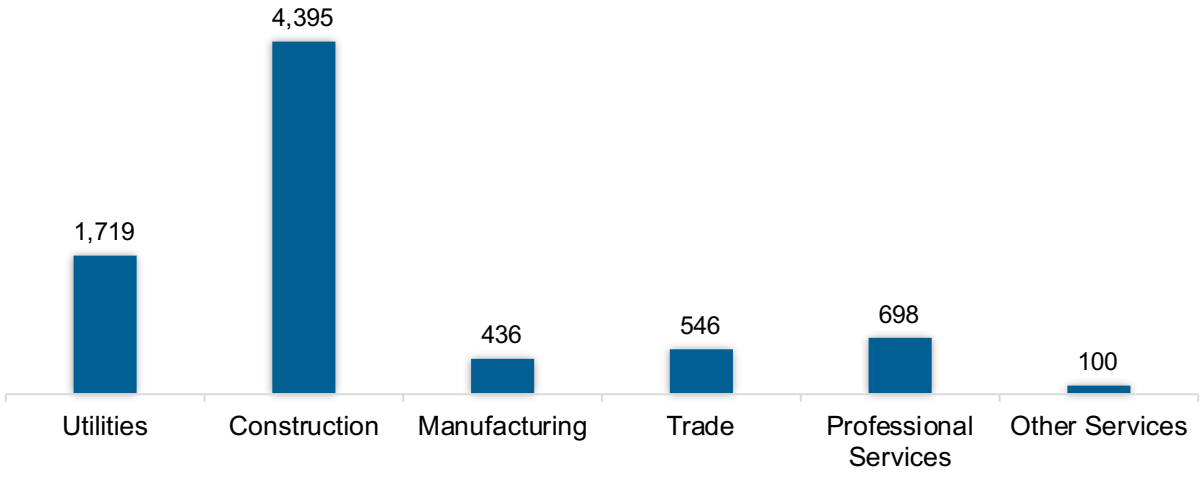
As shown in Figure NE-2, the electric power generation sector employed 7,894 workers in Nebraska, 0.9% of the national electricity total, and added 497 jobs from 2021 to 2022 (6.7%).

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



Construction was the largest industry sector in the electric power generation sector, with 55.7% of jobs. Utilities was second largest with 21.8% (Figure NE-3).

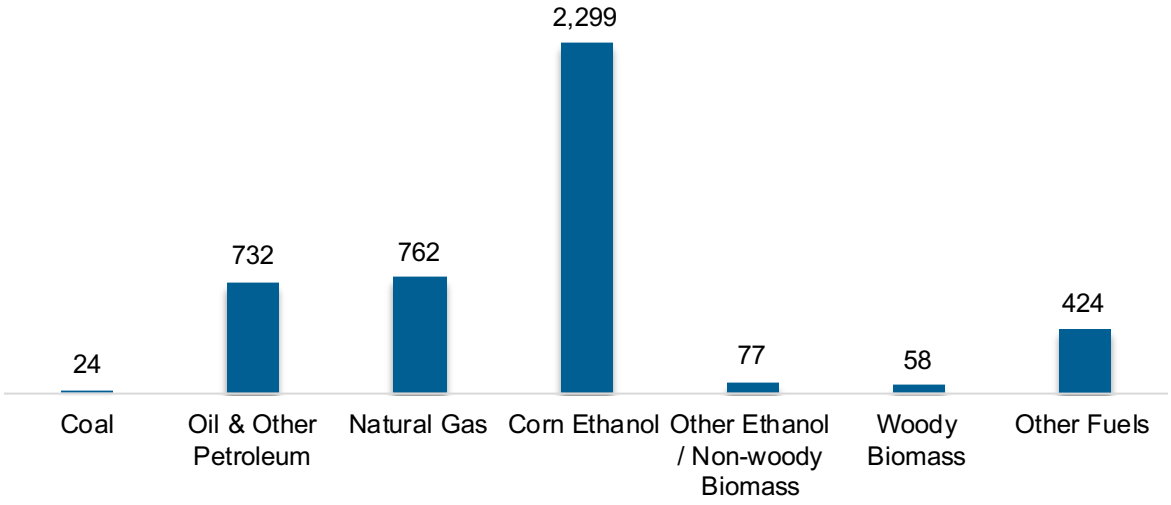
Figure NE-3. Electric Power Generation Employment by Industry Sector



Fuels

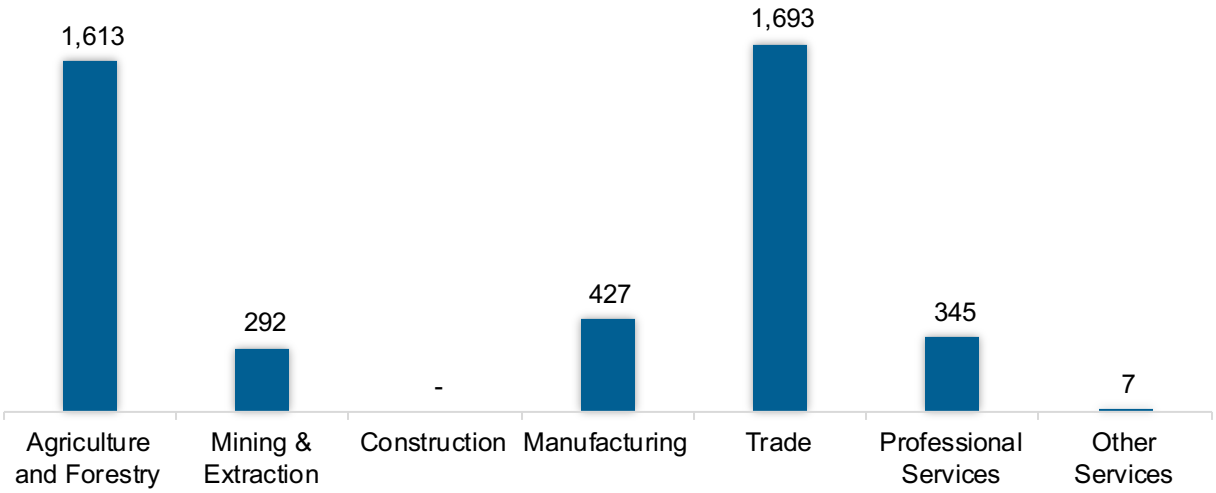
The Fuel sector employed 4,376 workers in Nebraska, 0.4% of the national total in fuels (Figure NE-4). The sector gained 227 jobs and increased 5.5% from 2021 to 2022.

Figure NE-4. Fuels Employment by Detailed Technology Application



Wholesale trade jobs represented 38.7% of fuel jobs in Nebraska (Figure NE-5).

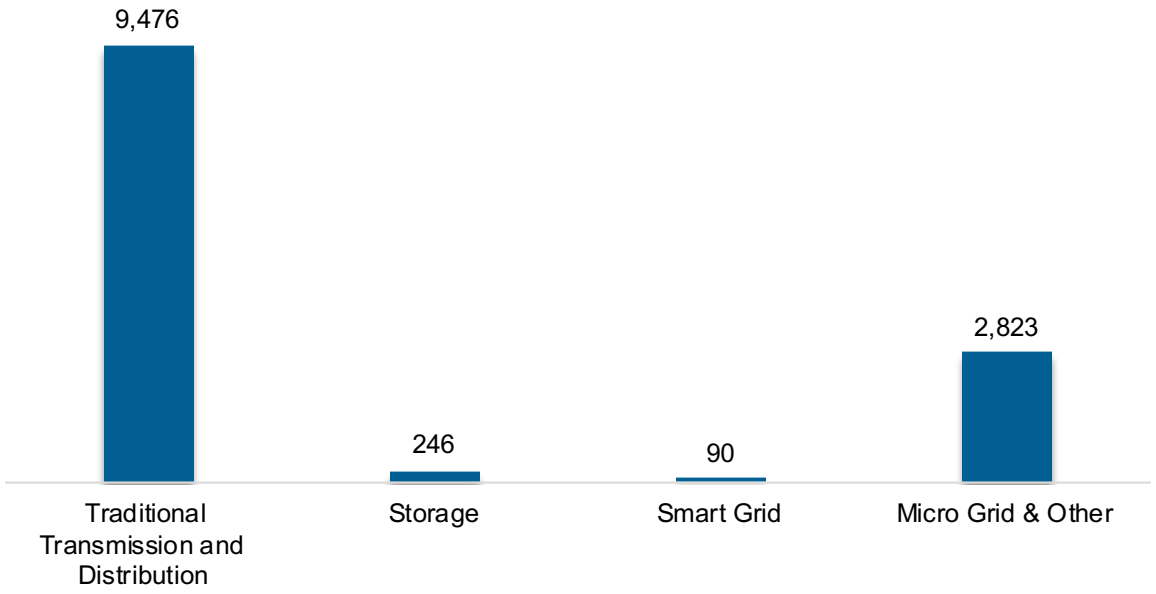
Figure NE-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

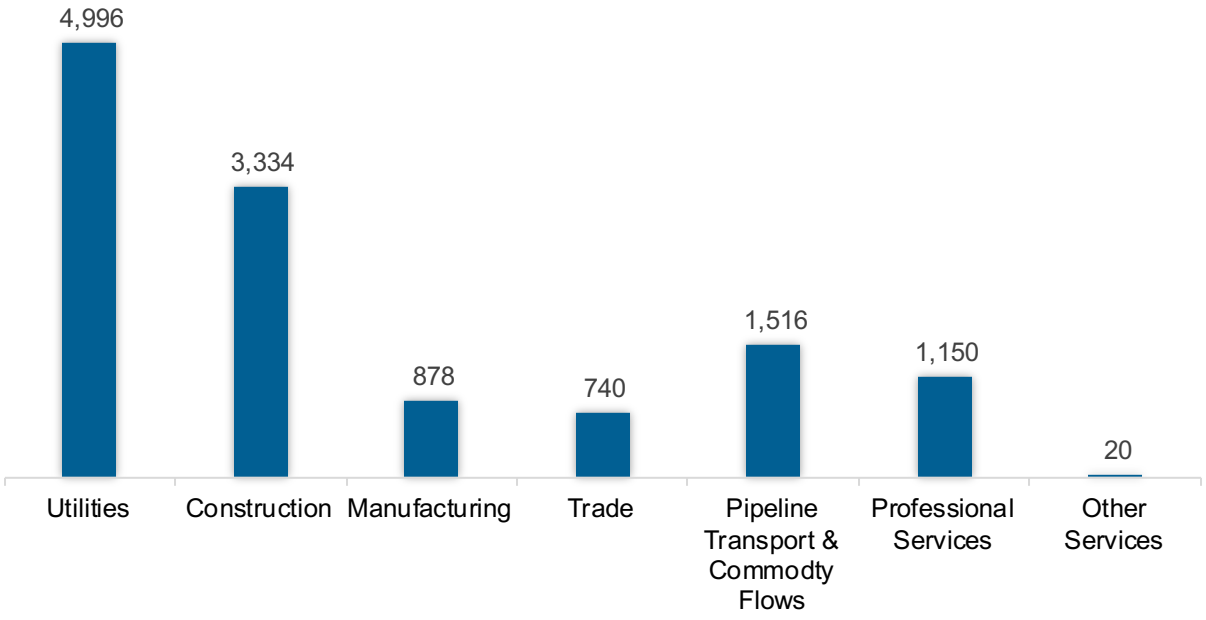
The transmission, distribution, and storage (TDS) sector employed 12,635 workers in Nebraska, 0.4% of the national TDS total (Figure NE-6). The sector lost 128 jobs and decreased 1.0% from 2021 to 2022.

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



Utilities was the largest proportion of TDS jobs in Nebraska, accounting for 39.5% of the sector's jobs statewide (Figure NE-7).

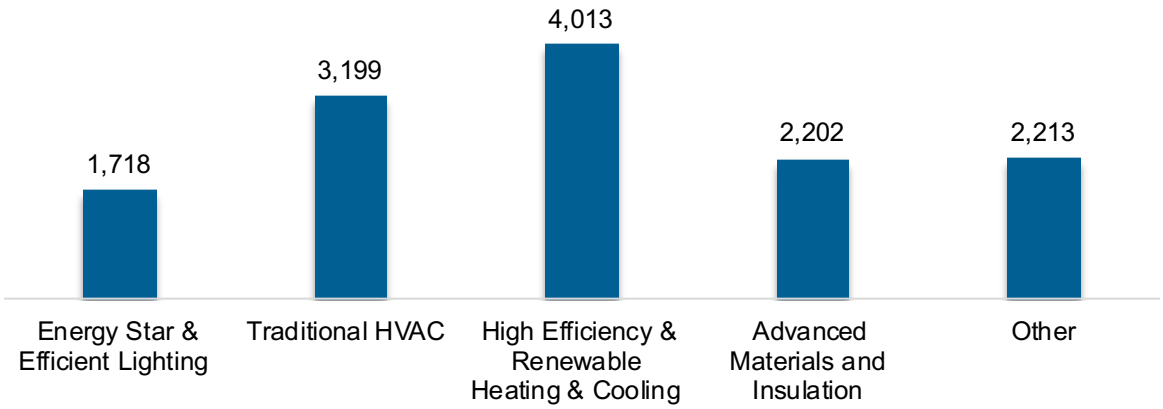
Figure NE-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

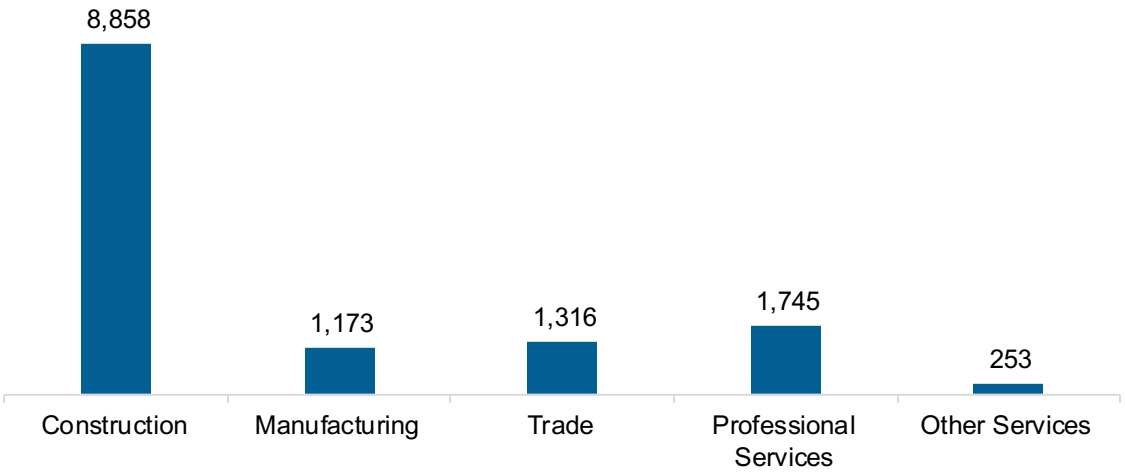
The energy efficiency (EE) sector employed 13,345 workers in Nebraska, 0.6% of the national EE total. The EE sector added 477 jobs and decreased 3.7% from 2021 to 2022 (Figure NE-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure NE-9).

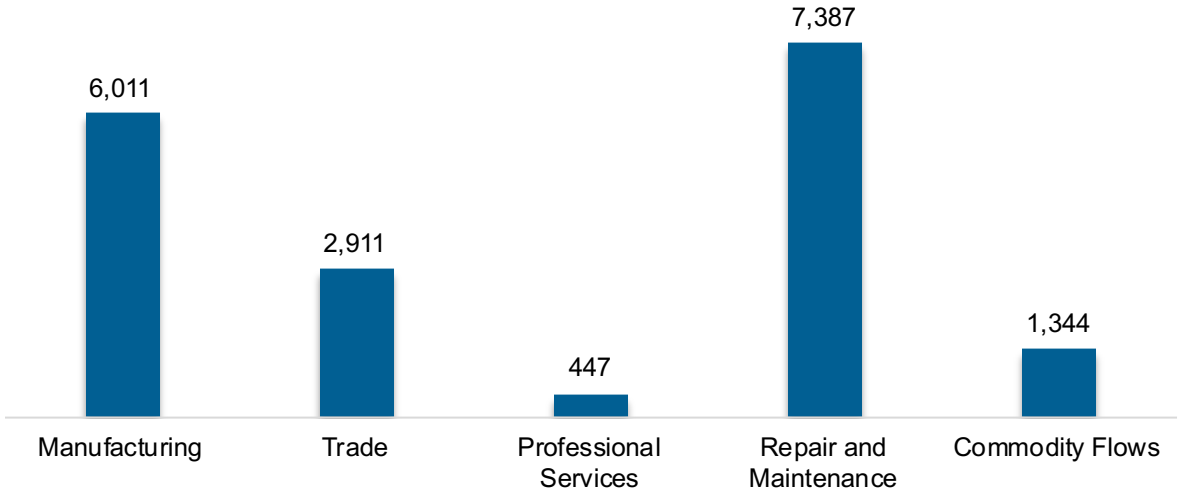
Figure NE-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 18,100 workers in Nebraska, 0.7% of the national total for the sector. Motor vehicles and component parts lost 67 jobs and decreased 0.4% from 2021 to 2022. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure NE-10).

Figure NE-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 31,406 jobs in clean energy in Nebraska if traditional transmission and distribution is included and 21,918 jobs if it is not.[28] These increased under either definition, growing 2.1% with traditional transmission and distribution and 3.7% without.

Employer Perspectives

Expected Growth

Employers in Nebraska were less optimistic than their peers across the country about energy sector job growth over the next year (Table NE-1).

Table NE-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	4.5	6.0
Electric Power Transmission, Distribution, and Storage	3.4	3.9
Energy Efficiency	4.7	6.4
Fuels	2.3	1.6
Motor Vehicles	4.2	5.5

[28] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in Nebraska reported 45% overall hiring difficulty (Table NE-2).

Table NE-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	19	26	7	48	45

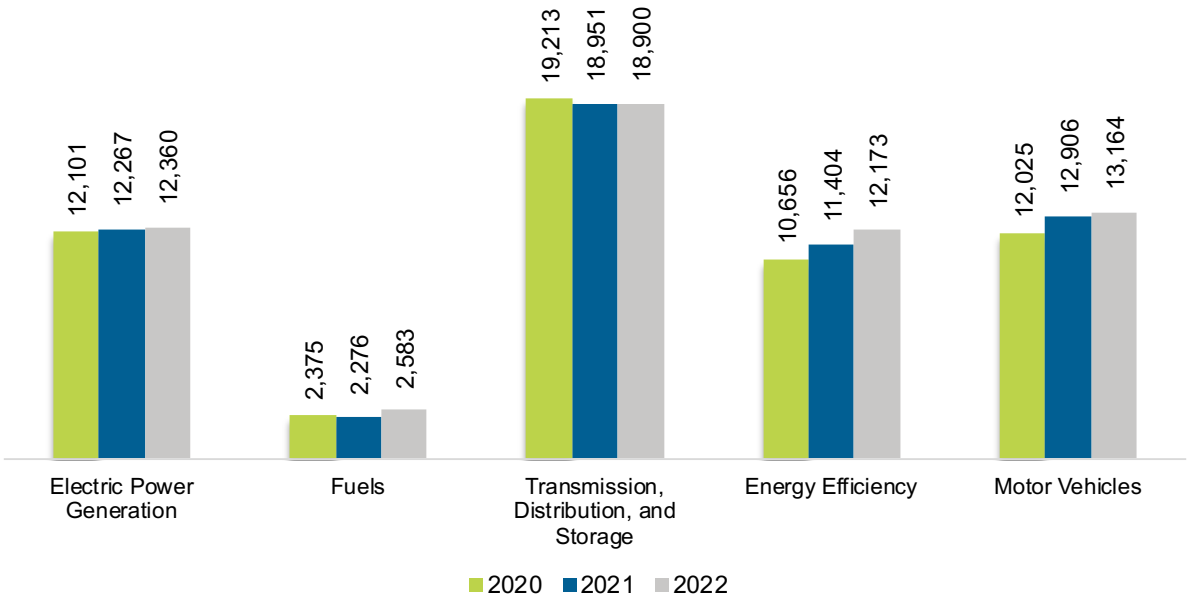
Nevada

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

Nevada had 59,179 energy workers statewide in 2022, representing 0.7% of all U.S. energy jobs. Of these energy jobs, 12,360 were in electric power generation; 2,583 in fuels; 18,900 in transmission, distribution, and storage; 12,173 in energy efficiency; and 13,164 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 1,375 jobs, or 2.4% (Figure NV-1). The energy sector in Nevada represented 4.0% of total state employment.

Figure NV-1. Employment by Major Energy Technology Application

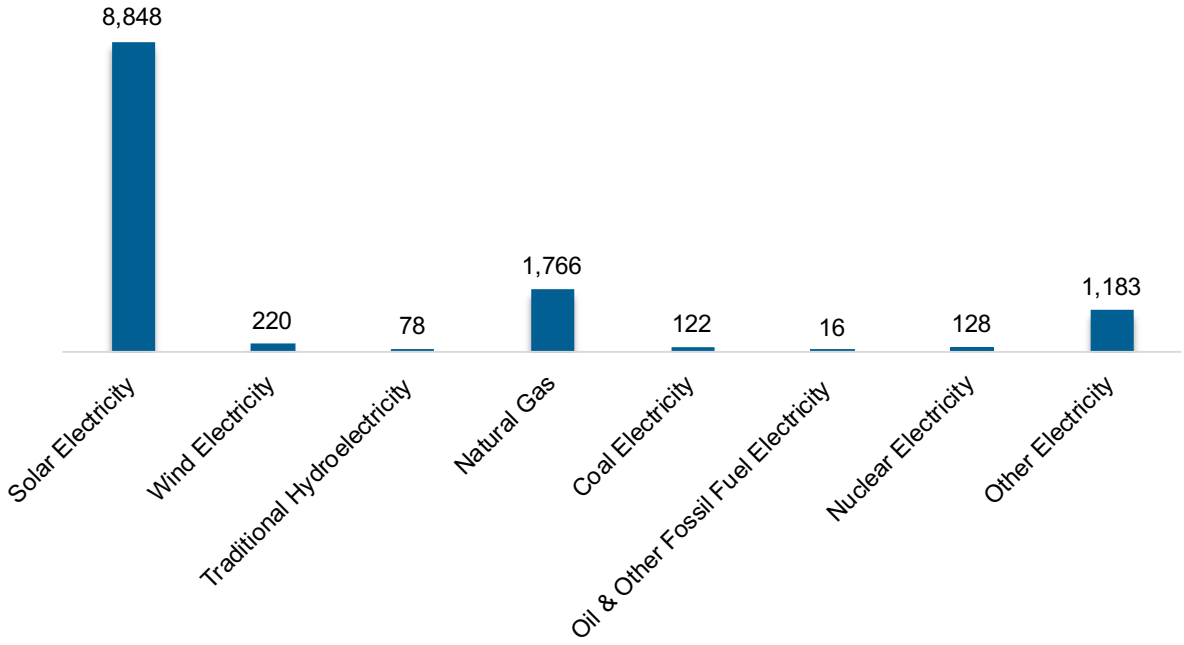


Breakdown by Technology Applications

Electric Power Generation

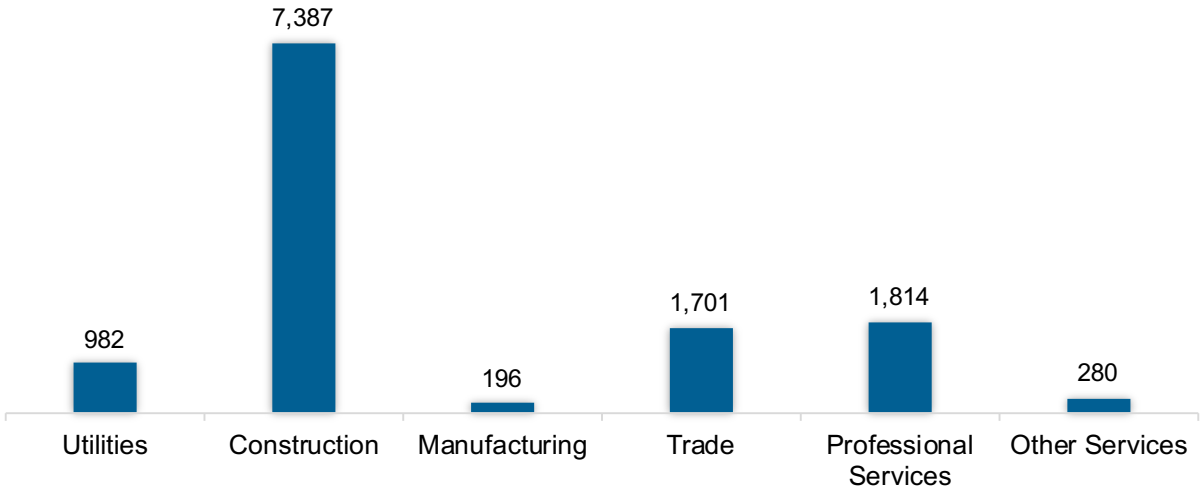
As shown in Figure NV-2, the electric power generation sector employed 12,360 workers in Nevada, 1.4% of the national electricity total, and added 93 jobs from 2021 to 2022 (0.8%).

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



Construction was the largest industry sector in the electric power generation sector, with 59.8% of jobs. Professional and business services was second largest with 14.7% (Figure NV-3).

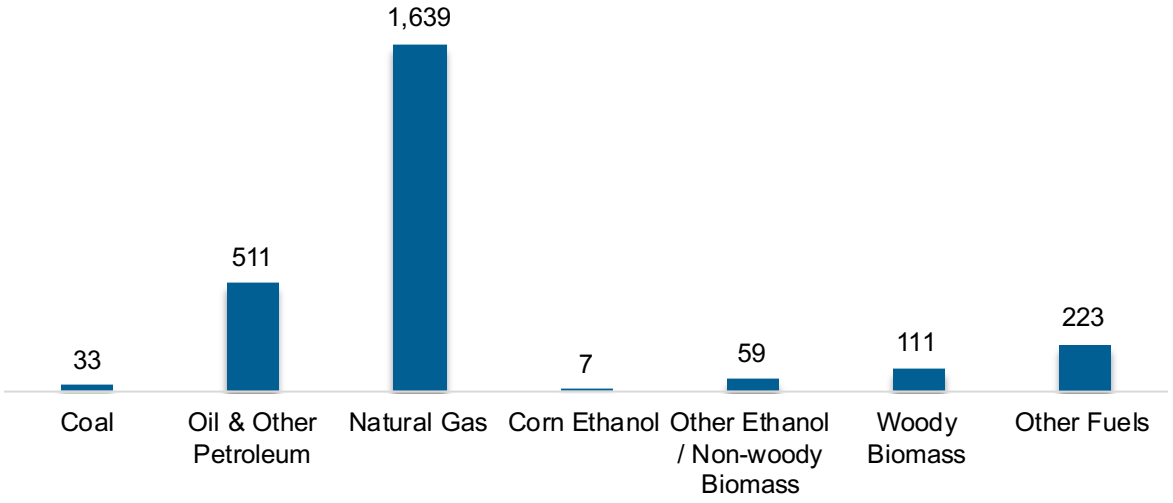
Figure NV-3. Electric Power Generation Employment by Industry Sector



Fuels

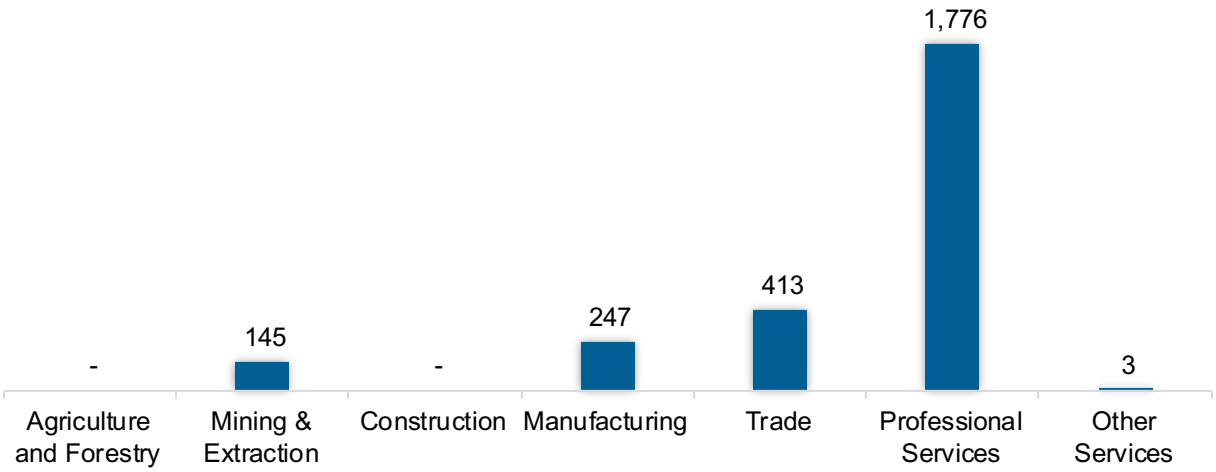
The Fuel sector employed 2,583 workers in Nevada, 0.3% of the national total in fuels (Figure NV-4). The sector gained 307 jobs and increased 13.5% from 2021 to 2022.

Figure NV-4. Fuels Employment by Detailed Technology Application



Professional and business services jobs represented 68.8% of fuel jobs in Nevada (Figure NV-5).

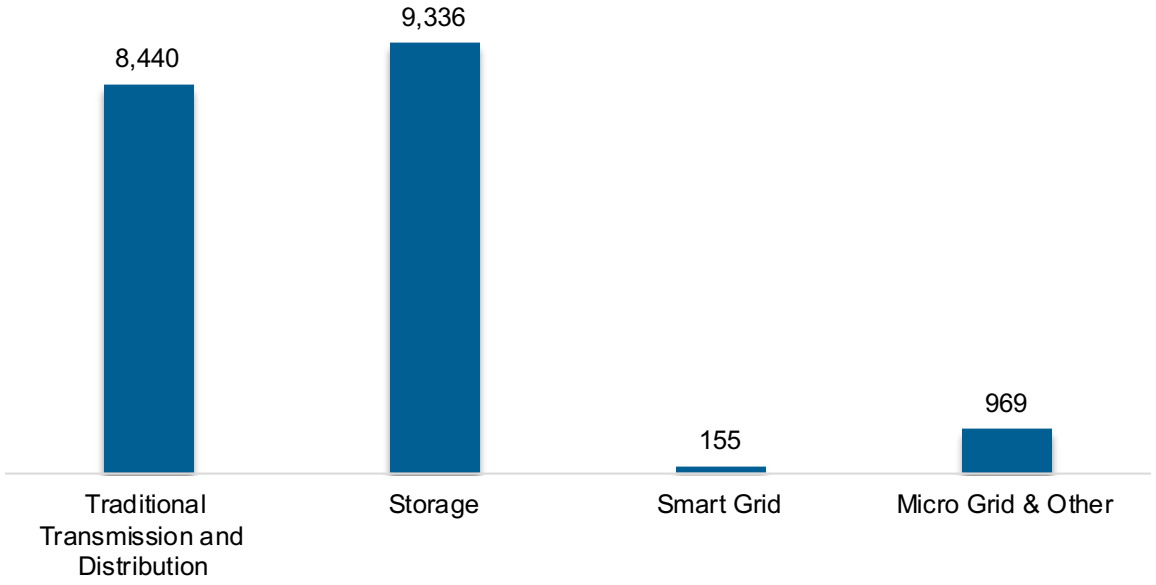
Figure NV-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

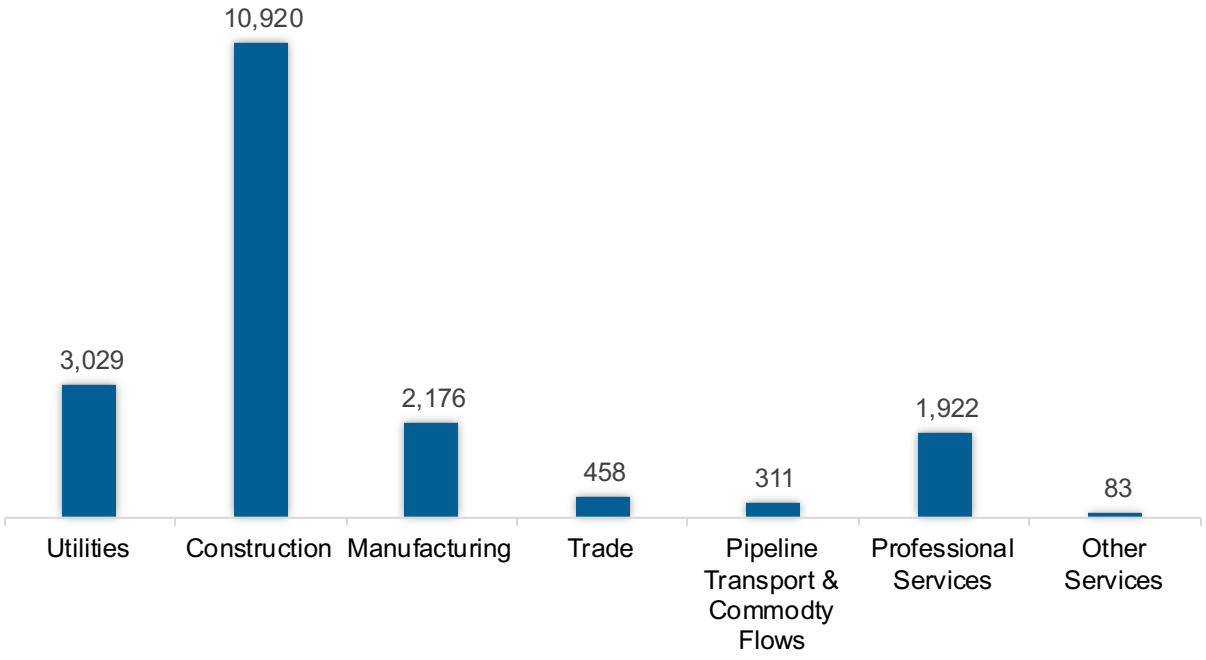
The transmission, distribution, and storage (TDS) sector employed 18,900 workers in Nevada, 0.3% of the national TDS total (Figure NV-6). The sector lost 52 jobs and decreased 0.3% from 2021 to 2022.

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



Construction was the largest proportion of TDS jobs in Nevada, accounting for 57.8% of the sector's jobs statewide (Figure NV-7).

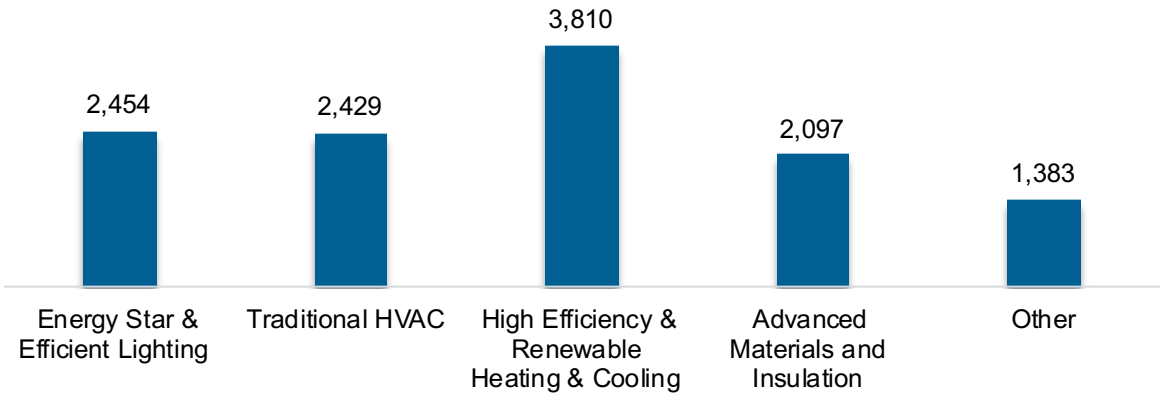
Figure NV-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

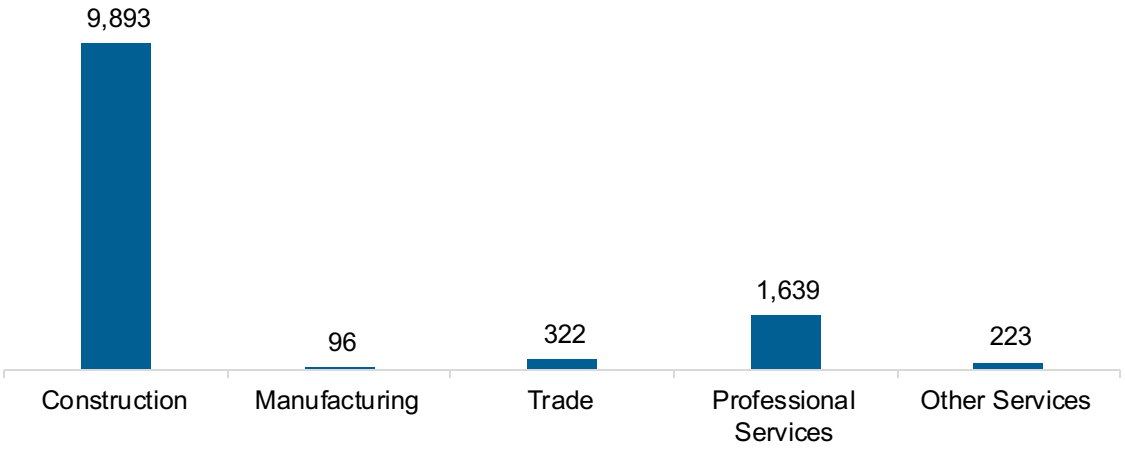
The energy efficiency (EE) sector employed 12,173 workers in Nevada, 0.5% of the national EE total. The EE sector added 769 jobs and increased 6.7% from 2021 to 2022 (Figure NV-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure NV-9).

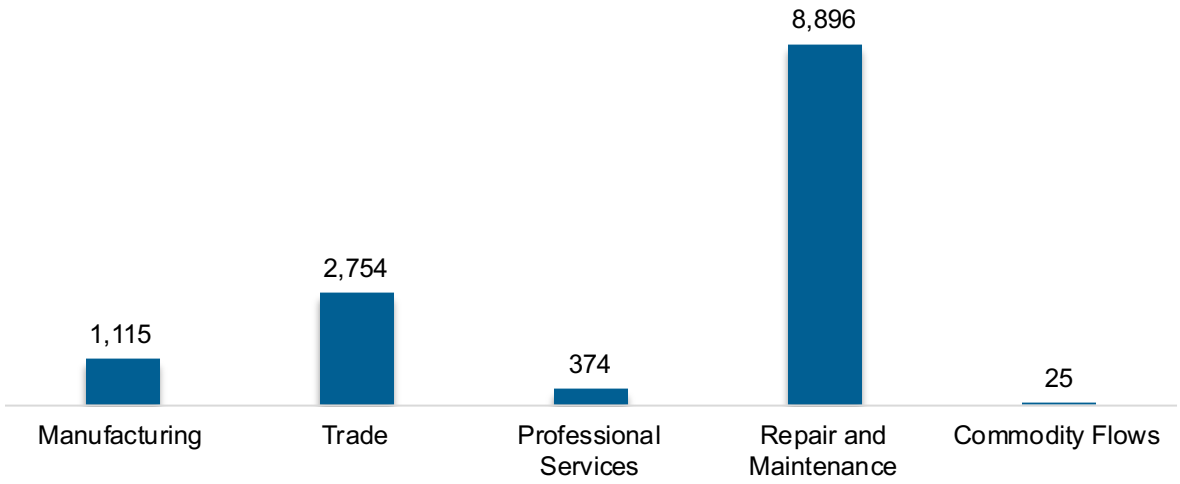
Figure NV-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 13,164 workers in Nevada, 0.5% of the national total for the sector. Motor vehicles and component parts added 258 jobs and increased 2.0% from 2021 to 2022. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure NV-10).

Figure NV-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 41,804 jobs in clean energy in Nevada if traditional transmission and distribution is included and 32,891 jobs if it is not.[29] These increased under either definition, growing 3.4% with traditional transmission and distribution and 3.2% without.

Employer Perspectives

Expected Growth

Employers in Nevada were more optimistic than their peers across the country about energy sector job growth over the next year (Table NV-1).

Table NV-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	6.6	6.0
Electric Power Transmission, Distribution, and Storage	5.6	3.9
Energy Efficiency	6.8	6.4
Fuels	4.4	1.6
Motor Vehicles	6.4	5.5

[29] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in Nevada reported 44% overall hiring difficulty (Table NV-2).

Table NV-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	20	24	9	47	44

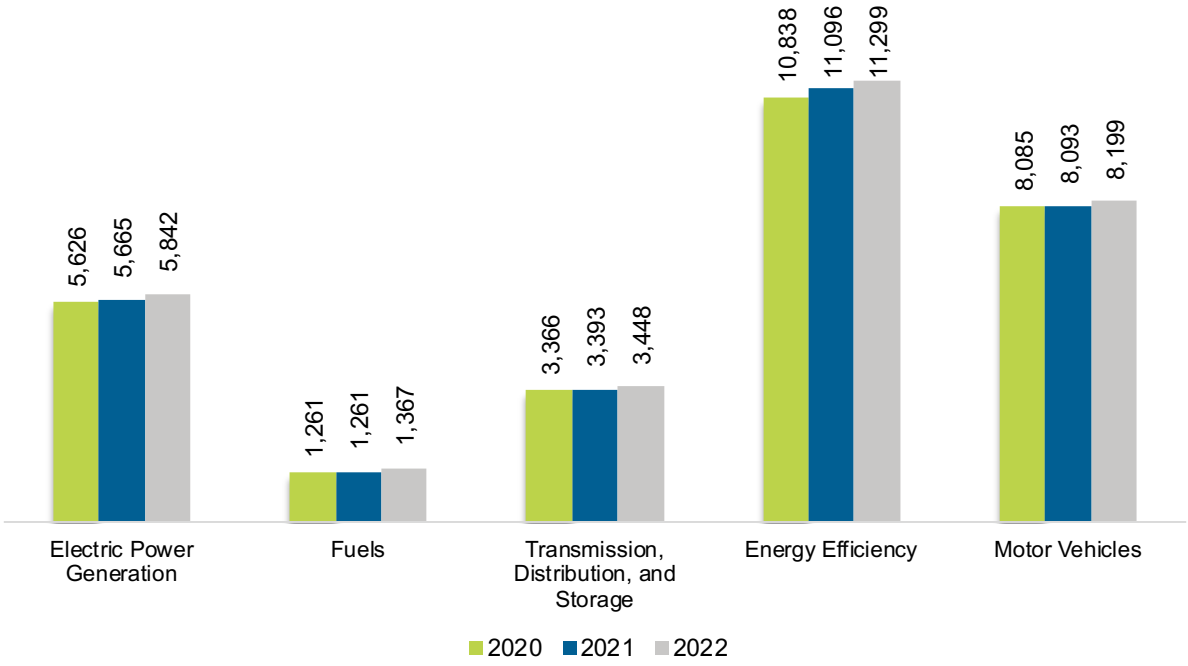
New Hampshire

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

New Hampshire had 30,156 energy workers statewide in 2022, representing 0.4% of all U.S. energy jobs. Of these energy jobs, 5,842 were in electric power generation; 1,367 in fuels; 3,448 in transmission, distribution, and storage; 11,299 in energy efficiency; and 8,199 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 648 jobs, or 2.2% (Figure NH-1). The energy sector in New Hampshire represented 4.5% of total state employment.

Figure NH-1. Employment by Major Energy Technology Application

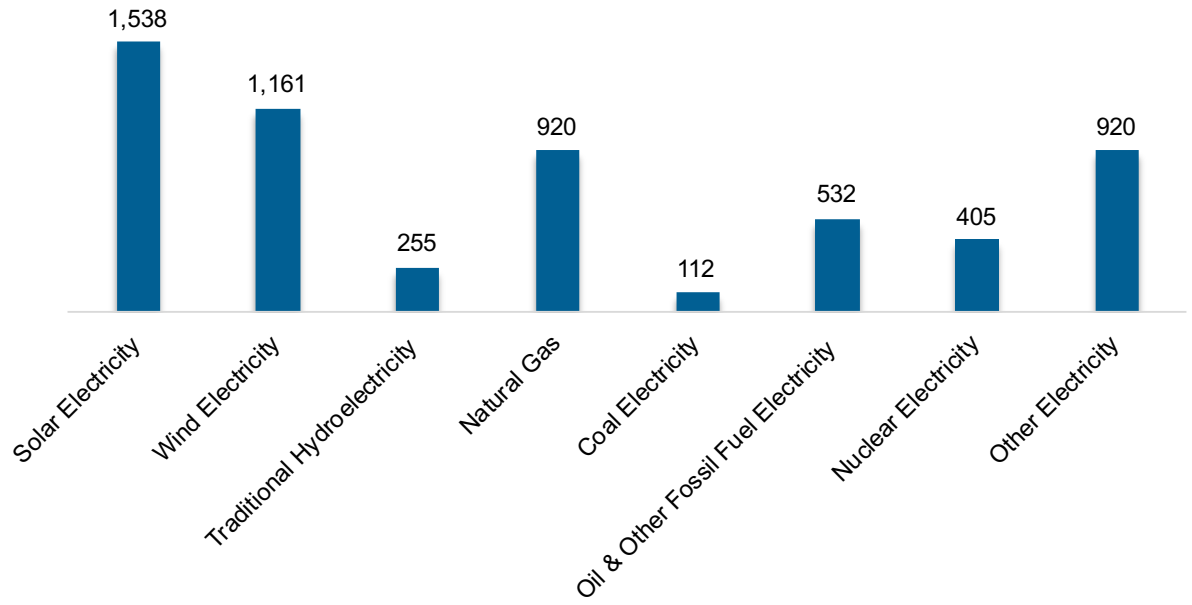


Breakdown by Technology Applications

Electric Power Generation

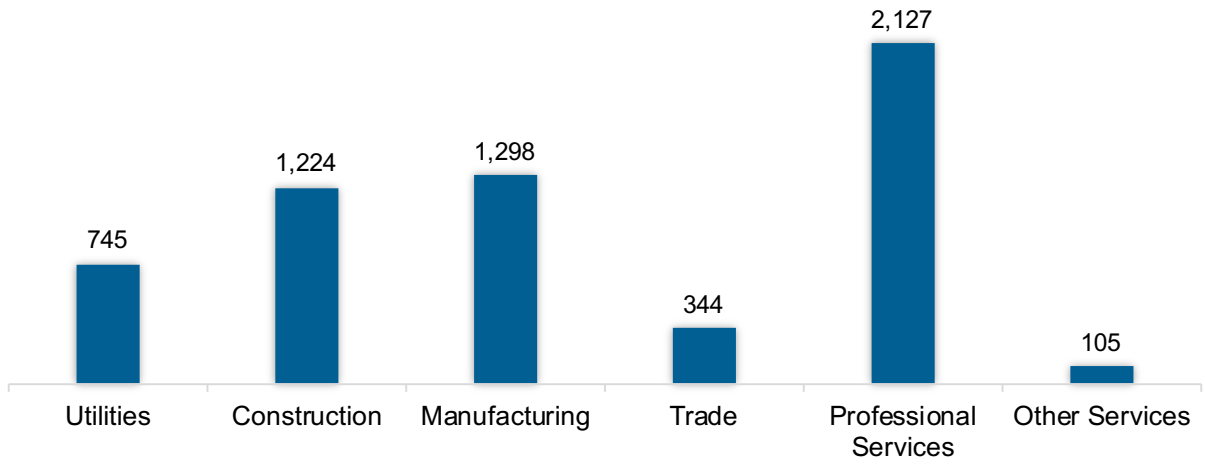
As shown in Figure NH-2, the electric power generation sector employed 5,842 workers in New Hampshire, 0.7% of the national electricity total, and added 177 jobs from 2021 to 2022 (3.1%).

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



Professional and business services was the largest industry sector in the electric power generation sector, with 36.4% of jobs. Manufacturing was second largest with 22.2% (Figure NH-3).

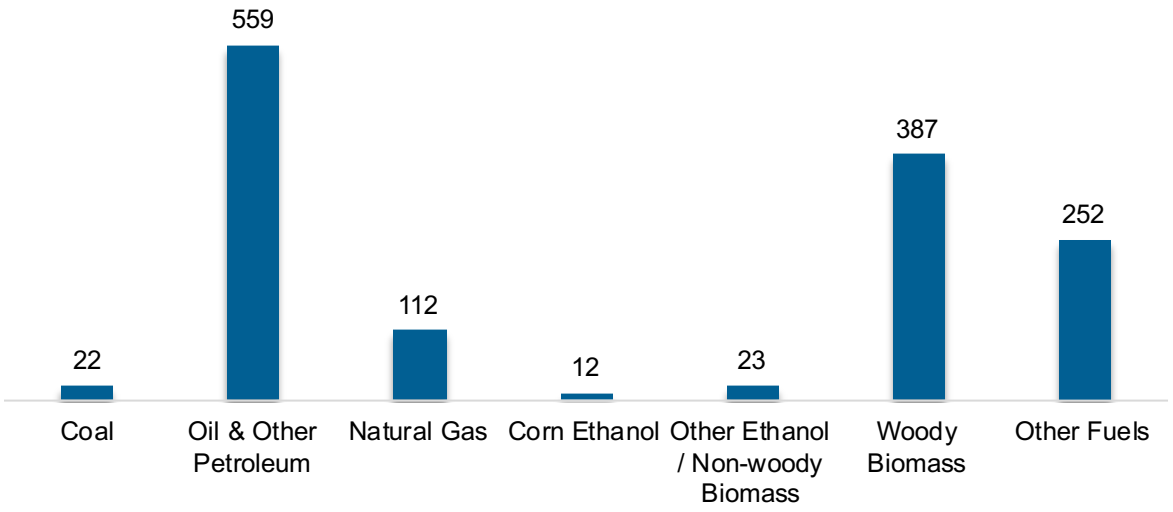
Figure NH-3. Electric Power Generation Employment by Industry Sector



Fuels

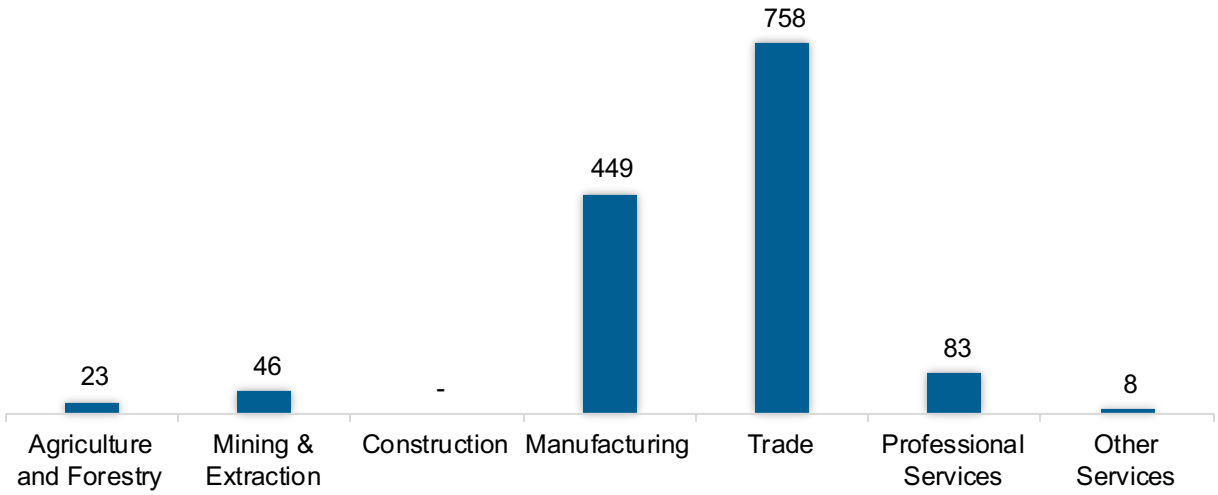
The Fuel sector employed 1,367 workers in New Hampshire, 0.1% of the national total in fuels (Figure NH-4). The sector gained 106 jobs and increased 8.4% from 2021 to 2022.

Figure NH-4. Fuels Employment by Detailed Technology Application



Wholesale trade jobs represented 55.4% of fuel jobs in New Hampshire (Figure NH-5).

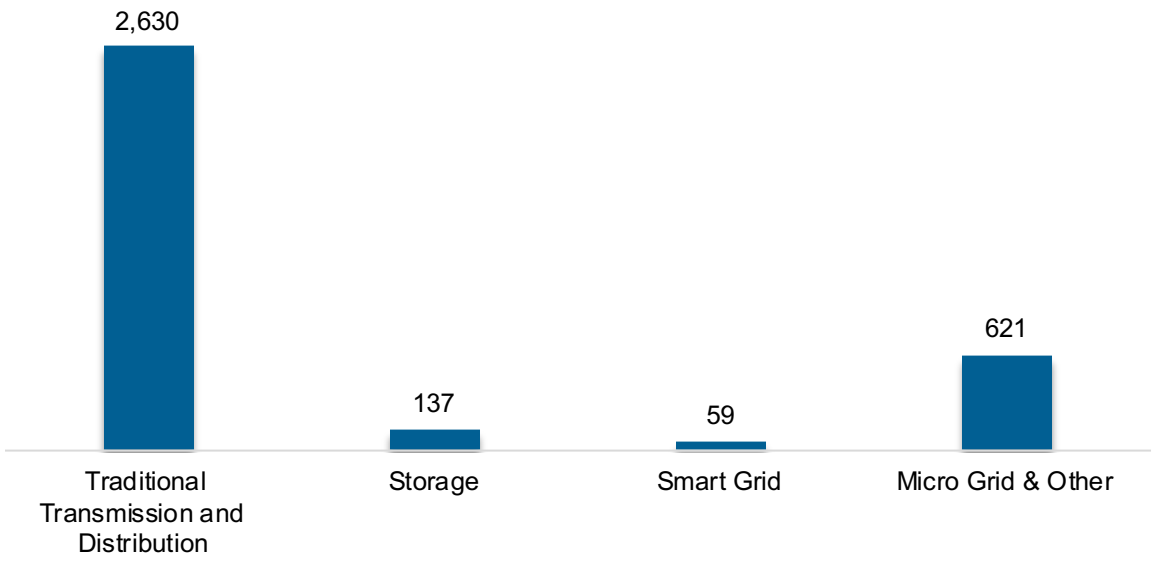
Figure NH-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

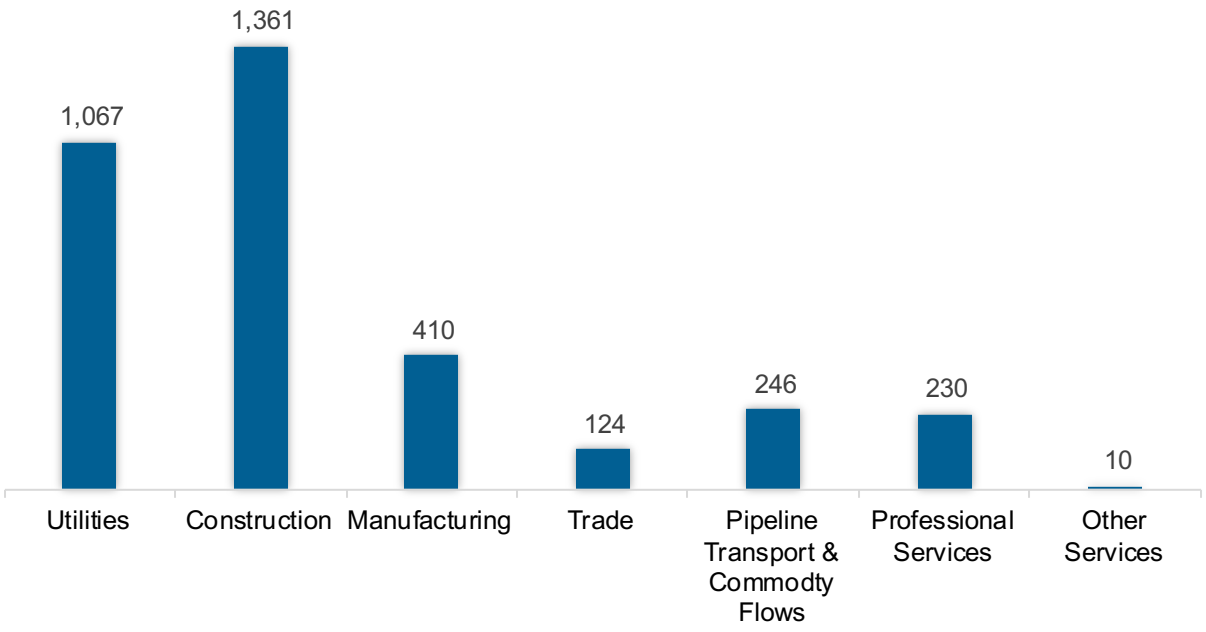
The transmission, distribution, and storage (TDS) sector employed 3,448 workers in New Hampshire, 0.1% of the national TDS total (Figure NH-6). The sector gained 55 jobs and increased 1.6% from 2021 to 2022.

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



Construction was the largest proportion of TDS jobs in New Hampshire, accounting for 39.5% of the sector's jobs statewide (Figure NH-7).

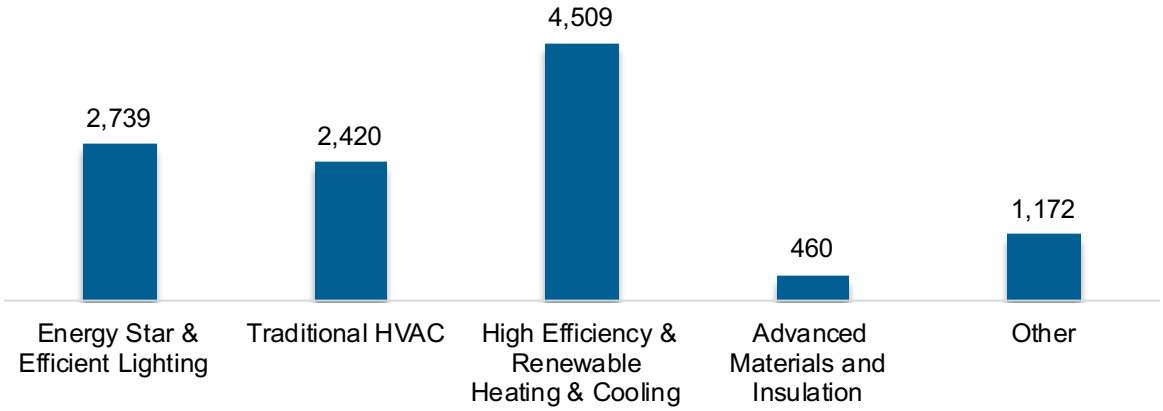
Figure NH-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

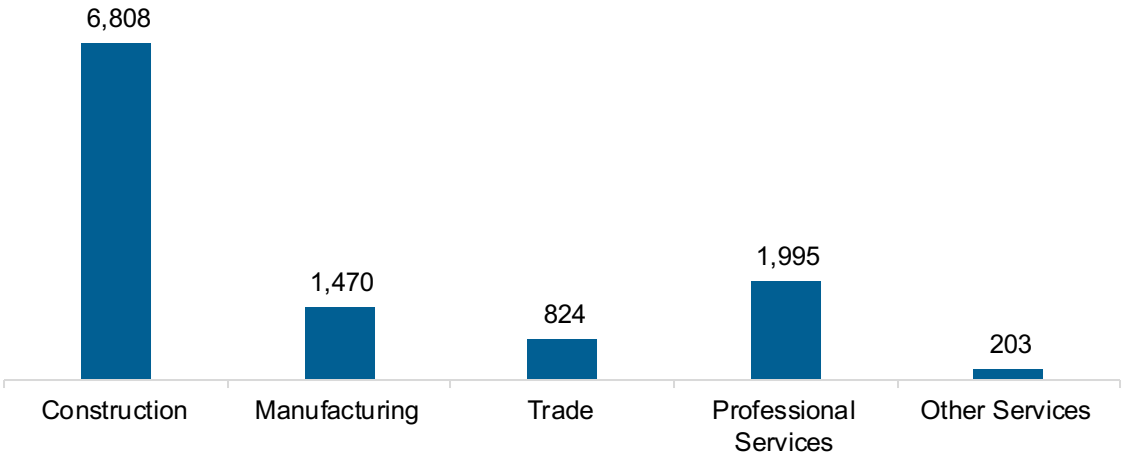
The energy efficiency (EE) sector employed 11,299 workers in New Hampshire, 0.5% of the national EE total. The EE sector added 204 jobs and increased 1.8% from 2021 to 2022 (Figure NH-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure NH-9).

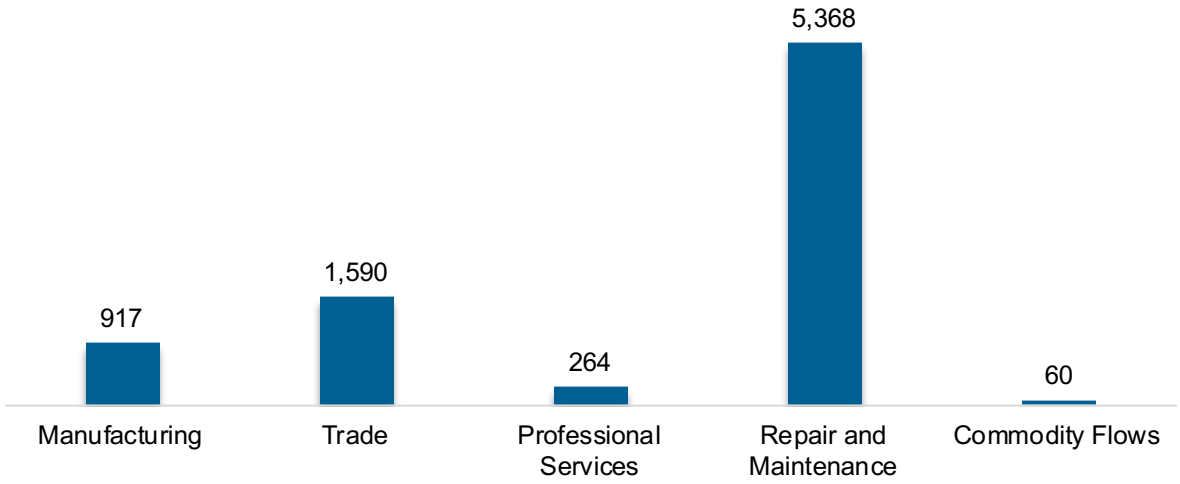
Figure NH-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 8,199 workers in New Hampshire, 0.3% of the national total for the sector. Motor vehicles and component parts added 106 jobs and increased 1.3% from 2021 to 2022. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure NH-10).

Figure NH-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 19,497 jobs in clean energy in New Hampshire if traditional transmission and distribution is included and 16,860 jobs if it is not.[30] These increased under either definition, growing 2.1% with traditional transmission and distribution and 2.4% without.

Employer Perspectives

Expected Growth

Employers in New Hampshire are similarly optimistic than their peers across the country about energy sector job growth over the next year (Table NH-1).

Table NH-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	5.6	6.0
Electric Power Transmission, Distribution, and Storage	4.5	3.9
Energy Efficiency	5.8	6.4
Fuels	3.4	1.6
Motor Vehicles	5.3	5.5

[30] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in New Hampshire reported 48% overall hiring difficulty (Table NH-2).

Table NH-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	25	23	11	41	48

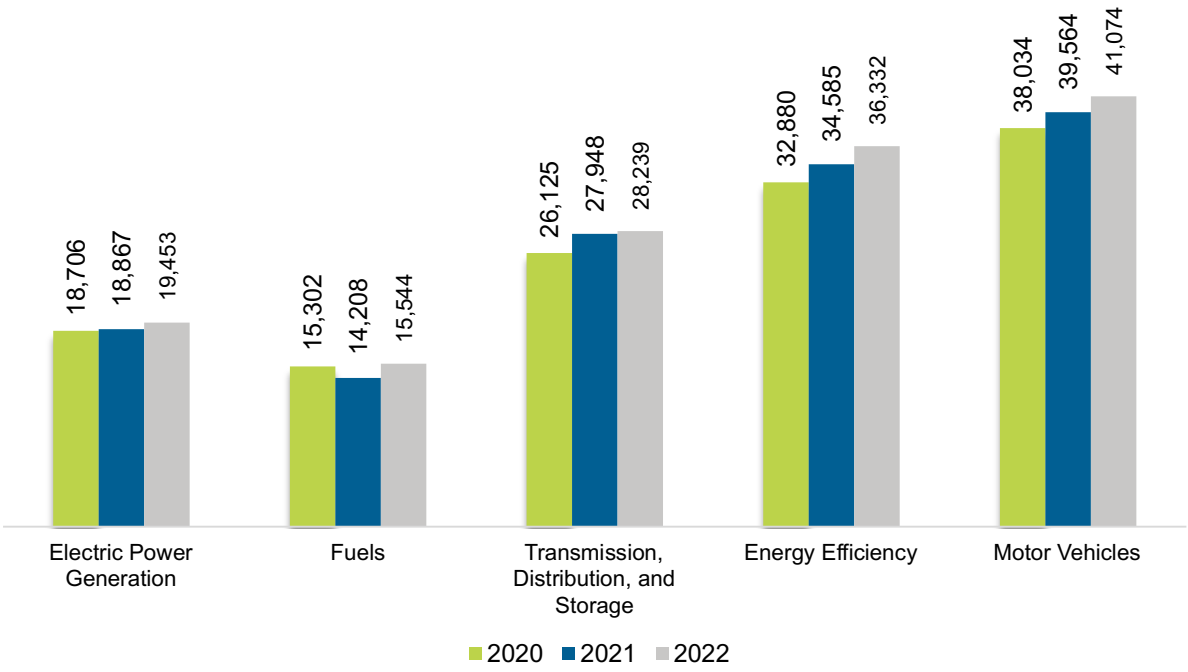
New Jersey

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

New Jersey had 140,643 energy workers statewide in 2022, representing 1.7% of all U.S. energy jobs. Of these energy jobs, 19,453 were in electric power generation; 15,544 in fuels; 28,239 in transmission, distribution, and storage; 36,332 in energy efficiency; and 41,074 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 5,471 jobs, or 4.0% (Figure NJ-1). The energy sector in New Jersey represented 3.4% of total state employment.

Figure NJ-1. Employment by Major Energy Technology Application

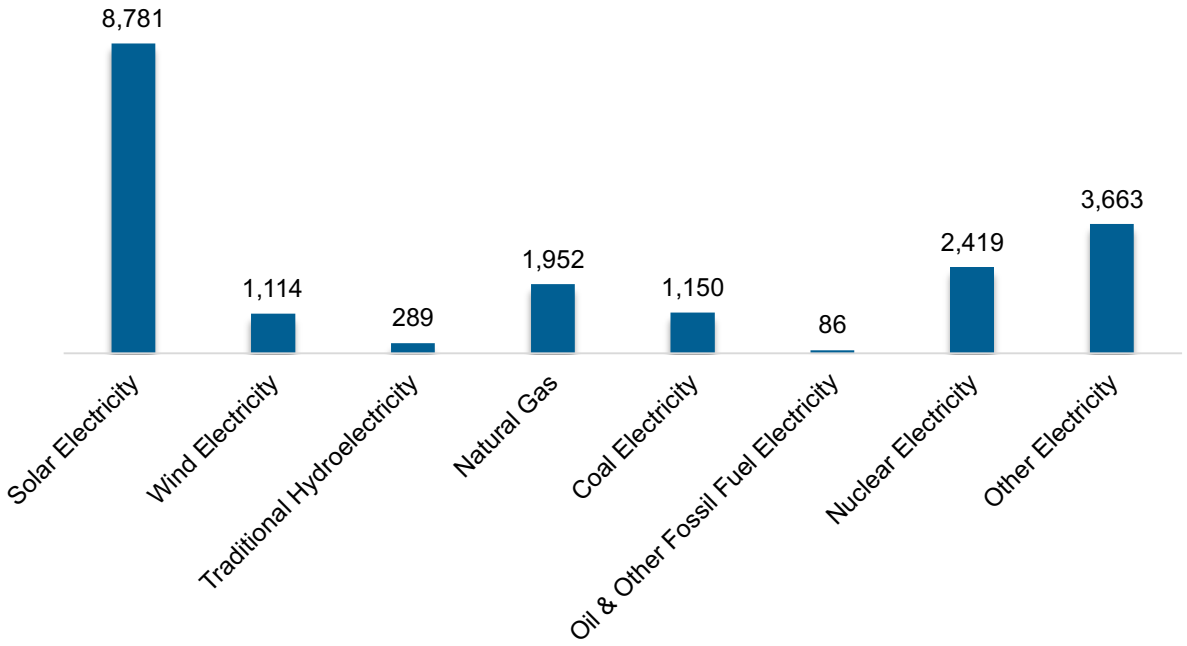


Breakdown by Technology Applications

Electric Power Generation

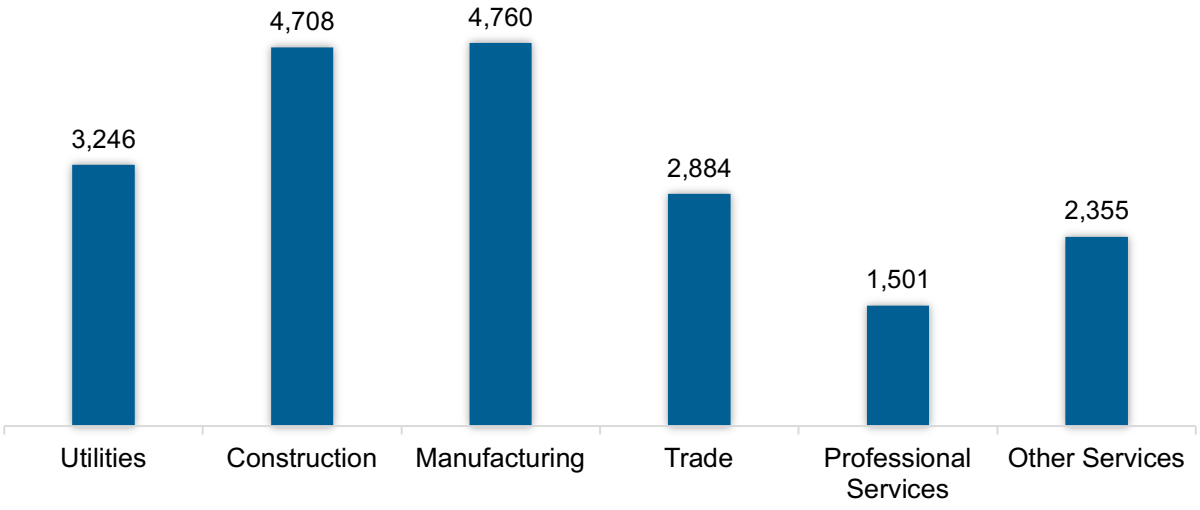
As shown in Figure NJ-2, the electric power generation sector employed 19,453 workers in New Jersey, 2.2% of the national electricity total, and added 586 jobs from 2021 to 2022 (3.1%).

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



Manufacturing was the largest industry sector in the electric power generation sector, with 24.5% of jobs. Construction was second largest with 24.2% (Figure NJ-3).

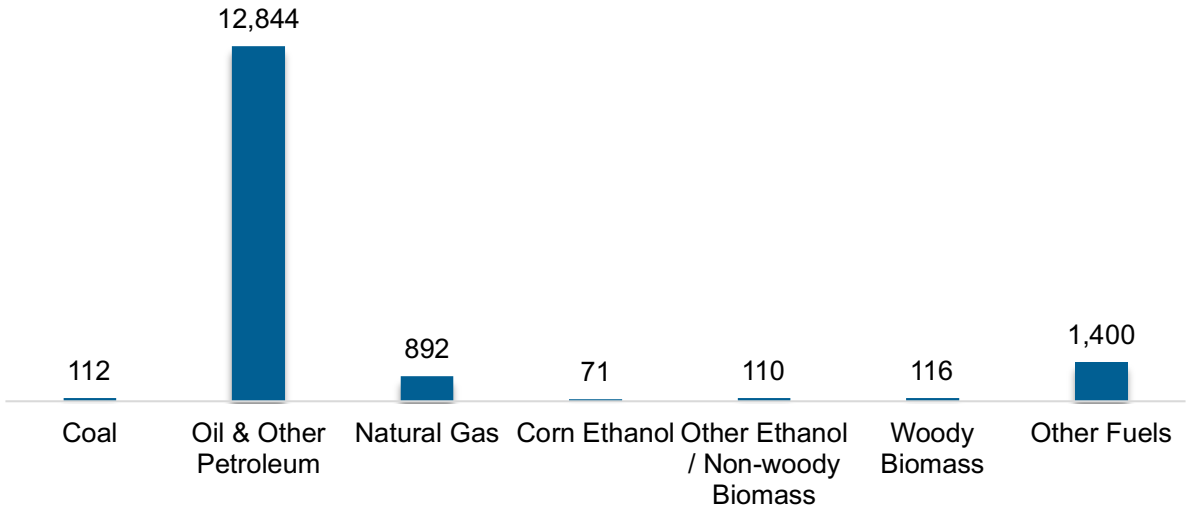
Figure NJ-3. Electric Power Generation Employment by Industry Sector



Fuels

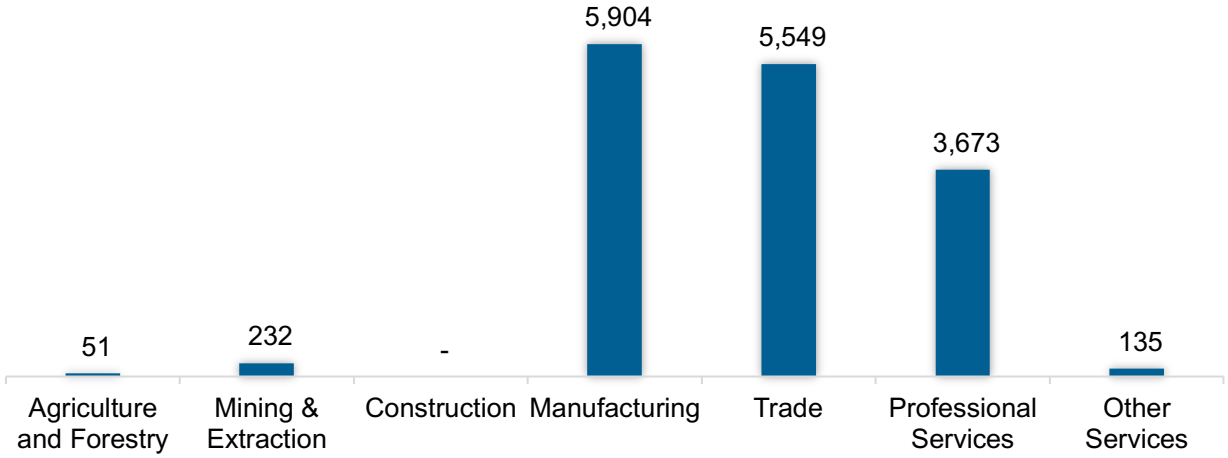
The Fuel sector employed 15,544 workers in New Jersey, 1.5% of the national total in fuels (Figure NJ-4). The sector gained 1,337 jobs and increased 9.4% from 2021 to 2022.

Figure NJ-4. Fuels Employment by Detailed Technology Application



Manufacturing jobs represented 38.0% of fuel jobs in New Jersey (Figure NJ-5).

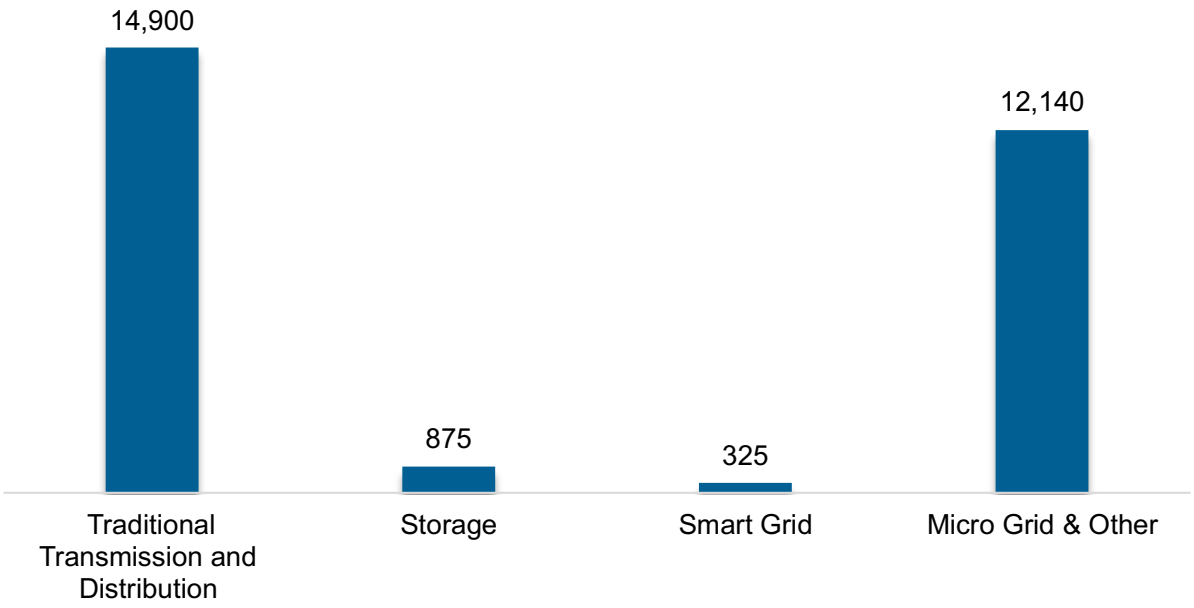
Figure NJ-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

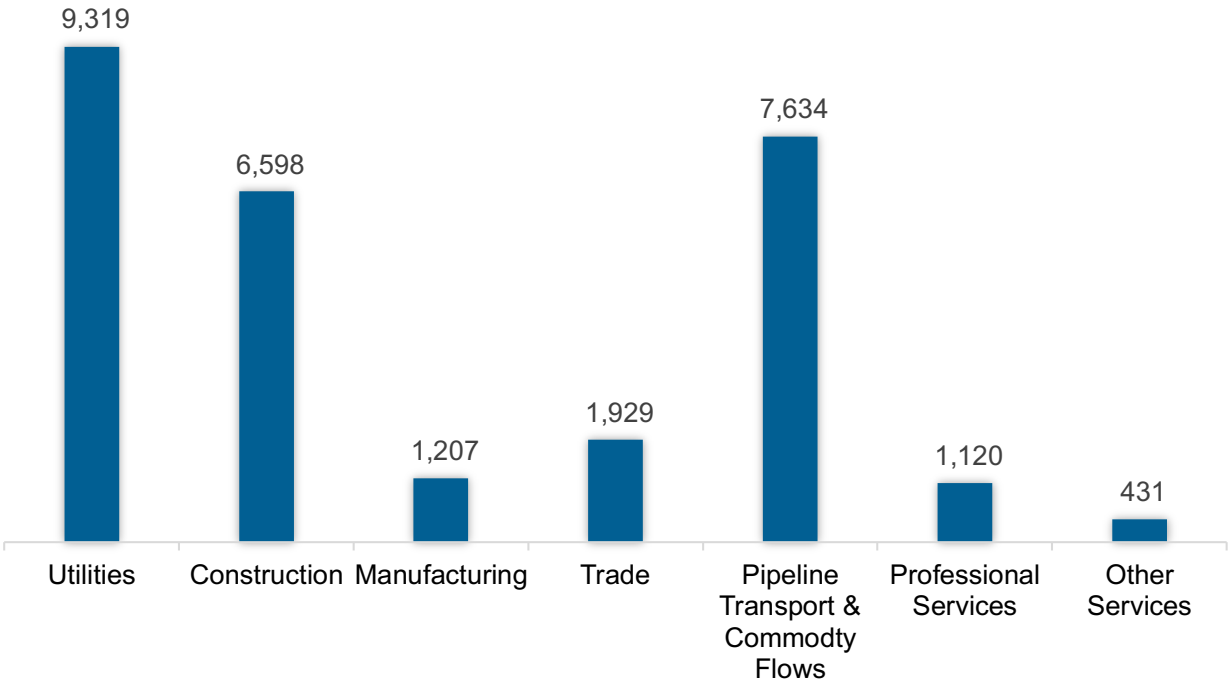
The transmission, distribution, and storage (TDS) sector employed 28,239 workers in New Jersey, 1.5% of the national TDS total (Figure NJ-6). The sector gained 291 jobs and increased 1.0% from 2021 to 2022.

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



Utilities was the largest proportion of TDS jobs in New Jersey, accounting for 33.0% of the sector's jobs statewide (Figure NJ-7).

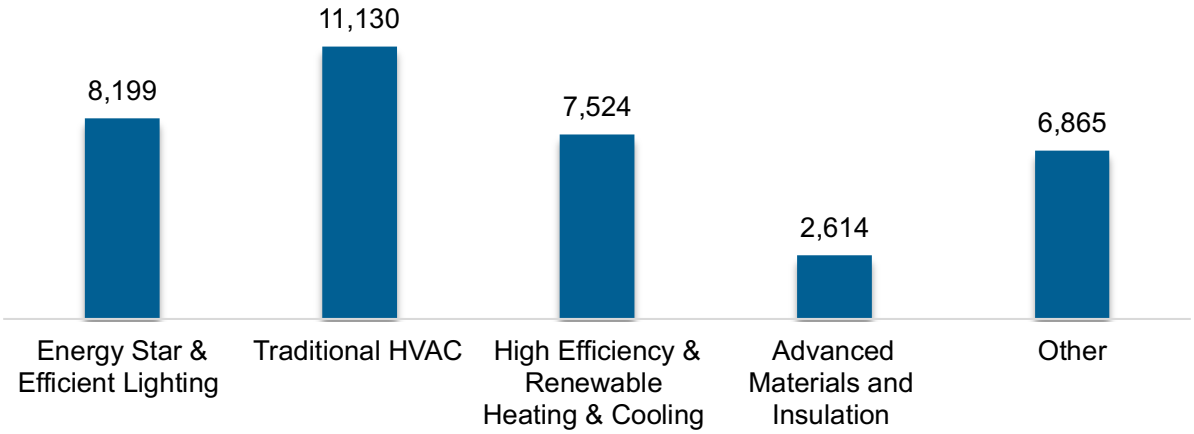
Figure NJ-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

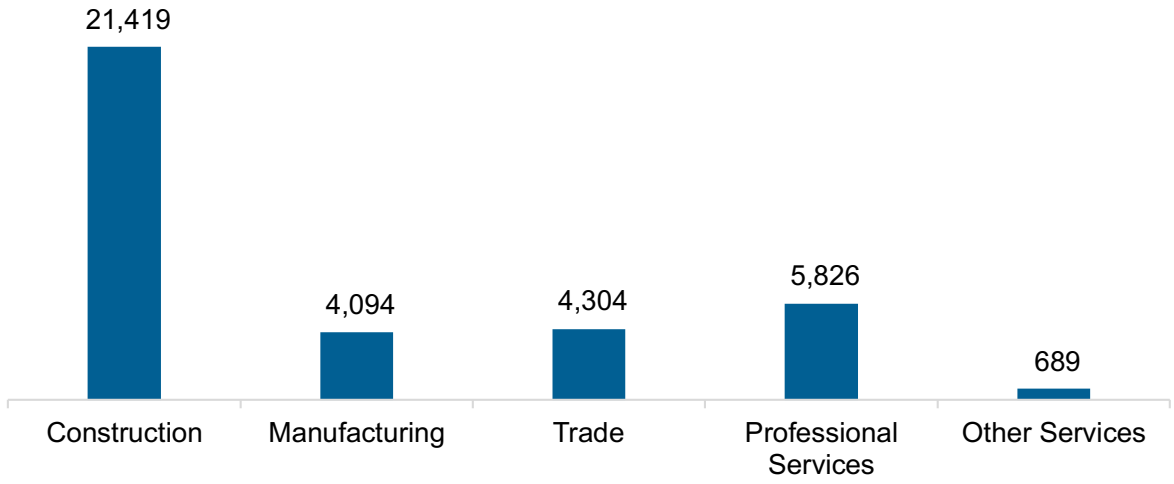
The energy efficiency (EE) sector employed 36,332 workers in New Jersey, 1.6% of the national EE total. The EE sector added 1,748 jobs and increased 5.1% from 2021 to 2022 (Figure NJ-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure NJ-9).

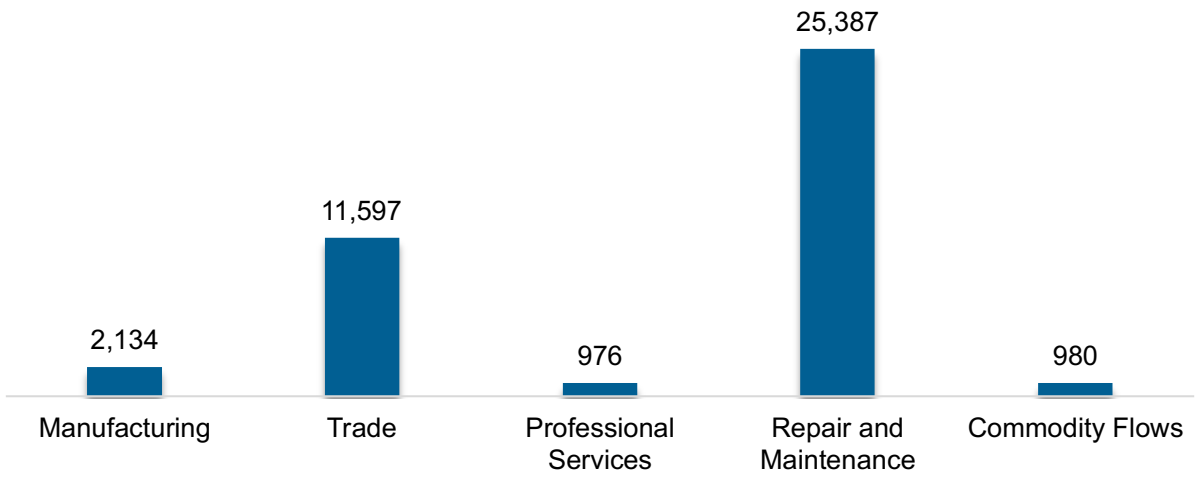
Figure NJ-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 41,074 workers in New Jersey, 1.6% of the national total for the sector. Motor vehicles and component parts added 1,510 jobs and increased 3.8% from 2021 to 2022. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure NJ-10).

Figure NJ-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 71,877 jobs in clean energy in New Jersey if traditional transmission and distribution is included and 56,932 jobs if it is not.[31] These increased under either definition, growing 4.6% with traditional transmission and distribution and 5.7% without.

Employer Perspectives

Expected Growth

Employers in New Jersey were more optimistic than their peers across the country about energy sector job growth over the next year (Table NJ-1).

Table NJ-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	7.1	6.0
Electric Power Transmission, Distribution, and Storage	6.1	3.9
Energy Efficiency	7.3	6.4
Fuels	4.9	1.6
Motor Vehicles	6.9	5.5

[31] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in New Jersey reported 55% overall hiring difficulty (Table NJ-2).

Table NJ-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	27	28	5	40	55

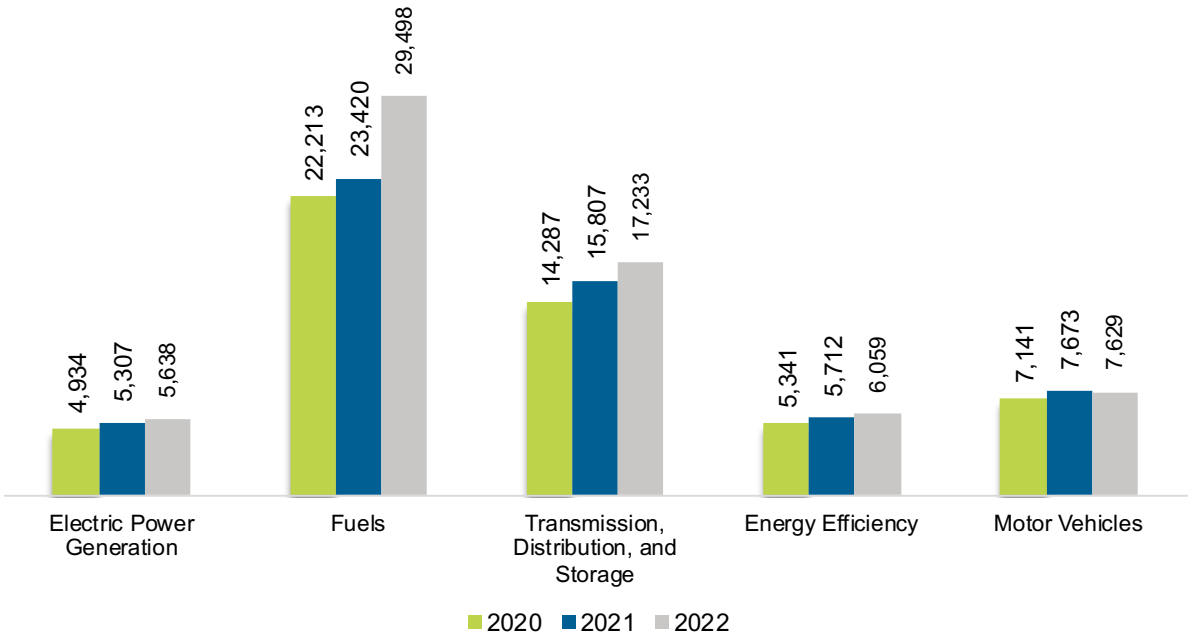
New Mexico

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

New Mexico had 66,058 energy workers statewide in 2022, representing 0.8% of all U.S. energy jobs. Of these energy jobs, 5,638 were in electric power generation; 29,498 in fuels; 17,233 in transmission, distribution, and storage; 6,059 in energy efficiency; and 7,629 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 8,138 jobs, or 14.1% (Figure NM-1). The energy sector in New Mexico represented 7.9% of total state employment.

Figure NM-1. Employment by Major Energy Technology Application

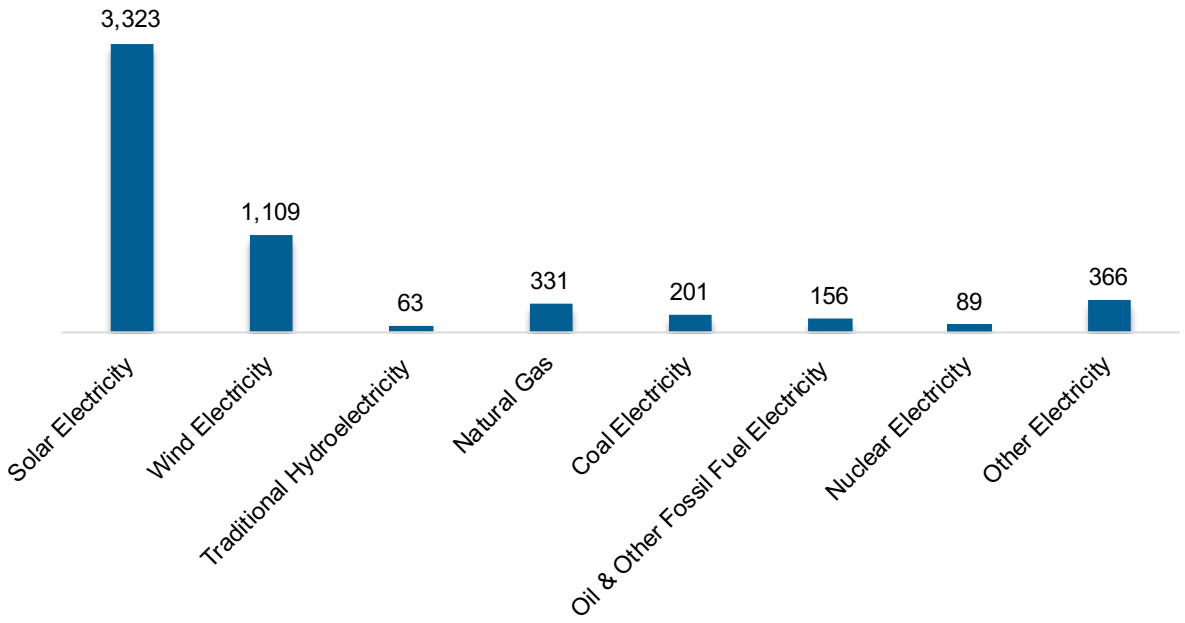


Breakdown by Technology Applications

Electric Power Generation

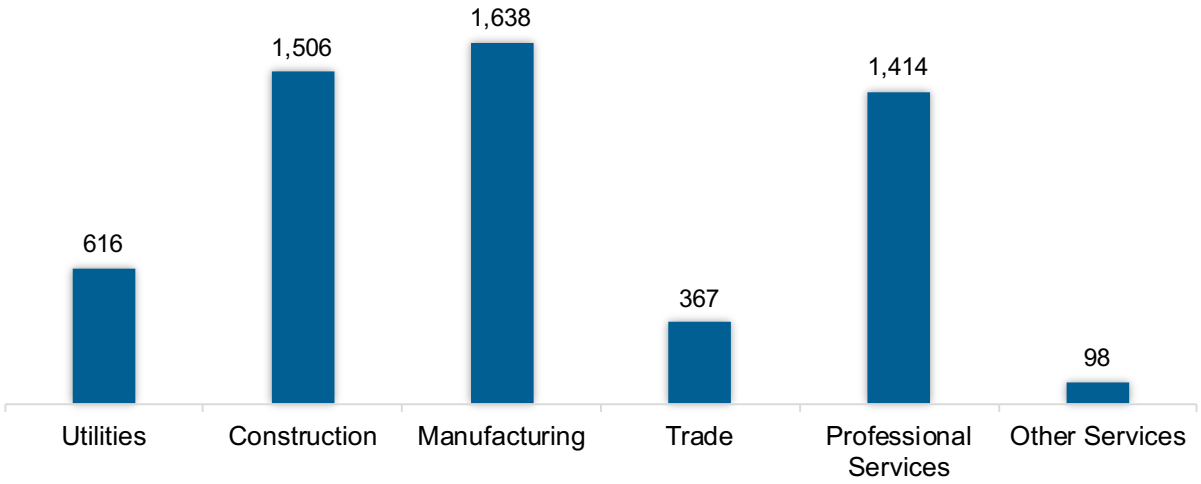
As shown in Figure NM-2, the electric power generation sector employed 5,638 workers in New Mexico, 0.6% of the national electricity total, and added 331 jobs from 2021 to 2022 (6.2%).

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



Manufacturing was the largest industry sector in the electric power generation sector, with 29.0% of jobs. Construction was second largest with 26.7% (Figure NM-3).

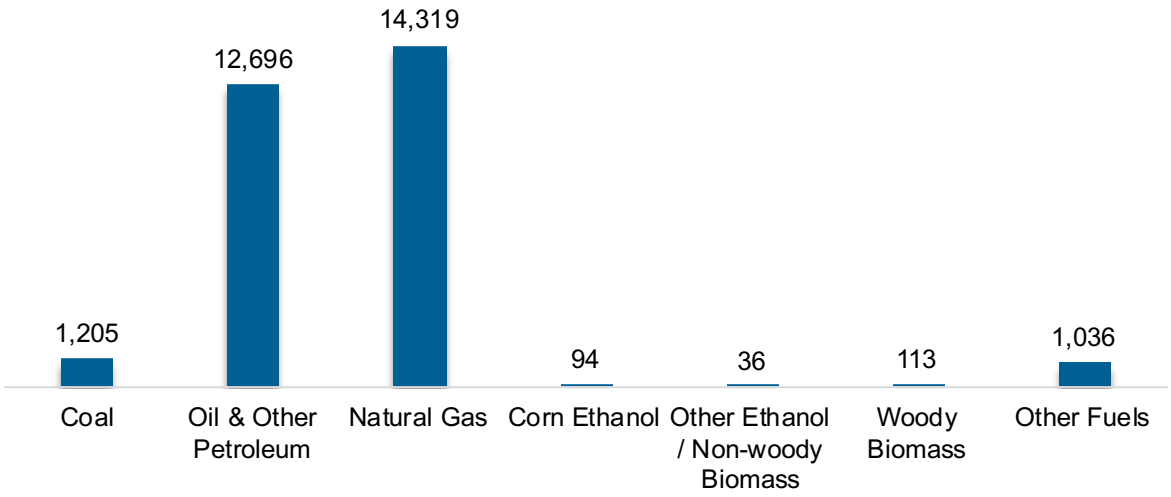
Figure NM-3. Electric Power Generation Employment by Industry Sector



Fuels

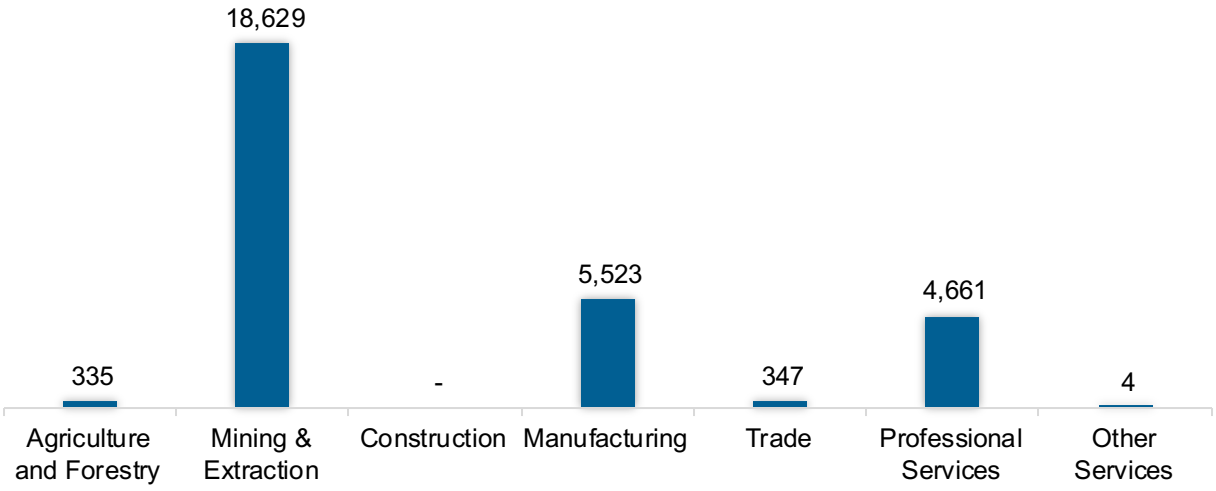
The Fuel sector employed 29,498 workers in New Mexico, 2.9% of the national total in fuels (Figure NM-4). The sector gained 6,078 jobs and increased 26.0% from 2021 to 2022.

Figure NM-4. Fuels Employment by Detailed Technology Application



Mining and extraction jobs represented 63.2% of fuel jobs in New Mexico (Figure NM-5).

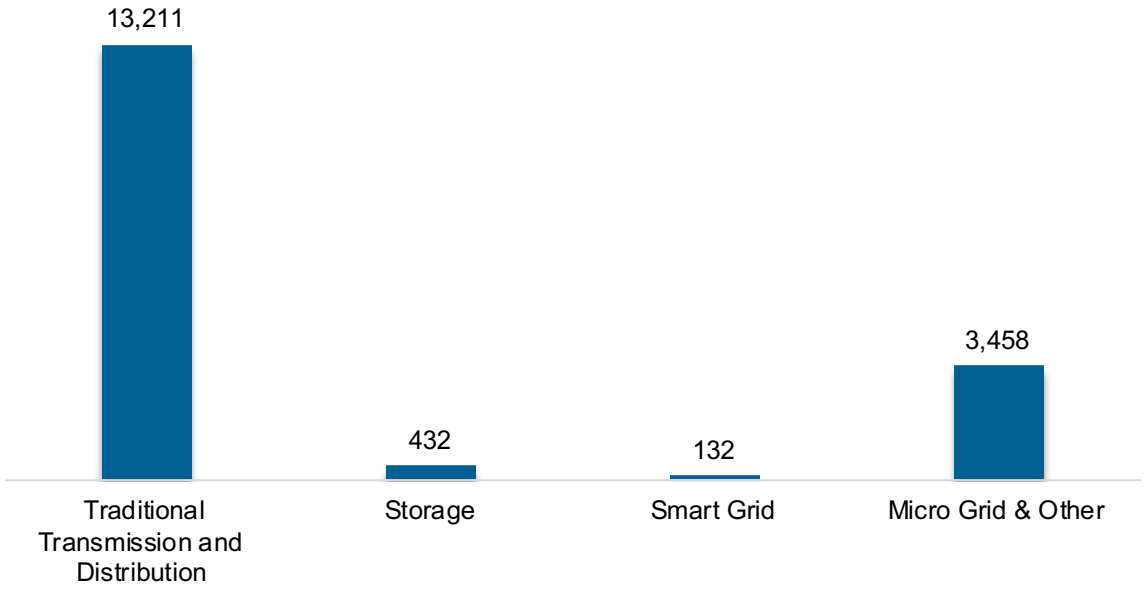
Figure NM-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

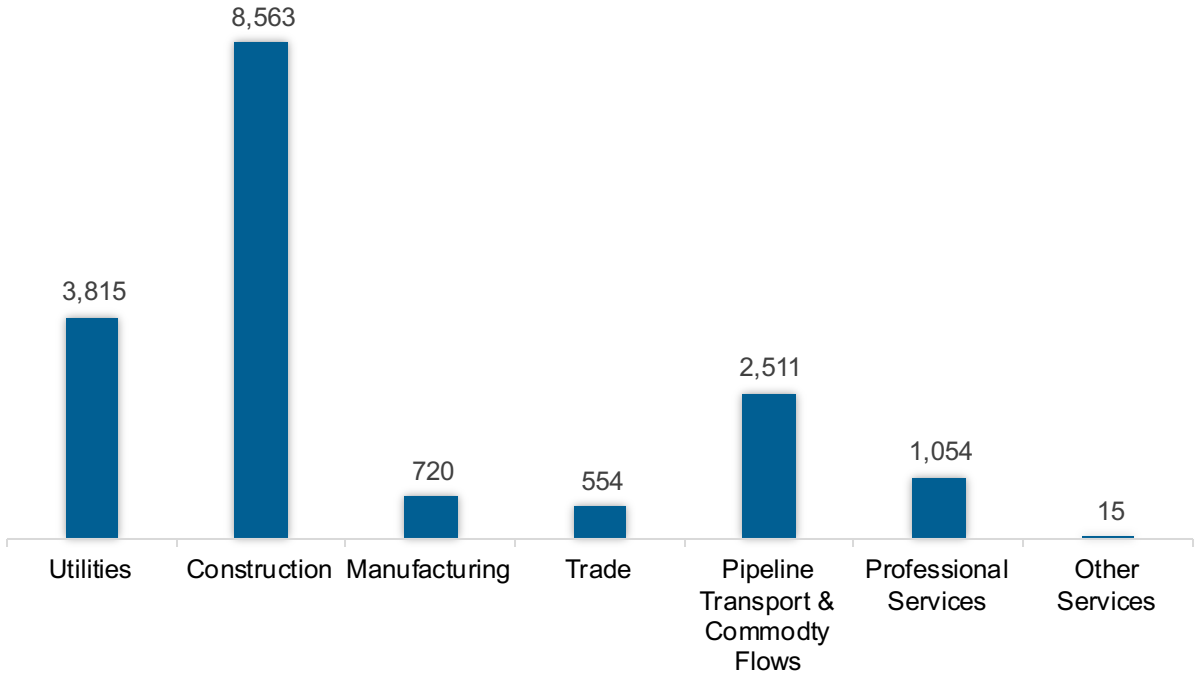
The transmission, distribution, and storage (TDS) sector employed 17,233 workers in New Mexico, 2.9% of the national TDS total (Figure NM-6). The sector gained 1,426 jobs and increased 9.0% from 2021 to 2022.

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



Construction was the largest proportion of TDS jobs in New Mexico, accounting for 49.7% of the sector's jobs statewide (Figure NM-7).

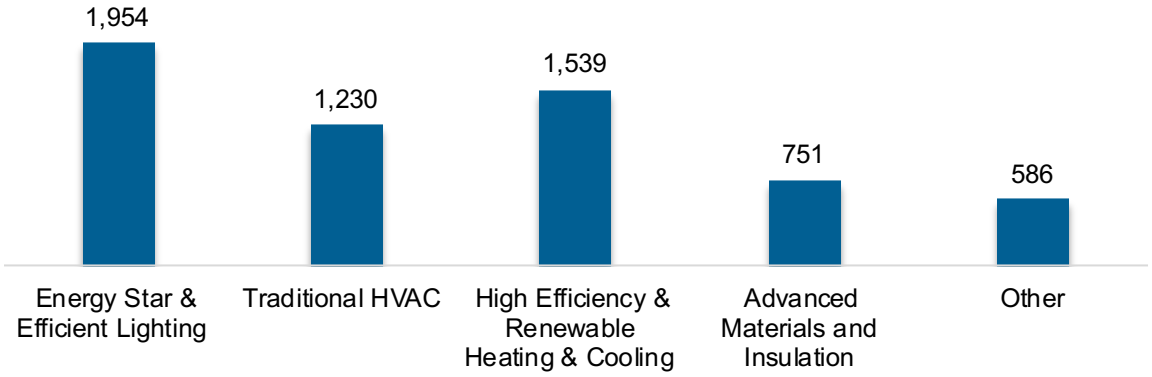
Figure NM-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

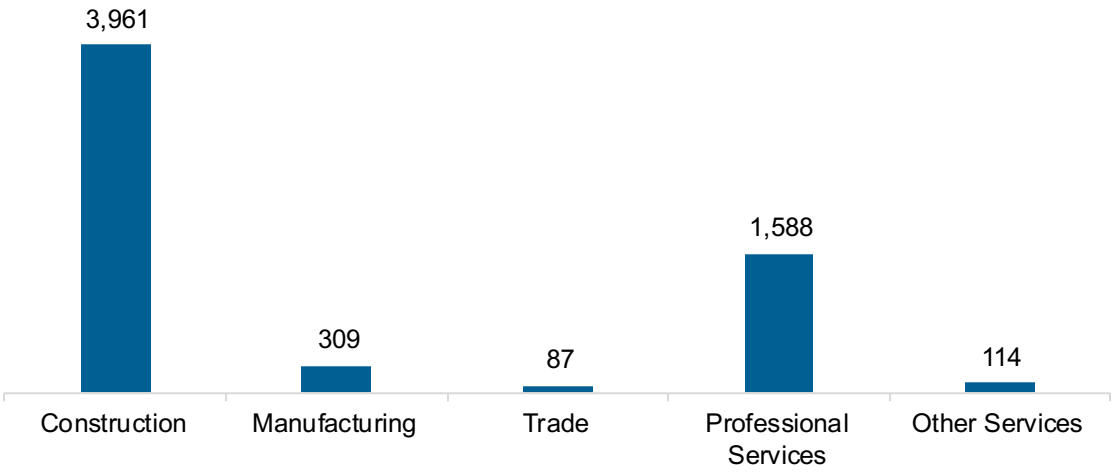
The energy efficiency (EE) sector employed 6,059 workers in New Mexico, 0.3% of the national EE total. The EE sector added 347 jobs and decreased 6.1% from 2021 to 2022 (Figure NM-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure NM-9).

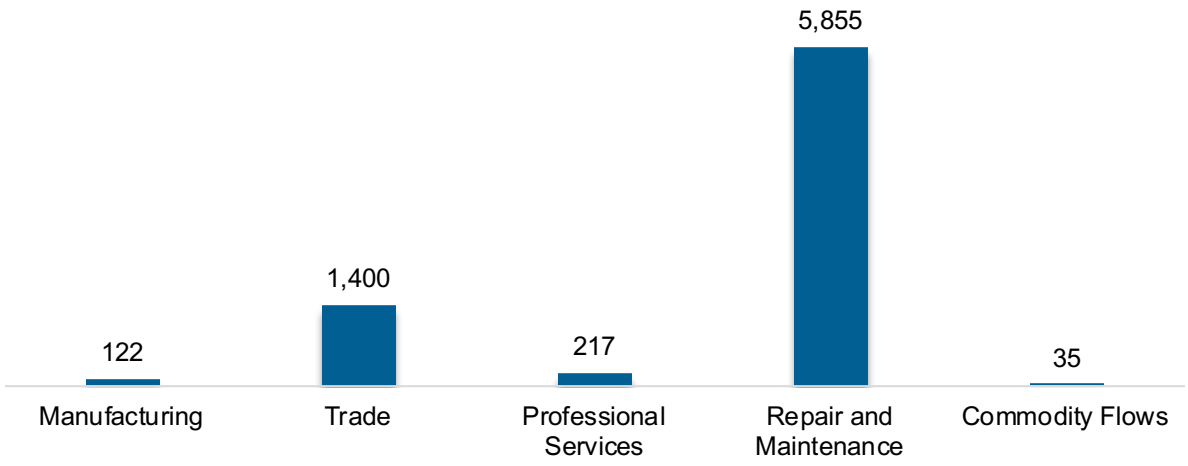
Figure NM-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 7,629 workers in New Mexico, 0.3% of the national total for the sector. Motor vehicles and component parts lost 44 jobs and decreased 0.6% from 2021 to 2022. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure NM-10).

Figure NM-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 25,852 jobs in clean energy in New Mexico if traditional transmission and distribution is included and 12,619 jobs if it is not.[32] These increased under either definition, growing 9.1% with traditional transmission and distribution and 6.3% without.

Employer Perspectives

Expected Growth

Employers in New Mexico are similarly optimistic than their peers across the country about energy sector job growth over the next year (Table NM-1).

Table NM-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	5.9	6.0
Electric Power Transmission, Distribution, and Storage	4.8	3.9
Energy Efficiency	6.1	6.4
Fuels	3.7	1.6
Motor Vehicles	5.6	5.5

[32] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in New Mexico reported 55% overall hiring difficulty (Table NM-2).

Table NM-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	30	25	4	40	55

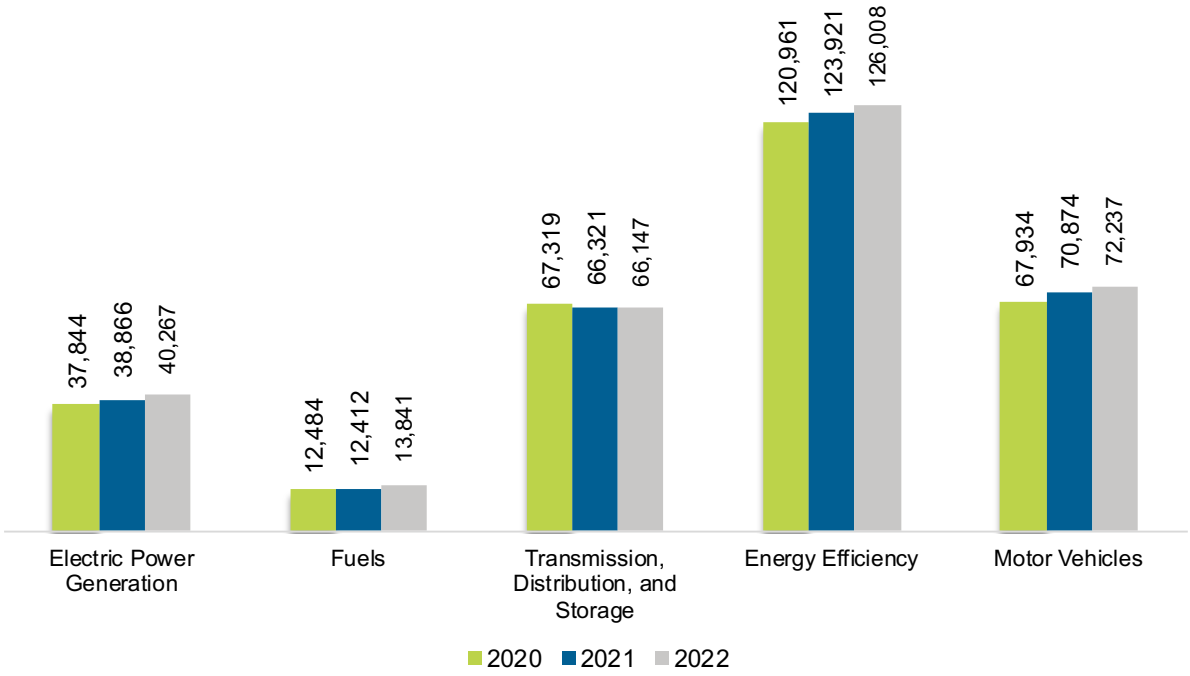
New York

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

New York had 318,499 energy workers statewide in 2022, representing 3.9% of all U.S. energy jobs. Of these energy jobs, 40,267 were in electric power generation; 13,841 in fuels; 66,147 in transmission, distribution, and storage; 126,008 in energy efficiency; and 72,237 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 6,105 jobs, or 2.0% (Figure NY-1). The energy sector in New York represented 3.4% of total state employment.

Figure NY-1. Employment by Major Energy Technology Application

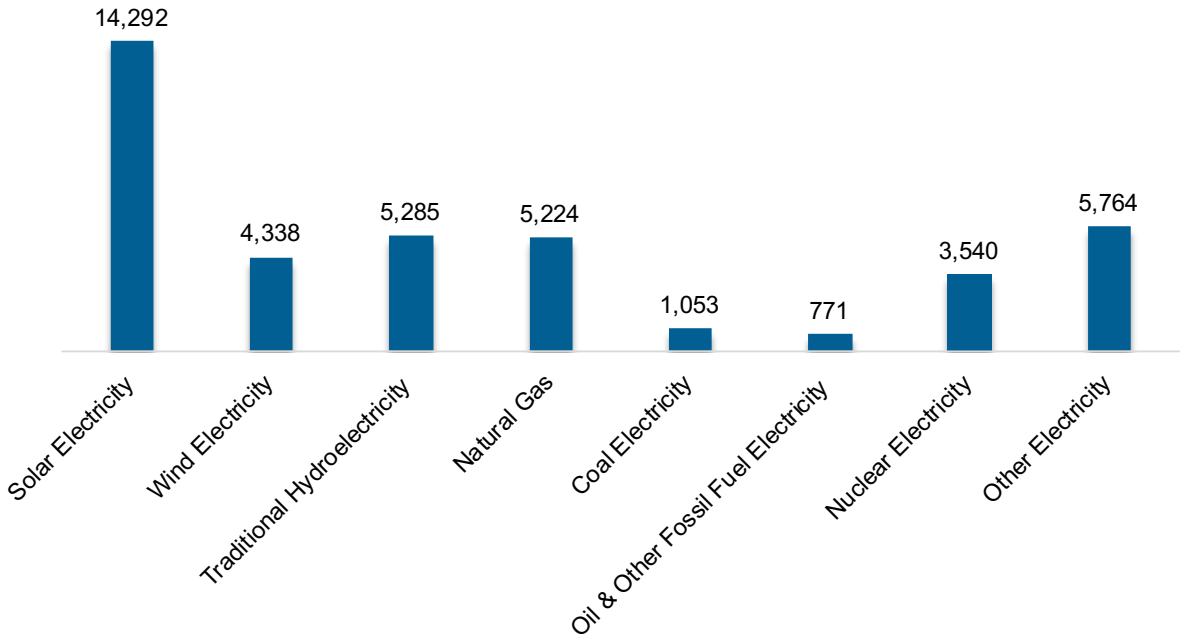


Breakdown by Technology Applications

Electric Power Generation

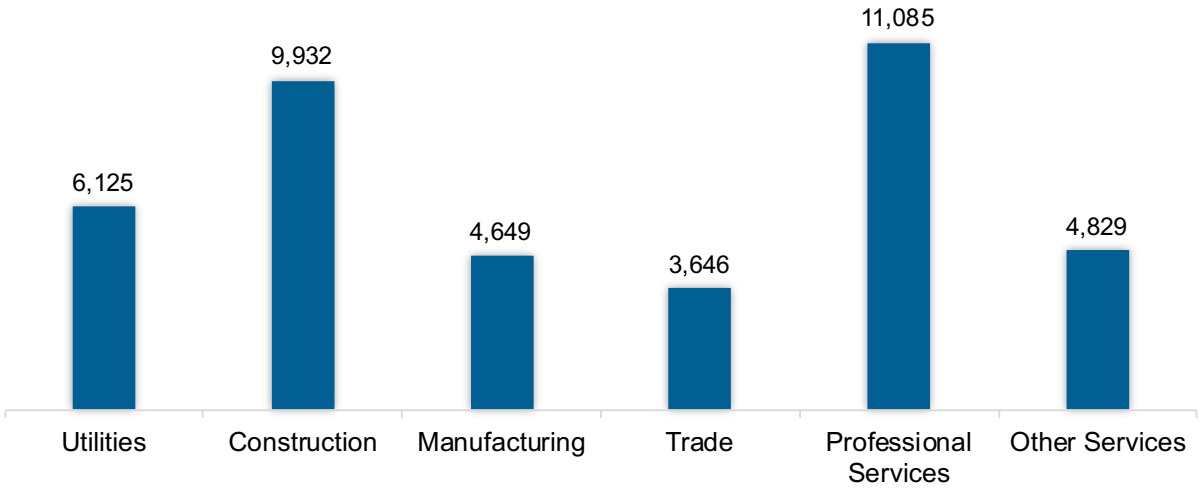
As shown in Figure NY-2, the electric power generation sector employed 40,267 workers in New York, 4.6% of the national electricity total, and added 1,401 jobs from 2021 to 2022 (3.6%).

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



Professional and business services was the largest industry sector in the electric power generation sector, with 27.5% of jobs. Construction was second largest with 24.7% (Figure NY-3).

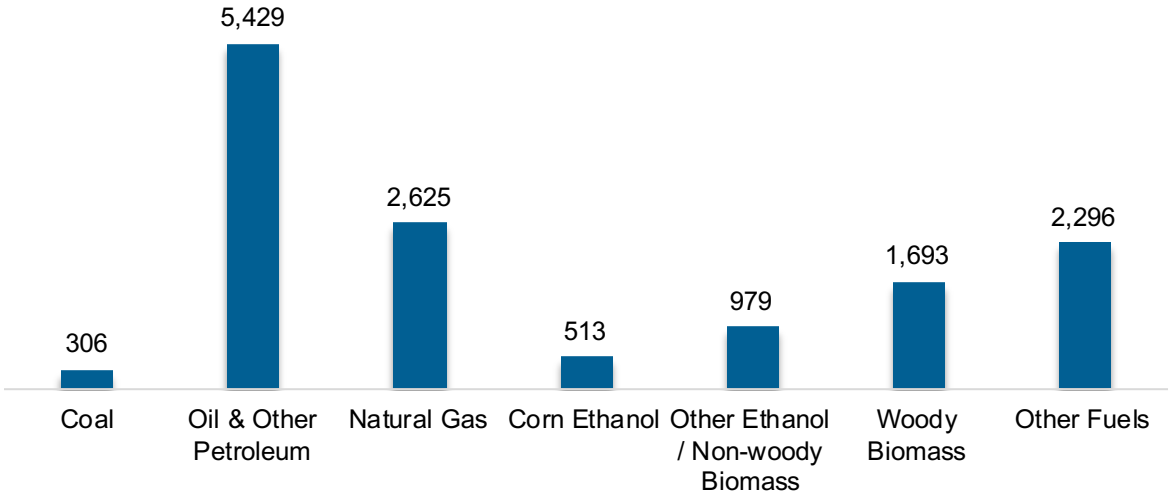
Figure NY-3. Electric Power Generation Employment by Industry Sector



Fuels

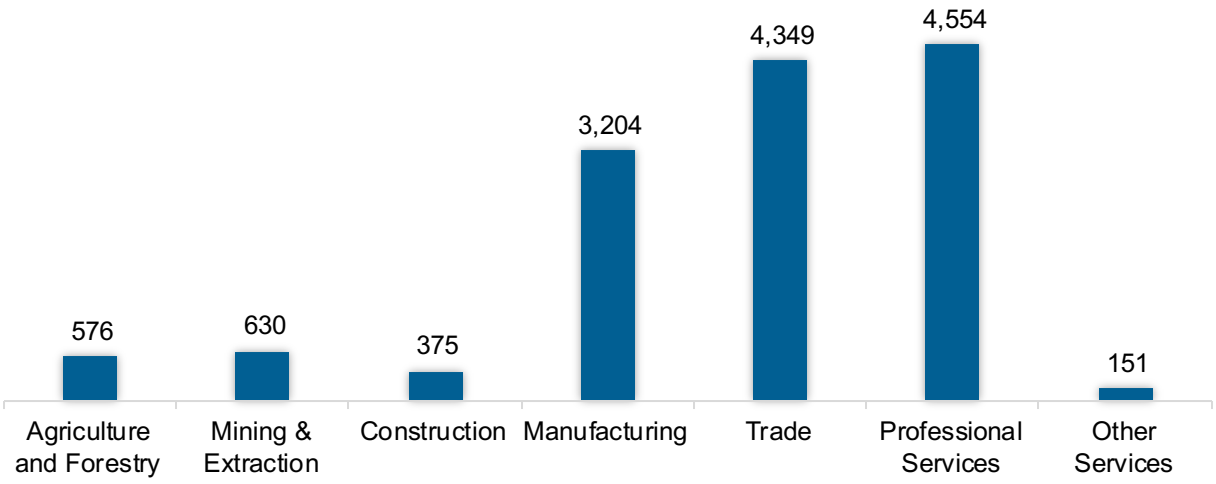
The Fuel sector employed 13,841 workers in New York, 1.3% of the national total in fuels (Figure NY-4). The sector gained 1,429 jobs and increased 11.5% from 2021 to 2022.

Figure NY-4. Fuels Employment by Detailed Technology Application



Professional and business services jobs represented 32.9% of fuel jobs in New York (Figure NY-5).

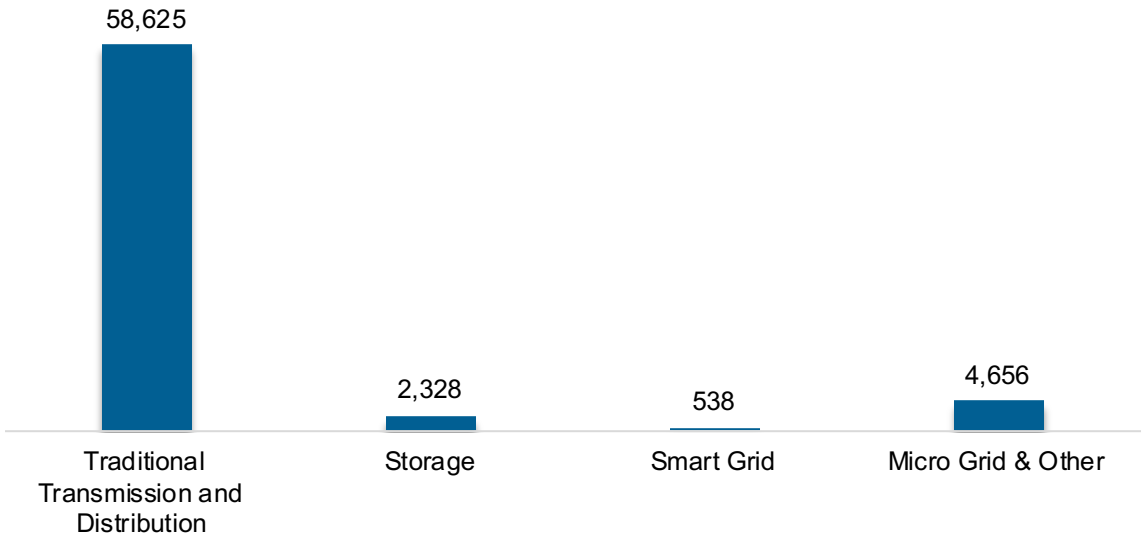
Figure NY-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

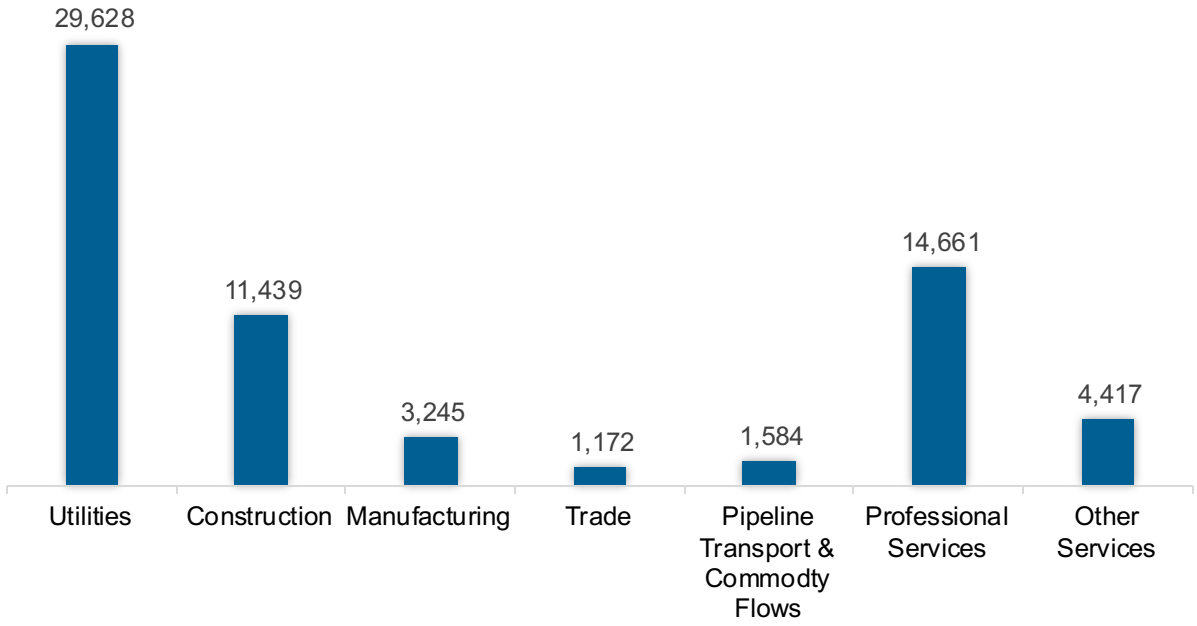
The transmission, distribution, and storage (TDS) sector employed 66,147 workers in New York, 1.3% of the national TDS total (Figure NY-6). The sector lost 174 jobs and decreased 0.3% from 2021 to 2022.

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



Utilities was the largest proportion of TDS jobs in New York, accounting for 44.8% of the sector's jobs statewide (Figure NY-7).

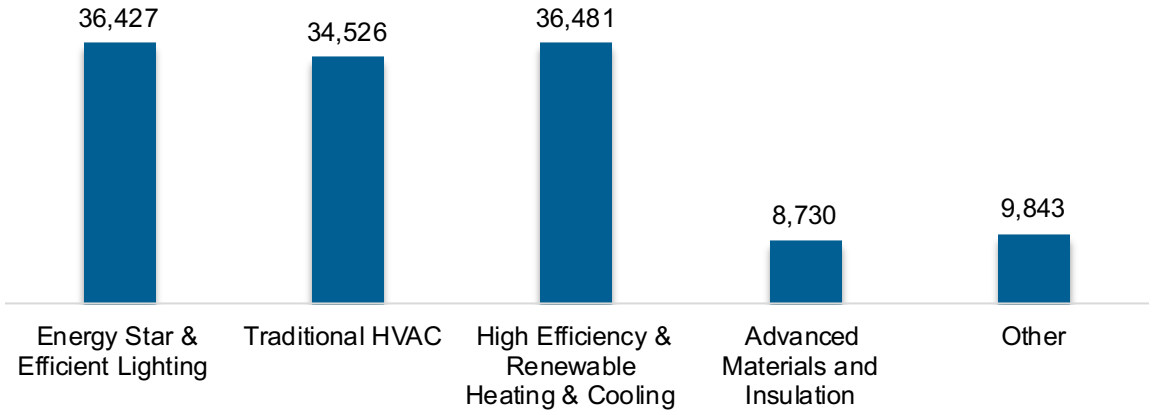
Figure NY-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

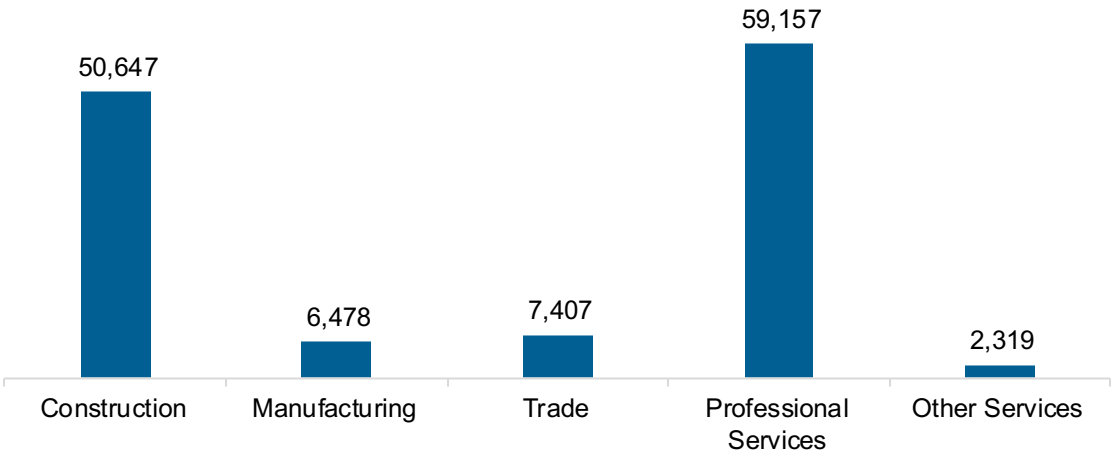
The energy efficiency (EE) sector employed 126,008 workers in New York, 5.7% of the national EE total. The EE sector added 2,087 jobs and increased 1.7% from 2021 to 2022 (Figure NY-8).

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



Energy efficiency employment was primarily found in the professional and business services industry (Figure NY-9).

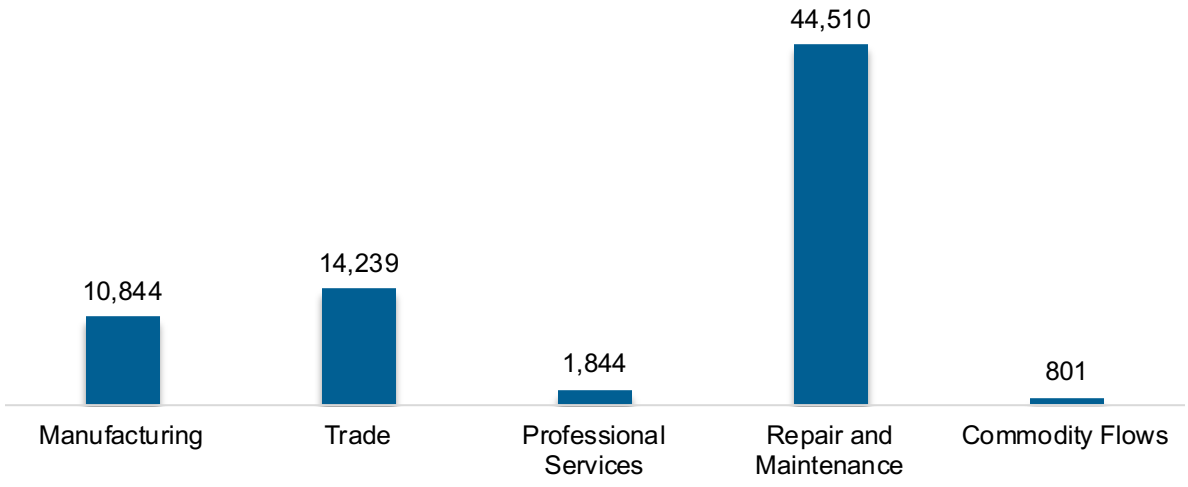
Figure NY-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 72,237 workers in New York, 2.8% of the national total for the sector. Motor vehicles and component parts added 1,363 jobs and increased 1.9% from 2021 to 2022. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure NY-10).

Figure NY-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 230,119 jobs in clean energy in New York if traditional transmission and distribution is included and 171,377 jobs if it is not.[33] These increased under either definition, growing 2.0% with traditional transmission and distribution and 3.0% without.

Employer Perspectives

Expected Growth

Employers in New York are similarly optimistic than their peers across the country about energy sector job growth over the next year (Table NY-1).

Table NY-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	6.3	6.0
Electric Power Transmission, Distribution, and Storage	5.3	3.9
Energy Efficiency	6.5	6.4
Fuels	4.1	1.6
Motor Vehicles	6.1	5.5

[33] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in New York reported 50% overall hiring difficulty (Table NY-2).

Table NY-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	25	25	6	44	50

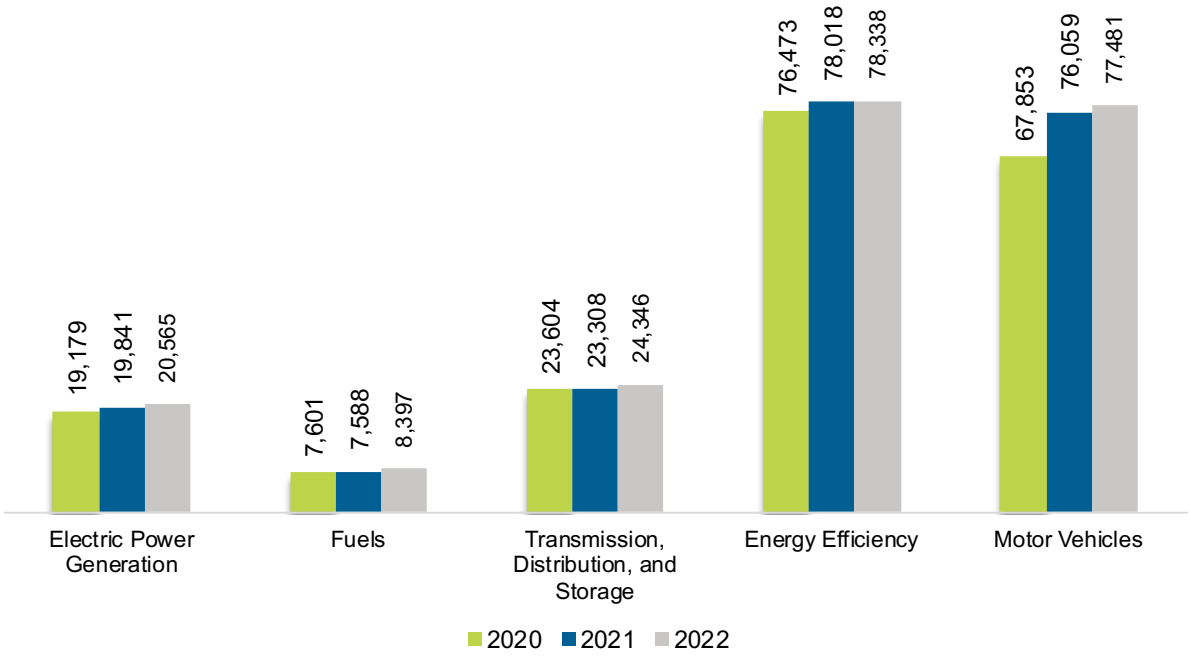
North Carolina

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

North Carolina had 209,127 energy workers statewide in 2022, representing 2.6% of all U.S. energy jobs. Of these energy jobs, 20,565 were in electric power generation; 8,397 in fuels; 24,346 in transmission, distribution, and storage; 78,338 in energy efficiency; and 77,481 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 4,314 jobs, or 2.1% (Figure NC-1). The energy sector in North Carolina represented 4.4% of total state employment.

Figure NC-1. Employment by Major Energy Technology Application

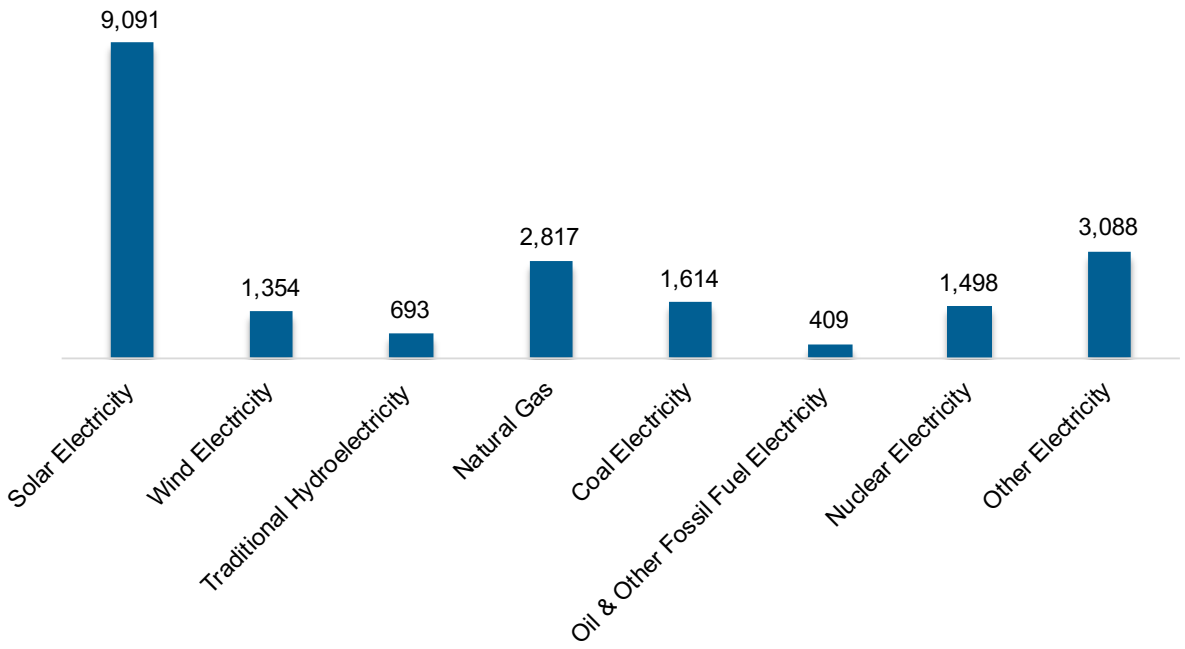


Breakdown by Technology Applications

Electric Power Generation

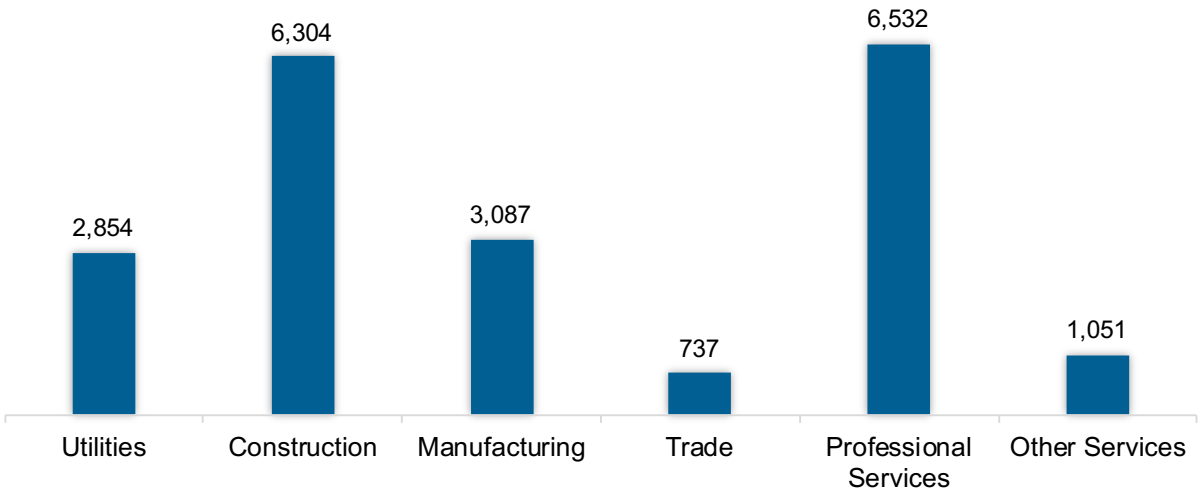
As shown in Figure NC-2, the electric power generation sector employed 20,565 workers in North Carolina, 2.3% of the national electricity total, and added 724 jobs from 2021 to 2022 (3.6%).

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



Professional and business services was the largest industry sector in the electric power generation sector, with 31.8% of jobs. Construction was second largest with 30.7% (Figure NC-3).

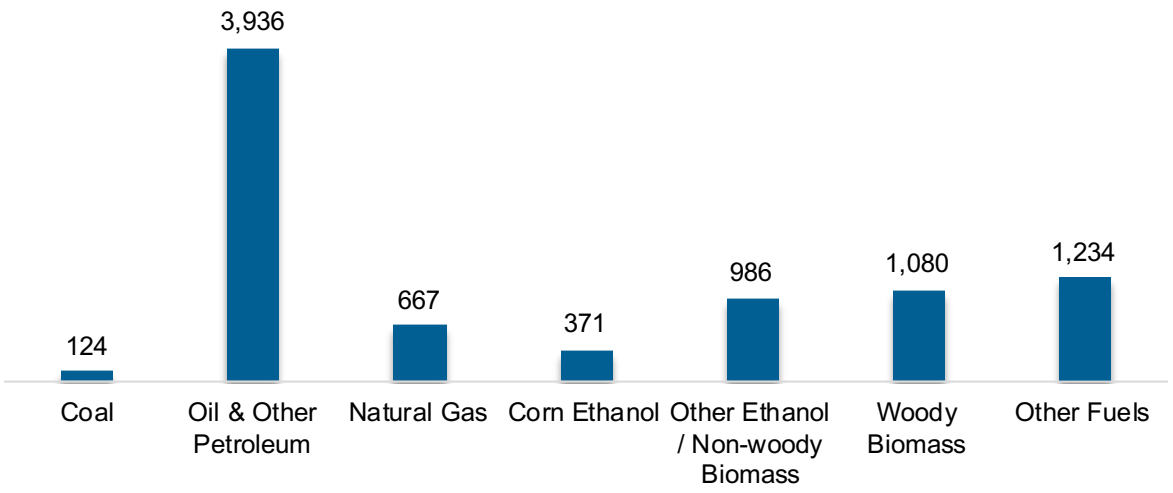
Figure NC-3. Electric Power Generation Employment by Industry Sector



Fuels

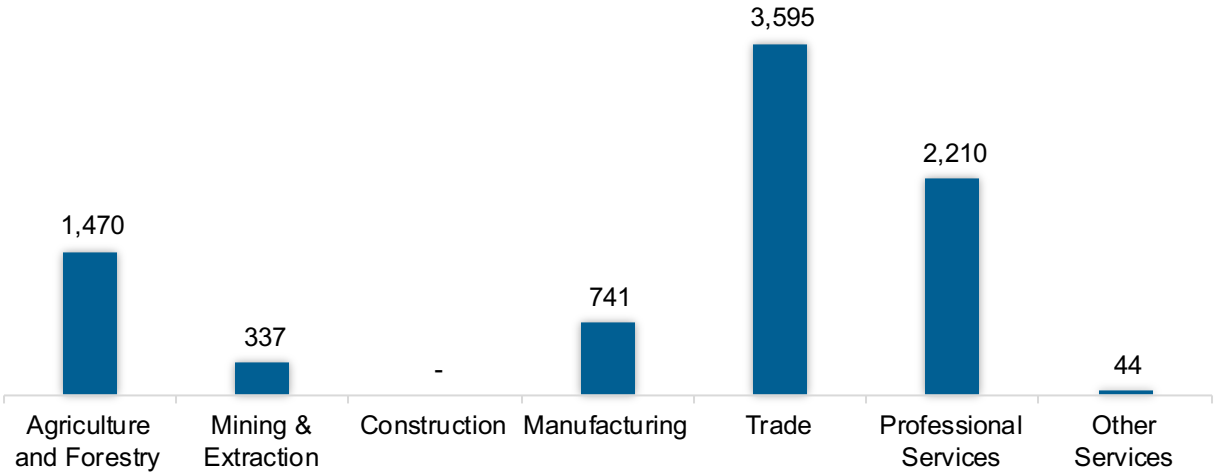
The Fuel sector employed 8,397 workers in North Carolina, 0.8% of the national total in fuels (Figure NC-4). The sector gained 809 jobs and increased 10.7% from 2021 to 2022.

Figure NC-4. Fuels Employment by Detailed Technology Application



Wholesale trade jobs represented 42.8% of fuel jobs in North Carolina (Figure NC-5).

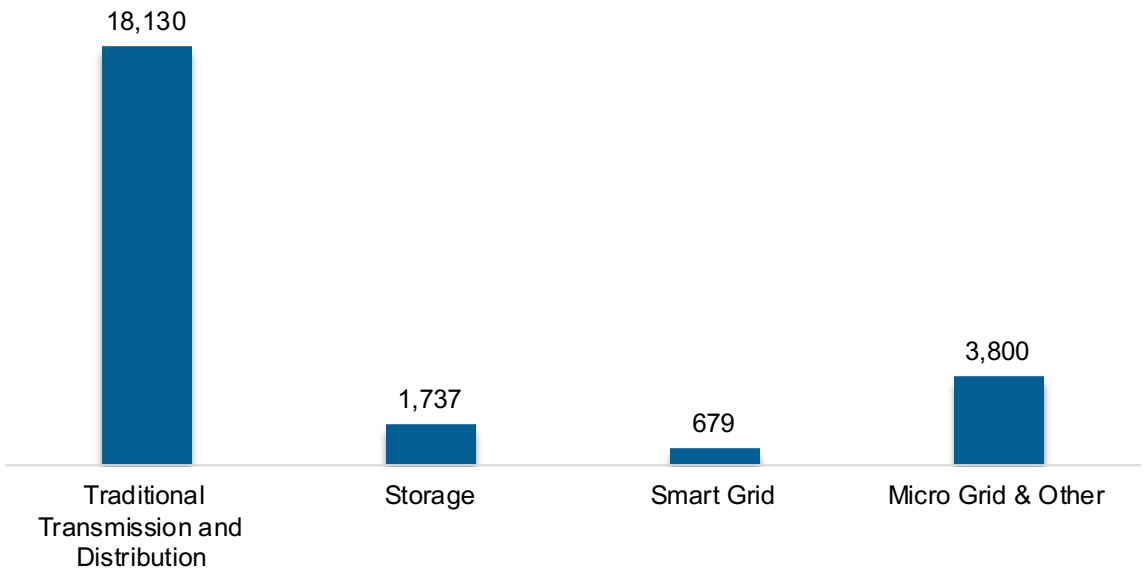
Figure NC-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

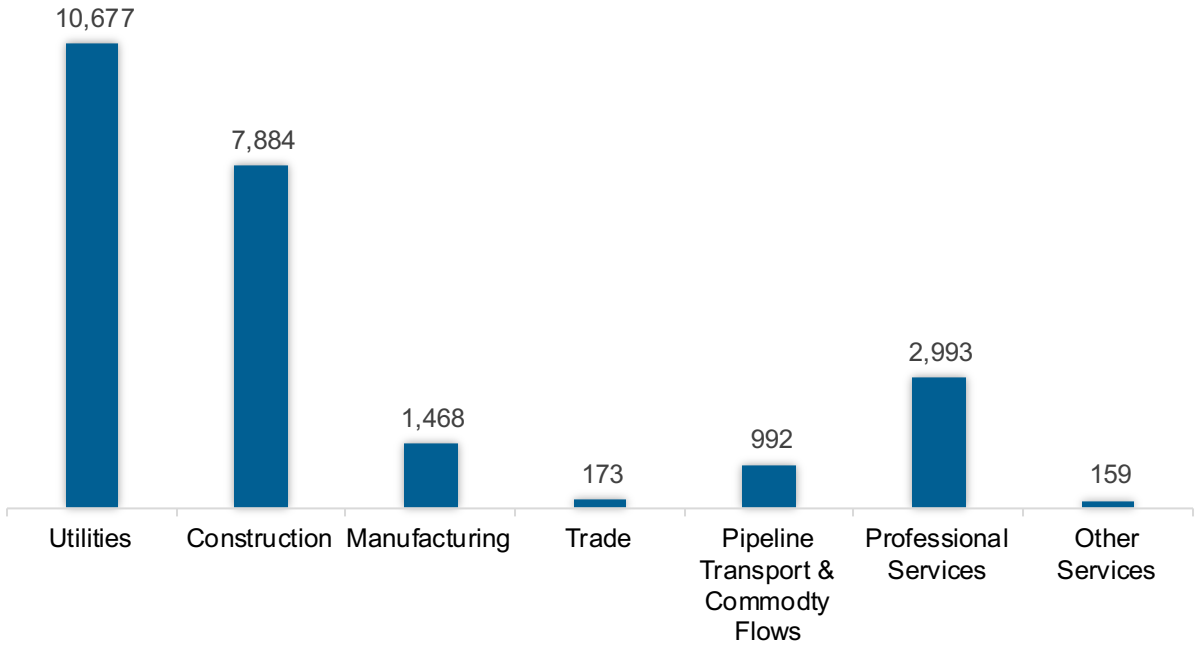
The transmission, distribution, and storage (TDS) sector employed 24,346 workers in North Carolina, 0.8% of the national TDS total (Figure NC-6). The sector gained 1,039 jobs and increased 4.5% from 2021 to 2022.

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



Utilities was the largest proportion of TDS jobs in North Carolina, accounting for 43.9% of the sector's jobs statewide (Figure NC-7).

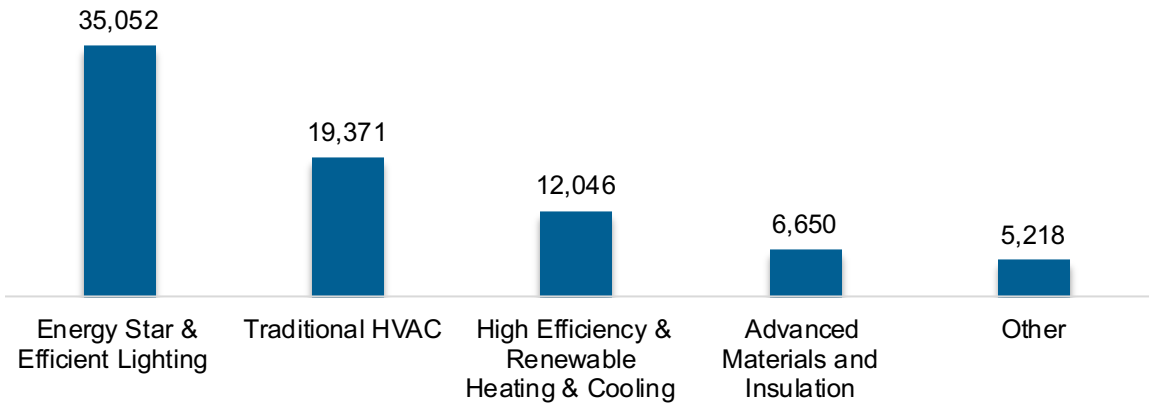
Figure NC-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

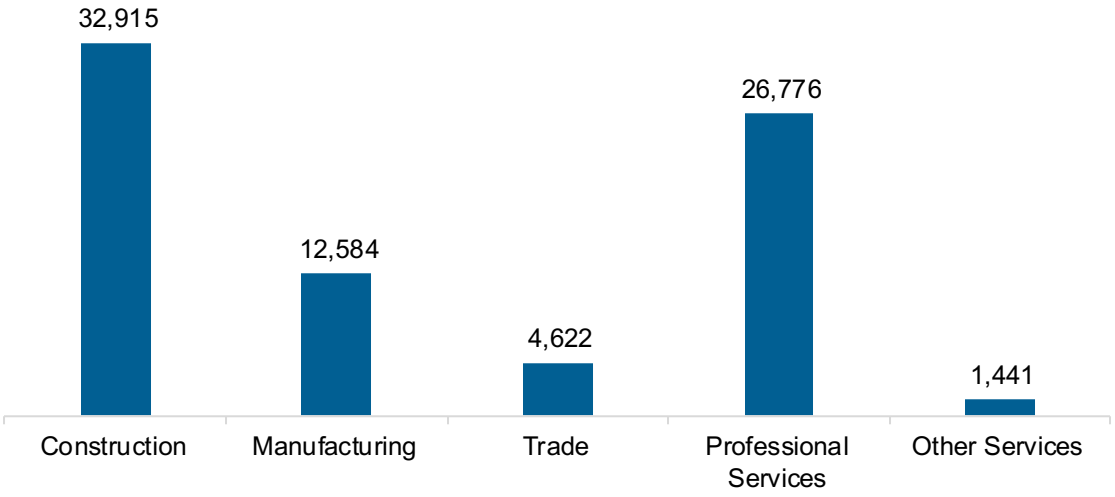
The energy efficiency (EE) sector employed 78,338 workers in North Carolina, 3.5% of the national EE total. The EE sector added 320 jobs and increased 0.4% from 2021 to 2022 (Figure NC-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure NC-9).

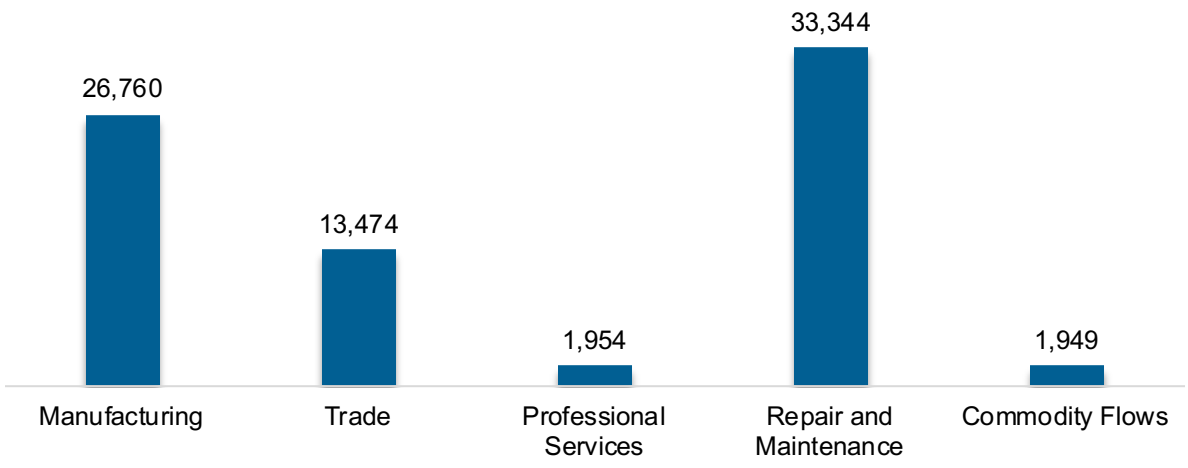
Figure NC-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 77,481 workers in North Carolina, 3.0% of the national total for the sector. Motor vehicles and component parts added 1,422 jobs and increased 1.9% from 2021 to 2022. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure NC-10).

Figure NC-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 123,369 jobs in clean energy in North Carolina if traditional transmission and distribution is included and 105,151 jobs if it is not.[34] These increased under either definition, growing 2.2% with traditional transmission and distribution and 1.9% without.

Employer Perspectives

Expected Growth

Employers in North Carolina were less optimistic than their peers across the country about energy sector job growth over the next year (Table NC-1).

Table NC-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	5.2	6.0
Electric Power Transmission, Distribution, and Storage	4.1	3.9
Energy Efficiency	5.4	6.4
Fuels	3.0	1.6
Motor Vehicles	4.9	5.5

[34] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in North Carolina reported 51% overall hiring difficulty (Table NC-2).

Table NC-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	24	27	8	41	51

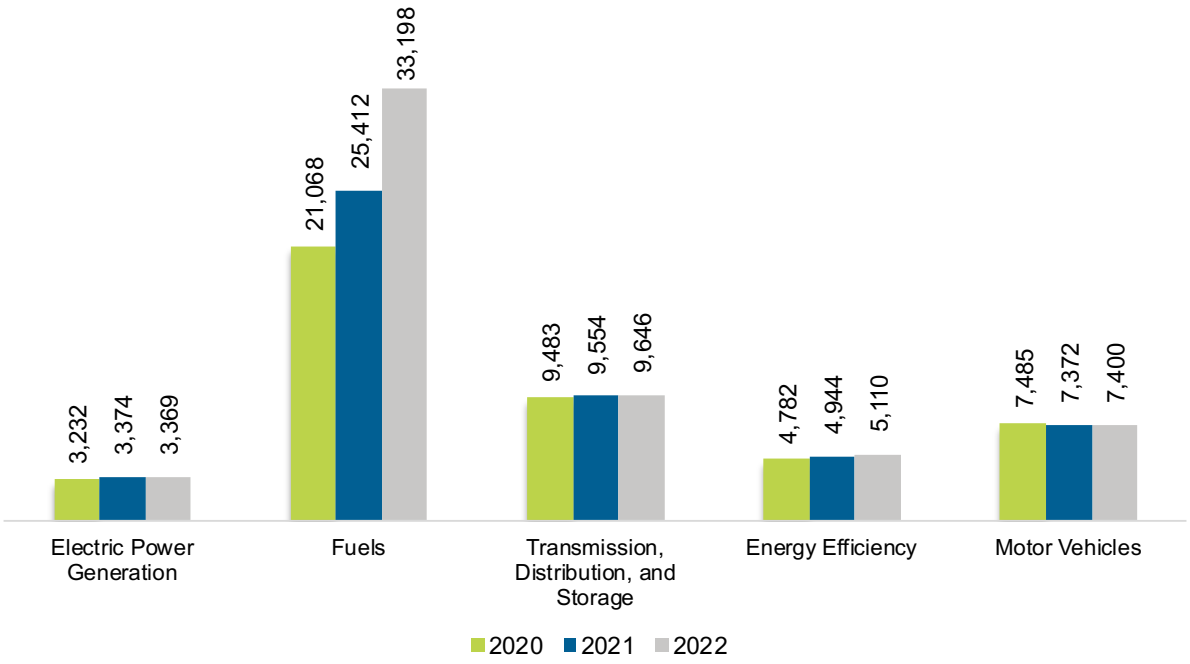
North Dakota

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

North Dakota had 58,722 energy workers statewide in 2022, representing 0.7% of all U.S. energy jobs. Of these energy jobs, 3,369 were in electric power generation; 33,198 in fuels; 9,646 in transmission, distribution, and storage; 5,110 in energy efficiency; and 7,400 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 8,066 jobs, or 15.9% (Figure ND-1). The energy sector in North Dakota represented 14.0% of total state employment.

Figure ND-1. Employment by Major Energy Technology Application

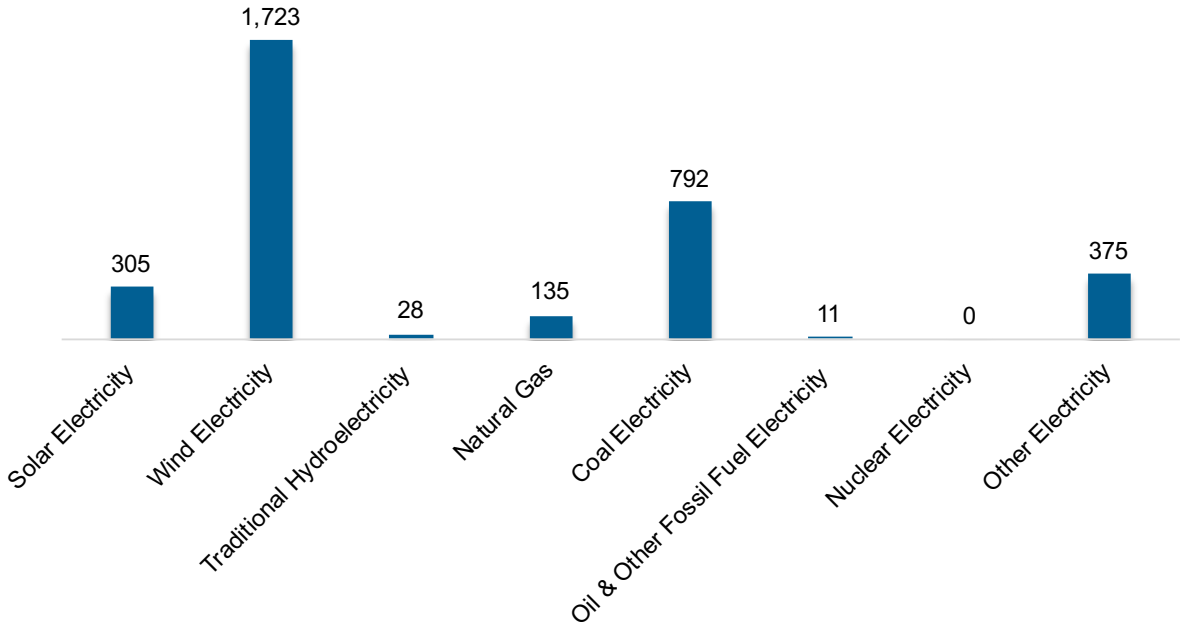


Breakdown by Technology Applications

Electric Power Generation

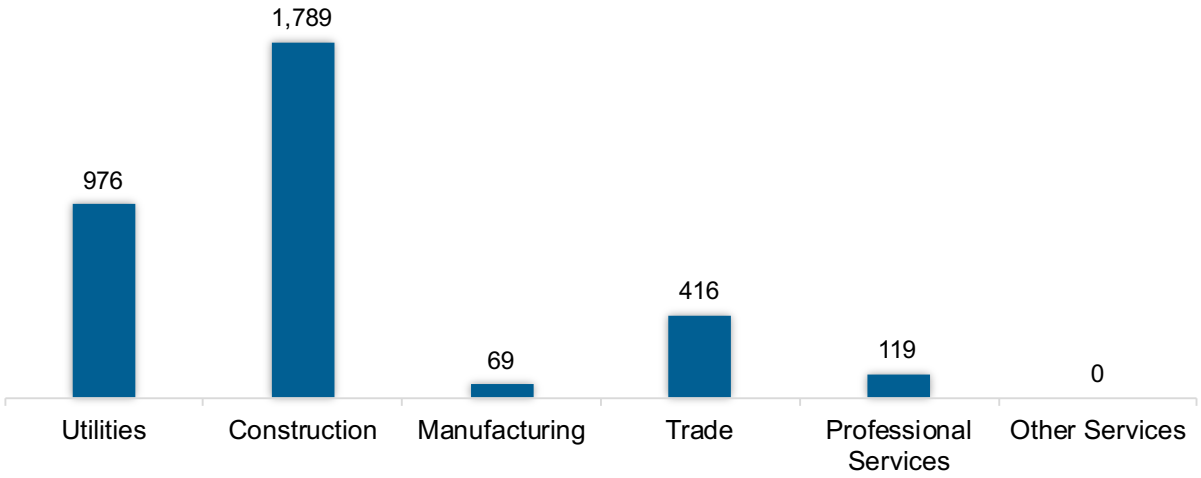
As shown in Figure ND-2, the electric power generation sector employed 3,369 workers in North Dakota, 0.4% of the national electricity total, and lost 5 jobs from 2021 to 2022 (-0.1%).

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



Construction was the largest industry sector in the electric power generation sector, with 53.1% of jobs. Utilities was second largest with 29.0% (Figure ND-3).

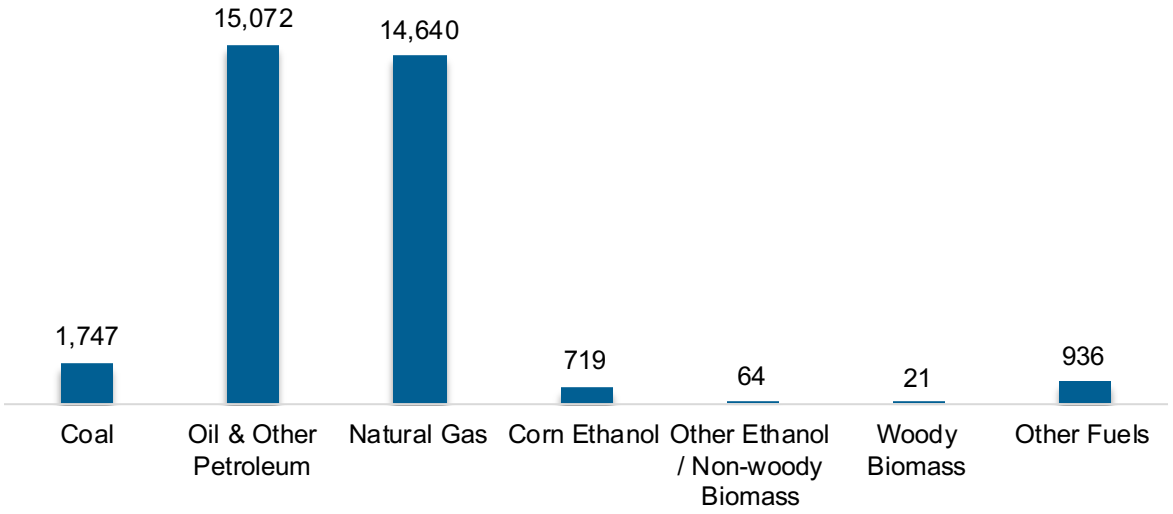
Figure ND-3. Electric Power Generation Employment by Industry Sector



Fuels

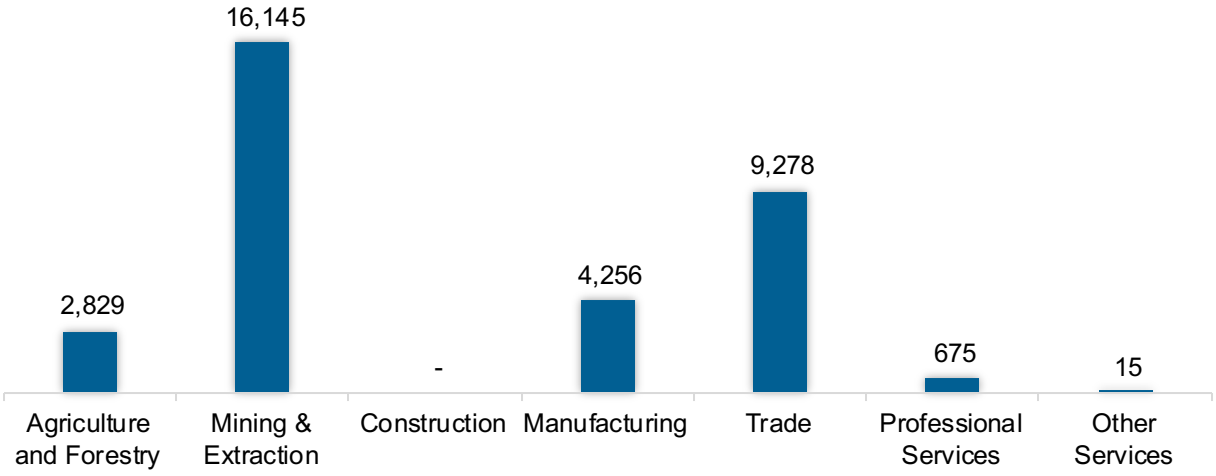
The Fuel sector employed 33,198 workers in North Dakota, 3.2% of the national total in fuels (Figure ND-4). The sector gained 7,786 jobs and increased 30.6% from 2021 to 2022.

Figure ND-4. Fuels Employment by Detailed Technology Application



Mining and extraction jobs represented 48.6% of fuel jobs in North Dakota (Figure ND-5).

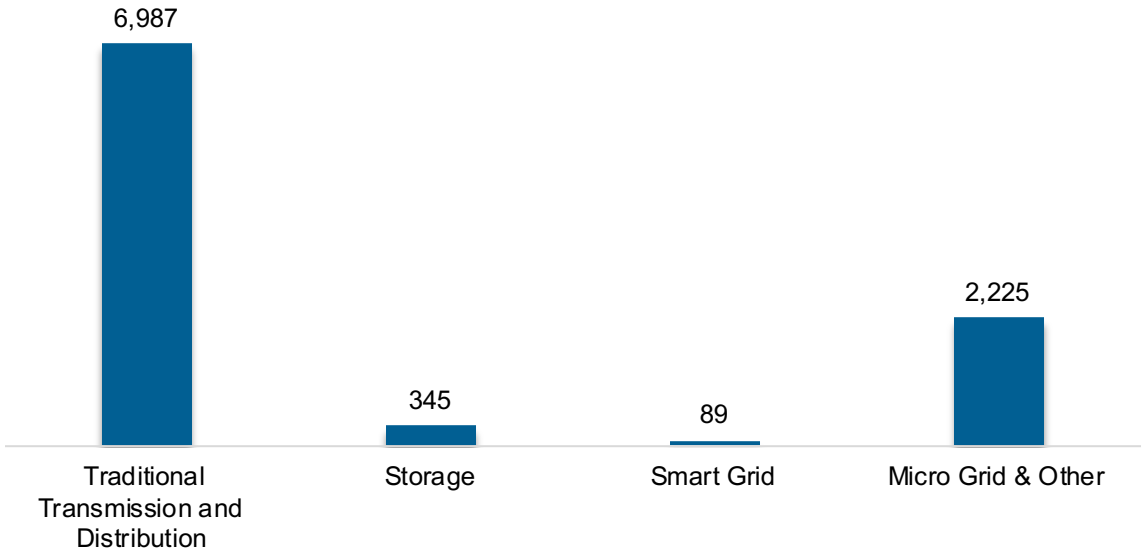
Figure ND-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

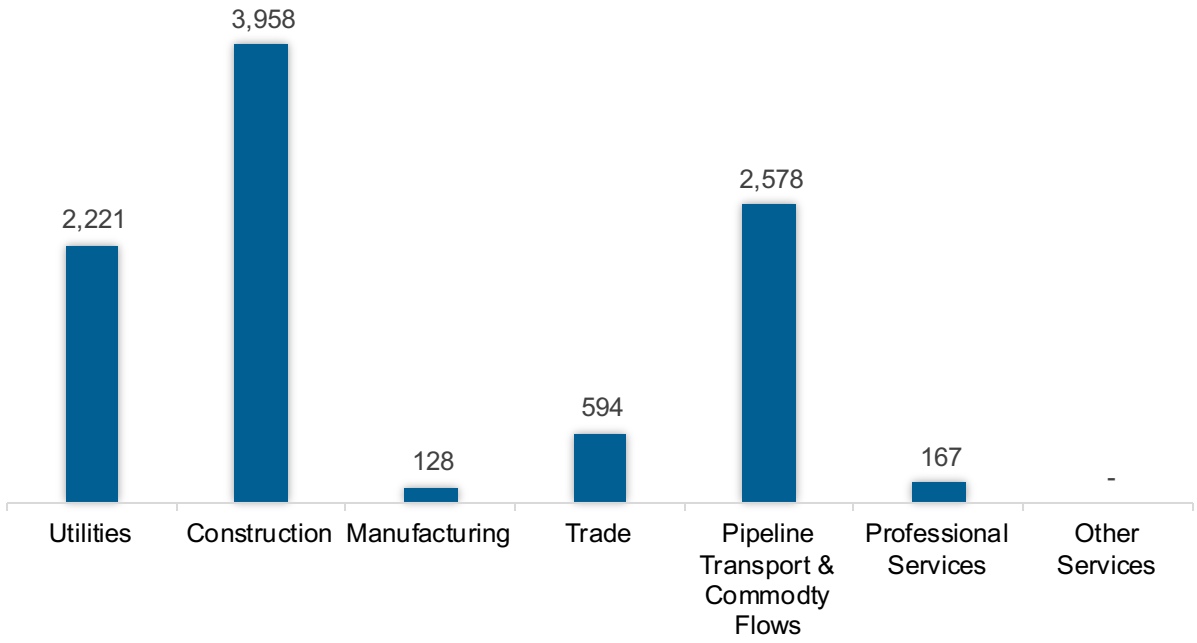
The transmission, distribution, and storage (TDS) sector employed 9,646 workers in North Dakota, 3.2% of the national TDS total (Figure ND-6). The sector gained 92 jobs and increased 1.0% from 2021 to 2022.

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



Construction was the largest proportion of TDS jobs in North Dakota, accounting for 41.0% of the sector's jobs statewide (Figure ND-7).

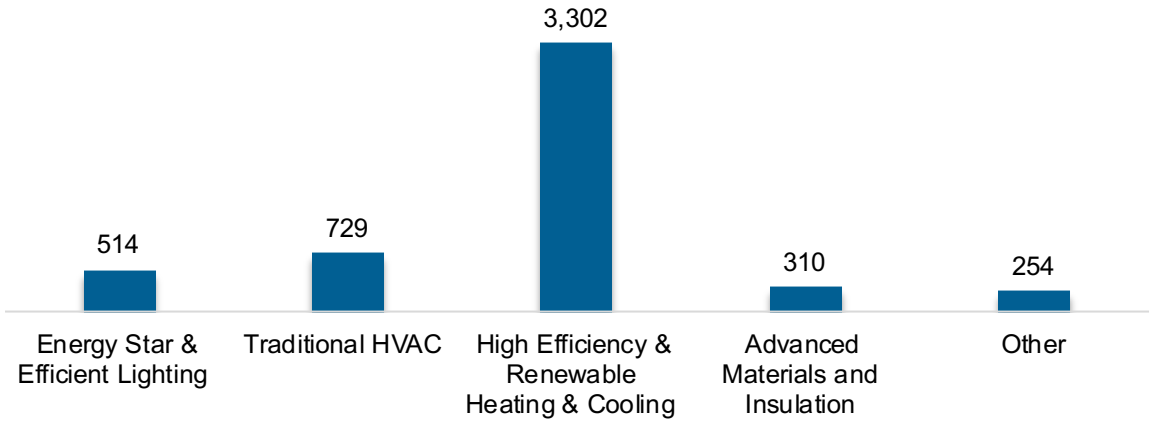
Figure ND-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

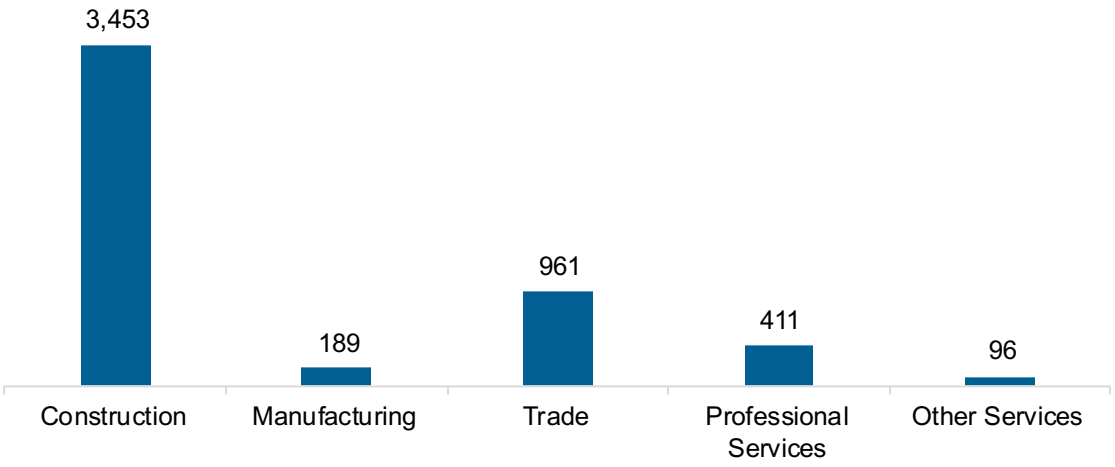
The energy efficiency (EE) sector employed 5,110 workers in North Dakota, 0.2% of the national EE total. The EE sector added 166 jobs and increased 3.4% from 2021 to 2022 (Figure ND-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure ND-9).

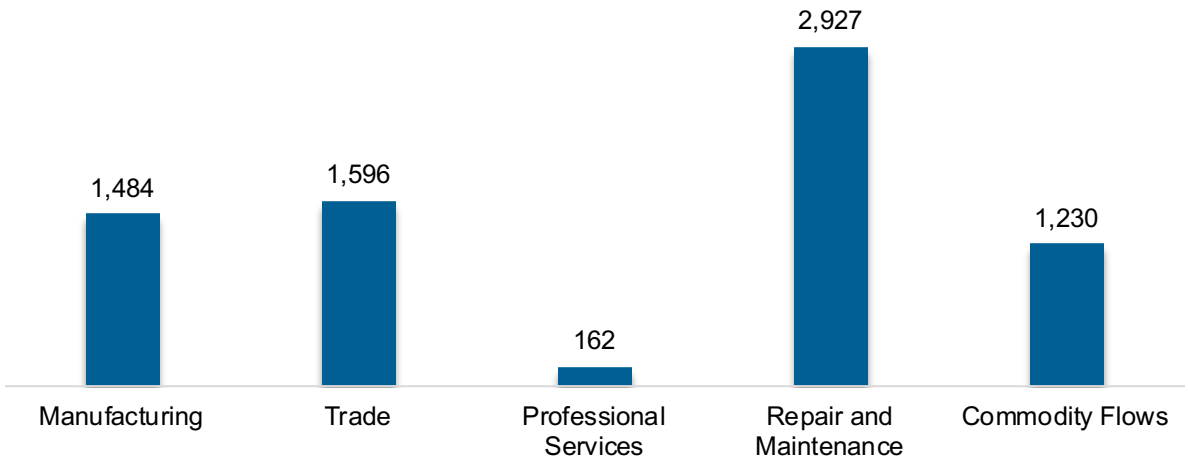
Figure ND-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 7,400 workers in North Dakota, 0.3% of the national total for the sector. Motor vehicles and component parts added 28 jobs and increased 0.4% from 2021 to 2022. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure ND-10).

Figure ND-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 16,260 jobs in clean energy in North Dakota if traditional transmission and distribution is included and 9,255 jobs if it is not.[35] These increased under either definition, growing 2.6% with traditional transmission and distribution and 3.3% without.

Employer Perspectives

Expected Growth

Employers in North Dakota were less optimistic than their peers across the country about energy sector job growth over the next year (Table ND-1).

Table ND-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	4.9	6.0
Electric Power Transmission, Distribution, and Storage	3.8	3.9
Energy Efficiency	5.1	6.4
Fuels	2.7	1.6
Motor Vehicles	4.6	5.5

[35] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in North Dakota reported 59% overall hiring difficulty (Table ND-2).

Table ND-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	27	32	4	36	59

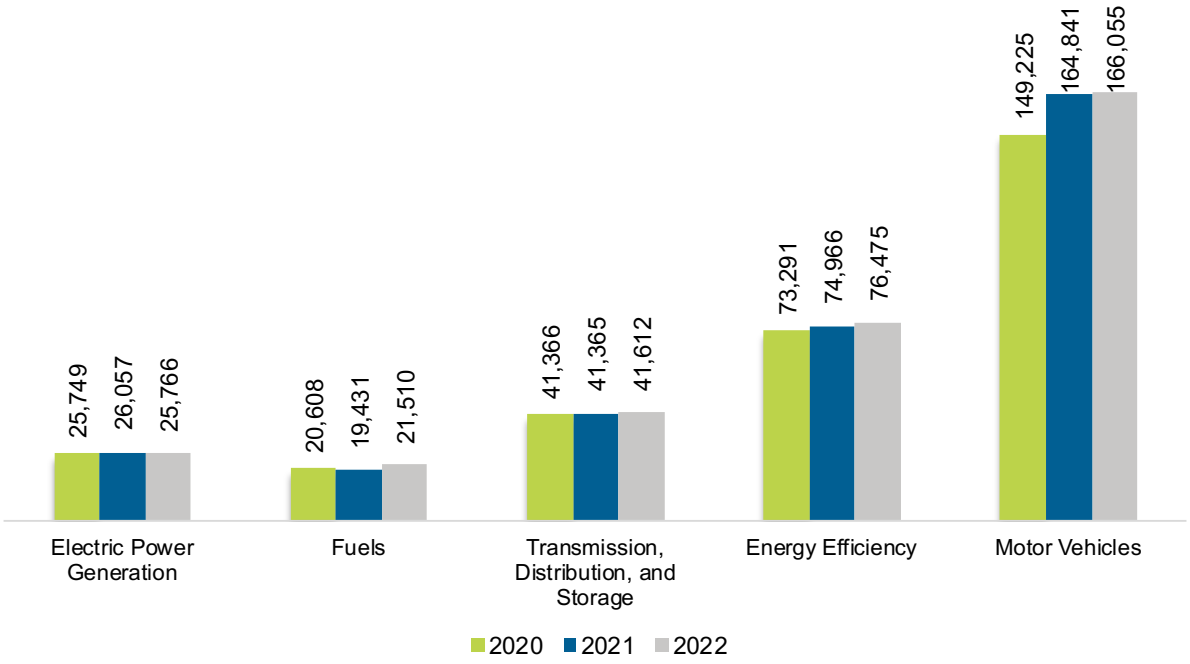
Ohio

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

Ohio had 331,417 energy workers statewide in 2022, representing 4.1% of all U.S. energy jobs. Of these energy jobs, 25,766 were in electric power generation; 21,510 in fuels; 41,612 in transmission, distribution, and storage; 76,475 in energy efficiency; and 166,055 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 4,757 jobs, or 1.5% (Figure OH-1). The energy sector in Ohio represented 6.1% of total state employment.

Figure OH-1. Employment by Major Energy Technology Application

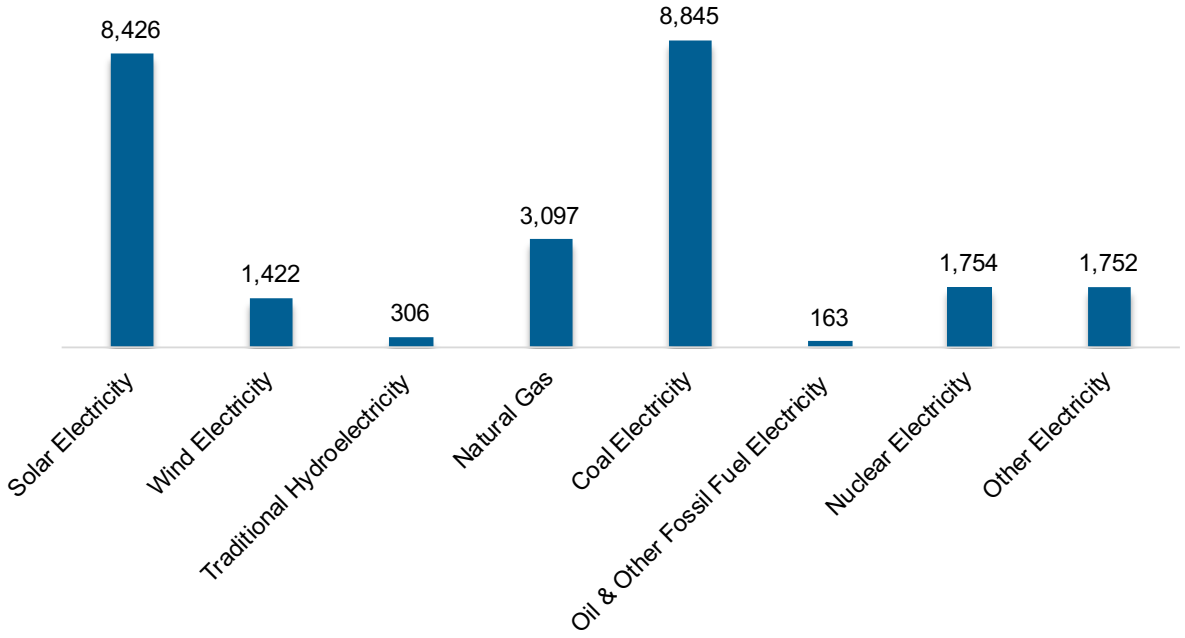


Breakdown by Technology Applications

Electric Power Generation

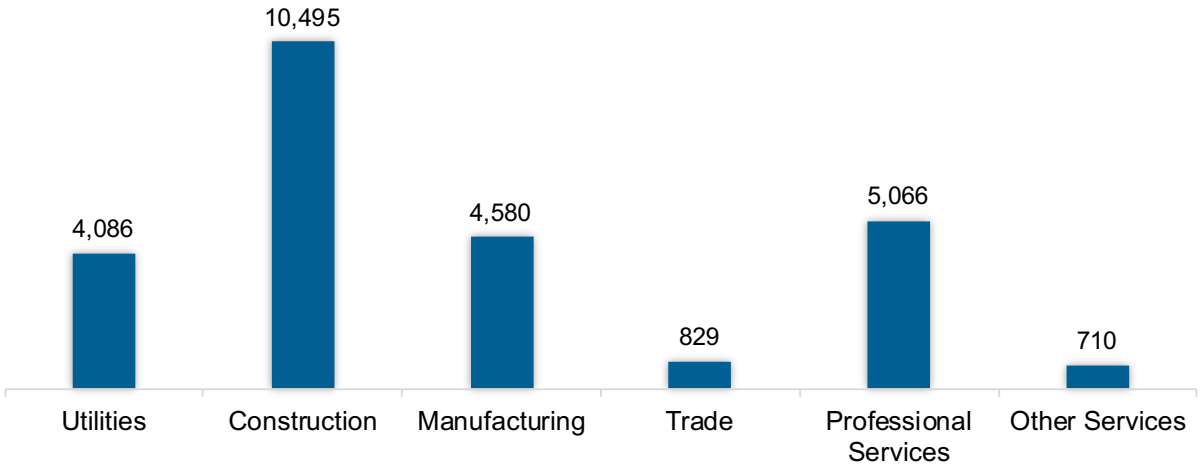
As shown in Figure OH-2, the electric power generation sector employed 25,766 workers in Ohio, 2.9% of the national electricity total, and lost 291 jobs from 2021 to 2022 (-1.1%).

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



Construction was the largest industry sector in the electric power generation sector, with 40.7% of jobs. Professional and business services was second largest with 19.7% (Figure OH-3).

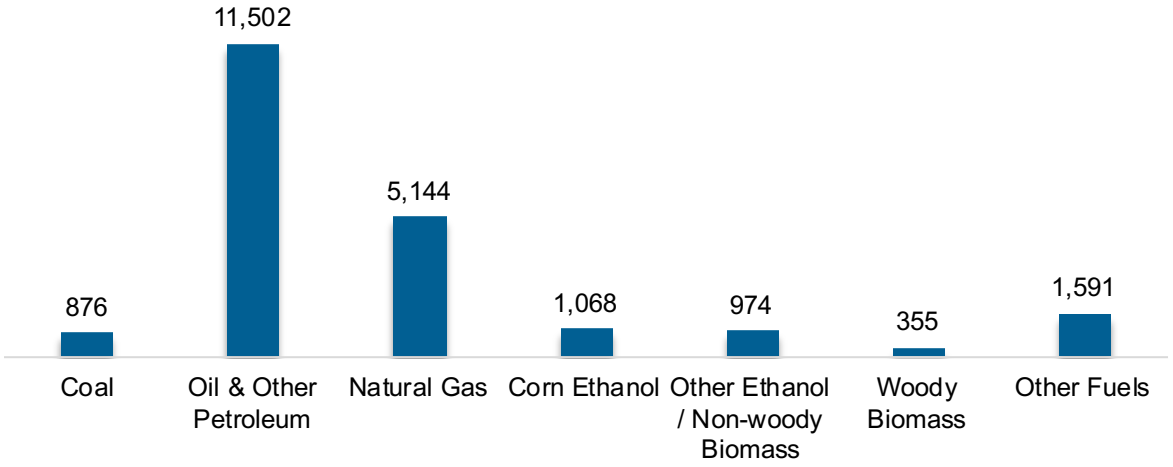
Figure OH-3. Electric Power Generation Employment by Industry Sector



Fuels

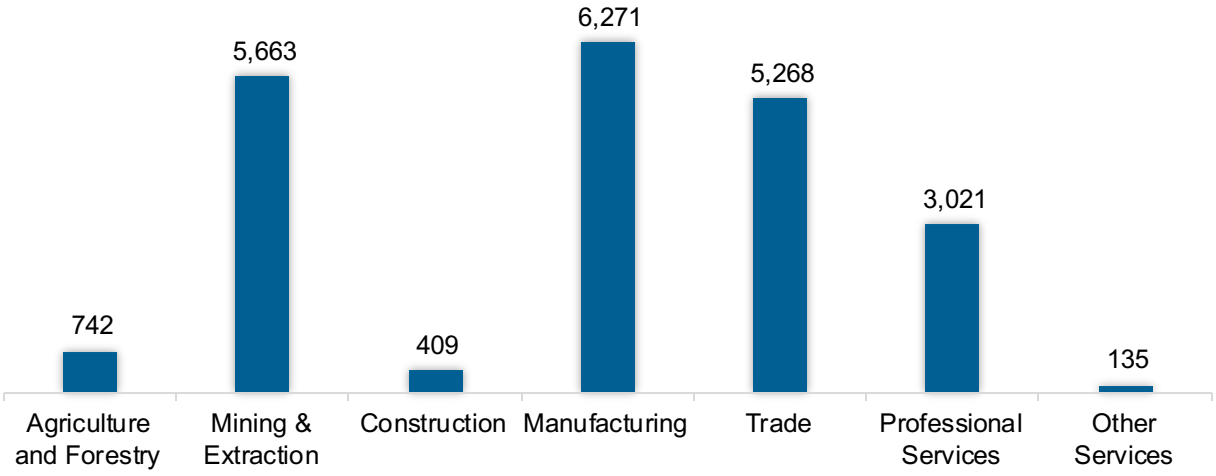
The Fuel sector employed 21,510 workers in Ohio, 2.1% of the national total in fuels (Figure OH-4). The sector gained 2,078 jobs and increased 10.7% from 2021 to 2022.

Figure OH-4. Fuels Employment by Detailed Technology Application



Manufacturing jobs represented 29.2% of fuel jobs in Ohio (Figure OH-5).

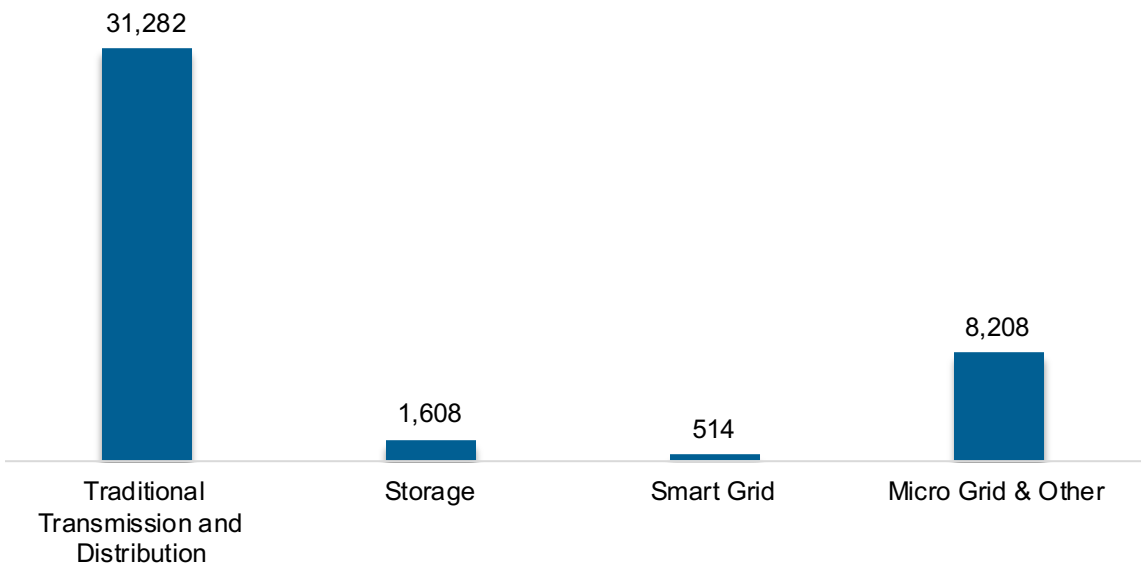
Figure OH-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

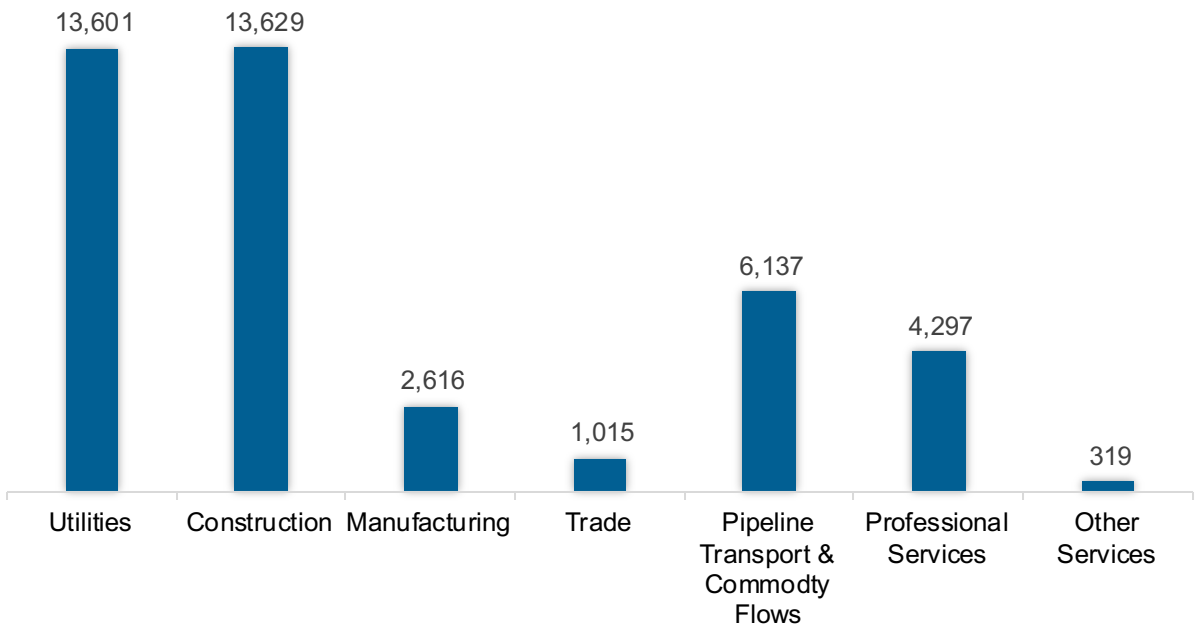
The transmission, distribution, and storage (TDS) sector employed 41,612 workers in Ohio, 2.1% of the national TDS total (Figure OH-6). The sector gained 247 jobs and increased 0.6% from 2021 to 2022.

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



Construction was the largest proportion of TDS jobs in Ohio, accounting for 32.8% of the sector's jobs statewide (Figure OH-7).

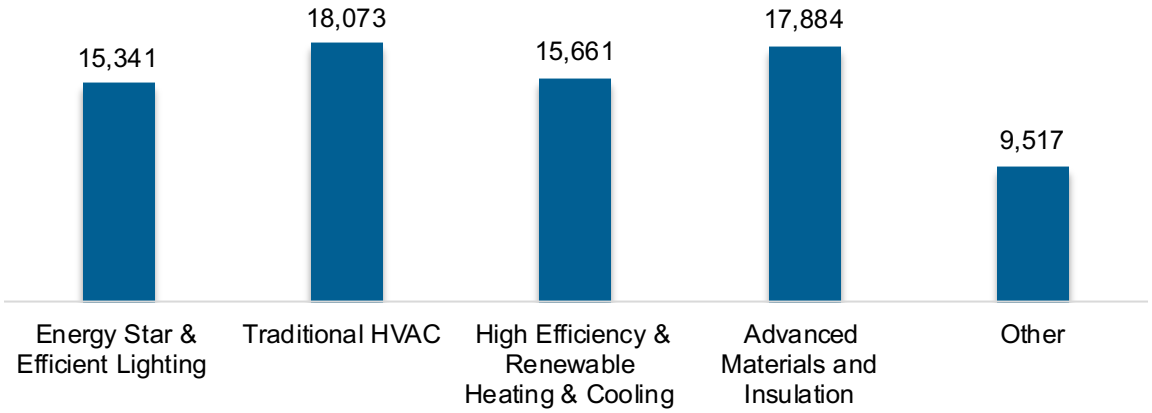
Figure OH-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

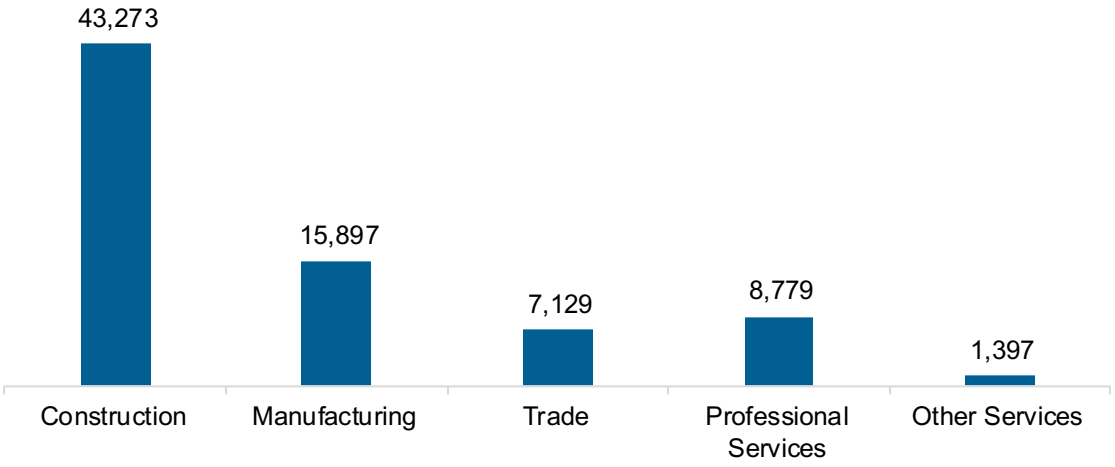
The energy efficiency (EE) sector employed 76,475 workers in Ohio, 3.5% of the national EE total. The EE sector added 1,509 jobs and increased 2.0% from 2021 to 2022 (Figure OH-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure OH-9).

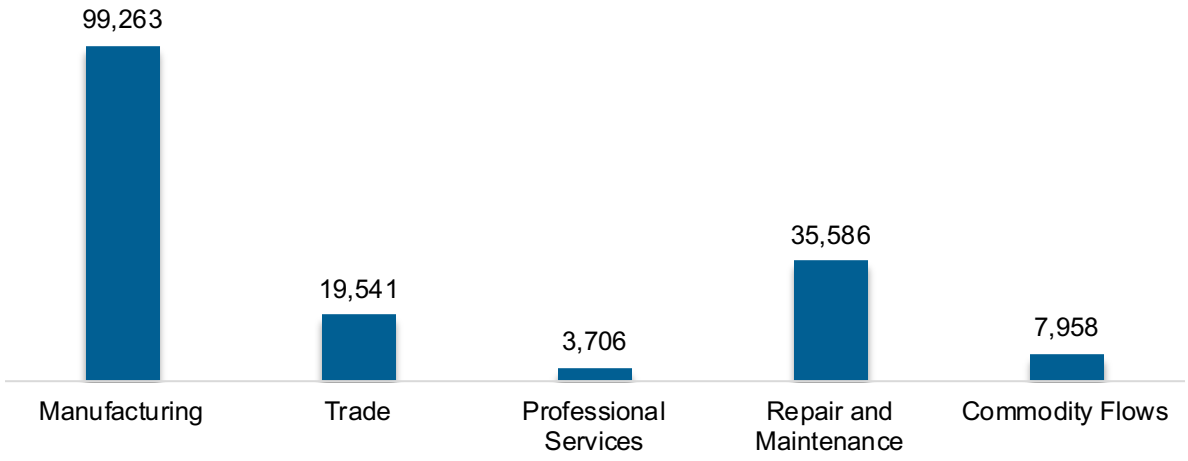
Figure OH-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 166,055 workers in Ohio, 6.3% of the national total for the sector. Motor vehicles and component parts added 1,213 jobs and increased 0.7% from 2021 to 2022. Manufacturing is the largest proportion of motor vehicle jobs (Figure OH-10).

Figure OH-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 139,370 jobs in clean energy in Ohio if traditional transmission and distribution is included and 108,006 jobs if it is not.[36] These increased under either definition, growing 3.3% with traditional transmission and distribution and 4.4% without.

Employer Perspectives

Expected Growth

Employers in Ohio are similarly optimistic than their peers across the country about energy sector job growth over the next year (Table OH-1).

Table OH-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	5.5	6.0
Electric Power Transmission, Distribution, and Storage	4.5	3.9
Energy Efficiency	5.7	6.4
Fuels	3.3	1.6
Motor Vehicles	5.3	5.5

[36] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in Ohio reported 52% overall hiring difficulty (Table OH-2).

Table OH-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	26	26	7	41	52

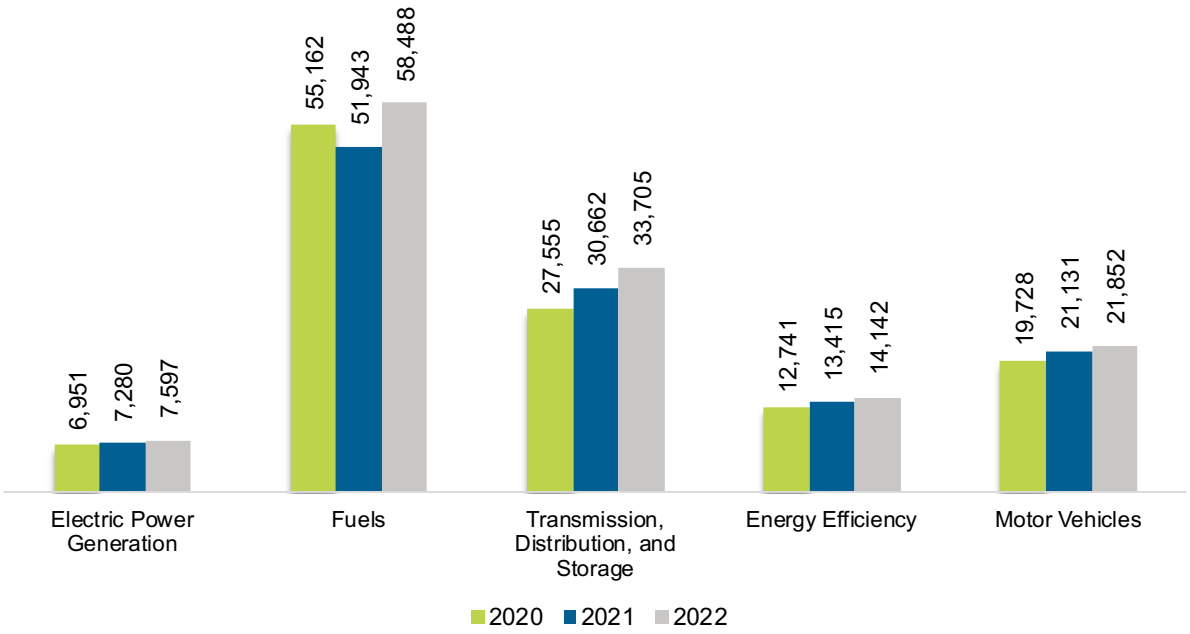
Oklahoma

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

Oklahoma had 135,783 energy workers statewide in 2022, representing 1.7% of all U.S. energy jobs. Of these energy jobs, 7,597 were in electric power generation; 58,488 in fuels; 33,705 in transmission, distribution, and storage; 14,142 in energy efficiency; and 21,852 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 11,352 jobs, or 9.1% (Figure OK-1). The energy sector in Oklahoma represented 8.2% of total state employment.

Figure OK-1. Employment by Major Energy Technology Application

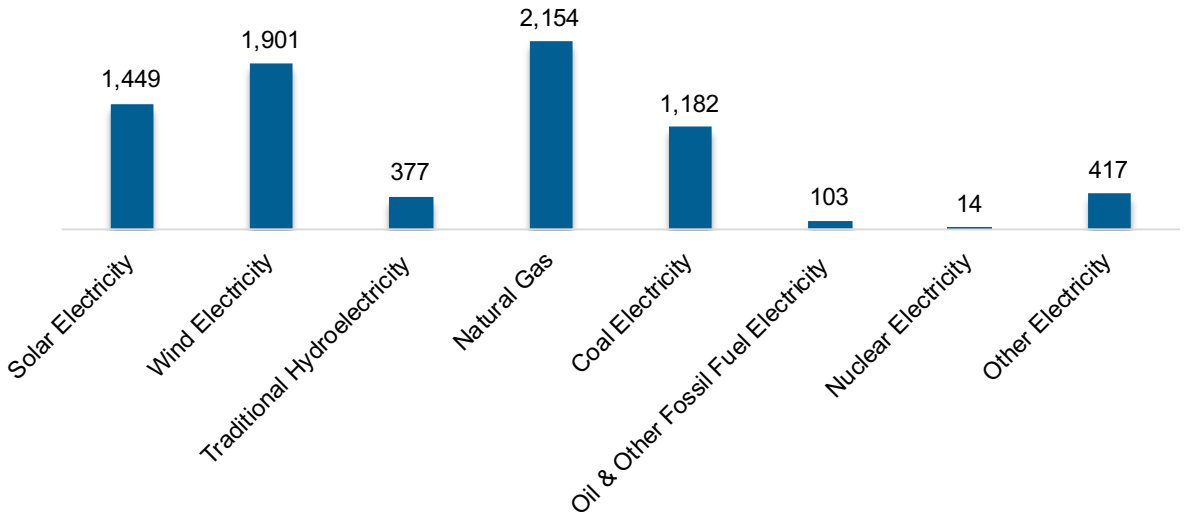


Breakdown by Technology Applications

Electric Power Generation

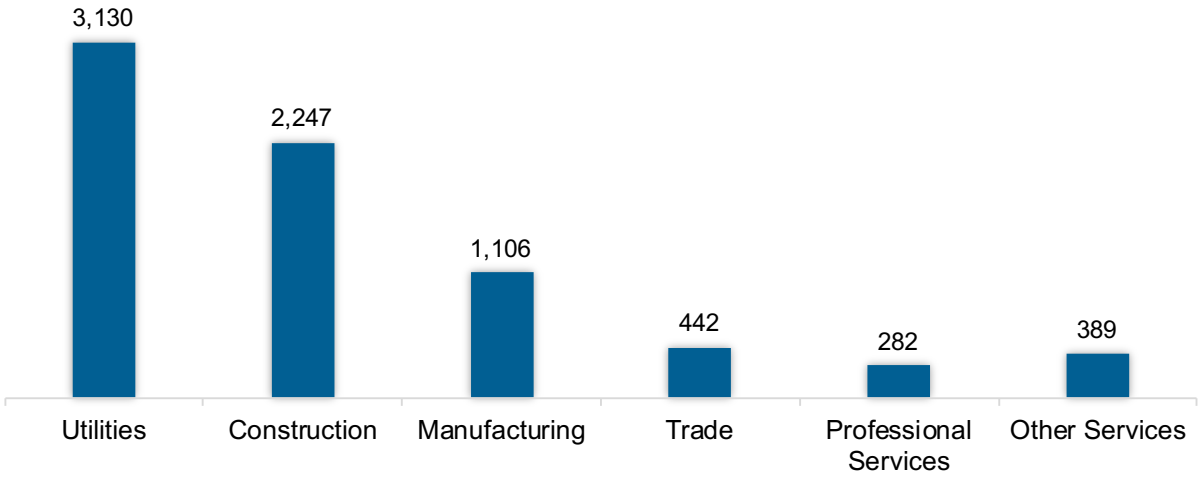
As shown in Figure OK-2, the electric power generation sector employed 7,597 workers in Oklahoma, 0.9% of the national electricity total, and added 317 jobs from 2021 to 2022 (4.4%).

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



Utilities was the largest industry sector in the electric power generation sector, with 41.2% of jobs. Construction was second largest with 29.6% (Figure OK-3).

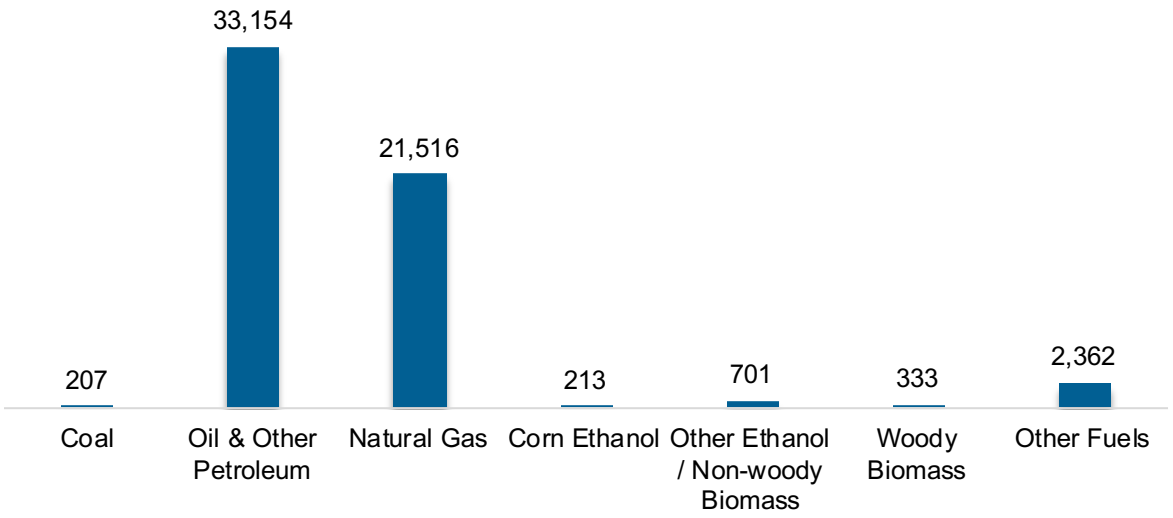
Figure OK-3. Electric Power Generation Employment by Industry Sector



Fuels

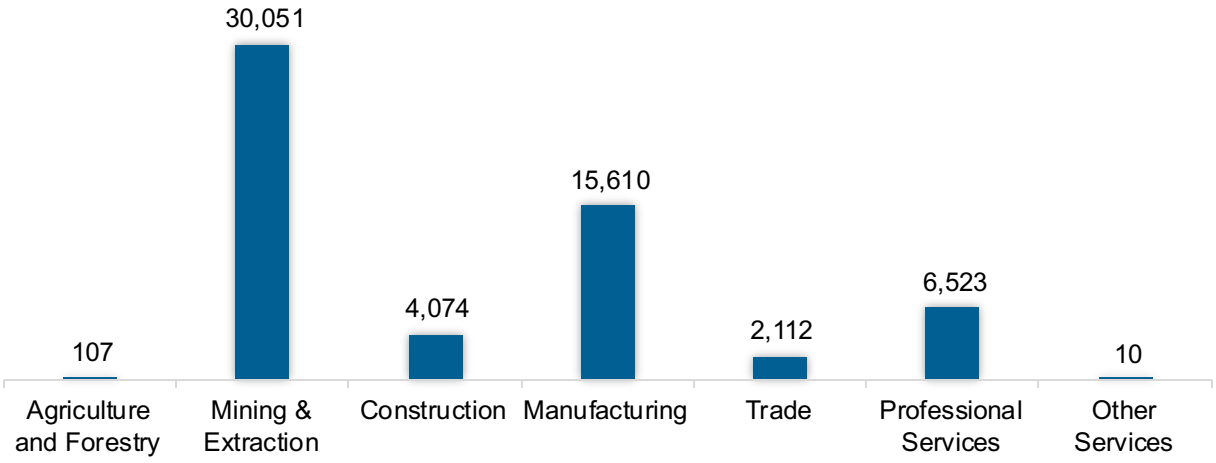
The Fuel sector employed 58,488 workers in Oklahoma, 5.7% of the national total in fuels (Figure OK-4). The sector gained 6,544 jobs and increased 12.6% from 2021 to 2022.

Figure OK-4. Fuels Employment by Detailed Technology Application



Mining and extraction jobs represented 51.4% of fuel jobs in Oklahoma (Figure OK-5).

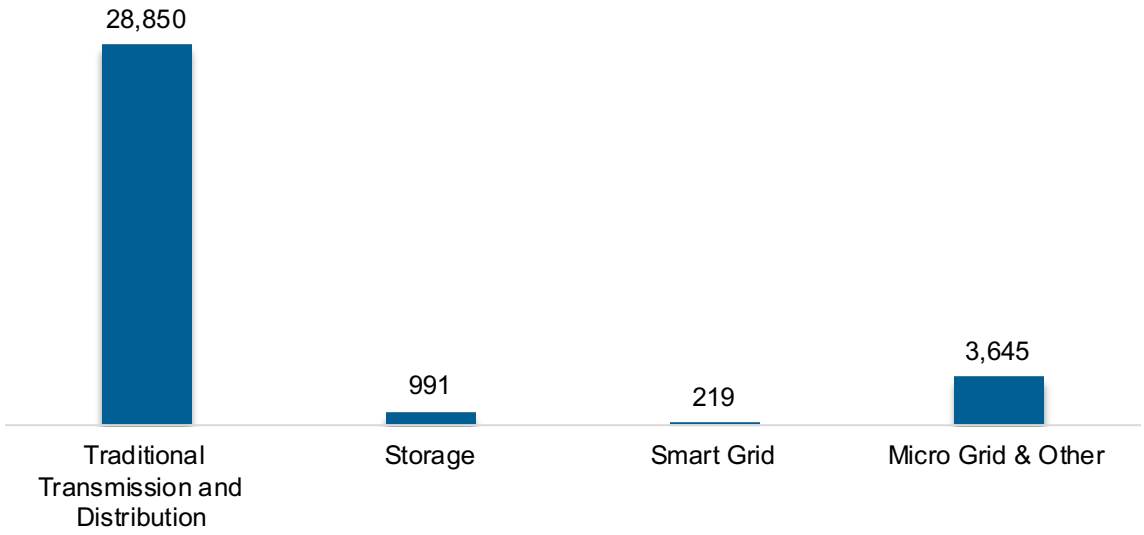
Figure OK-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

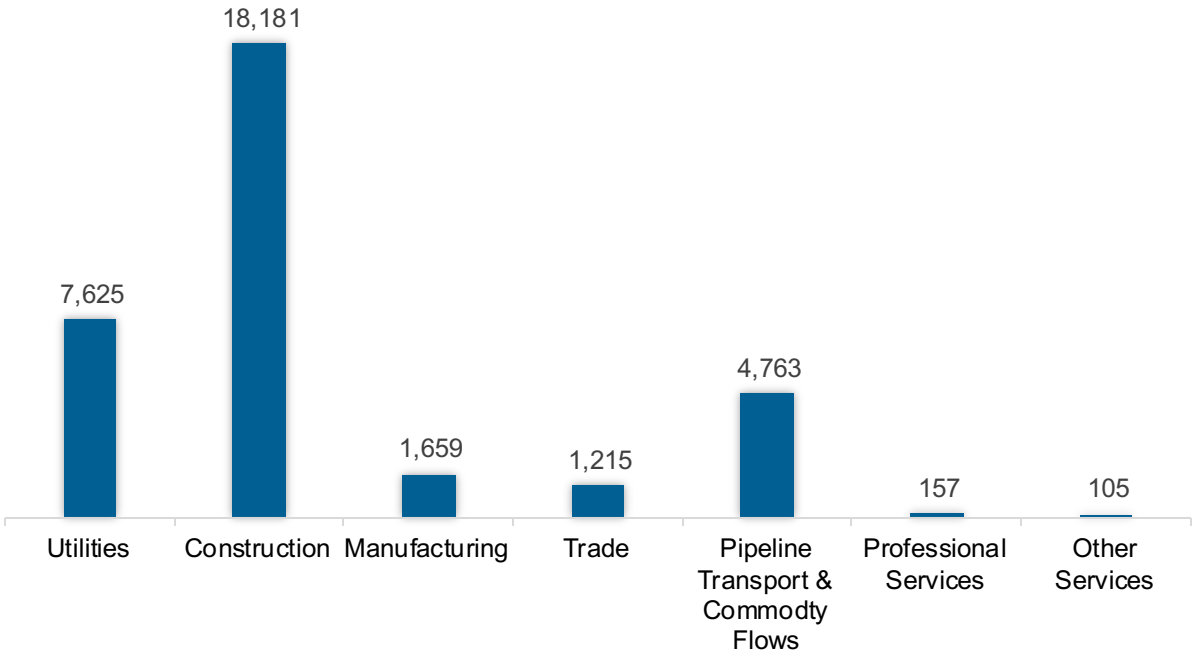
The transmission, distribution, and storage (TDS) sector employed 33,705 workers in Oklahoma, 5.7% of the national TDS total (Figure OK-6). The sector gained 3,043 jobs and increased 9.9% from 2021 to 2022.

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



Construction was the largest proportion of TDS jobs in Oklahoma, accounting for 53.9% of the sector's jobs statewide (Figure OK-7).

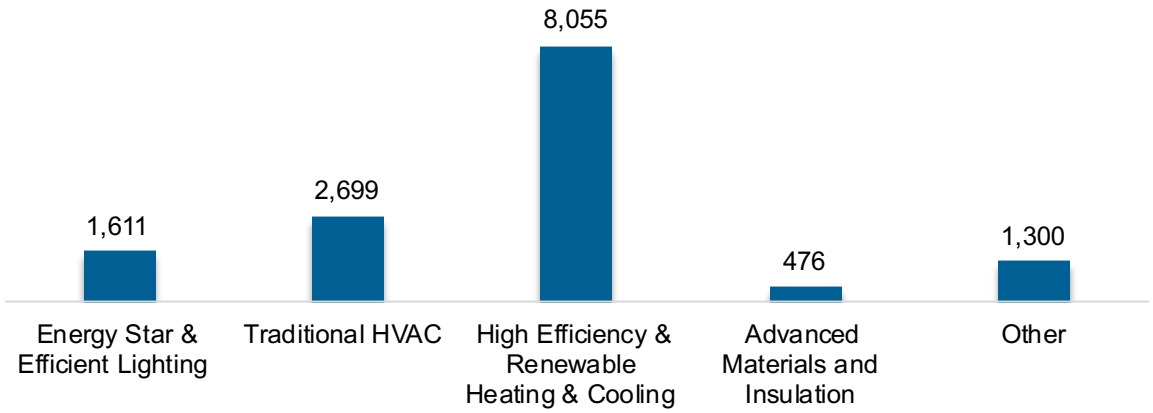
Figure OK-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

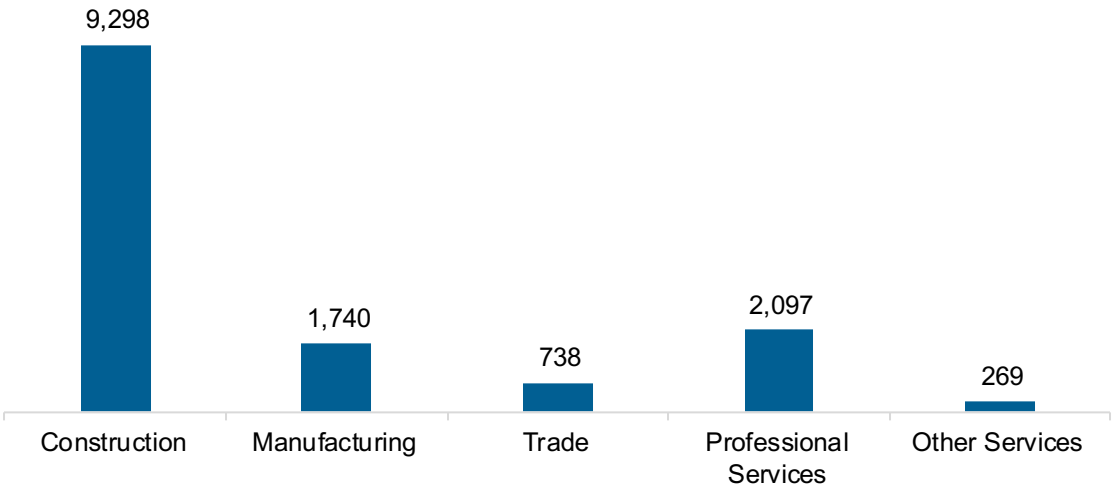
The energy efficiency (EE) sector employed 14,142 workers in Oklahoma, 0.6% of the national EE total. The EE sector added 727 jobs and increased 5.4% from 2021 to 2022 (Figure OK-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure OK-9).

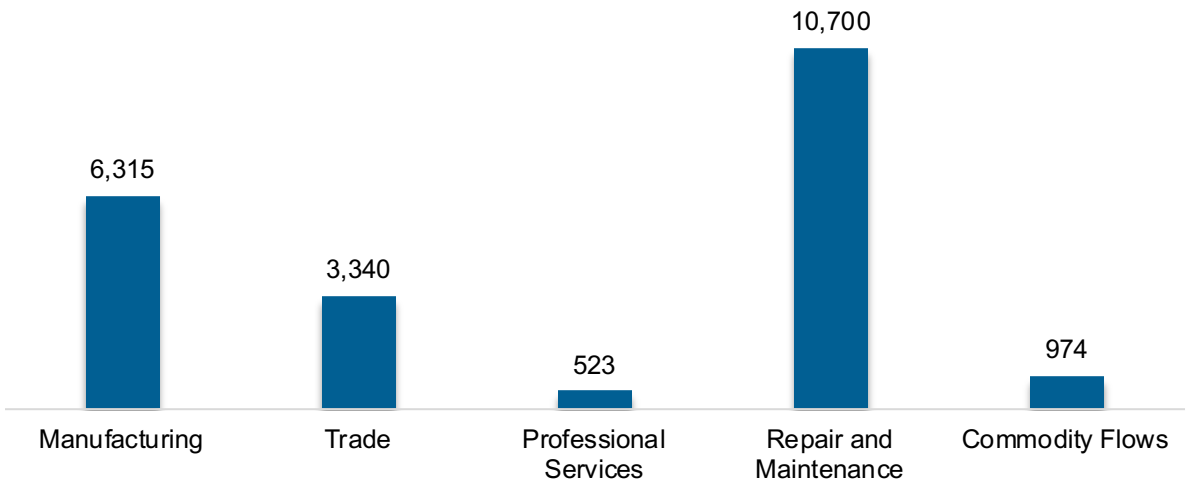
Figure OK-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 21,852 workers in Oklahoma, 0.8% of the national total for the sector. Motor vehicles and component parts added 721 jobs and increased 3.4% from 2021 to 2022. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure OK-10).

Figure OK-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 51,525 jobs in clean energy in Oklahoma if traditional transmission and distribution is included and 22,625 jobs if it is not.[37] These increased under either definition, growing 9.0% with traditional transmission and distribution and 6.1% without.

Employer Perspectives

Expected Growth

Employers in Oklahoma were less optimistic than their peers across the country about energy sector job growth over the next year (Table OK-1).

Table OK-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	4.7	6.0
Electric Power Transmission, Distribution, and Storage	3.6	3.9
Energy Efficiency	4.9	6.4
Fuels	2.5	1.6
Motor Vehicles	4.4	5.5

[37] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in Oklahoma reported 53% overall hiring difficulty (Table OK-2).

Table OK-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	21	32	8	38	53

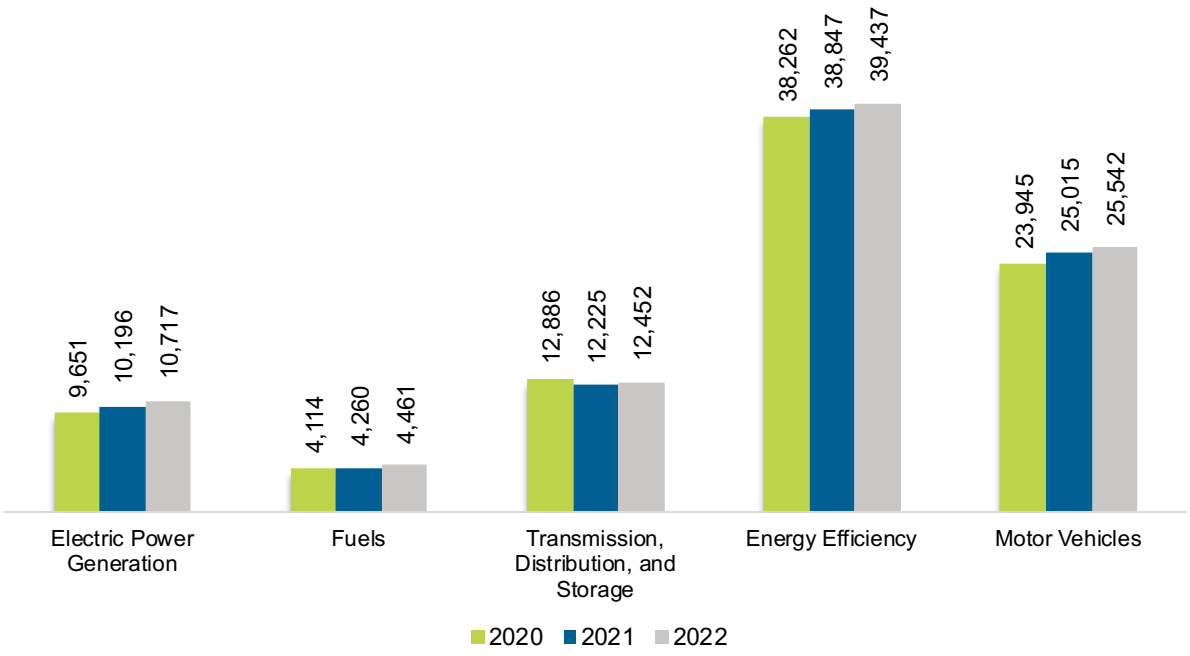
Oregon

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

Oregon had 92,608 energy workers statewide in 2022, representing 1.1% of all U.S. energy jobs. Of these energy jobs, 10,717 were in electric power generation; 4,461 in fuels; 12,452 in transmission, distribution, and storage; 39,437 in energy efficiency; and 25,542 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 2,066 jobs, or 2.3% (Figure OR-1). The energy sector in Oregon represented 4.8% of total state employment.

Figure OR-1. Employment by Major Energy Technology Application

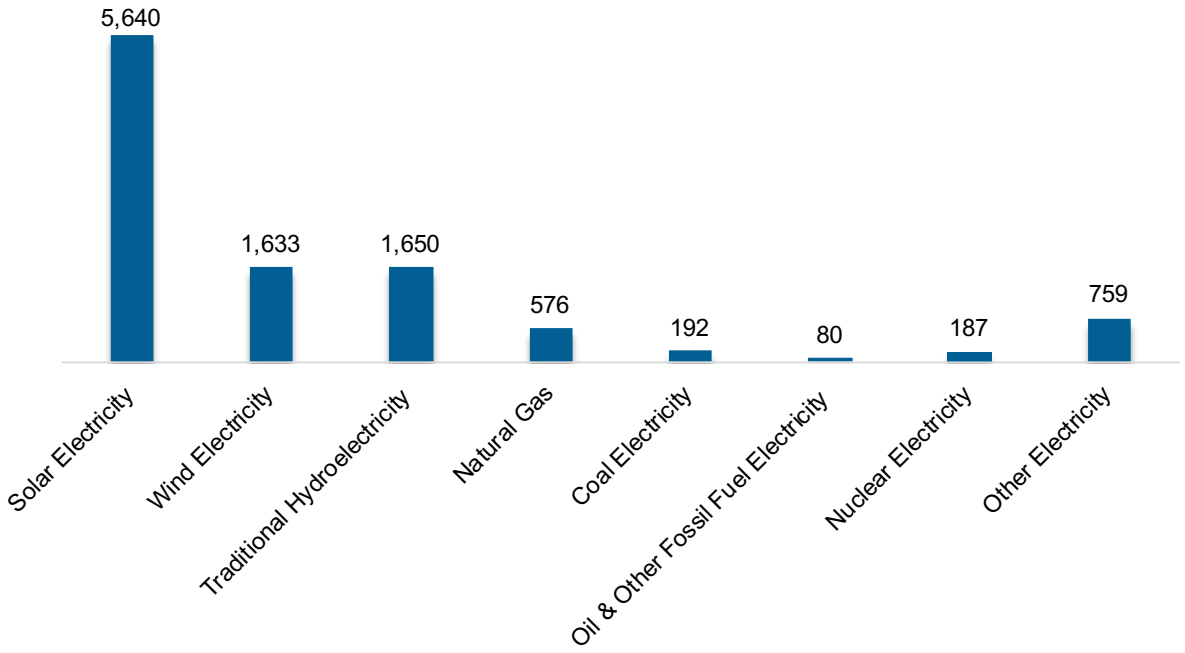


Breakdown by Technology Applications

Electric Power Generation

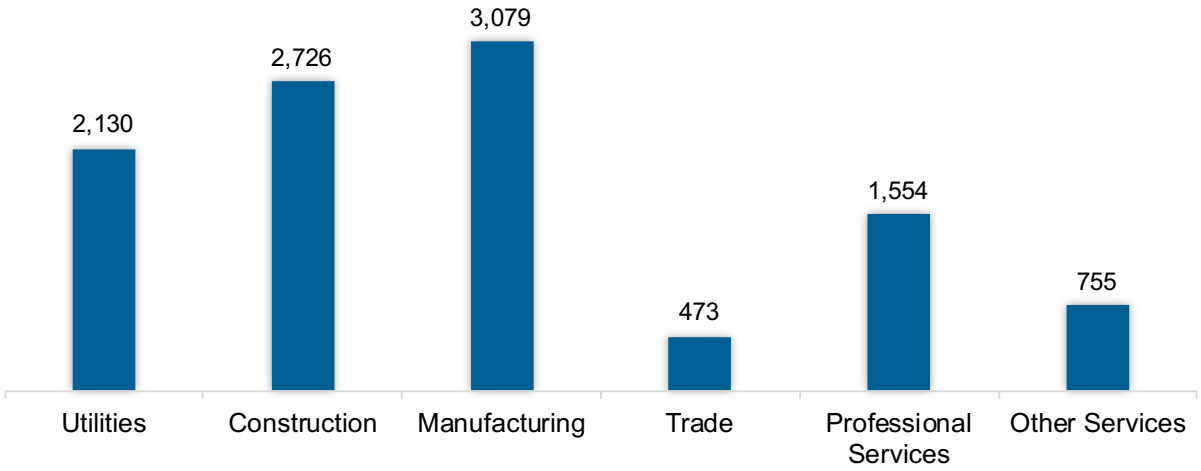
As shown in Figure OR-2, the electric power generation sector employed 10,717 workers in Oregon, 1.2% of the national electricity total, and added 521 jobs from 2021 to 2022 (5.1%).

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



Manufacturing was the largest industry sector in the electric power generation sector, with 28.7% of jobs. Construction was second largest with 25.4% (Figure OR-3).

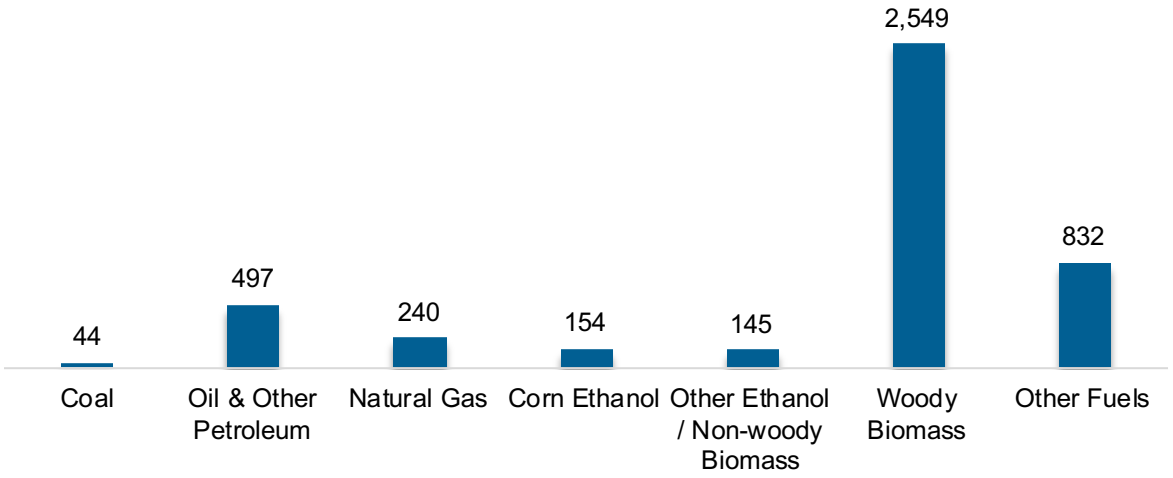
Figure OR-3. Electric Power Generation Employment by Industry Sector



Fuels

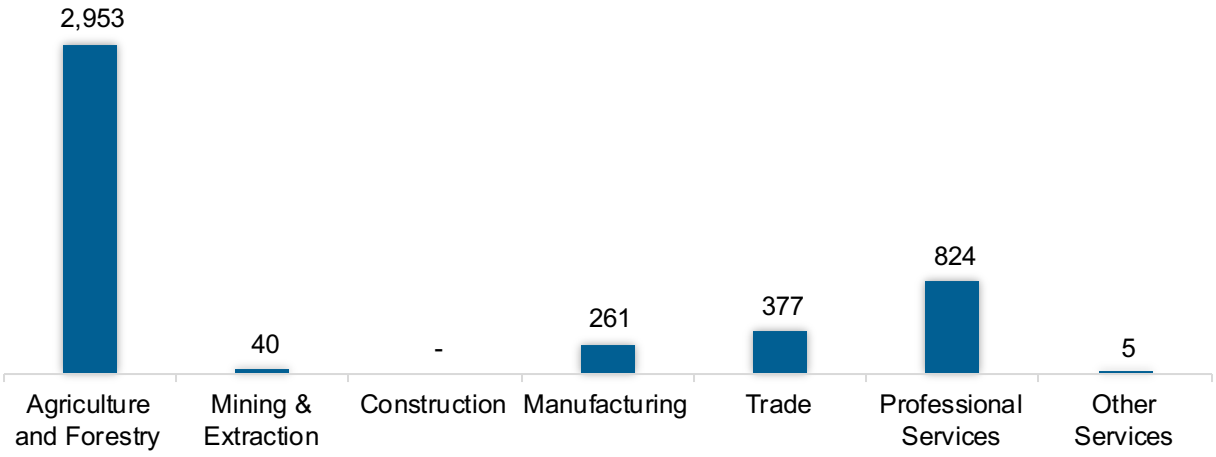
The Fuel sector employed 4,461 workers in Oregon, 0.4% of the national total in fuels (Figure OR-4). The sector gained 201 jobs and increased 4.7% from 2021 to 2022.

Figure OR-4. Fuels Employment by Detailed Technology Application



Agriculture jobs represented 66.2% of fuel jobs in Oregon (Figure OR-5).

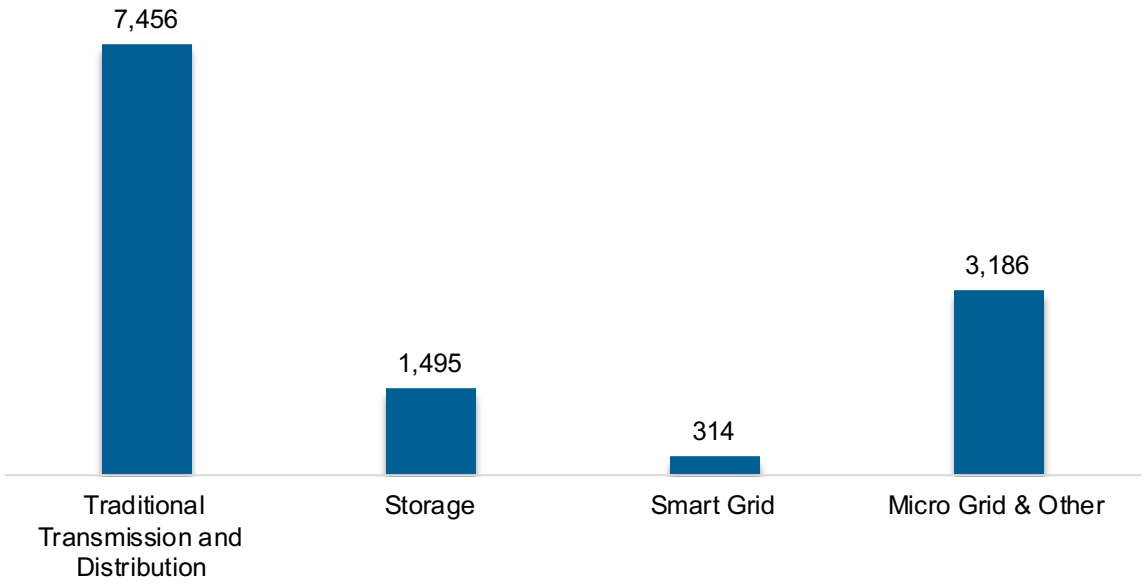
Figure OR-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

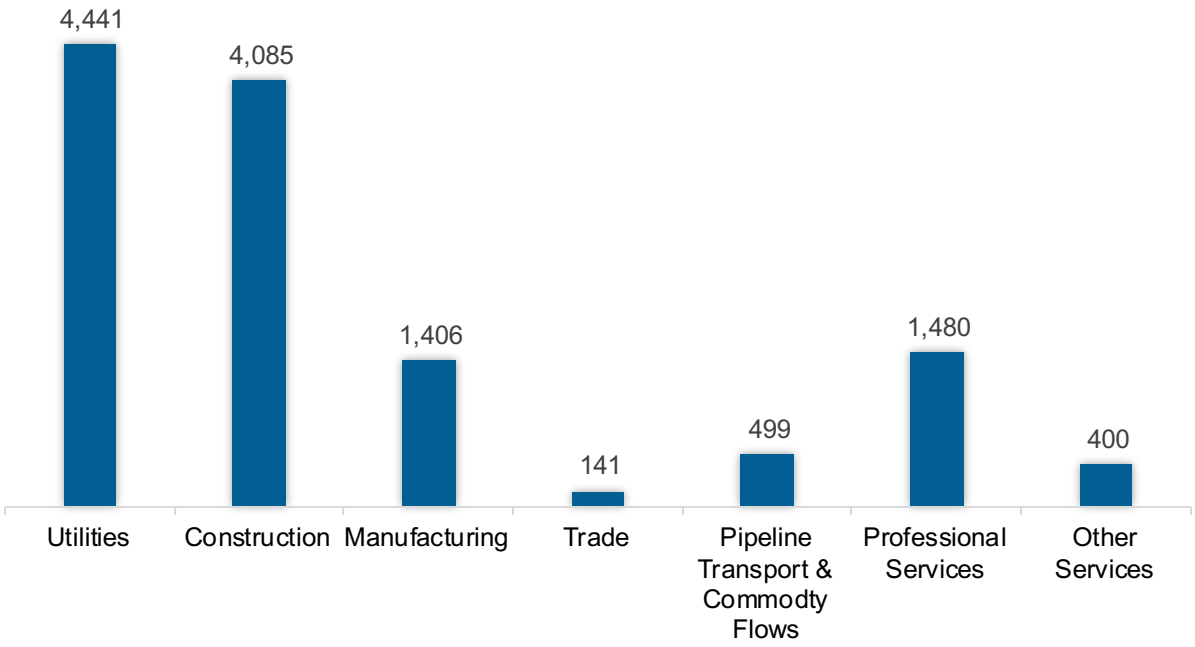
The transmission, distribution, and storage (TDS) sector employed 12,452 workers in Oregon, 0.4% of the national TDS total (Figure OR-6). The sector gained 227 jobs and increased 1.9% from 2021 to 2022.

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



Utilities was the largest proportion of TDS jobs in Oregon, accounting for 35.7% of the sector's jobs statewide (Figure OR-7).

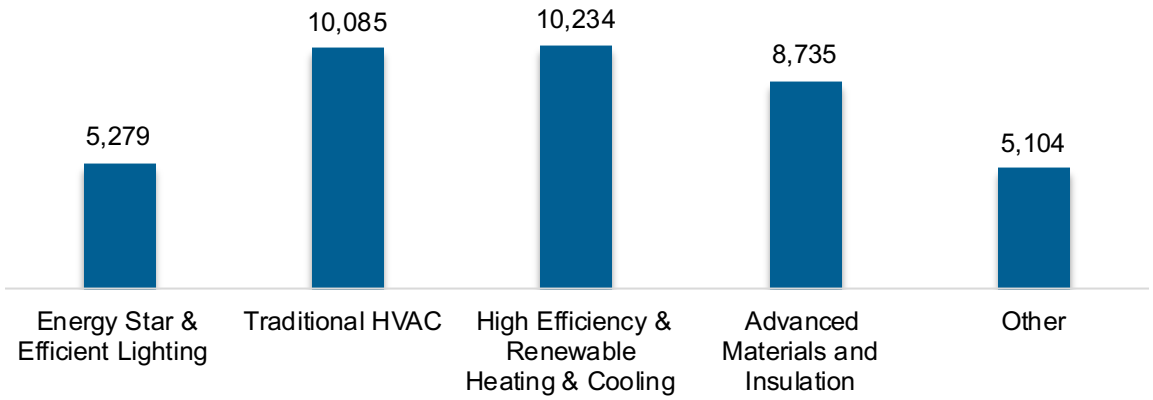
Figure OR-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

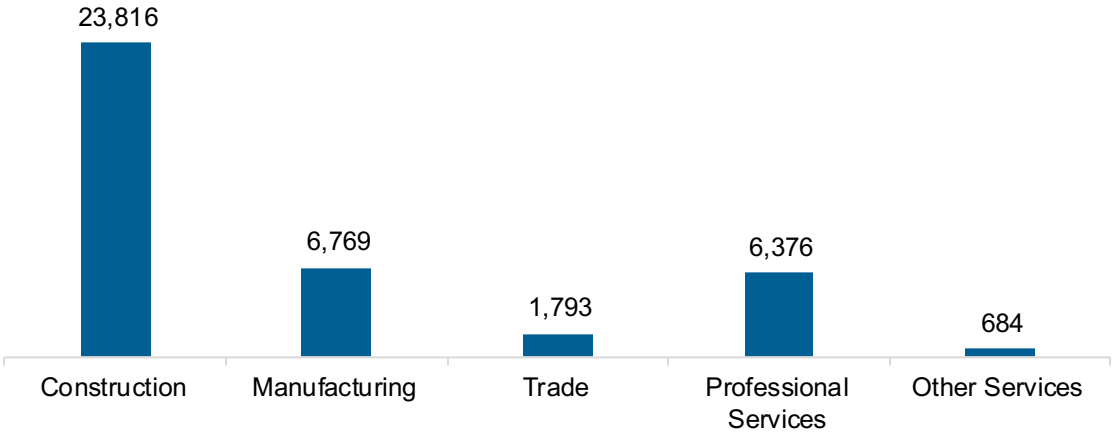
The energy efficiency (EE) sector employed 39,437 workers in Oregon, 1.8% of the national EE total. The EE sector added 590 jobs and increased 1.5% from 2021 to 2022 (Figure OR-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure OR-9).

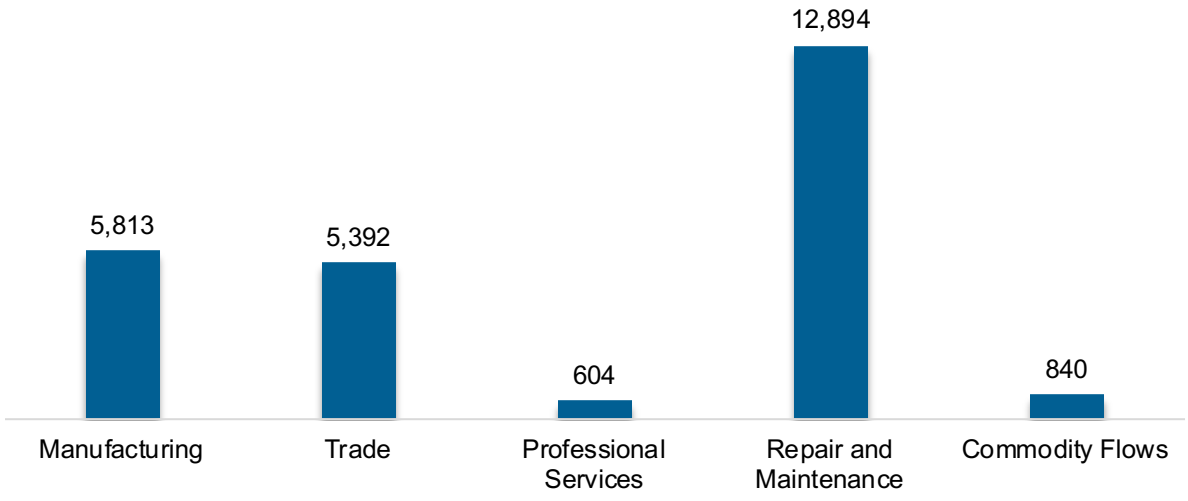
Figure OR-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 25,542 workers in Oregon, 1.0% of the national total for the sector. Motor vehicles and component parts added 527 jobs and increased 2.1% from 2021 to 2022. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure OR-10).

Figure OR-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 65,763 jobs in clean energy in Oregon if traditional transmission and distribution is included and 58,231 jobs if it is not.[38] These increased under either definition, growing 2.7% with traditional transmission and distribution and 2.8% without.

Employer Perspectives

Expected Growth

Employers in Oregon were less optimistic than their peers across the country about energy sector job growth over the next year (Table OR-1).

Table OR-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	5.1	6.0
Electric Power Transmission, Distribution, and Storage	4.0	3.9
Energy Efficiency	5.3	6.4
Fuels	2.9	1.6
Motor Vehicles	4.8	5.5

[38] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in Oregon reported 47% overall hiring difficulty (Table OR-2).

Table OR-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	25	22	6	47	47

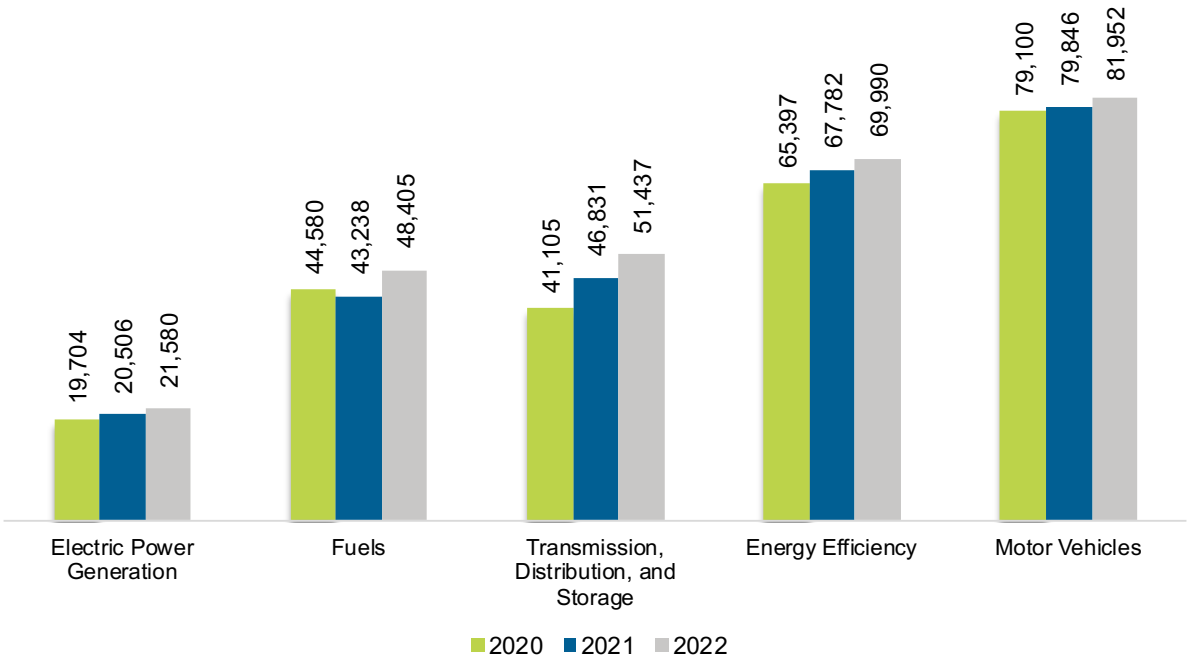
Pennsylvania

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

Pennsylvania had 273,364 energy workers statewide in 2022, representing 3.4% of all U.S. energy jobs. Of these energy jobs, 21,580 were in electric power generation; 48,405 in fuels; 51,437 in transmission, distribution, and storage; 69,990 in energy efficiency; and 81,952 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 15,162 jobs, or 5.9% (Figure PA-1). The energy sector in Pennsylvania represented 4.6% of total state employment.

Figure PA-1. Employment by Major Energy Technology Application

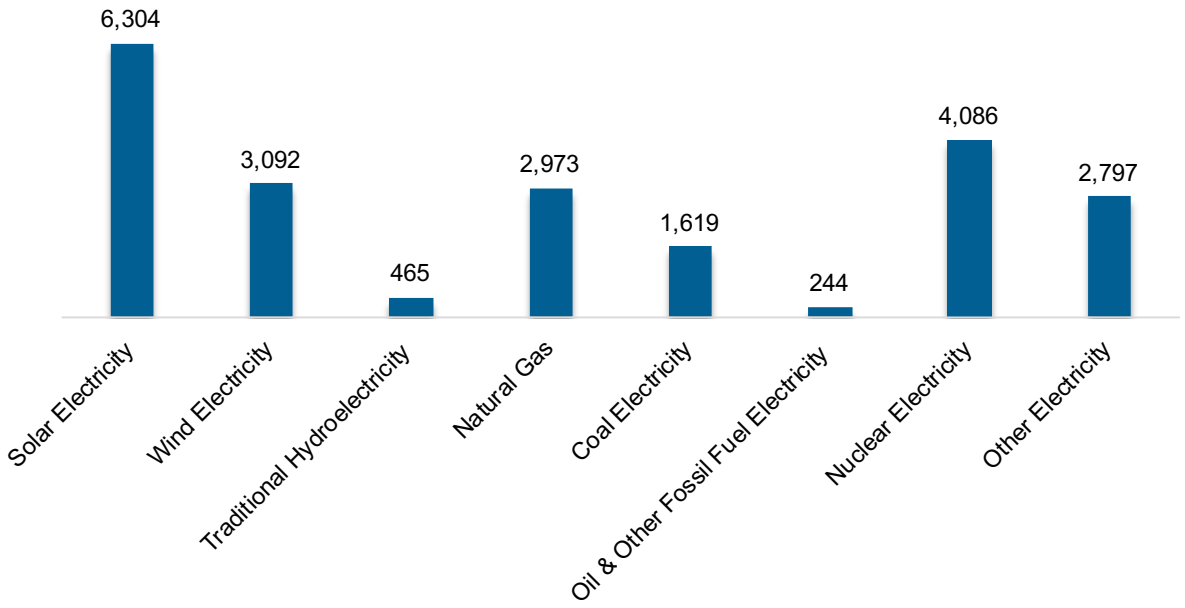


Breakdown by Technology Applications

Electric Power Generation

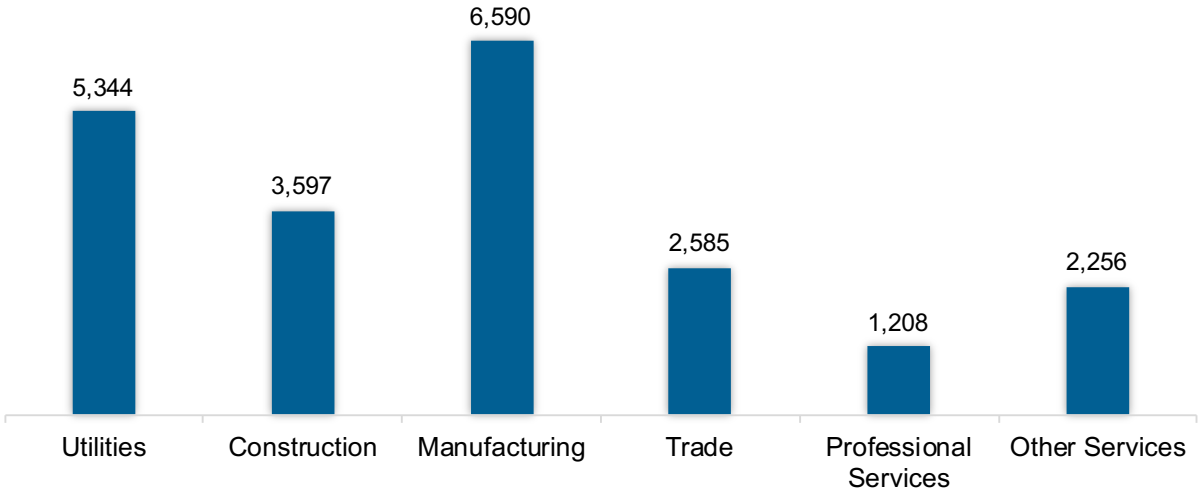
As shown in Figure PA-2, the electric power generation sector employed 21,580 workers in Pennsylvania, 2.4% of the national electricity total, and added 1,074 jobs from 2021 to 2022 (5.2%).

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



Manufacturing was the largest industry sector in the electric power generation sector, with 30.5% of jobs. Utilities was second largest with 24.8% (Figure PA-3).

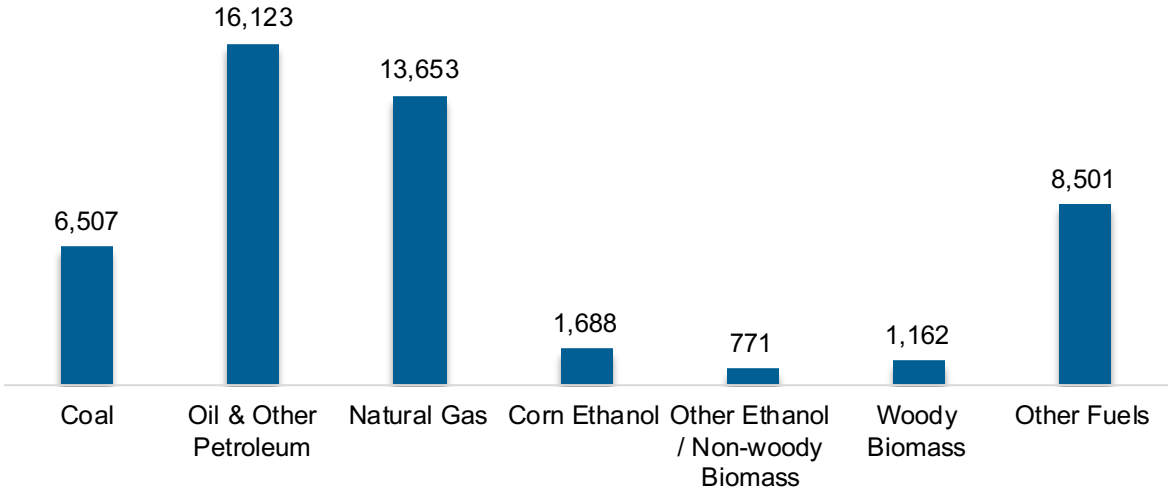
Figure PA-3. Electric Power Generation Employment by Industry Sector



Fuels

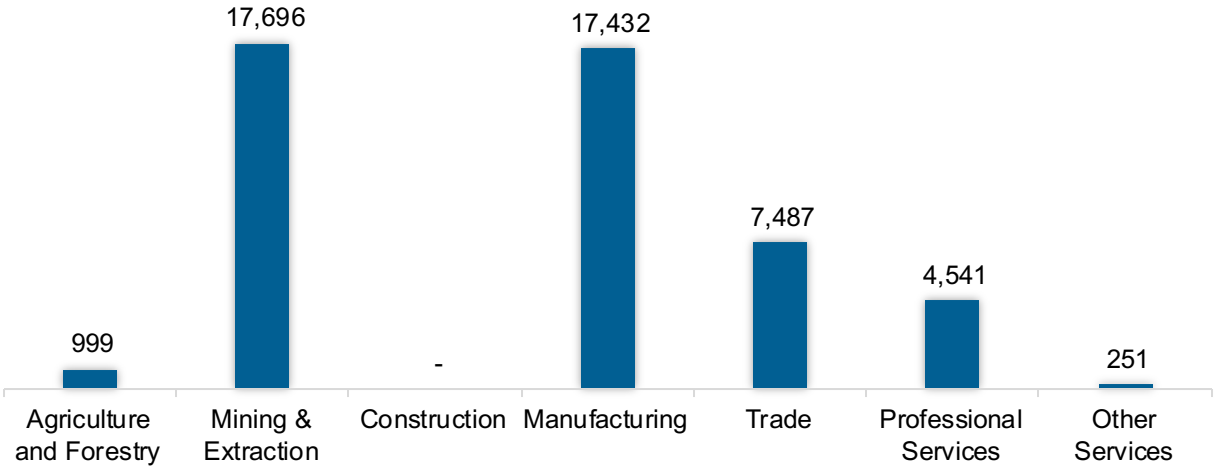
The Fuel sector employed 48,405 workers in Pennsylvania, 4.7% of the national total in fuels (Figure PA-4). The sector gained 5,167 jobs and increased 12.0% from 2021 to 2022.

Figure PA-4. Fuels Employment by Detailed Technology Application



Mining and extraction jobs represented 36.6% of fuel jobs in Pennsylvania (Figure PA-5).

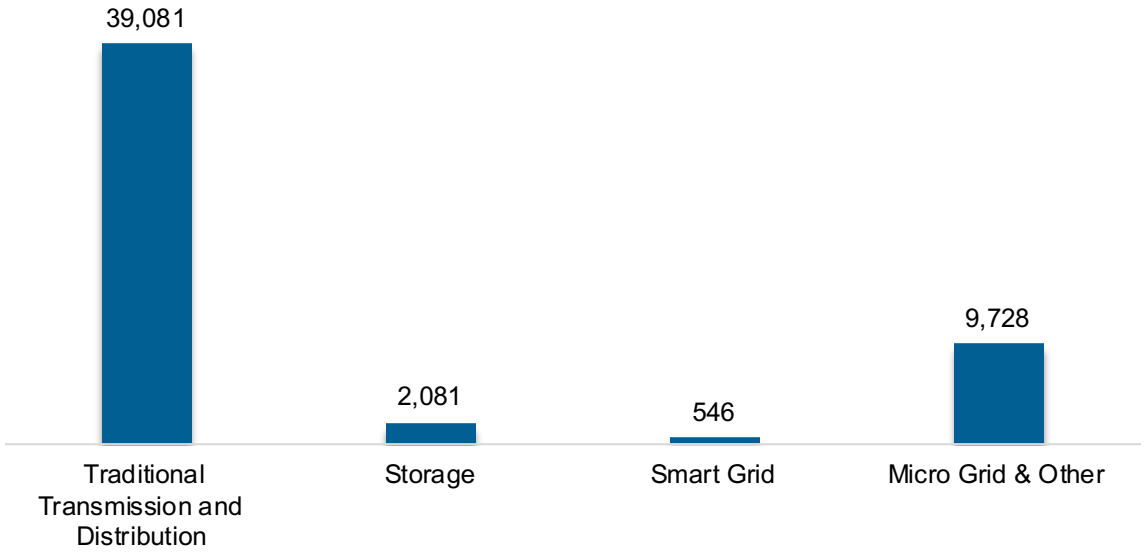
Figure PA-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

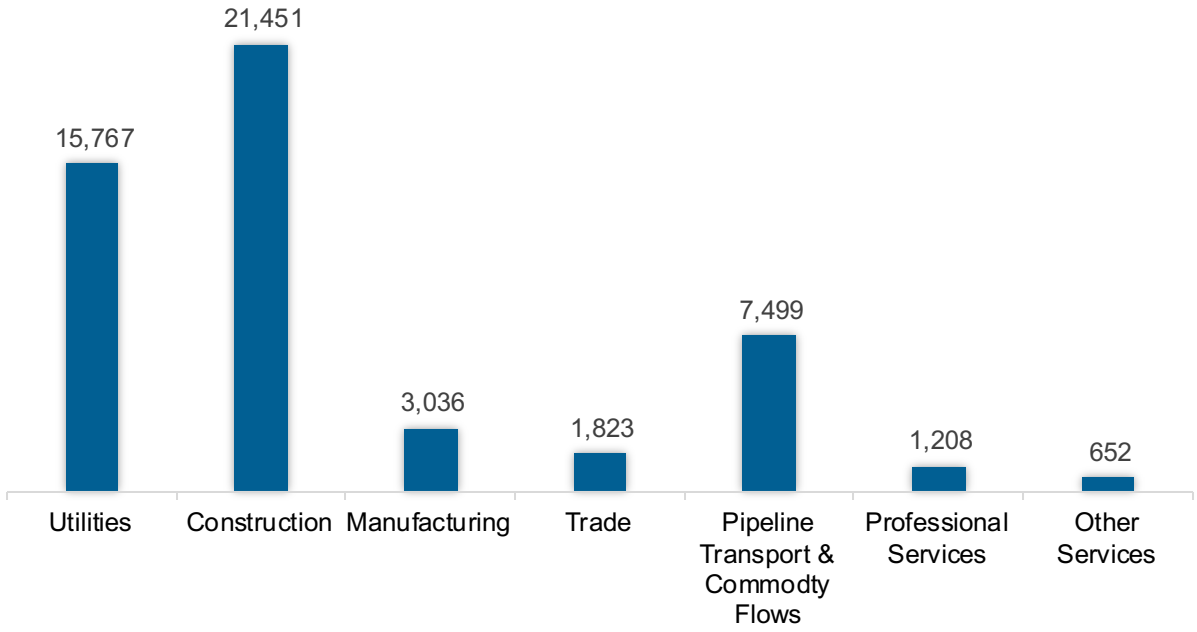
The transmission, distribution, and storage (TDS) sector employed 51,437 workers in Pennsylvania, 4.7% of the national TDS total (Figure PA-6). The sector gained 4,606 jobs and increased 9.8% from 2021 to 2022.

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



Construction was the largest proportion of TDS jobs in Pennsylvania, accounting for 41.7% of the sector's jobs statewide (Figure PA-7).

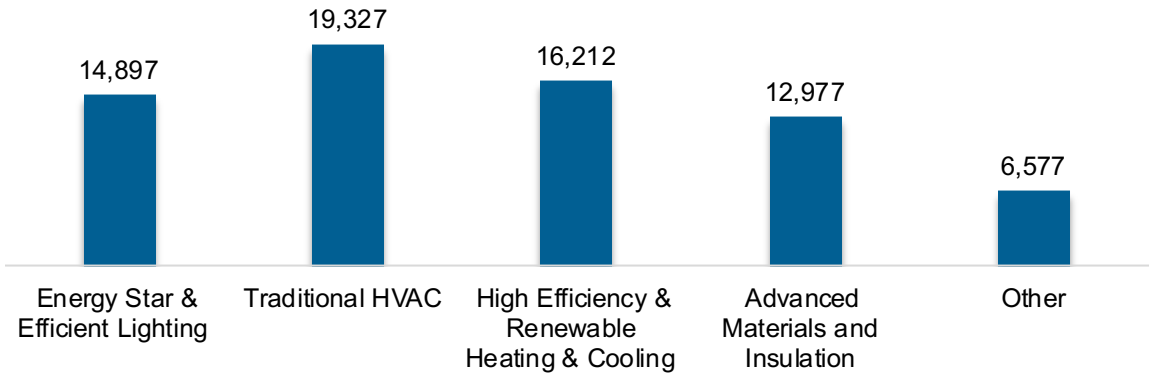
Figure PA-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

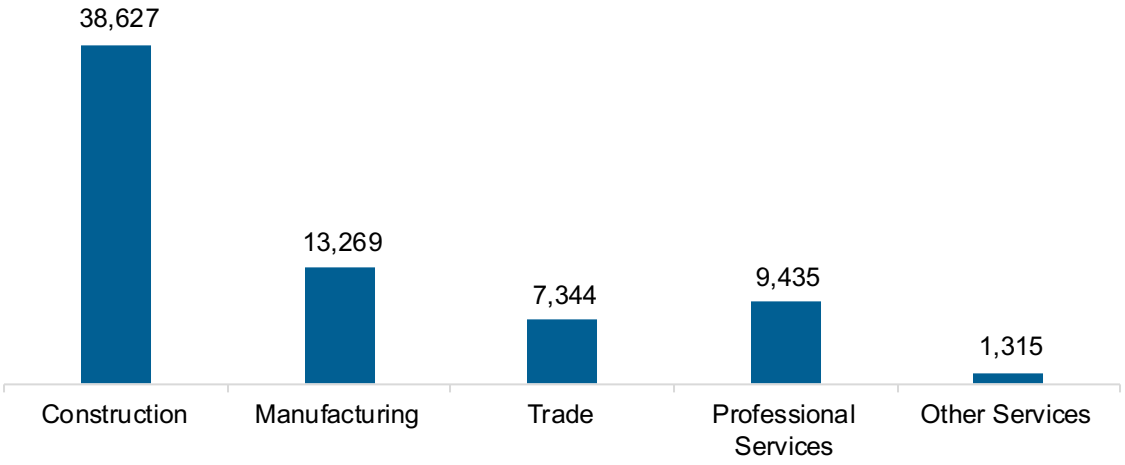
The energy efficiency (EE) sector employed 69,990 workers in Pennsylvania, 3.2% of the national EE total. The EE sector added 2,208 jobs and increased 3.3% from 2021 to 2022 (Figure PA-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure PA-9).

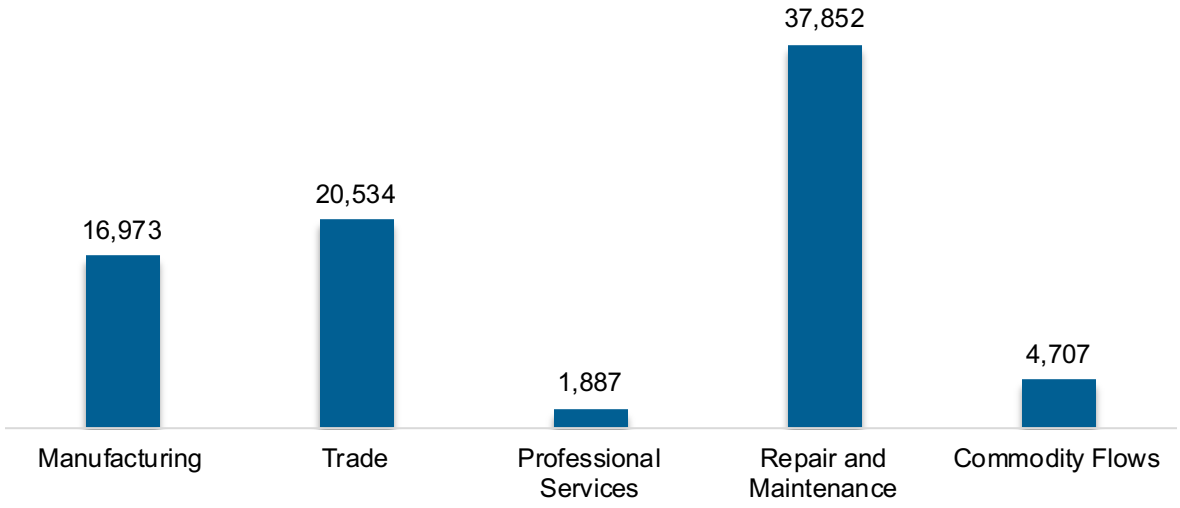
Figure PA-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 81,952 workers in Pennsylvania, 3.1% of the national total for the sector. Motor vehicles and component parts added 2,106 jobs and increased 2.6% from 2021 to 2022. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure PA-10).

Figure PA-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 139,142 jobs in clean energy in Pennsylvania if traditional transmission and distribution is included and 99,956 jobs if it is not.[39] These increased under either definition, growing 6.4% with traditional transmission and distribution and 4.2% without.

Employer Perspectives

Expected Growth

Employers in Pennsylvania are similarly optimistic than their peers across the country about energy sector job growth over the next year (Table PA-1).

Table PA-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	5.7	6.0
Electric Power Transmission, Distribution, and Storage	4.7	3.9
Energy Efficiency	5.9	6.4
Fuels	3.5	1.6
Motor Vehicles	5.5	5.5

[39] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in Pennsylvania reported 50% overall hiring difficulty (Table PA-2).

Table PA-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	25	25	9	41	50

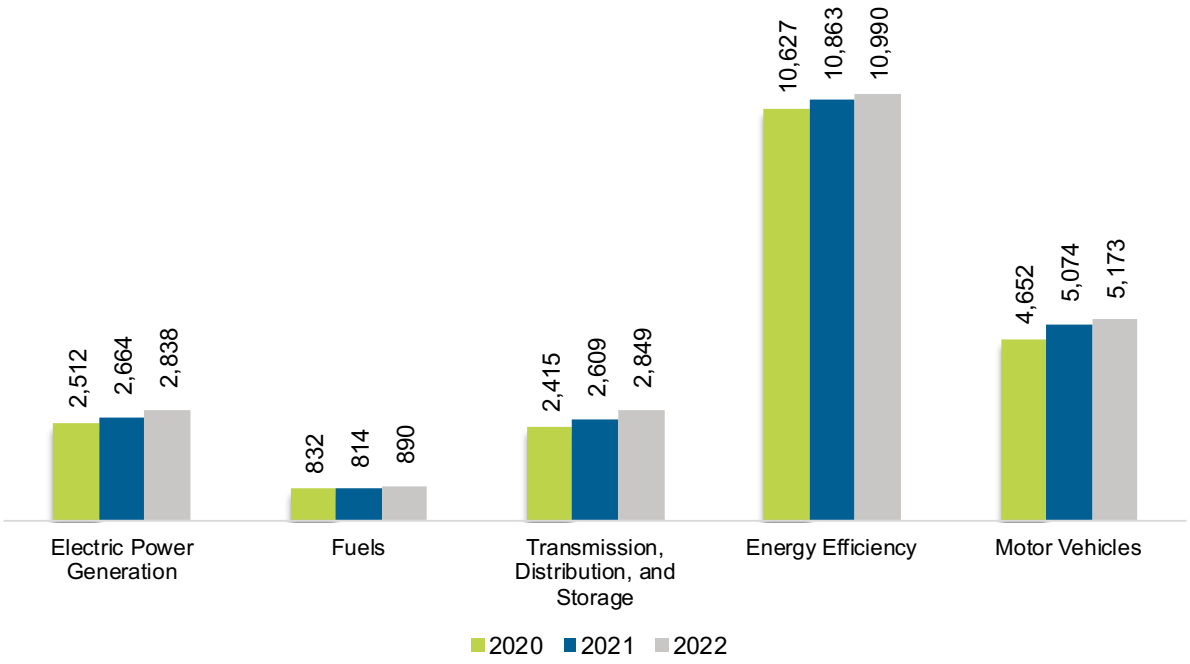
Rhode Island

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

Rhode Island had 22,740 energy workers statewide in 2022, representing 0.3% of all U.S. energy jobs. Of these energy jobs, 2,838 were in electric power generation; 890 in fuels; 2,849 in transmission, distribution, and storage; 10,990 in energy efficiency; and 5,173 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 716 jobs, or 3.3% (Figure RI-1). The energy sector in Rhode Island represented 4.7% of total state employment.

Figure RI-1. Employment by Major Energy Technology Application

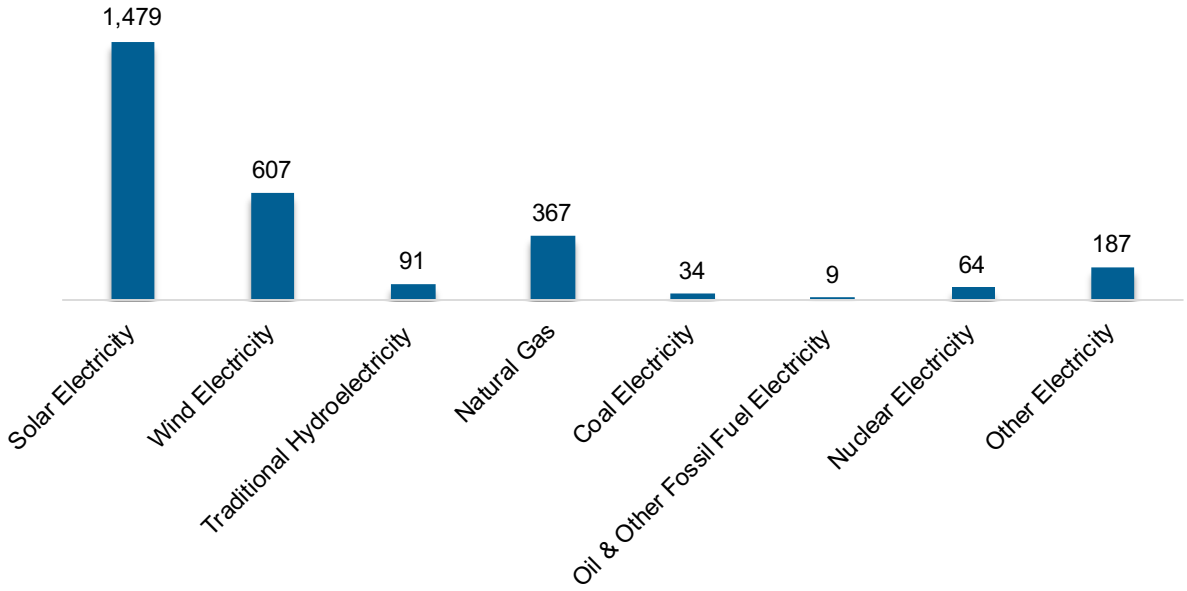


Breakdown by Technology Applications

Electric Power Generation

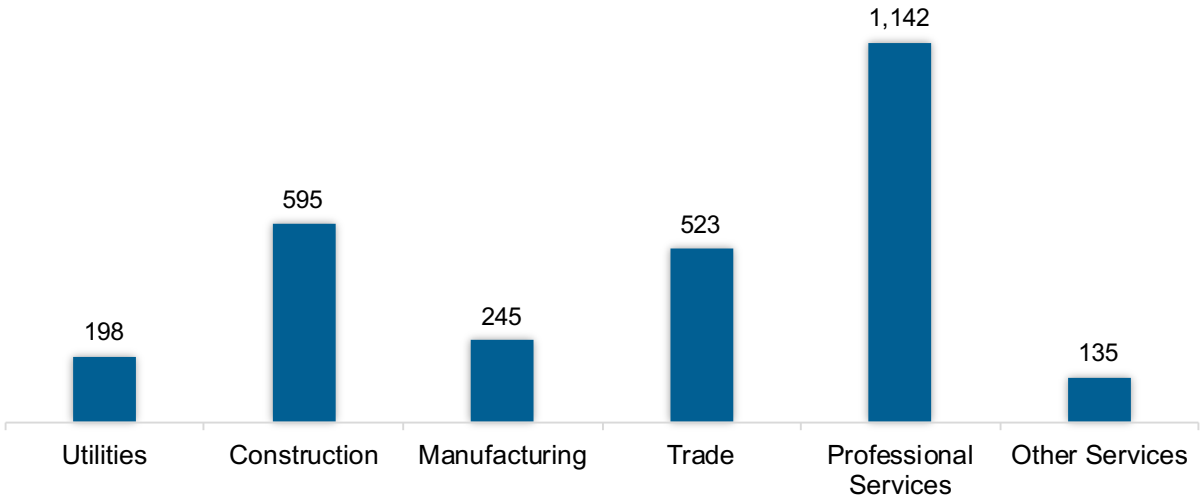
As shown in Figure RI-2, the electric power generation sector employed 2,838 workers in Rhode Island, 0.3% of the national electricity total, and added 174 jobs from 2021 to 2022 (6.5%).

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



Professional and business services was the largest industry sector in the electric power generation sector, with 40.2% of jobs. Construction was second largest with 21.0% (Figure RI-3).

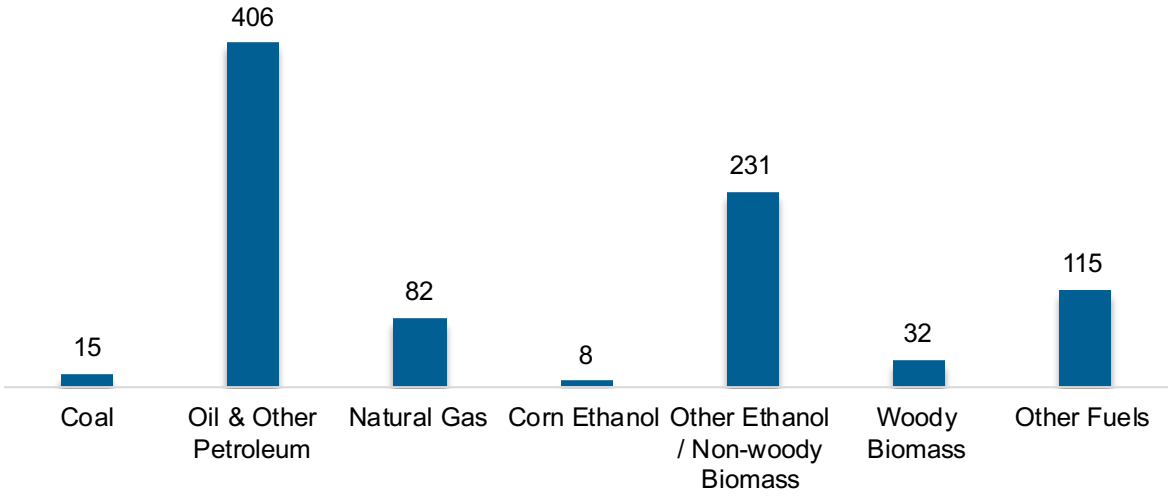
Figure RI-3. Electric Power Generation Employment by Industry Sector



Fuels

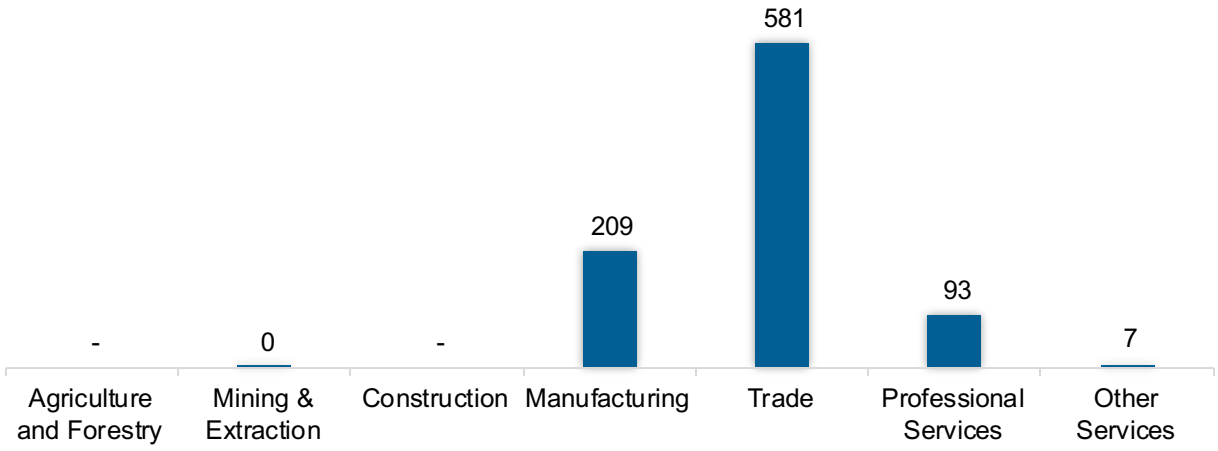
The Fuel sector employed 890 workers in Rhode Island, 0.1% of the national total in fuels (Figure RI-4). The sector gained 76 jobs and increased 9.3% from 2021 to 2022.

Figure RI-4. Fuels Employment by Detailed Technology Application



Wholesale trade jobs represented 65.3% of fuel jobs in Rhode Island (Figure RI-5).

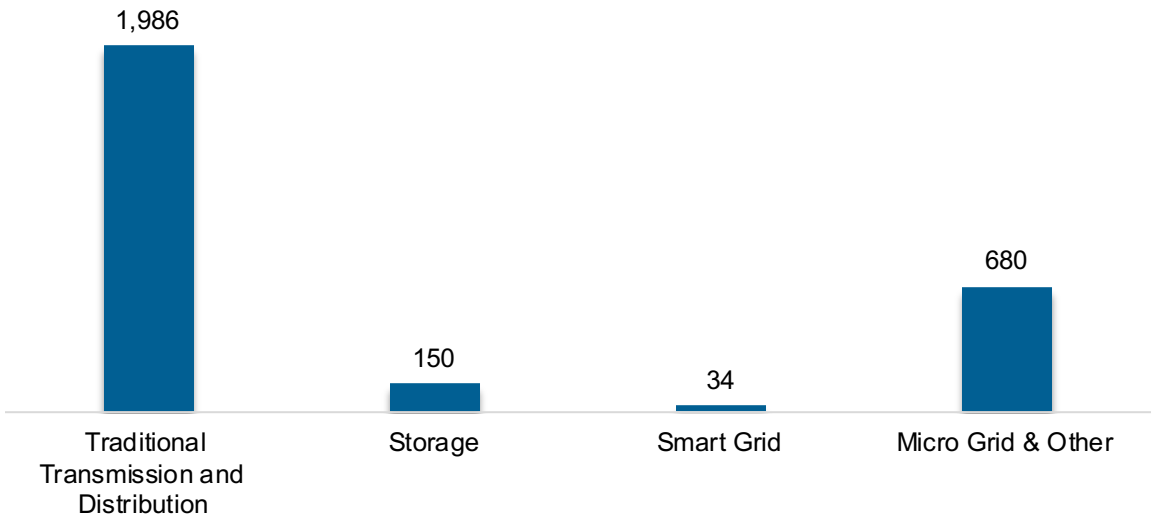
Figure RI-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

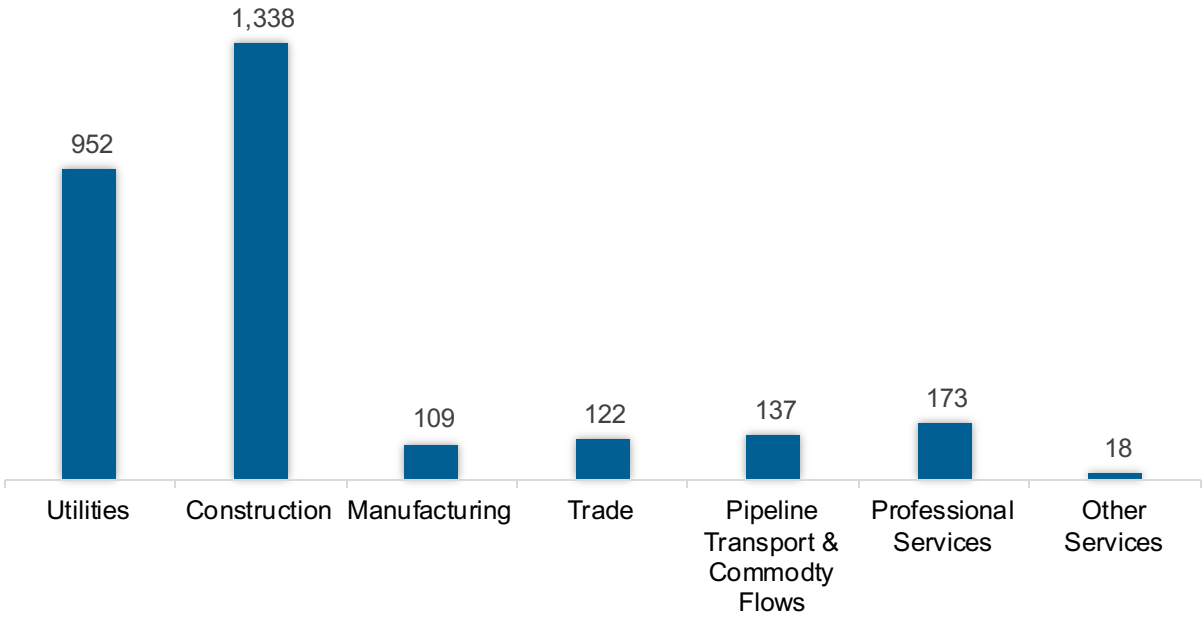
The transmission, distribution, and storage (TDS) sector employed 2,849 workers in Rhode Island, 0.1% of the national TDS total (Figure RI-6). The sector gained 240 jobs and increased 9.2% from 2021 to 2022.

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



Construction was the largest proportion of TDS jobs in Rhode Island, accounting for 47.0% of the sector's jobs statewide (Figure RI-7).

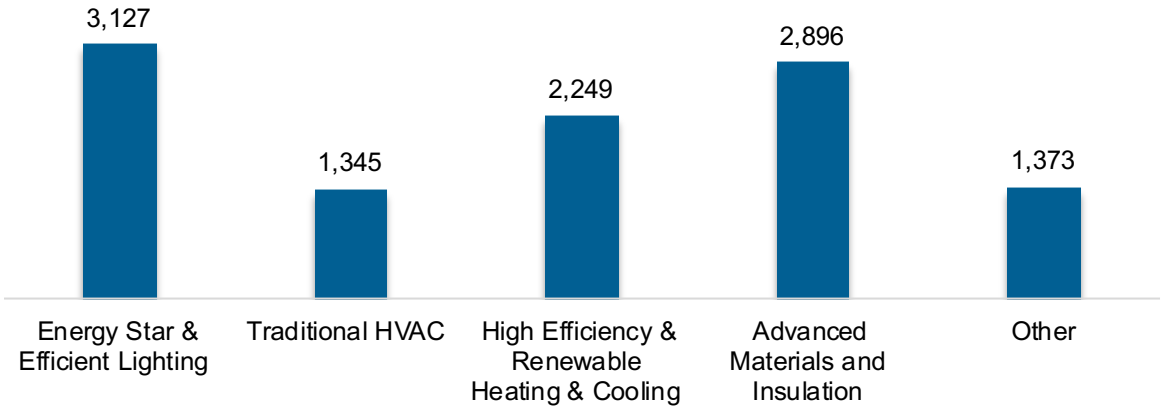
Figure RI-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

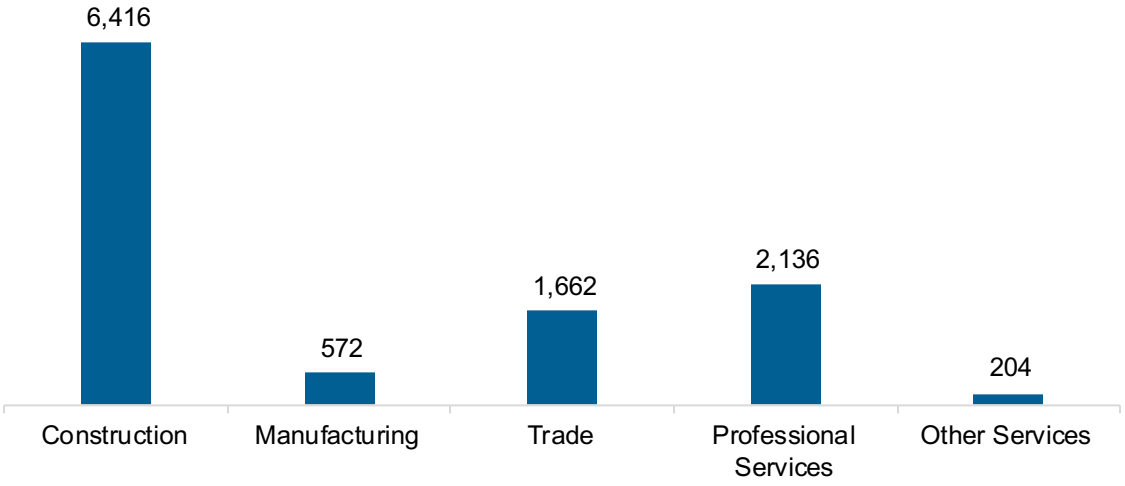
The energy efficiency (EE) sector employed 10,990 workers in Rhode Island, 0.5% of the national EE total. The EE sector added 128 jobs and increased 1.2% from 2021 to 2022 (Figure RI-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure RI-9).

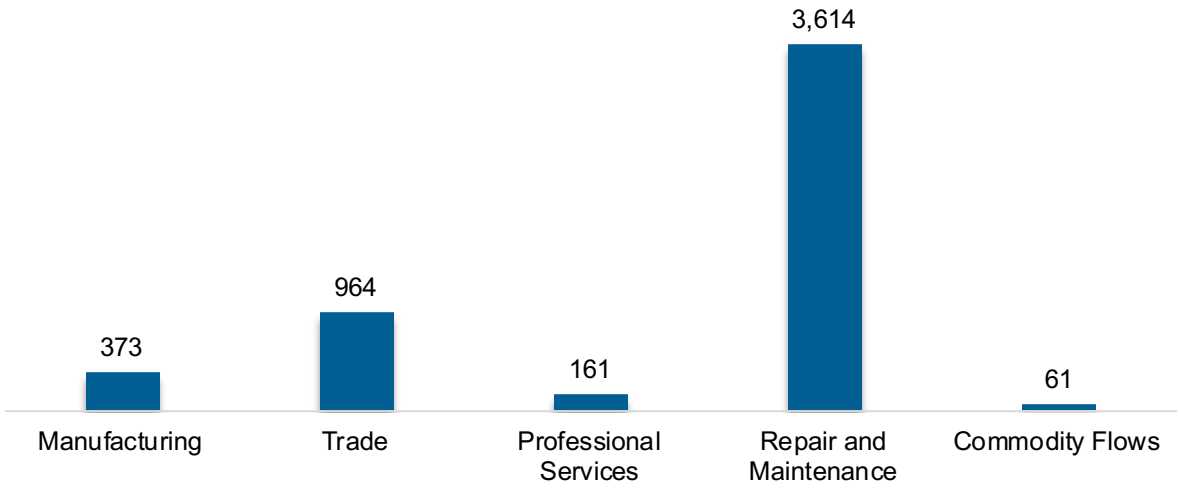
Figure RI-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 5,173 workers in Rhode Island, 0.2% of the national total for the sector. Motor vehicles and component parts added 99 jobs and increased 1.9% from 2021 to 2022. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure RI-10).

Figure RI-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 16,530 jobs in clean energy in Rhode Island if traditional transmission and distribution is included and 14,536 jobs if it is not.[40] These increased under either definition, growing 2.9% with traditional transmission and distribution and 1.8% without.

Employer Perspectives

Expected Growth

Employers in Rhode Island were less optimistic than their peers across the country about energy sector job growth over the next year (Table RI-1).

Table RI-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	4.9	6.0
Electric Power Transmission, Distribution, and Storage	3.8	3.9
Energy Efficiency	5.1	6.4
Fuels	2.7	1.6
Motor Vehicles	4.6	5.5

[40] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in Rhode Island reported 56% overall hiring difficulty (Table RI-2).

Table RI-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	24	32	4	40	56

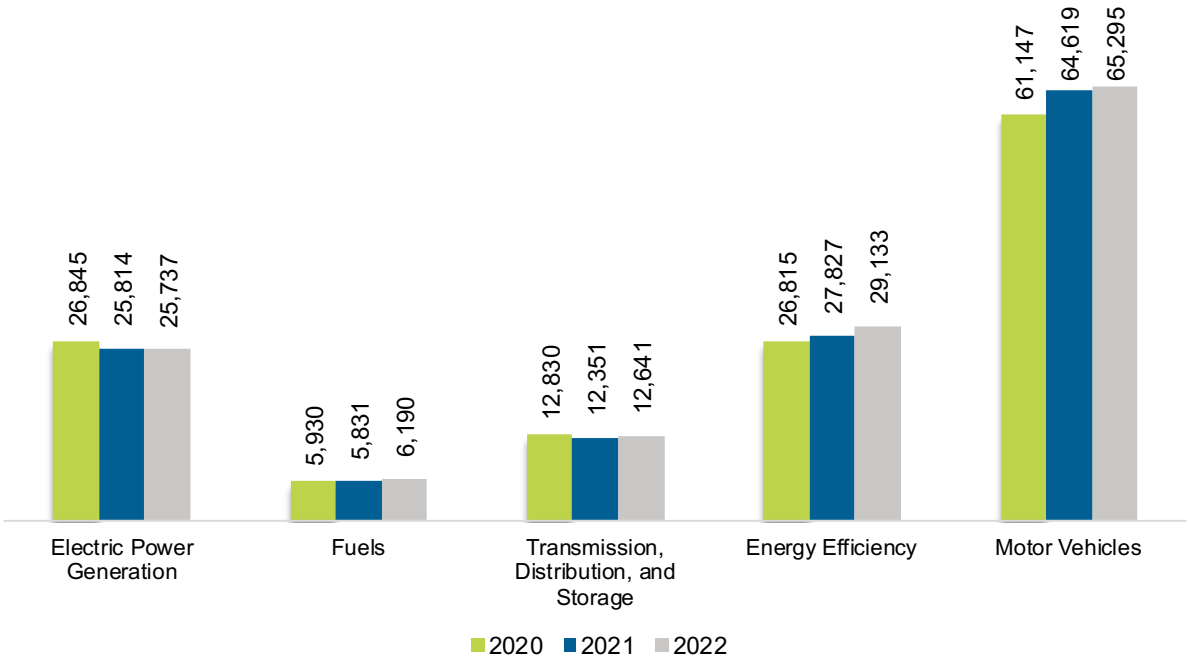
South Carolina

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

South Carolina had 138,997 energy workers statewide in 2022, representing 1.7% of all U.S. energy jobs. Of these energy jobs, 25,737 were in electric power generation; 6,190 in fuels; 12,641 in transmission, distribution, and storage; 29,133 in energy efficiency; and 65,295 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 2,554 jobs, or 1.9% (Figure SC-1). The energy sector in South Carolina represented 6.3% of total state employment.

Figure SC-1. Employment by Major Energy Technology Application

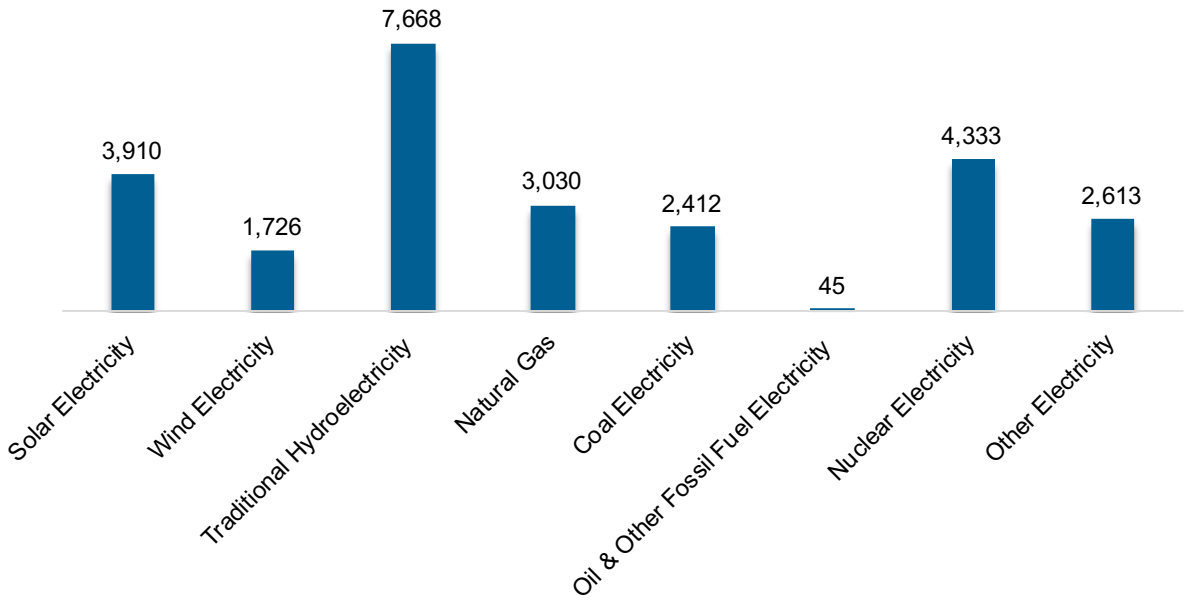


Breakdown by Technology Applications

Electric Power Generation

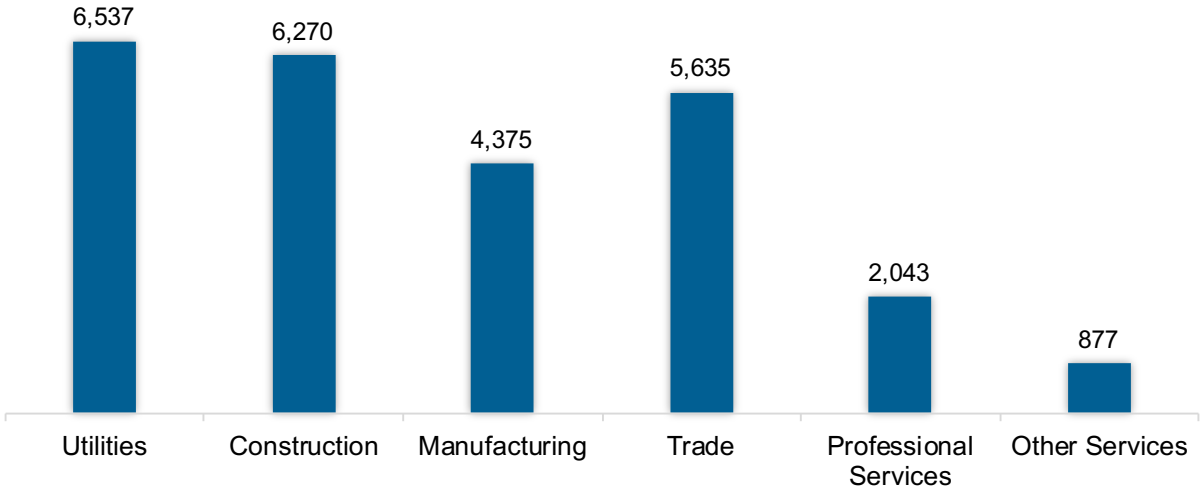
As shown in Figure SC-2, the electric power generation sector employed 25,737 workers in South Carolina, 2.9% of the national electricity total, and lost 77 jobs from 2021 to 2022 (-0.3%).

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



Utilities was the largest industry sector in the electric power generation sector, with 25.4% of jobs. Construction was second largest with 24.4% (Figure SC-3).

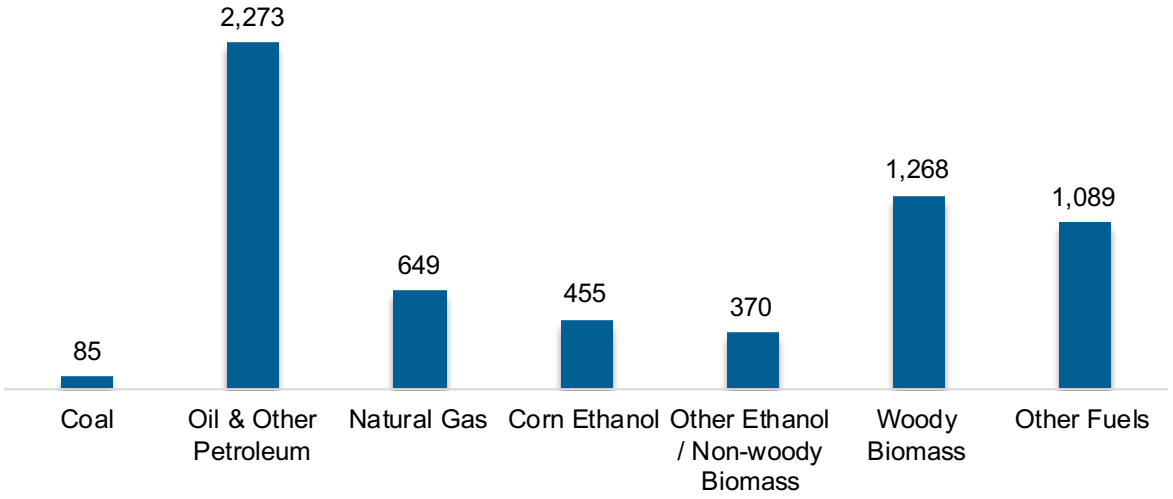
Figure SC-3. Electric Power Generation Employment by Industry Sector



Fuels

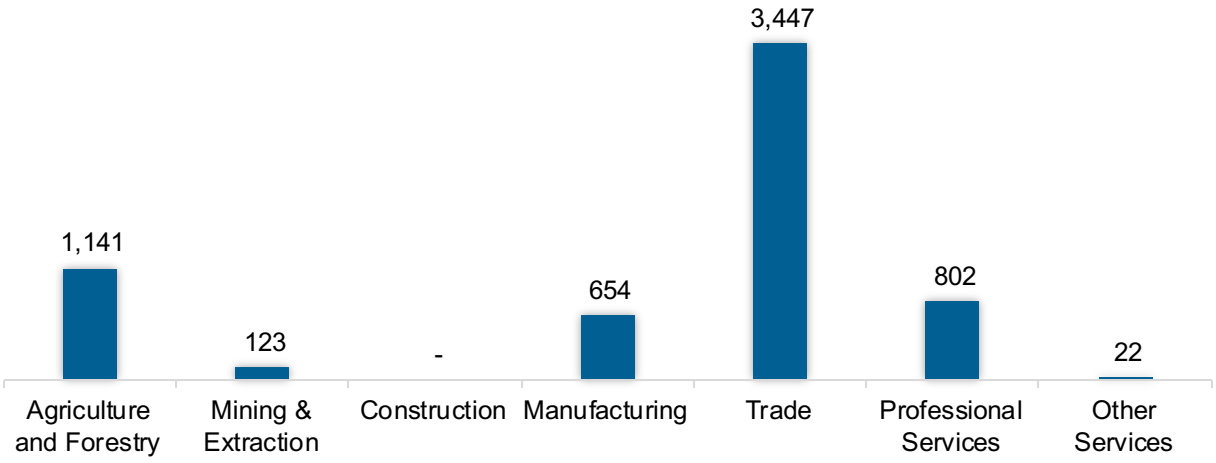
The Fuel sector employed 6,190 workers in South Carolina, 0.6% of the national total in fuels (Figure SC-4). The sector gained 359 jobs and increased 6.2% from 2021 to 2022.

Figure SC-4. Fuels Employment by Detailed Technology Application



Wholesale trade jobs represented 55.7% of fuel jobs in South Carolina (Figure SC-5).

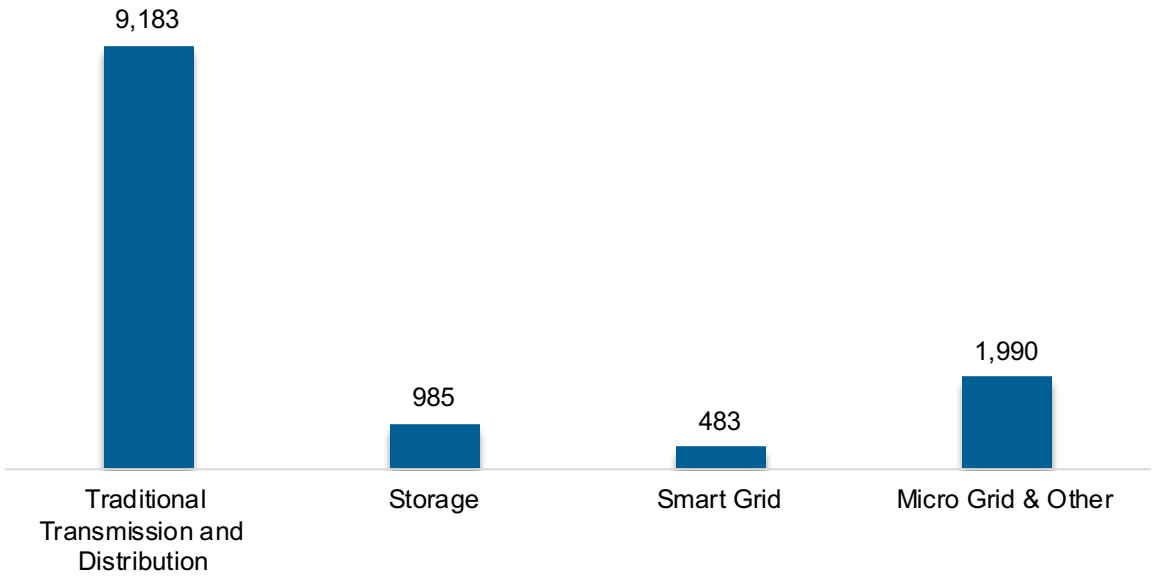
Figure SC-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

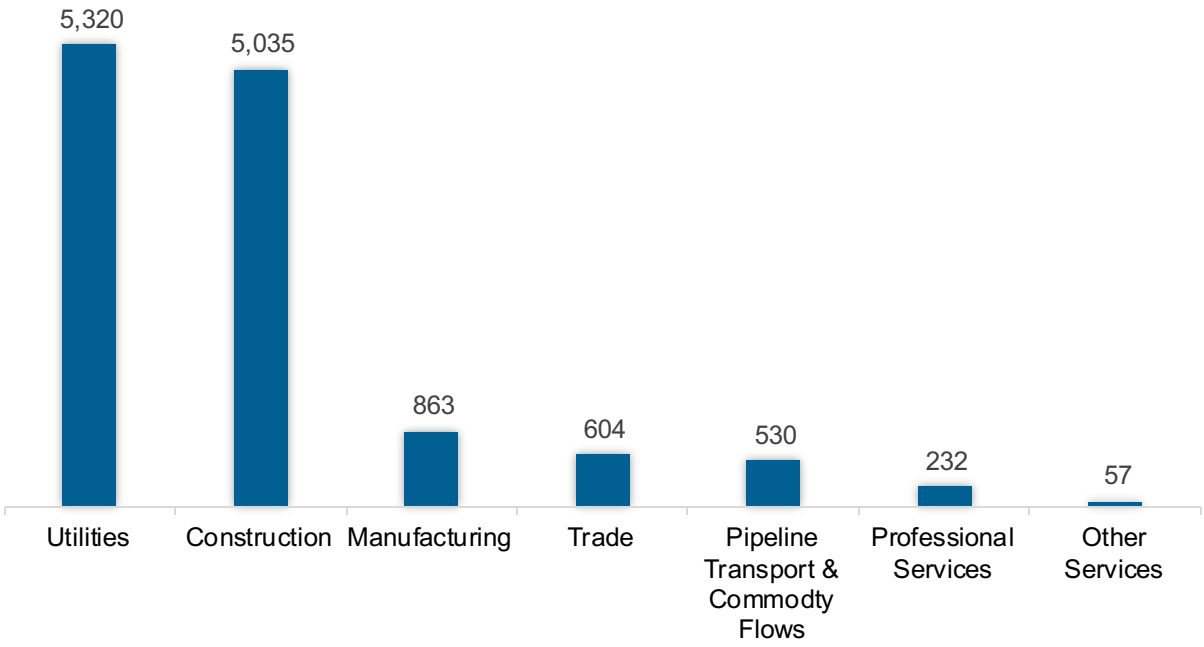
The transmission, distribution, and storage (TDS) sector employed 12,641 workers in South Carolina, 0.6% of the national TDS total (Figure SC-6). The sector gained 290 jobs and increased 2.3% from 2021 to 2022.

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



Utilities was the largest proportion of TDS jobs in South Carolina, accounting for 42.1% of the sector's jobs statewide (Figure SC-7).

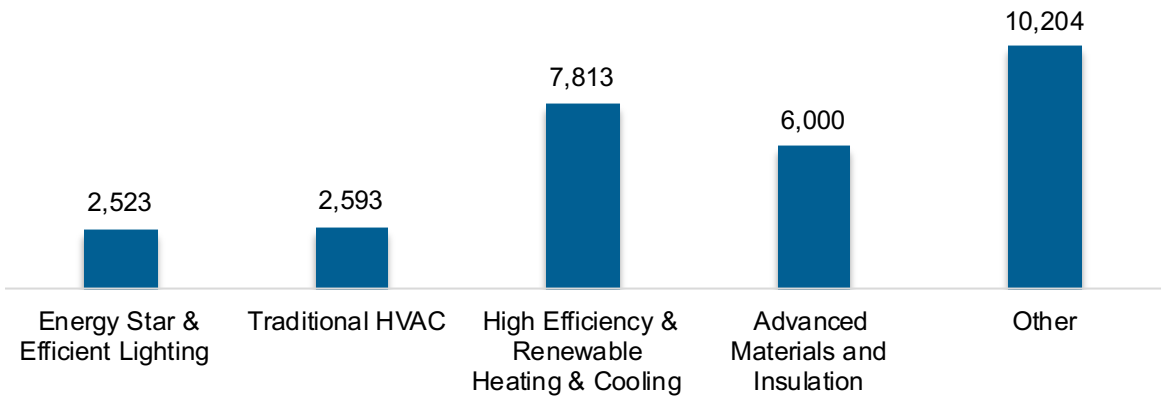
Figure SC-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

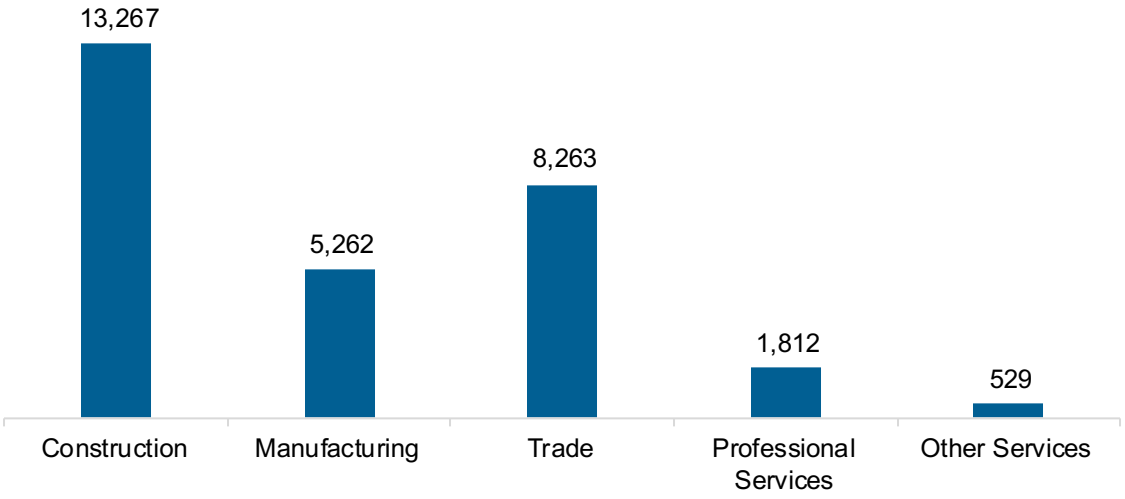
The energy efficiency (EE) sector employed 29,133 workers in South Carolina, 1.3% of the national EE total. The EE sector added 1,306 jobs and increased 4.7% from 2021 to 2022 (Figure SC-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure SC-9).

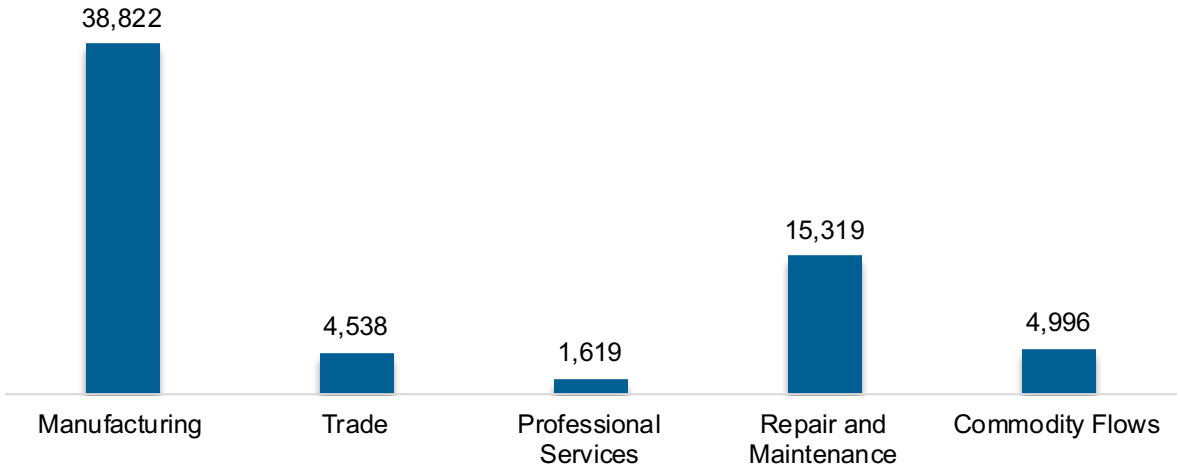
Figure SC-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 65,295 workers in South Carolina, 2.5% of the national total for the sector. Motor vehicles and component parts added 676 jobs and increased 1.0% from 2021 to 2022. Manufacturing is the largest proportion of motor vehicle jobs (Figure SC-10).

Figure SC-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 65,711 jobs in clean energy in South Carolina if traditional transmission and distribution is included and 56,478 jobs if it is not.[41] These increased under either definition, growing 2.7% with traditional transmission and distribution and 2.8% without.

Employer Perspectives

Expected Growth

Employers in South Carolina were more optimistic than their peers across the country about energy sector job growth over the next year (Table SC-1).

Table SC-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	7.2	6.0
Electric Power Transmission, Distribution, and Storage	6.1	3.9
Energy Efficiency	7.4	6.4
Fuels	5.0	1.6
Motor Vehicles	6.9	5.5

[41] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in South Carolina reported 54% overall hiring difficulty (Table SC-2).

Table SC-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	22	32	8	38	54

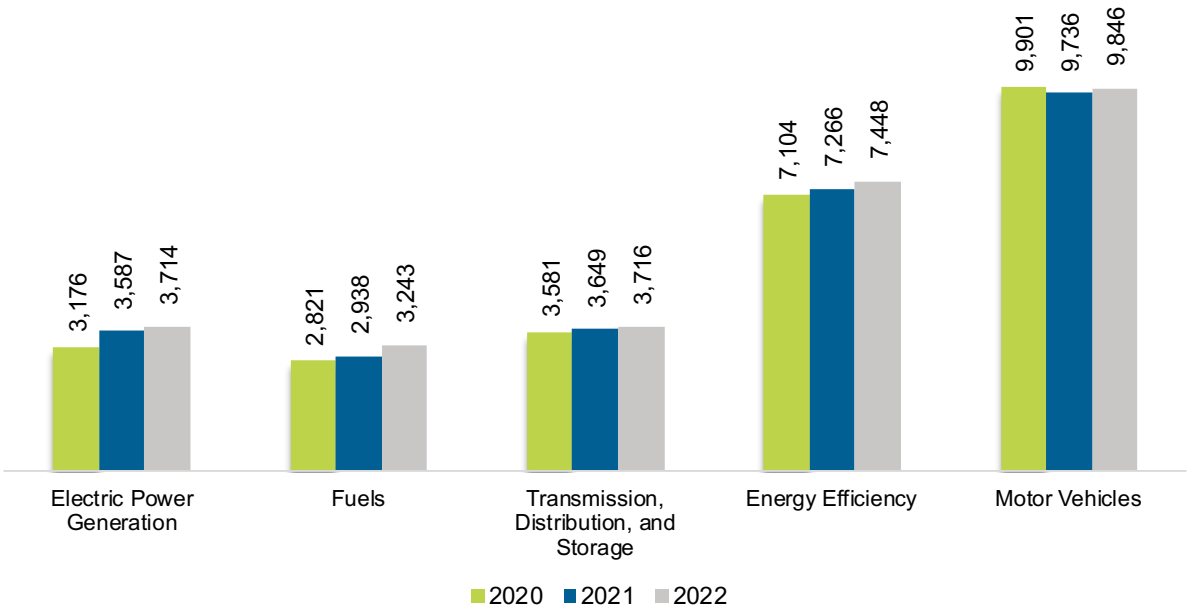
South Dakota

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

South Dakota had 27,966 energy workers statewide in 2022, representing 0.3% of all U.S. energy jobs. Of these energy jobs, 3,714 were in electric power generation; 3,243 in fuels; 3,716 in transmission, distribution, and storage; 7,448 in energy efficiency; and 9,846 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 790 jobs, or 2.9% (Figure SD-1). The energy sector in South Dakota represented 6.2% of total state employment.

Figure SD-1. Employment by Major Energy Technology Application

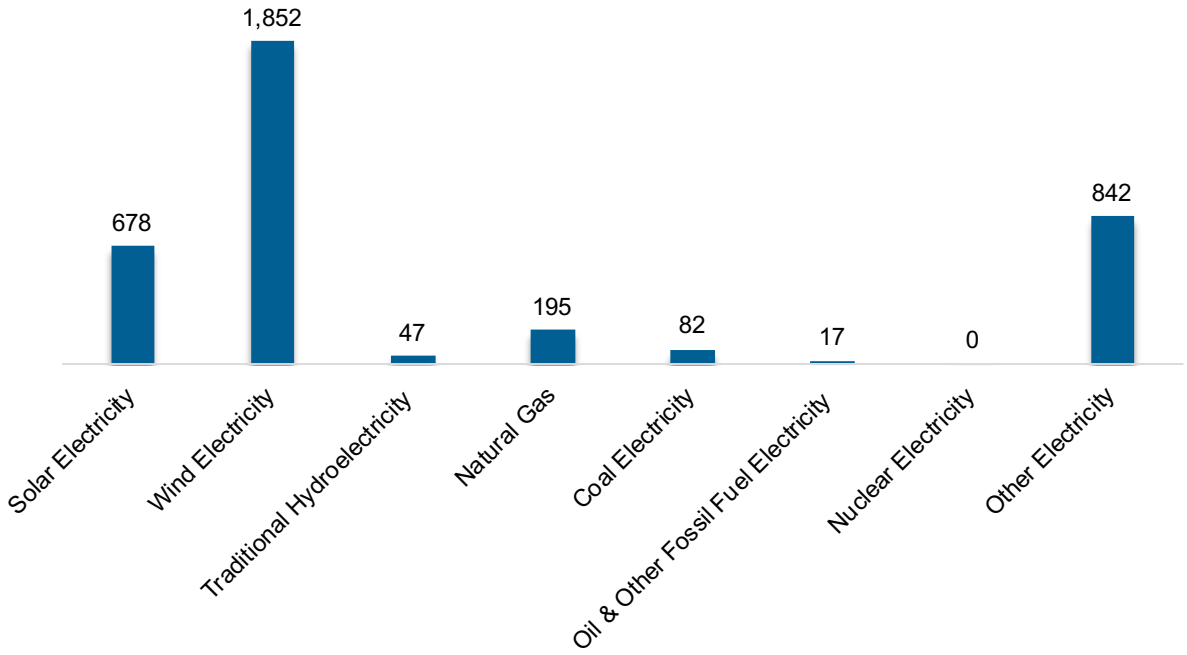


Breakdown by Technology Applications

Electric Power Generation

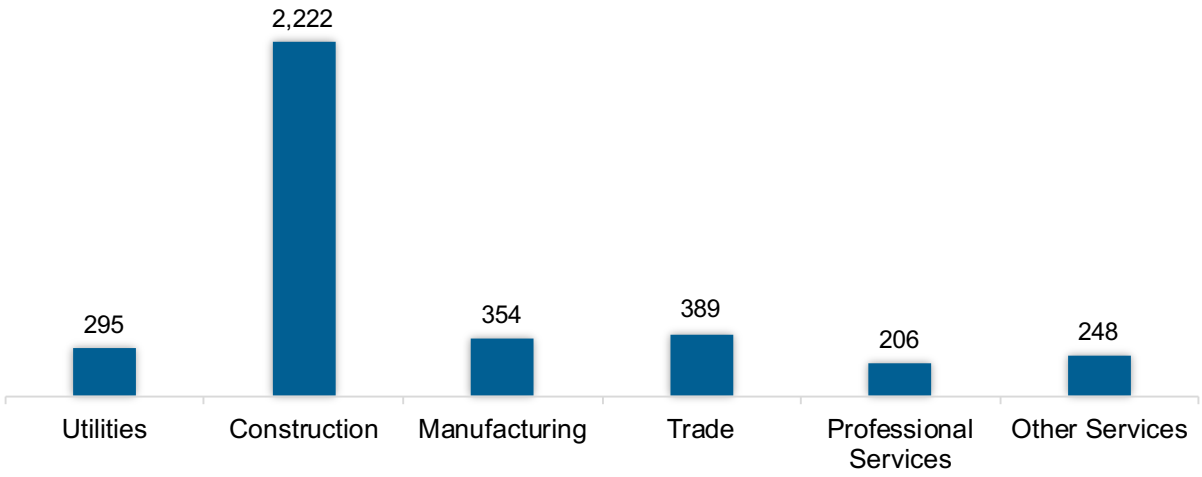
As shown in Figure SD-2, the electric power generation sector employed 3,714 workers in South Dakota, 0.4% of the national electricity total, and added 126 jobs from 2021 to 2022 (3.5%).

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



Construction was the largest industry sector in the electric power generation sector, with 59.8% of jobs. Wholesale trade was second largest with 10.5% (Figure SD-3).

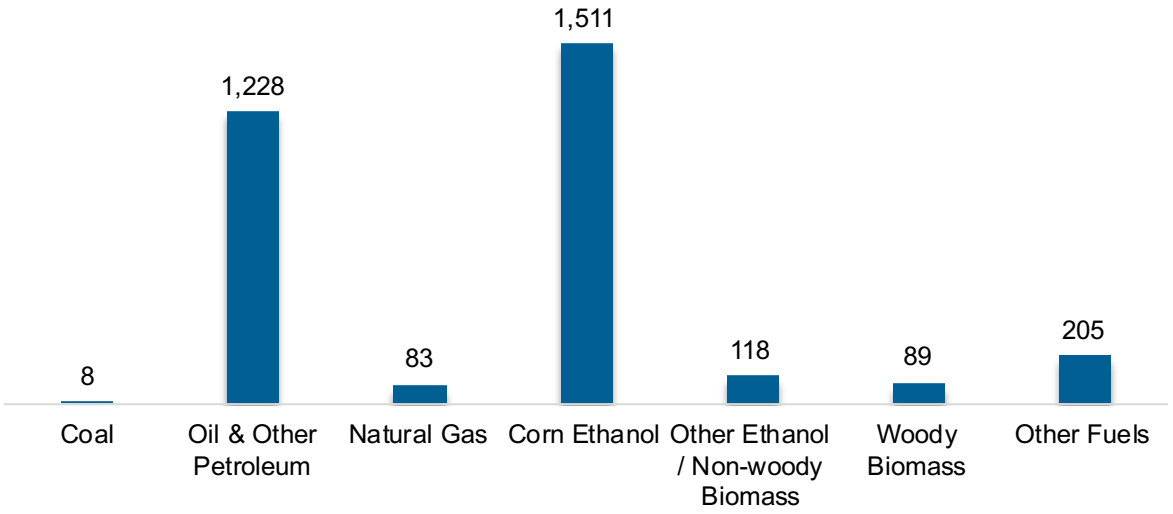
Figure SD-3. Electric Power Generation Employment by Industry Sector



Fuels

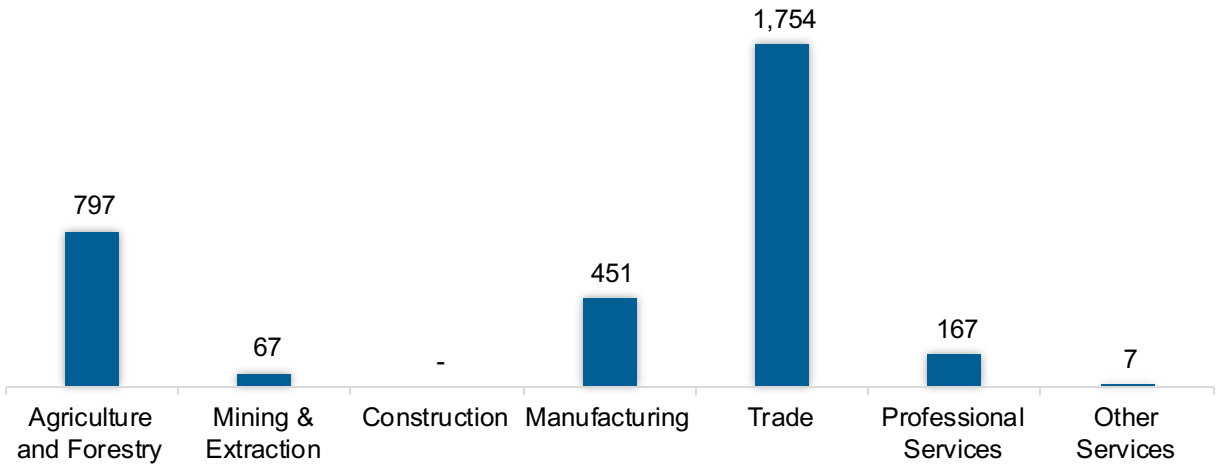
The Fuel sector employed 3,243 workers in South Dakota, 0.3% of the national total in fuels (Figure SD-4). The sector gained 305 jobs and increased 10.4% from 2021 to 2022.

Figure SD-4. Fuels Employment by Detailed Technology Application



Wholesale trade jobs represented 54.1% of fuel jobs in South Dakota (Figure SD-5).

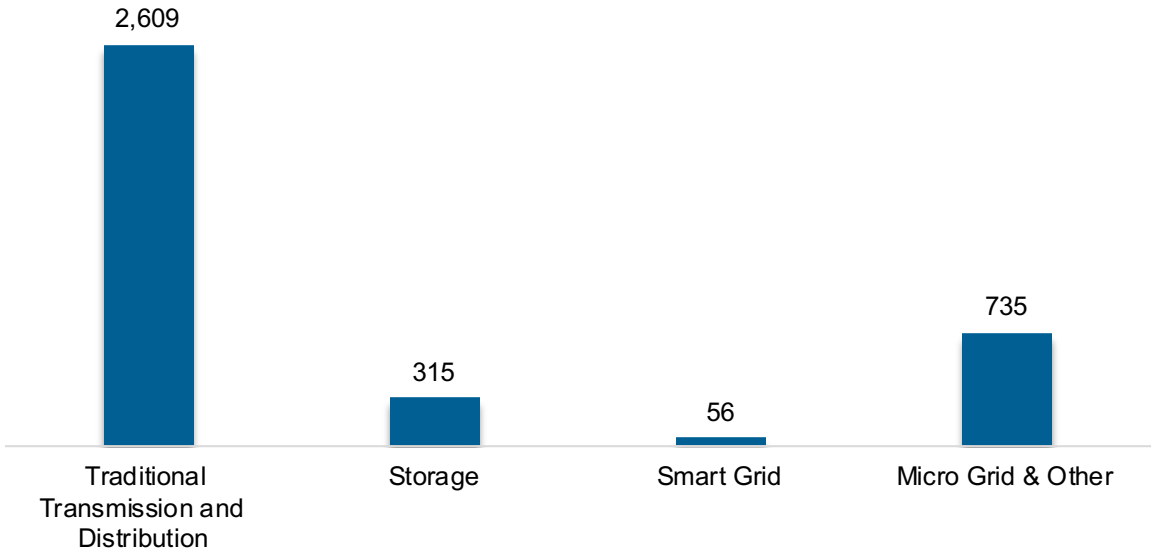
Figure SD-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

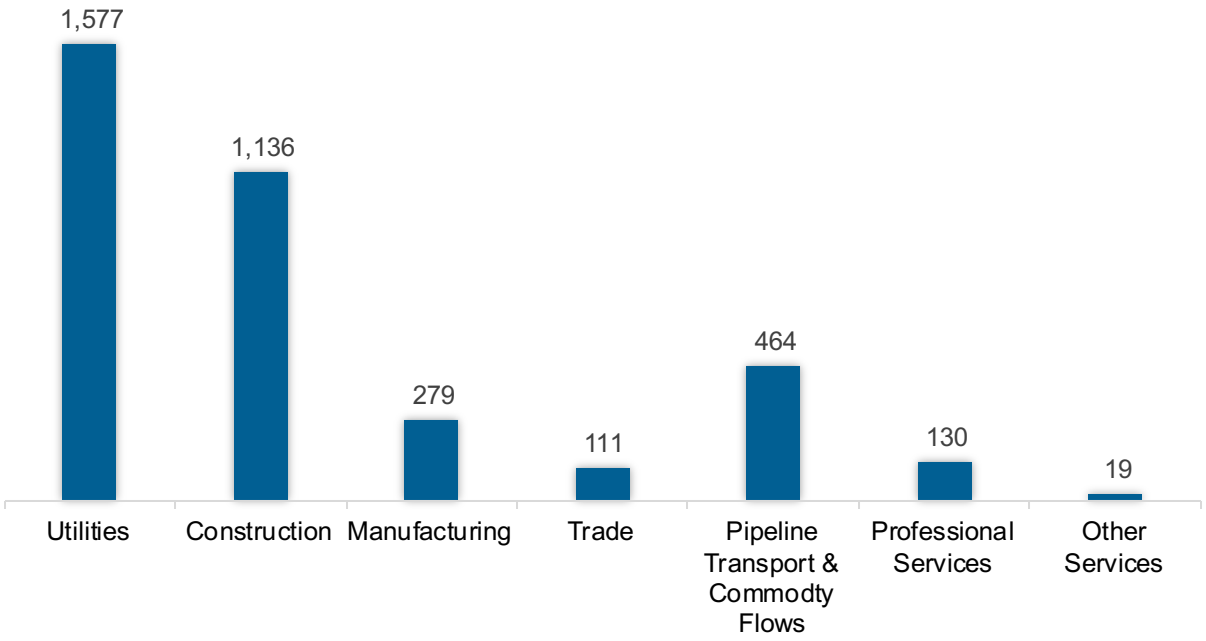
The transmission, distribution, and storage (TDS) sector employed 3,716 workers in South Dakota, 0.3% of the national TDS total (Figure SD-6). The sector gained 67 jobs and increased 1.8% from 2021 to 2022.

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



Utilities was the largest proportion of TDS jobs in South Dakota, accounting for 42.4% of the sector's jobs statewide (Figure SD-7).

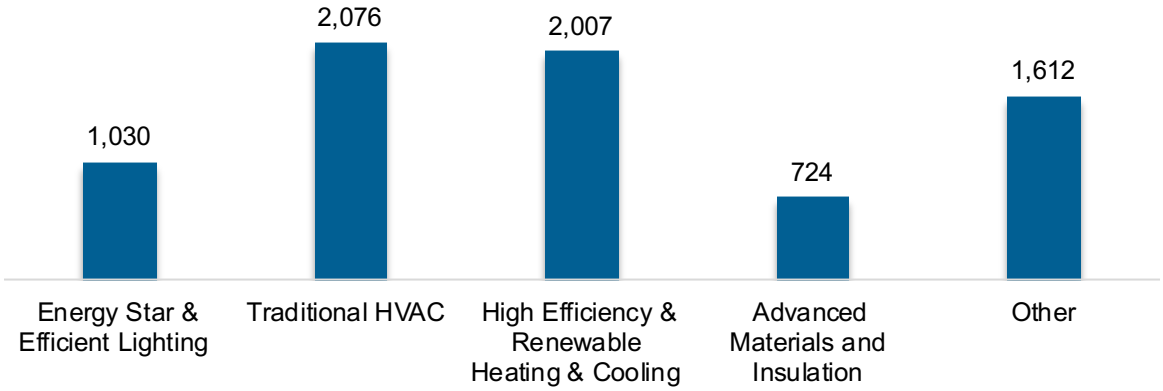
Figure SD-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

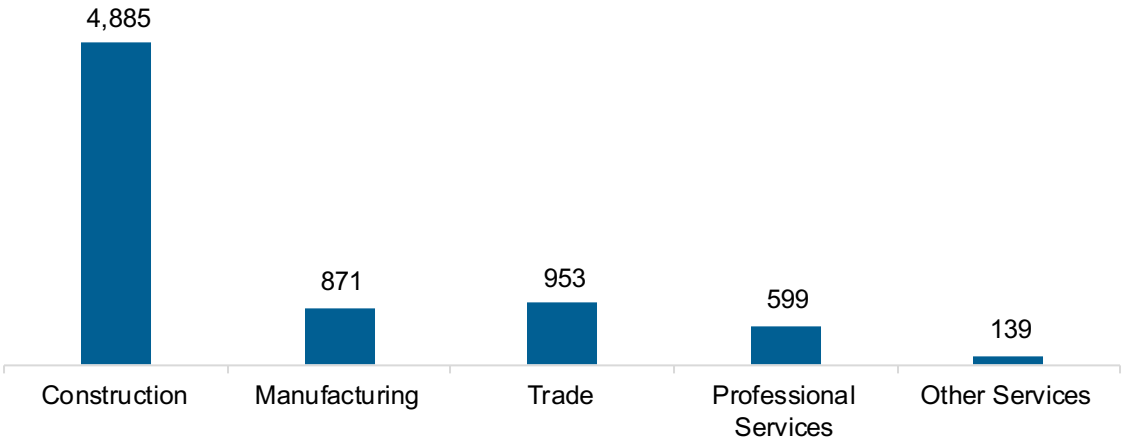
The energy efficiency (EE) sector employed 7,448 workers in South Dakota, 0.3% of the national EE total. The EE sector added 181 jobs and increased 2.5% from 2021 to 2022 (Figure SD-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure SD-9).

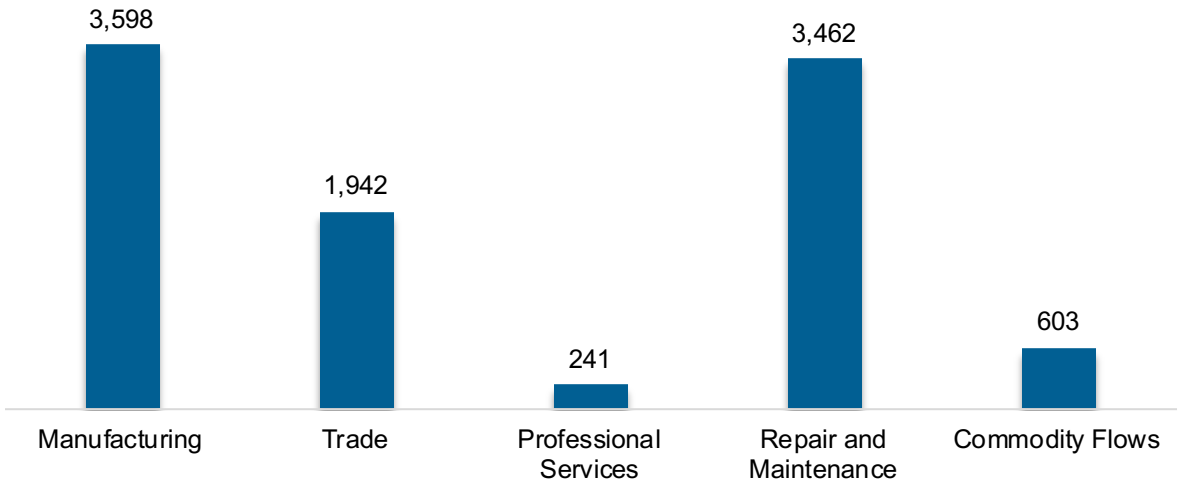
Figure SD-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 9,846 workers in South Dakota, 0.4% of the national total for the sector. Motor vehicles and component parts added 110 jobs and increased 1.1% from 2021 to 2022. Manufacturing is the largest proportion of motor vehicle jobs (Figure SD-10).

Figure SD-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 15,773 jobs in clean energy in South Dakota if traditional transmission and distribution is included and 13,148 jobs if it is not.[42] These increased under either definition, growing 3.3% with traditional transmission and distribution and 3.5% without.

Employer Perspectives

Expected Growth

Employers in South Dakota were more optimistic than their peers across the country about energy sector job growth over the next year (Table SD-1).

Table SD-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	7.1	6.0
Electric Power Transmission, Distribution, and Storage	6.0	3.9
Energy Efficiency	7.3	6.4
Fuels	4.9	1.6
Motor Vehicles	6.8	5.5

[42] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in South Dakota reported 43% overall hiring difficulty (Table SD-2).

Table SD-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	26	17	7	50	43

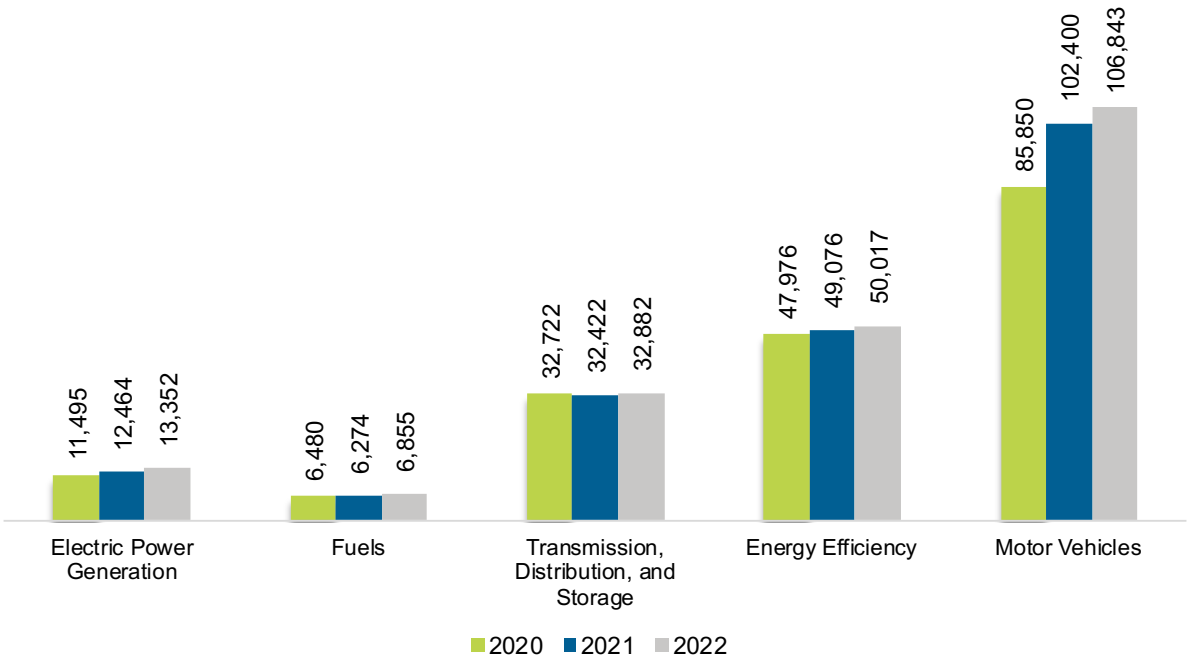
Tennessee

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

Tennessee had 209,951 energy workers statewide in 2022, representing 2.6% of all U.S. energy jobs. Of these energy jobs, 13,352 were in electric power generation; 6,855 in fuels; 32,882 in transmission, distribution, and storage; 50,017 in energy efficiency; and 106,843 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 7,314 jobs, or 3.6% (Figure TN-1). The energy sector in Tennessee represented 6.6% of total state employment.

Figure TN-1. Employment by Major Energy Technology Application

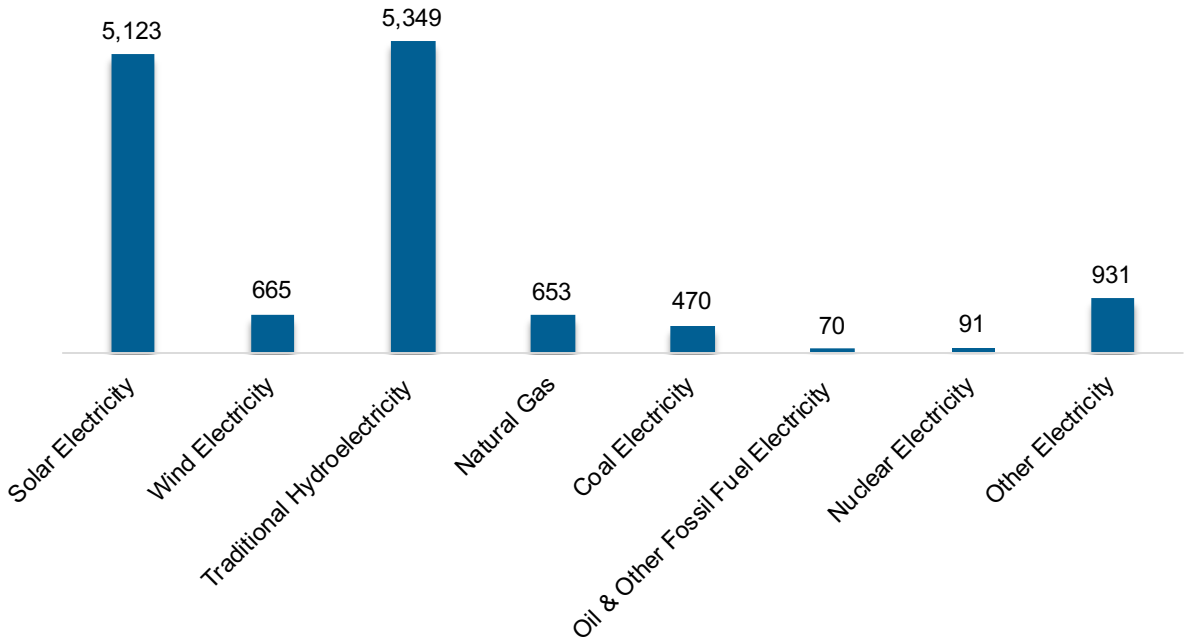


Breakdown by Technology Applications

Electric Power Generation

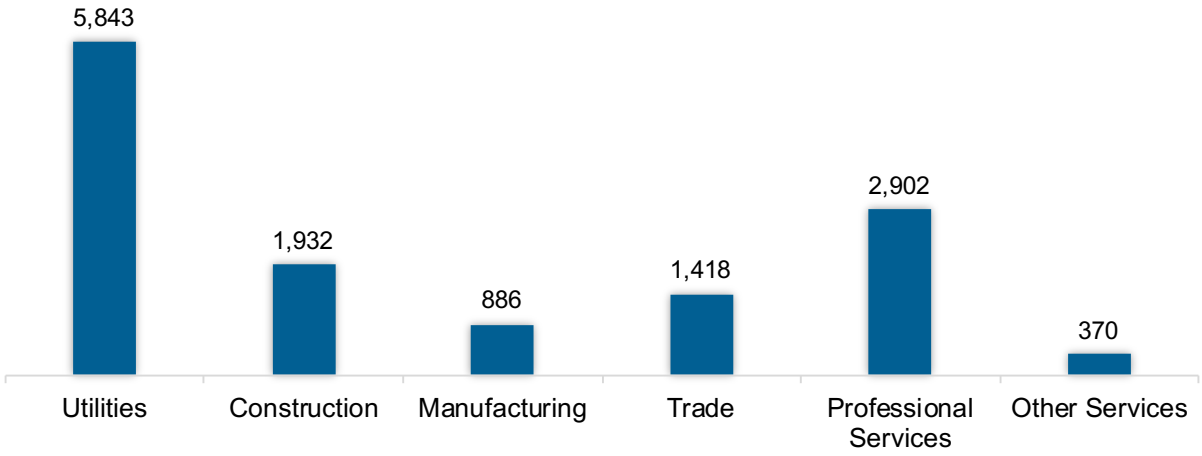
As shown in Figure TN-2, the electric power generation sector employed 13,352 workers in Tennessee, 1.5% of the national electricity total, and added 888 jobs from 2021 to 2022 (7.1%).

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



Utilities was the largest industry sector in the electric power generation sector, with 43.8% of jobs. Professional and business services was second largest with 21.7% (Figure TN-3).

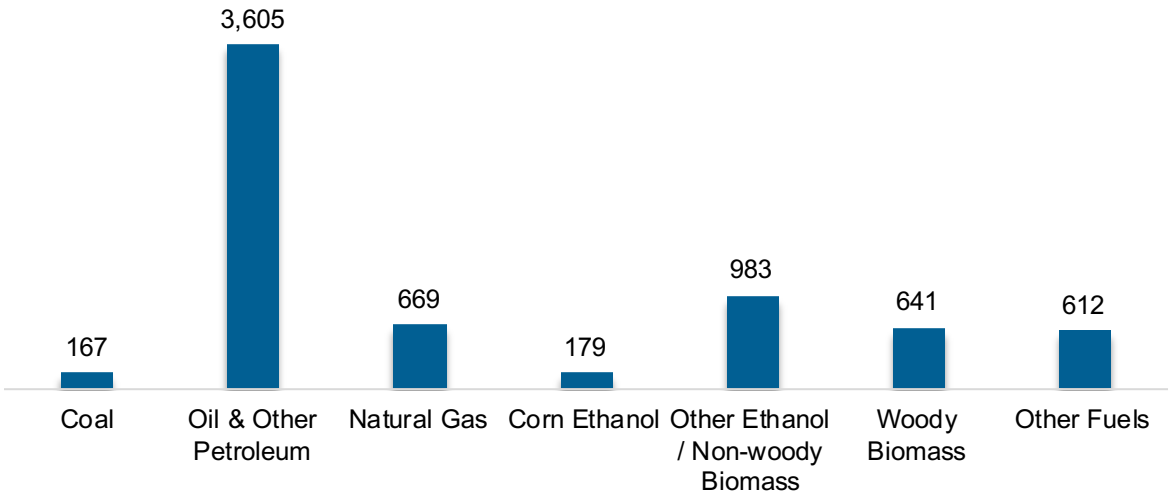
Figure TN-3. Electric Power Generation Employment by Industry Sector



Fuels

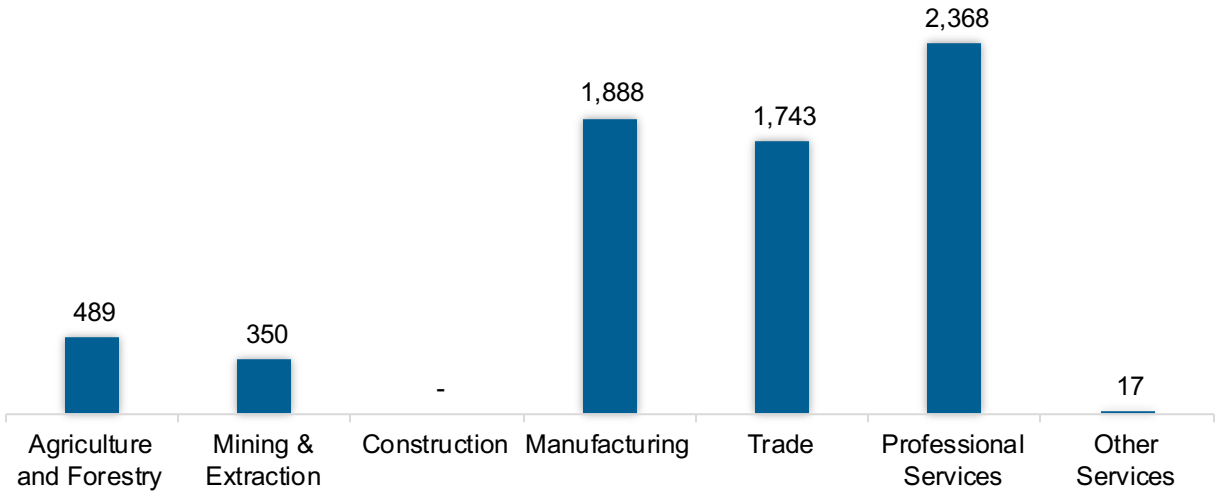
The Fuel sector employed 6,855 workers in Tennessee, 0.7% of the national total in fuels (Figure TN-4). The sector gained 581 jobs and increased 9.3% from 2021 to 2022.

Figure TN-4. Fuels Employment by Detailed Technology Application



Professional and business services jobs represented 34.5% of fuel jobs in Tennessee (Figure TN-5).

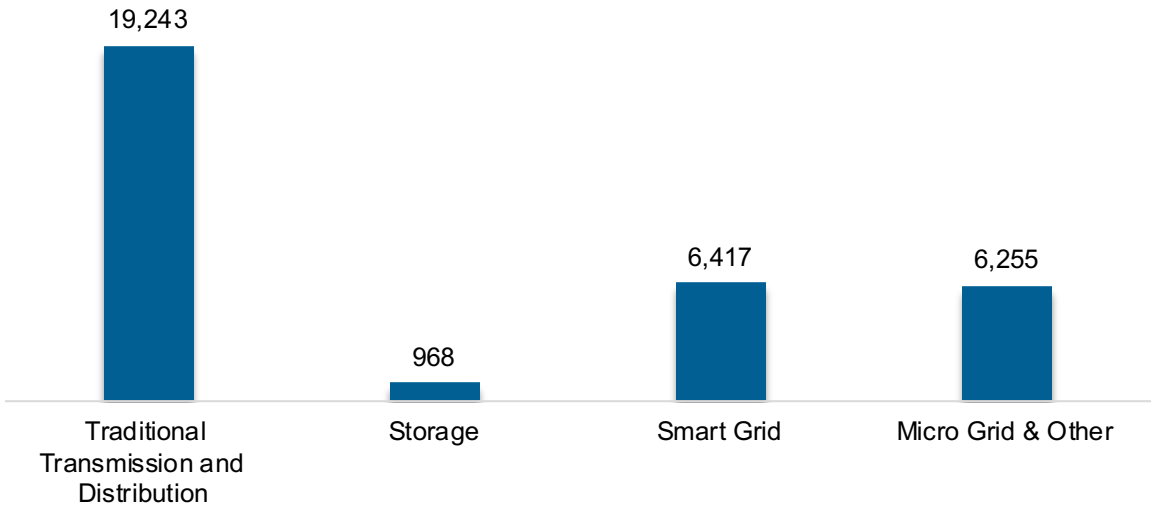
Figure TN-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

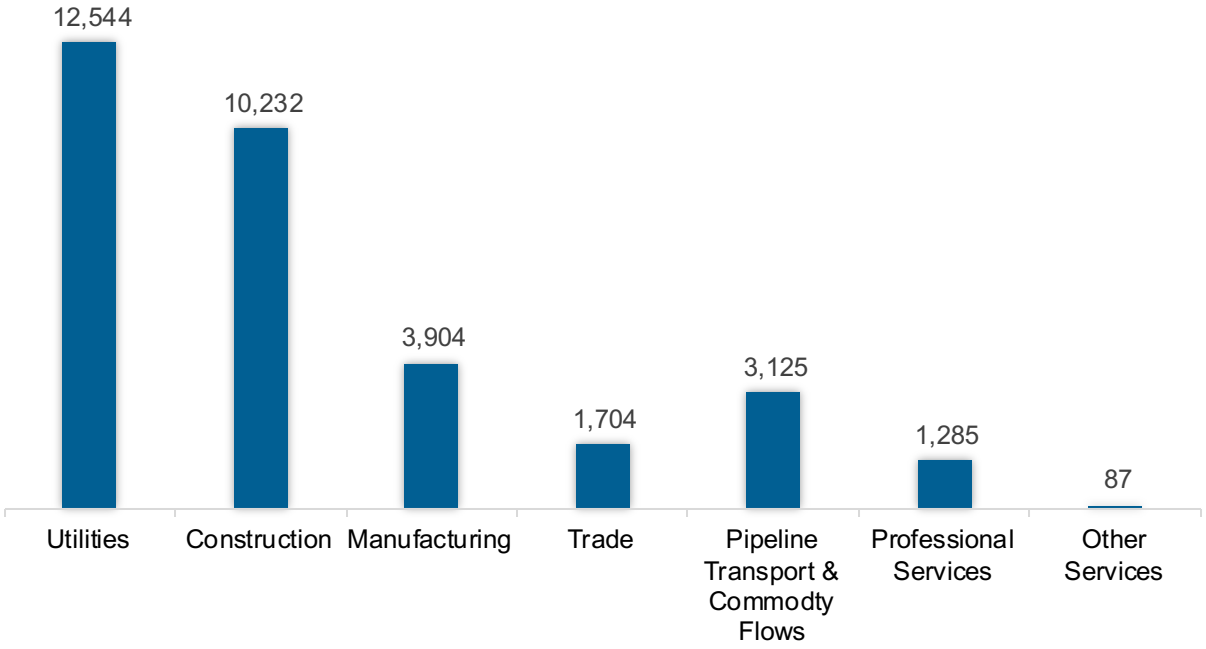
The transmission, distribution, and storage (TDS) sector employed 32,882 workers in Tennessee, 0.7% of the national TDS total (Figure TN-6). The sector gained 460 jobs and increased 1.4% from 2021 to 2022.

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



Utilities was the largest proportion of TDS jobs in Tennessee, accounting for 38.1% of the sector's jobs statewide (Figure TN-7).

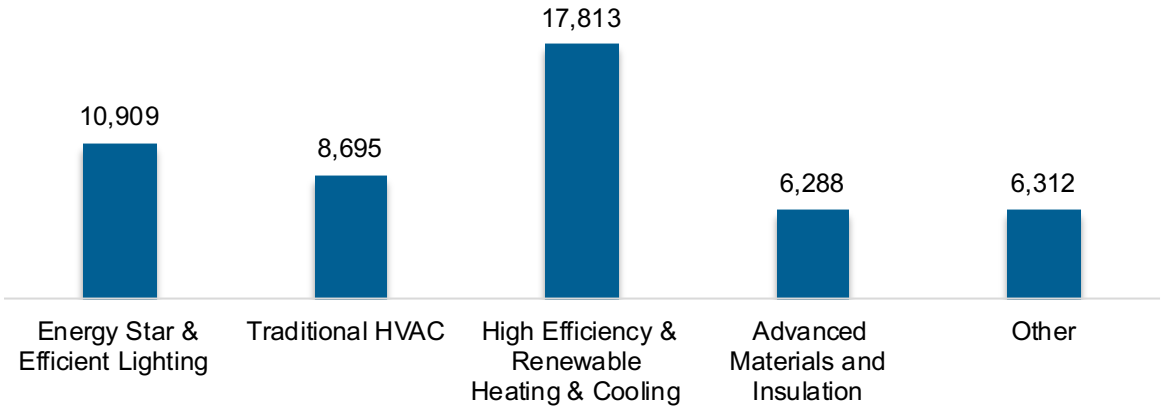
Figure TN-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

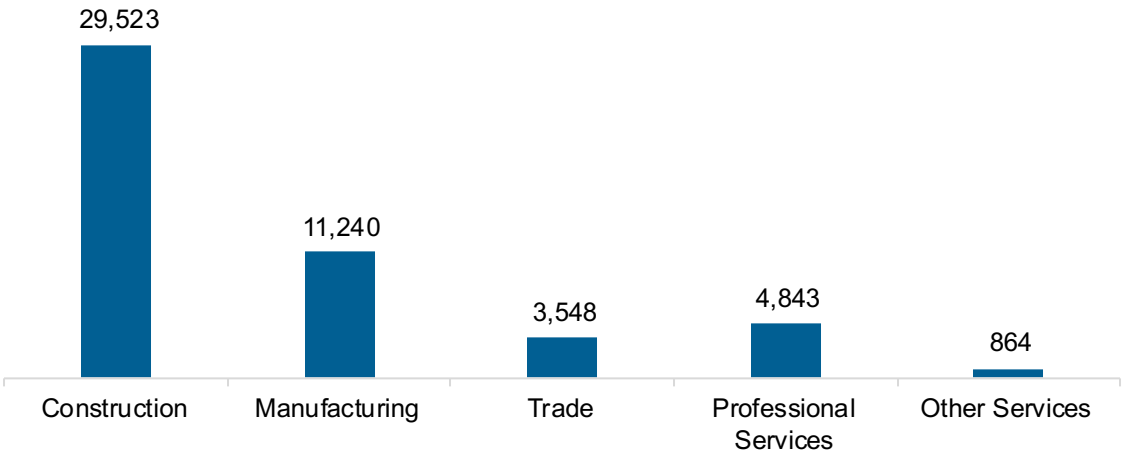
The energy efficiency (EE) sector employed 50,017 workers in Tennessee, 2.3% of the national EE total. The EE sector added 941 jobs and increased 1.9% from 2021 to 2022 (Figure TN-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure TN-9).

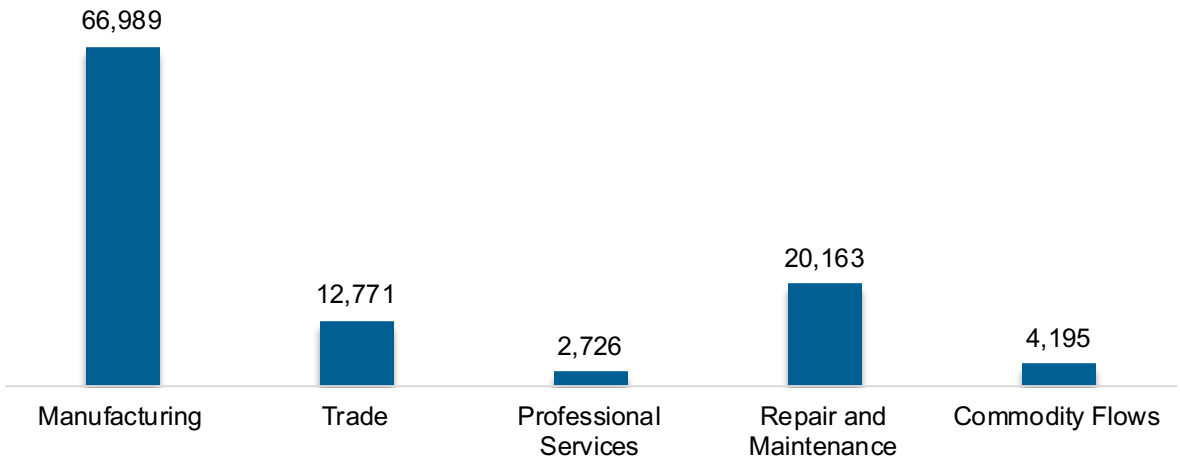
Figure TN-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 106,843 workers in Tennessee, 4.1% of the national total for the sector. Motor vehicles and component parts added 4,443 jobs and increased 4.3% from 2021 to 2022. Manufacturing is the largest proportion of motor vehicle jobs (Figure TN-10).

Figure TN-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 100,346 jobs in clean energy in Tennessee if traditional transmission and distribution is included and 81,054 jobs if it is not.[43] These increased under either definition, growing 4.4% with traditional transmission and distribution and 5.2% without.

Employer Perspectives

Expected Growth

Employers in Tennessee are similarly optimistic than their peers across the country about energy sector job growth over the next year (Table TN-1).

Table TN-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	5.6	6.0
Electric Power Transmission, Distribution, and Storage	4.5	3.9
Energy Efficiency	5.8	6.4
Fuels	3.4	1.6
Motor Vehicles	5.3	5.5

[43] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in Tennessee reported 52% overall hiring difficulty (Table TN-2).

Table TN-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	27	25	8	40	52

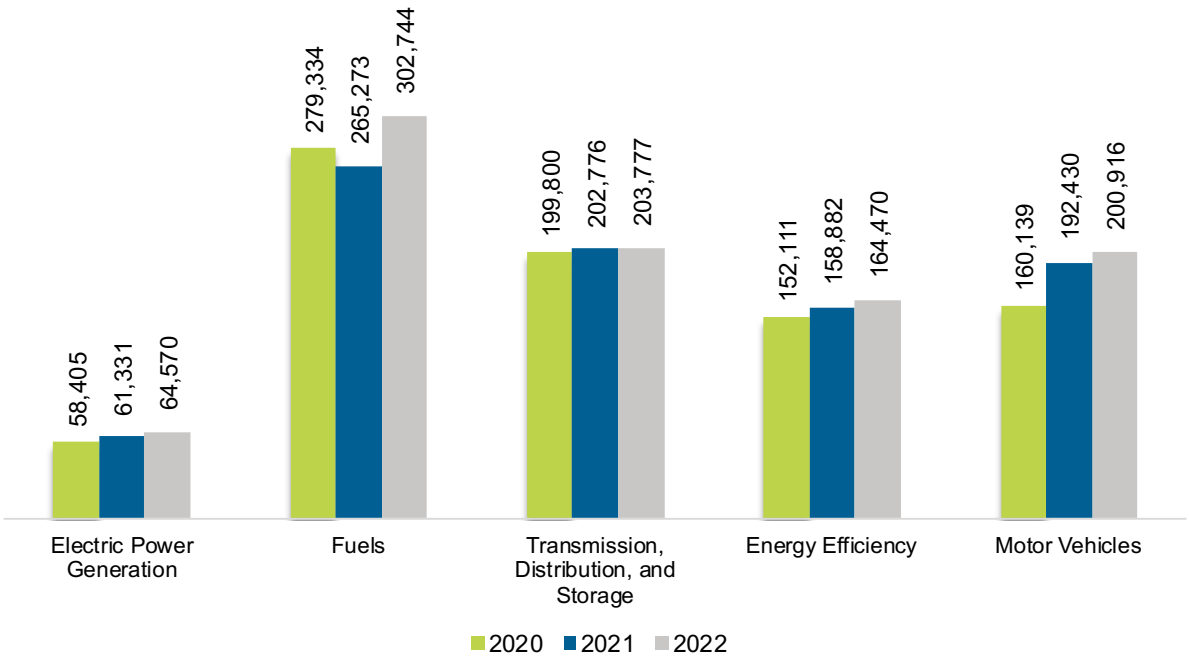
Texas

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

Texas had 936,476 energy workers statewide in 2022, representing 11.5% of all U.S. energy jobs. Of these energy jobs, 64,570 were in electric power generation; 302,744 in fuels; 203,777 in transmission, distribution, and storage; 164,470 in energy efficiency; and 200,916 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 55,785 jobs, or 6.3% (Figure TX-1). The energy sector in Texas represented 7.0% of total state employment.

Figure TX-1. Employment by Major Energy Technology Application

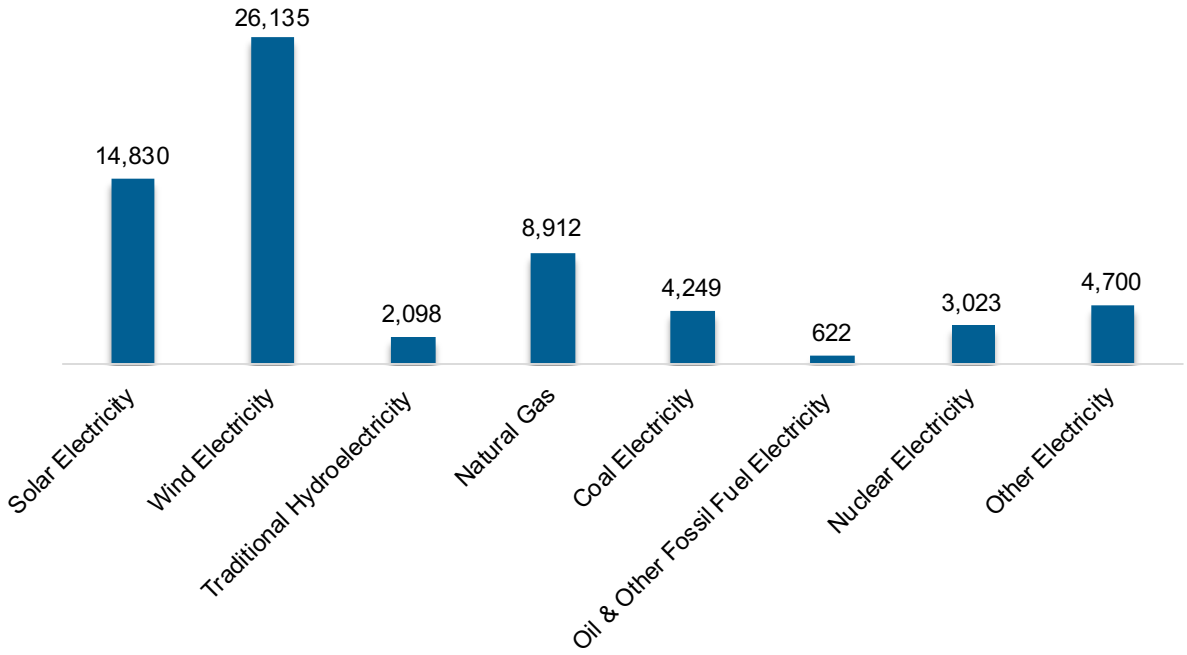


Breakdown by Technology Applications

Electric Power Generation

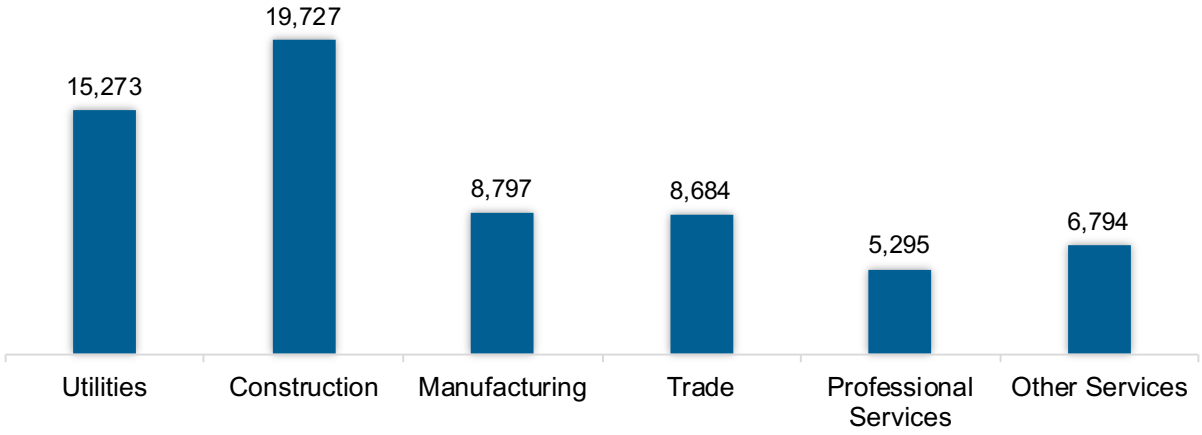
As shown in Figure TX-2, the electric power generation sector employed 64,570 workers in Texas, 7.3% of the national electricity total, and added 3,239 jobs from 2021 to 2022 (5.3%).

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



Construction was the largest industry sector in the electric power generation sector, with 30.6% of jobs. Utilities was second largest with 23.7% (Figure TX-3).

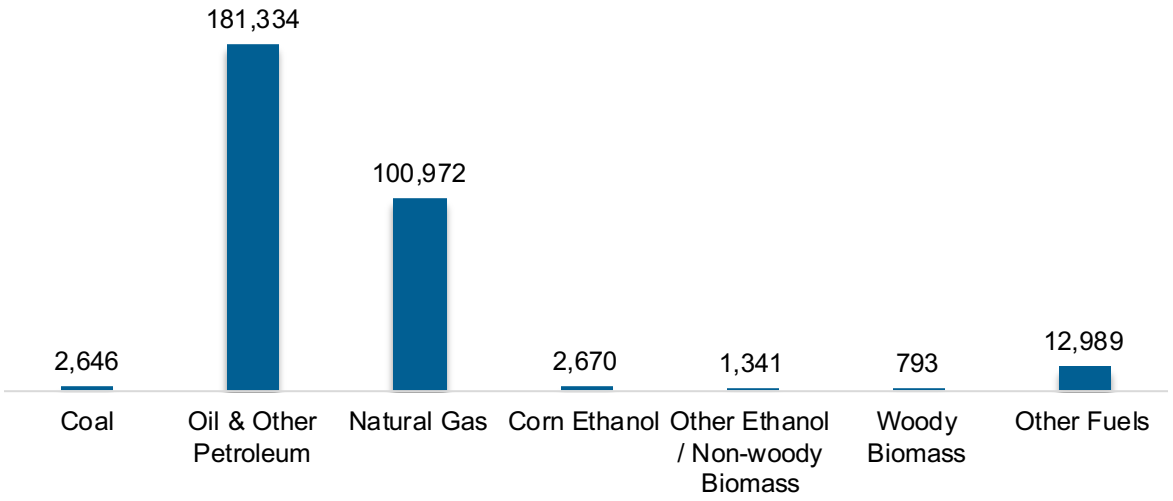
Figure TX-3. Electric Power Generation Employment by Industry Sector



Fuels

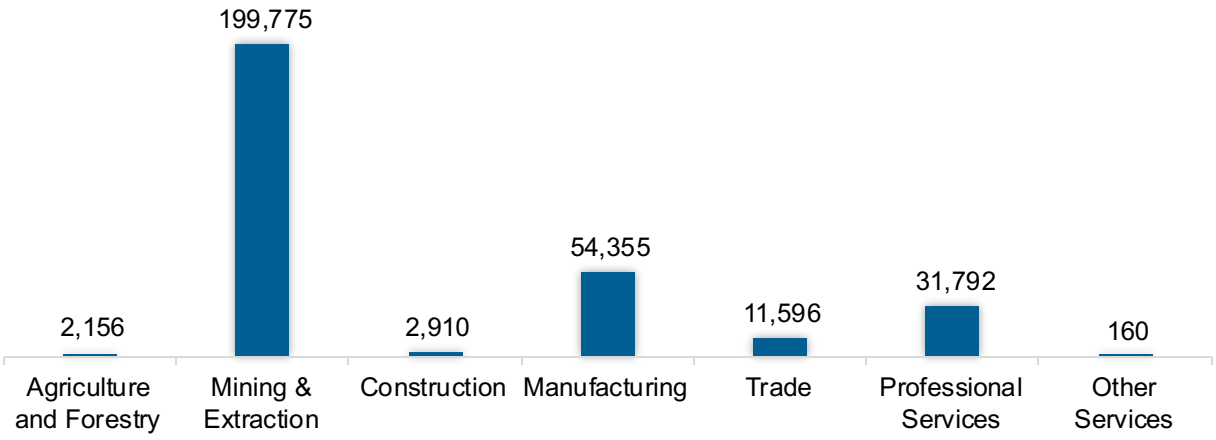
The Fuel sector employed 302,744 workers in Texas, 29.3% of the national total in fuels (Figure TX-4). The sector gained 37,471 jobs and increased 14.1% from 2021 to 2022.

Figure TX-4. Fuels Employment by Detailed Technology Application



Mining and extraction jobs represented 66.0% of fuel jobs in Texas (Figure TX-5).

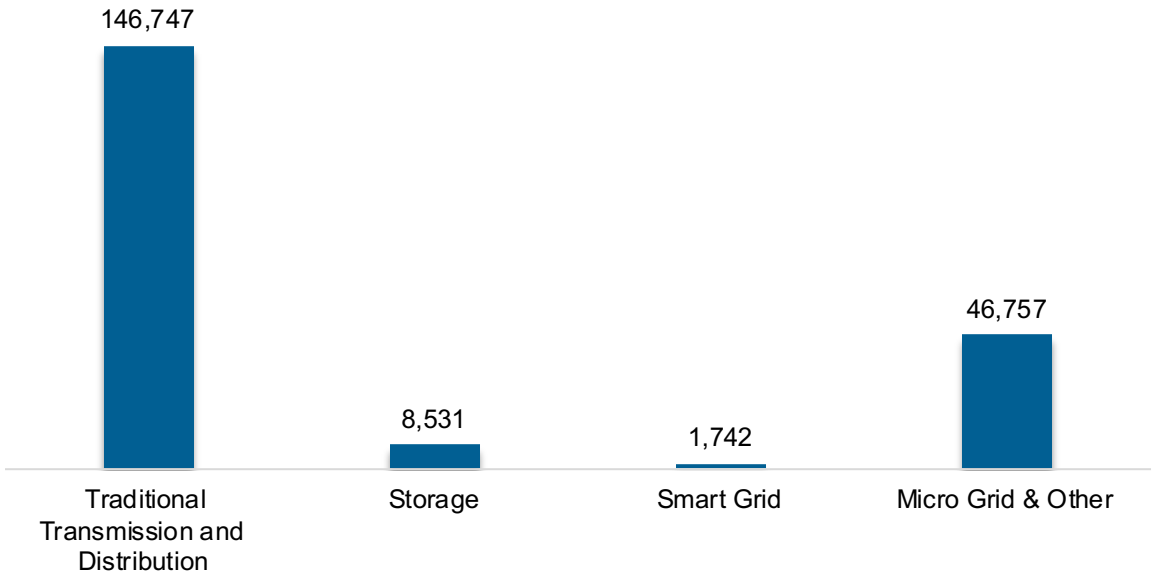
Figure TX-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

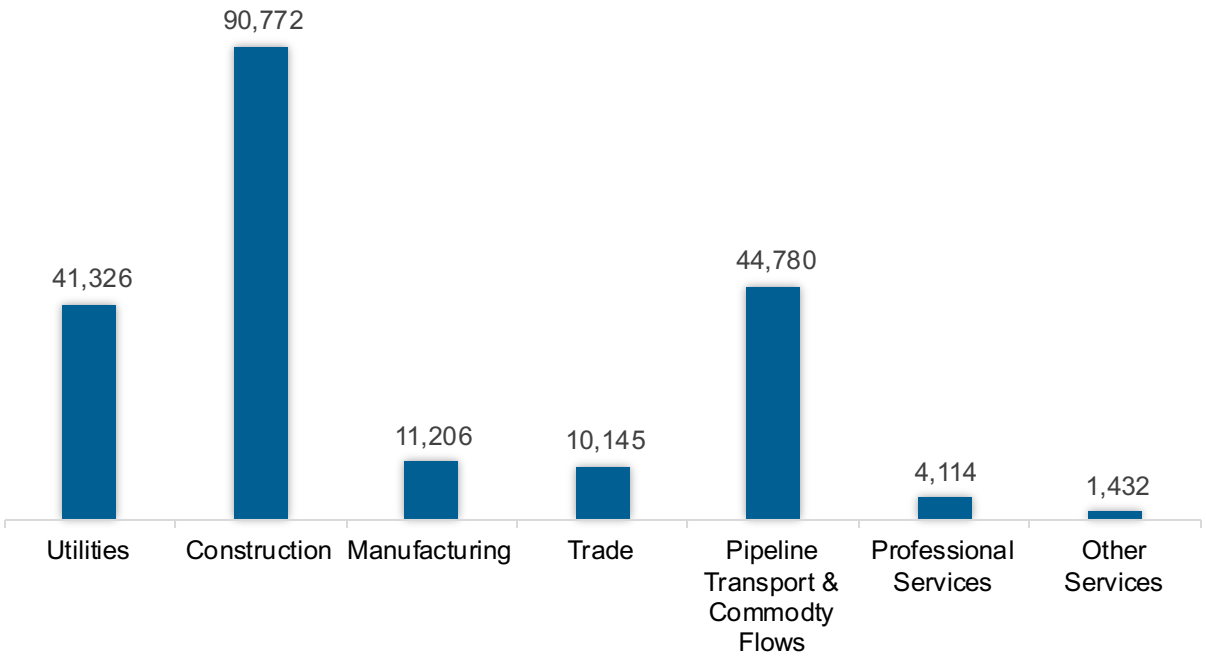
The transmission, distribution, and storage (TDS) sector employed 203,777 workers in Texas, 29.3% of the national TDS total (Figure TX-6). The sector gained 1,001 jobs and increased 0.5% from 2021 to 2022.

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



Construction was the largest proportion of TDS jobs in Texas, accounting for 44.5% of the sector's jobs statewide (Figure TX-7).

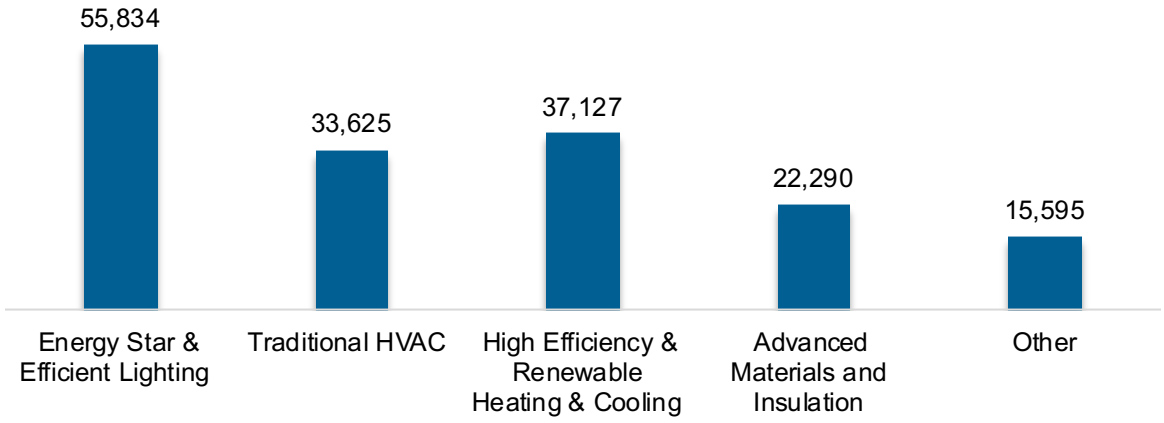
Figure TX-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

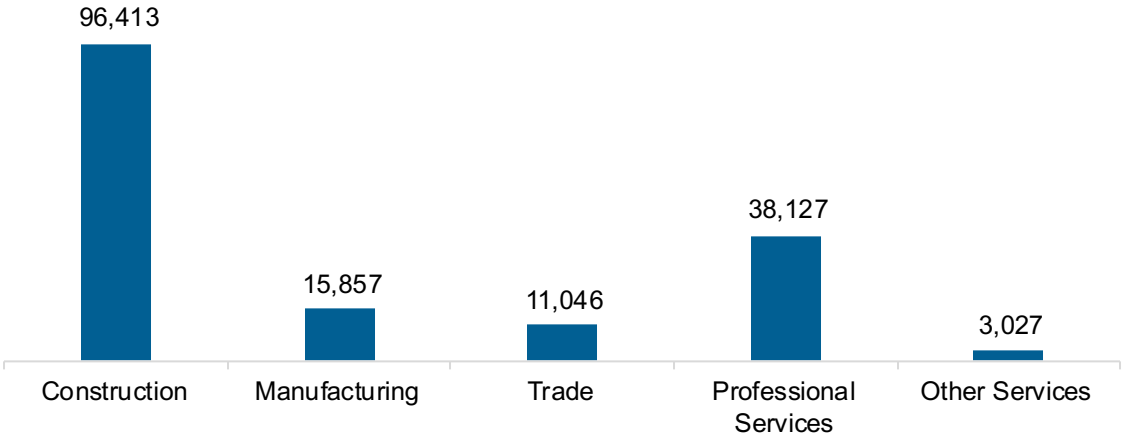
The energy efficiency (EE) sector employed 164,470 workers in Texas, 7.4% of the national EE total. The EE sector added 5,588 jobs and increased 3.5% from 2021 to 2022 (Figure TX-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure TX-9).

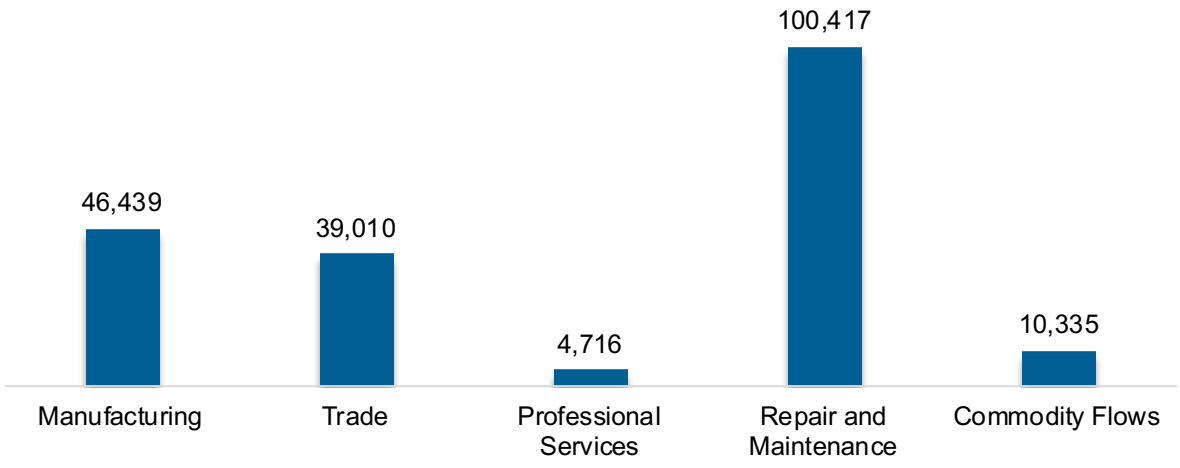
Figure TX-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 200,916 workers in Texas, 7.7% of the national total for the sector. Motor vehicles and component parts added 8,486 jobs and increased 4.4% from 2021 to 2022. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure TX-10).

Figure TX-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 396,071 jobs in clean energy in Texas if traditional transmission and distribution is included and 248,891 jobs if it is not.[44] These increased under either definition, growing 3.5% with traditional transmission and distribution and 5.5% without.

Employer Perspectives

Expected Growth

Employers in Texas were more optimistic than their peers across the country about energy sector job growth over the next year (Table TX-1).

Table TX-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	7.3	6.0
Electric Power Transmission, Distribution, and Storage	6.3	3.9
Energy Efficiency	7.5	6.4
Fuels	5.1	1.6
Motor Vehicles	7.1	5.5

[44] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in Texas reported 52% overall hiring difficulty (Table TX-2).

Table TX-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	23	29	7	40	52

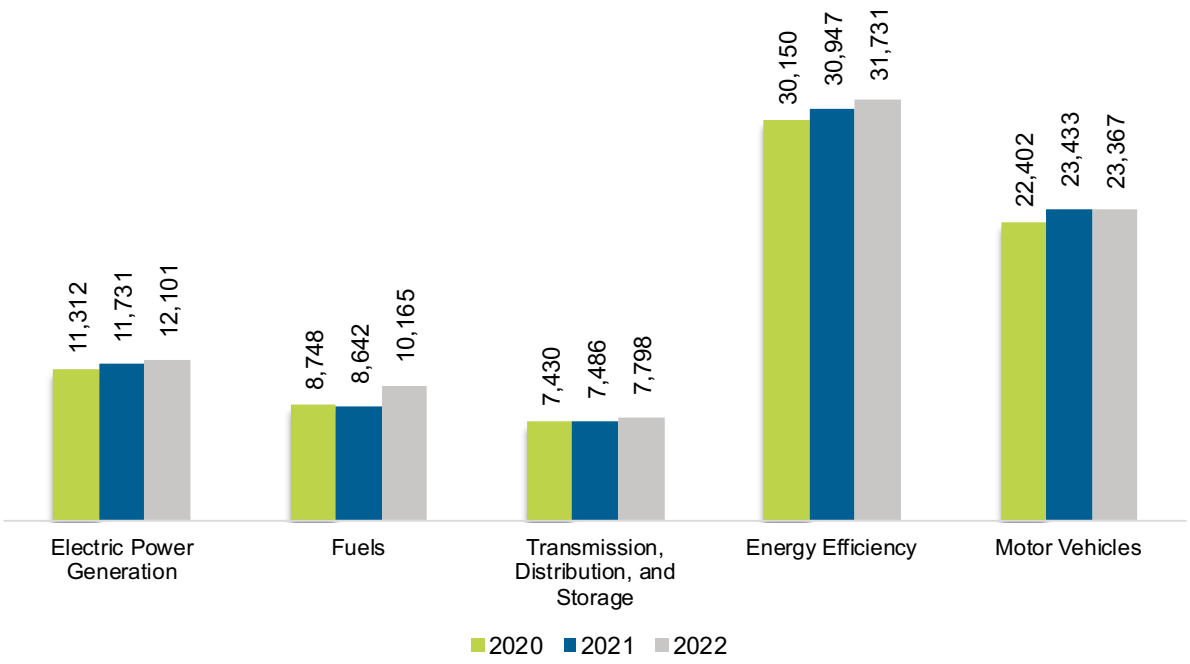
Utah

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

Utah had 85,163 energy workers statewide in 2022, representing 1.0% of all U.S. energy jobs. Of these energy jobs, 12,101 were in electric power generation; 10,165 in fuels; 7,798 in transmission, distribution, and storage; 31,731 in energy efficiency; and 23,367 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 2,924 jobs, or 3.6% (Figure UT-1). The energy sector in Utah represented 5.1% of total state employment.

Figure UT-1. Employment by Major Energy Technology Application

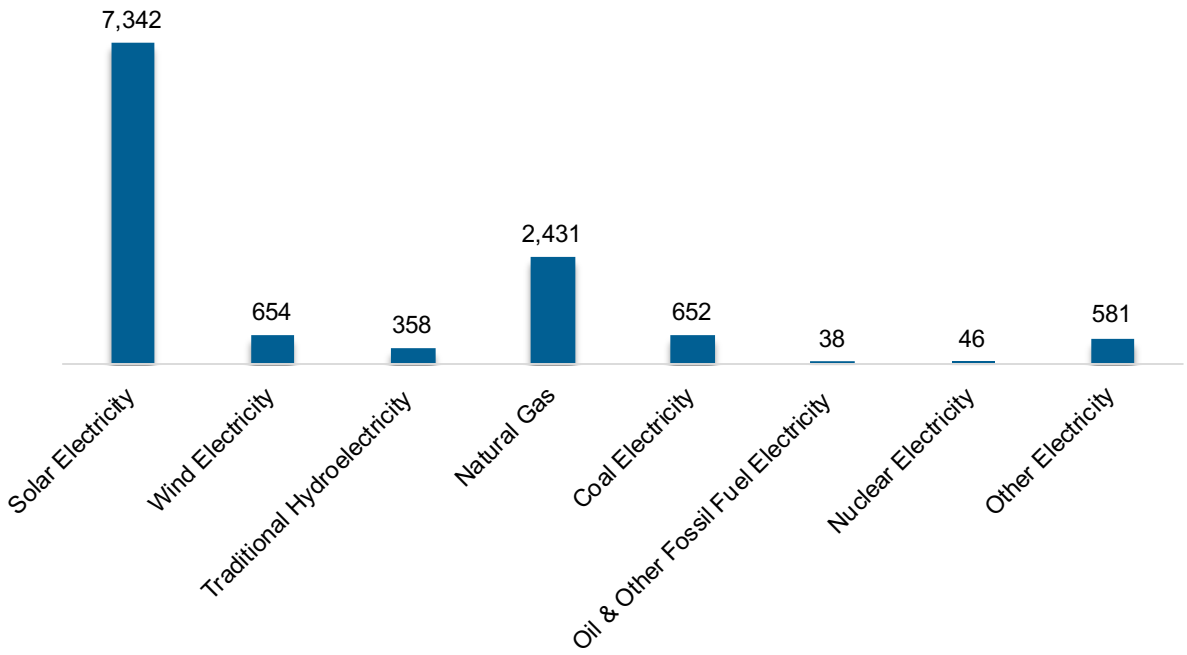


Breakdown by Technology Applications

Electric Power Generation

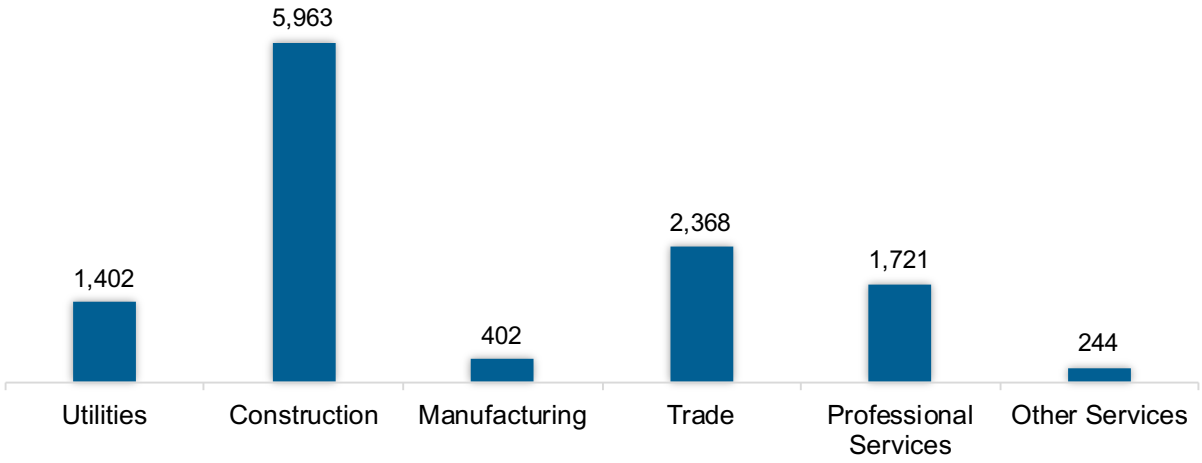
As shown in Figure UT-2, the electric power generation sector employed 12,101 workers in Utah, 1.4% of the national electricity total, and added 370 jobs from 2021 to 2022 (3.2%).

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



Construction was the largest industry sector in the electric power generation sector, with 49.3% of jobs. Wholesale trade was second largest with 19.6% (Figure UT-3).

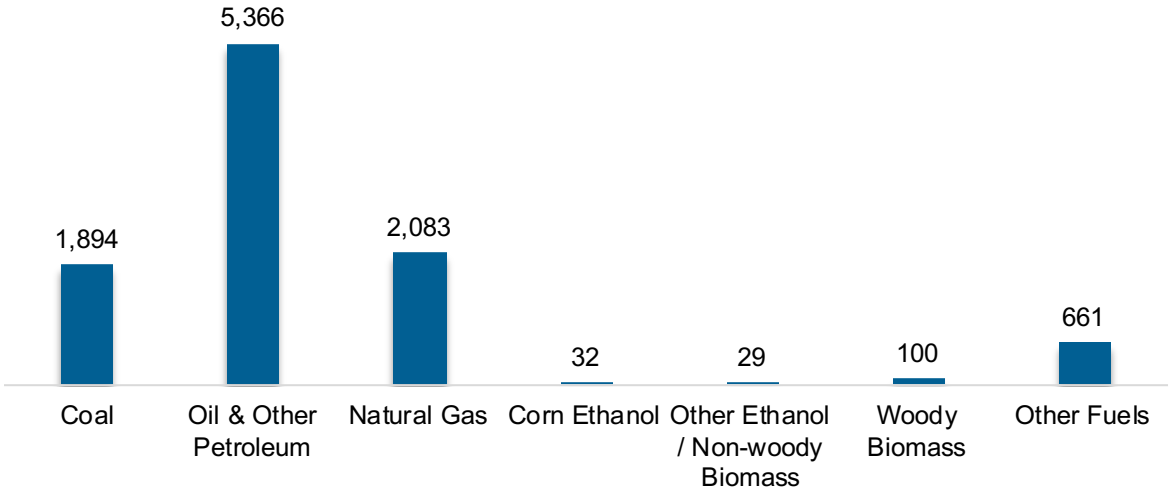
Figure UT-3. Electric Power Generation Employment by Industry Sector



Fuels

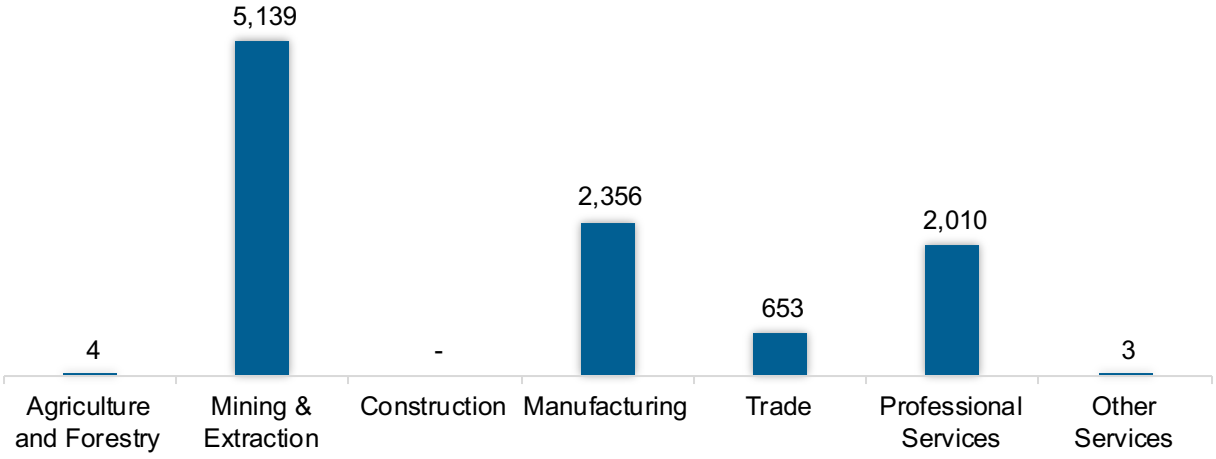
The Fuel sector employed 10,165 workers in Utah, 1.0% of the national total in fuels (Figure UT-4). The sector gained 1,524 jobs and increased 17.6% from 2021 to 2022.

Figure UT-4. Fuels Employment by Detailed Technology Application



Mining and extraction jobs represented 50.6% of fuel jobs in Utah (Figure UT-5).

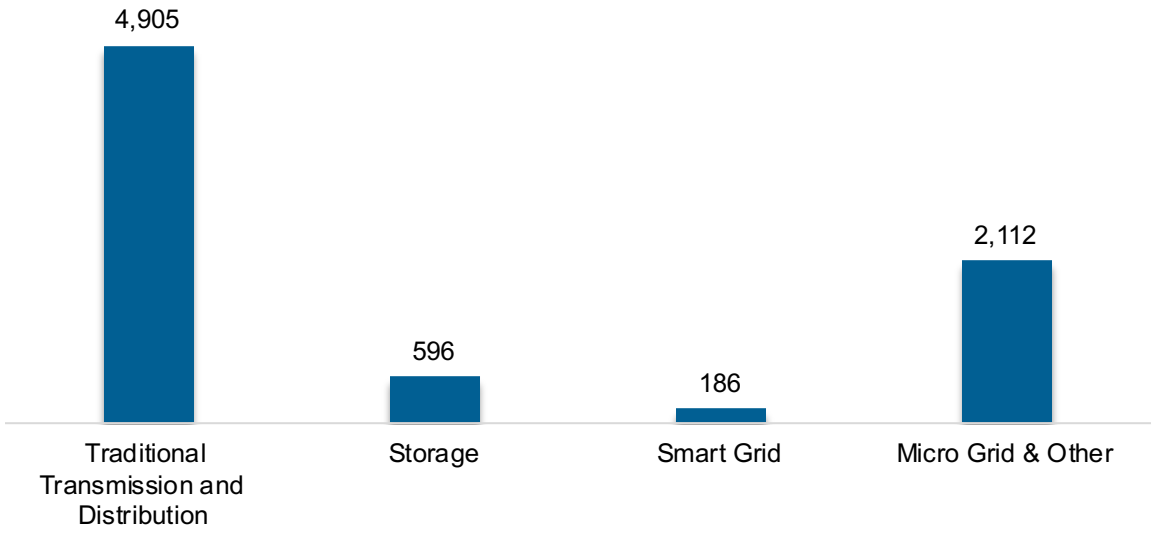
Figure UT-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

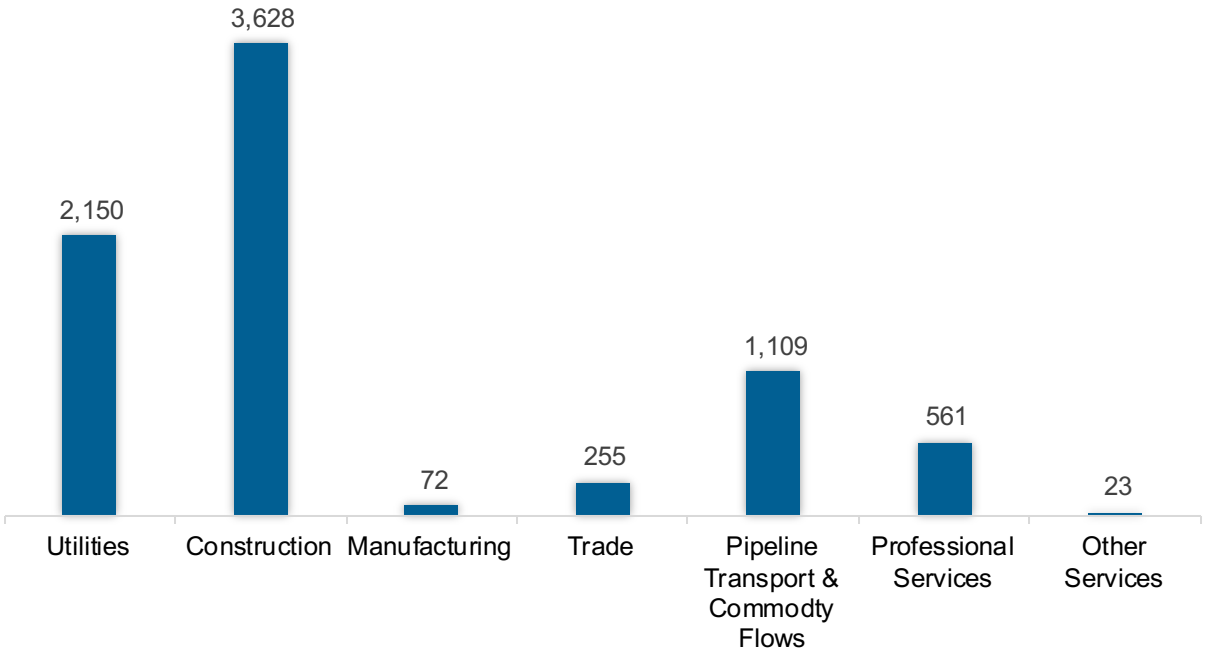
The transmission, distribution, and storage (TDS) sector employed 7,798 workers in Utah, 1.0% of the national TDS total (Figure UT-6). The sector gained 312 jobs and increased 4.2% from 2021 to 2022.

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



Construction was the largest proportion of TDS jobs in Utah, accounting for 46.5% of the sector's jobs statewide (Figure UT-7).

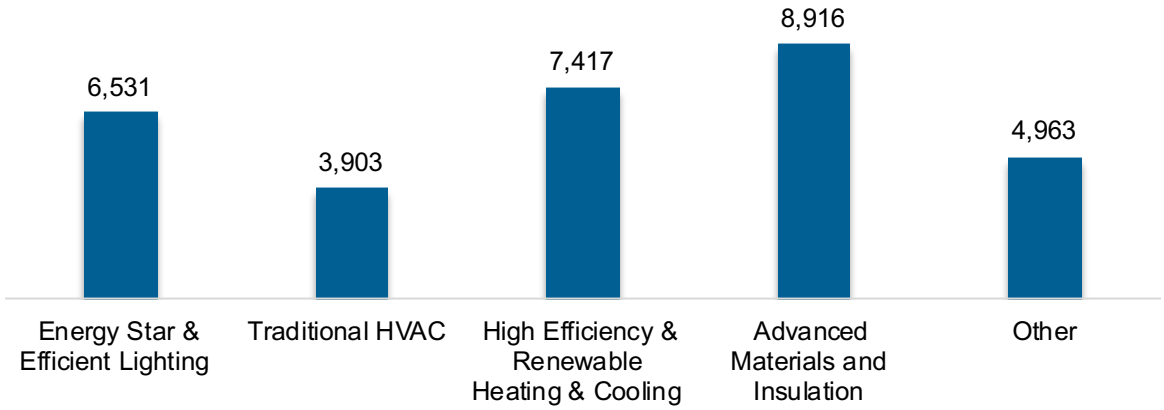
Figure UT-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

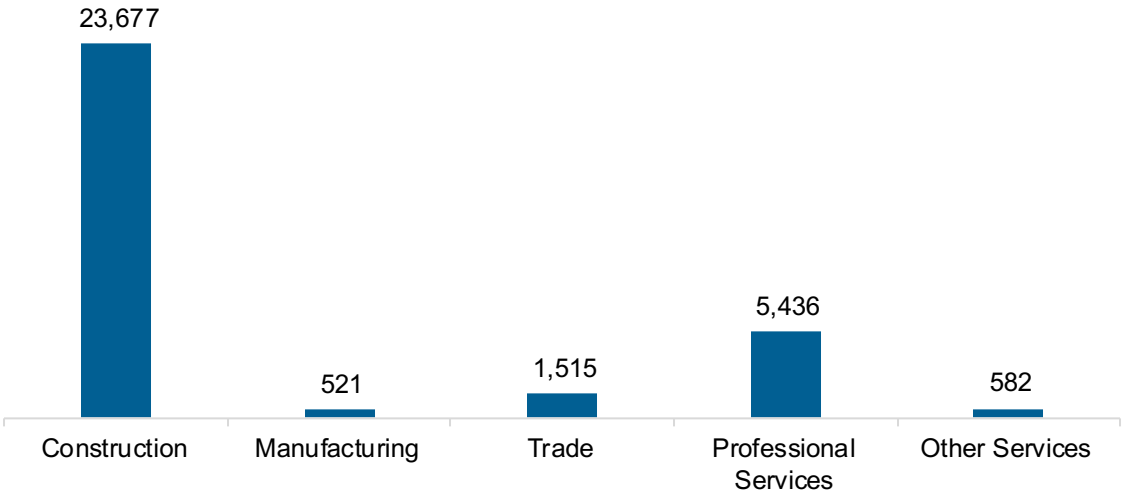
The energy efficiency (EE) sector employed 31,731 workers in Utah, 1.4% of the national EE total. The EE sector added 784 jobs and decreased 2.5% from 2021 to 2022 (Figure UT-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure UT-9).

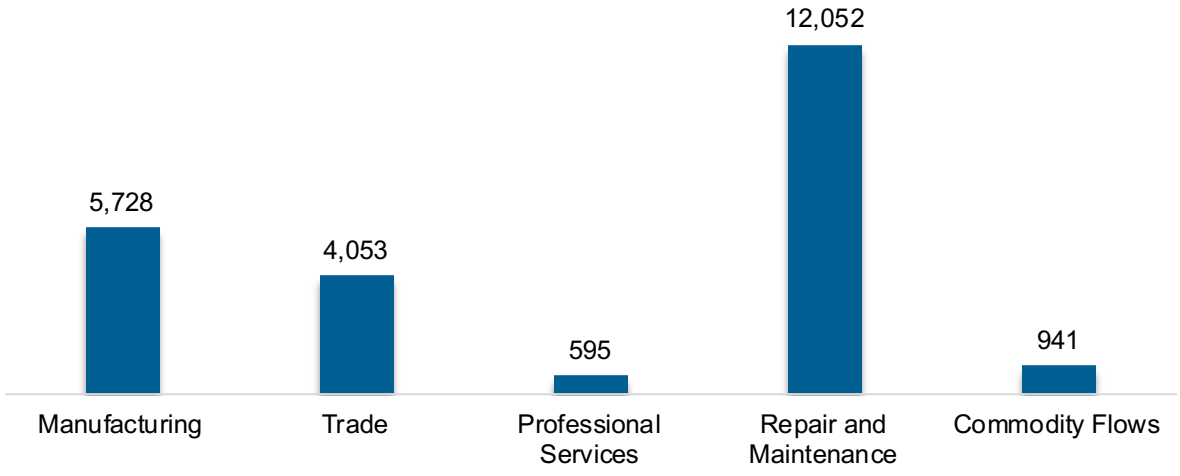
Figure UT-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 23,367 workers in Utah, 0.9% of the national total for the sector. Motor vehicles and component parts lost 66 jobs and decreased 0.3% from 2021 to 2022. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure UT-10).

Figure UT-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 48,839 jobs in clean energy in Utah if traditional transmission and distribution is included and 43,904 jobs if it is not.[45] These increased under either definition, growing 3.3% with traditional transmission and distribution and 3.2% without.

Employer Perspectives

Expected Growth

Employers in Utah are similarly optimistic than their peers across the country about energy sector job growth over the next year (Table UT-1).

Table UT-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	6.2	6.0
Electric Power Transmission, Distribution, and Storage	5.1	3.9
Energy Efficiency	6.4	6.4
Fuels	4.0	1.6
Motor Vehicles	5.9	5.5

[45] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in Utah reported 51% overall hiring difficulty (Table UT-2).

Table UT-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	26	25	6	43	51

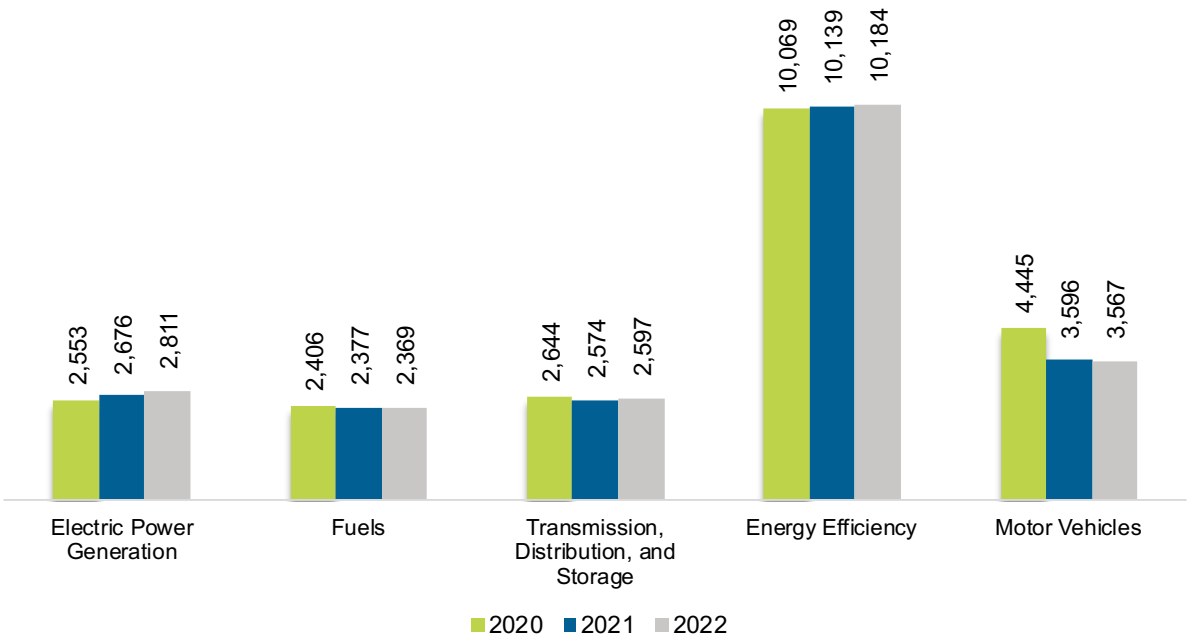
Vermont

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

Vermont had 21,529 energy workers statewide in 2022, representing 0.3% of all U.S. energy jobs. Of these energy jobs, 2,811 were in electric power generation; 2,369 in fuels; 2,597 in transmission, distribution, and storage; 10,184 in energy efficiency; and 3,567 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 167 jobs, or 0.8% (Figure VT-1). The energy sector in Vermont represented 7.2% of total state employment.

Figure VT-1. Employment by Major Energy Technology Application

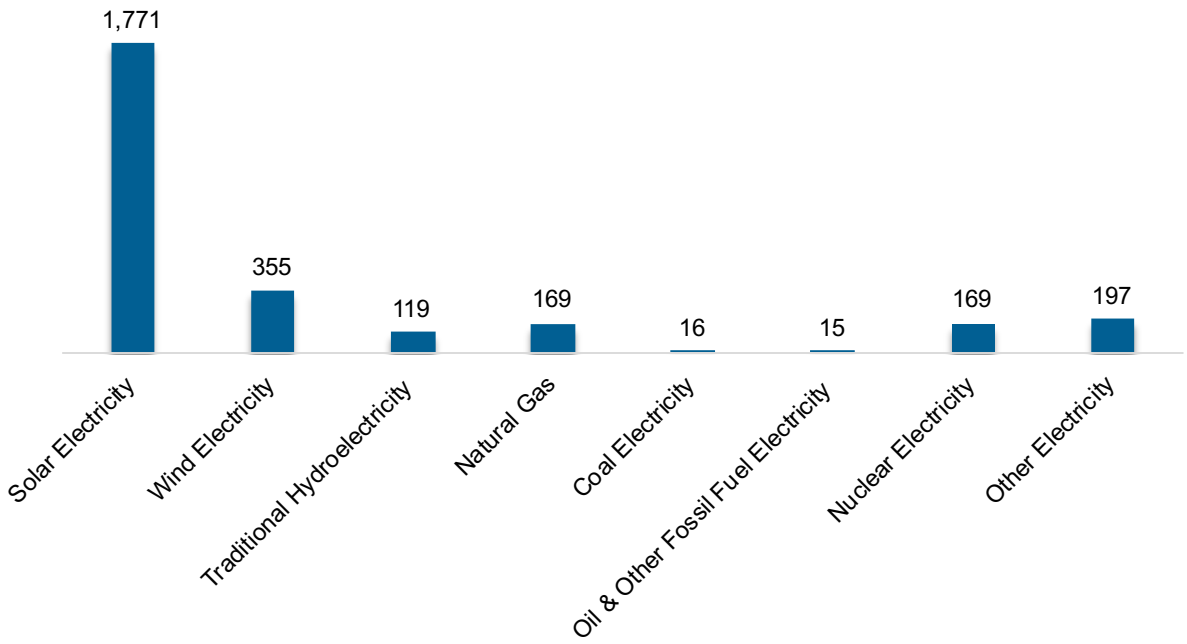


Breakdown by Technology Applications

Electric Power Generation

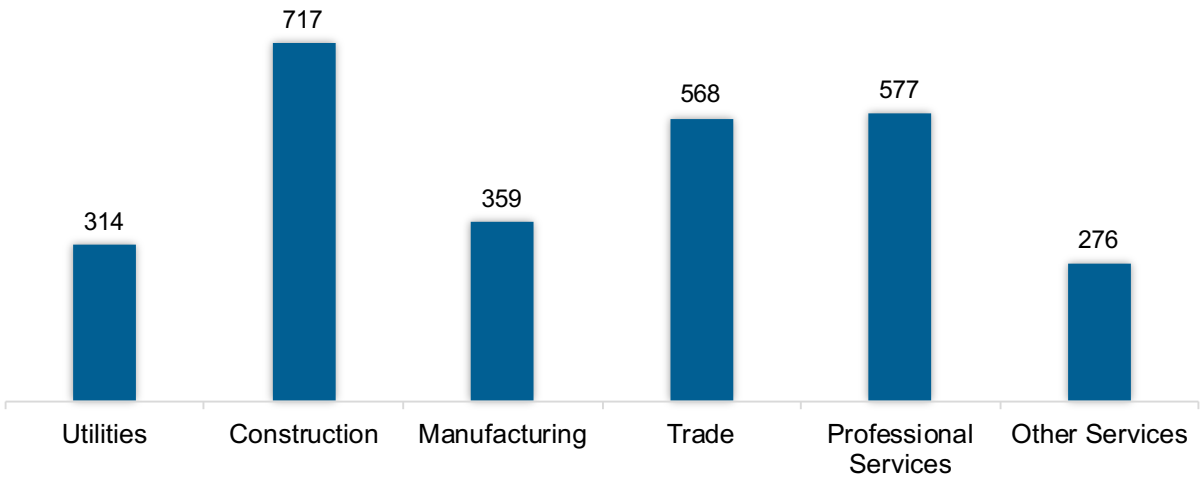
As shown in Figure VT-2, the electric power generation sector employed 2,811 workers in Vermont, 0.3% of the national electricity total, and added 135 jobs from 2021 to 2022 (5.1%).

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



Construction was the largest industry sector in the electric power generation sector, with 25.5% of jobs. Professional and business services was second largest with 20.5% (Figure VT-3).

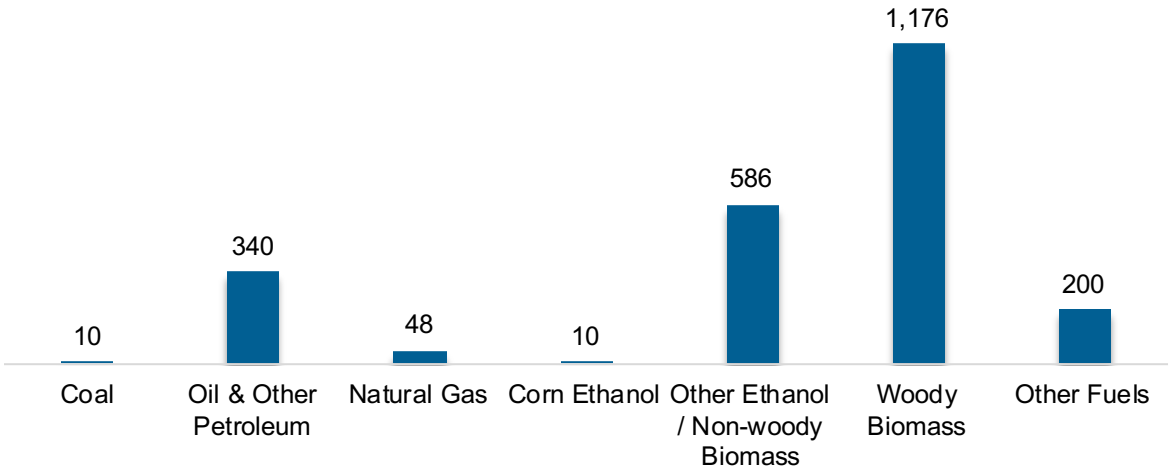
Figure VT-3. Electric Power Generation Employment by Industry Sector



Fuels

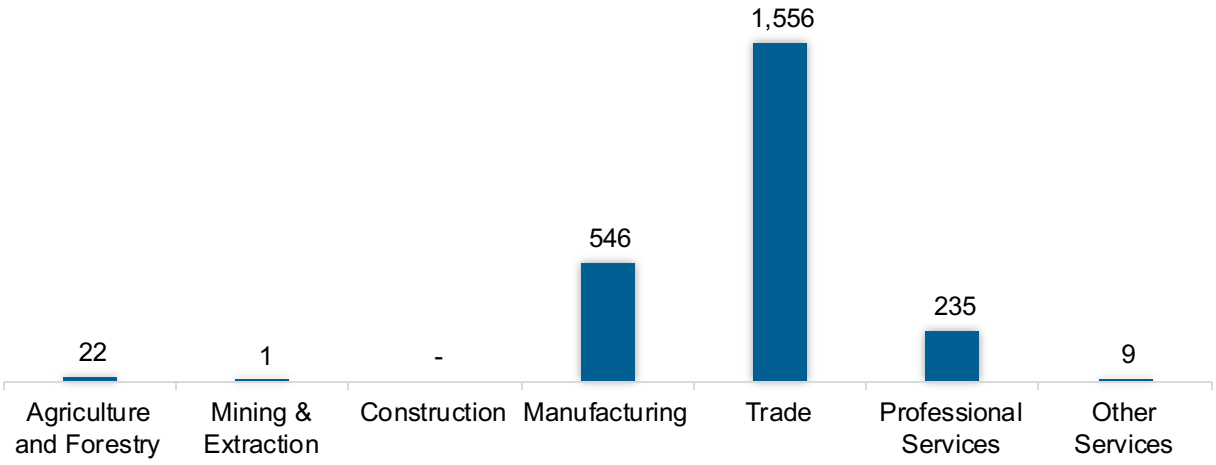
The Fuel sector employed 2,369 workers in Vermont, 0.2% of the national total in fuels (Figure VT-4). The sector lost 8 jobs and decreased 0.3% from 2021 to 2022.

Figure VT-4. Fuels Employment by Detailed Technology Application



Wholesale trade jobs represented 65.7% of fuel jobs in Vermont (Figure VT-5).

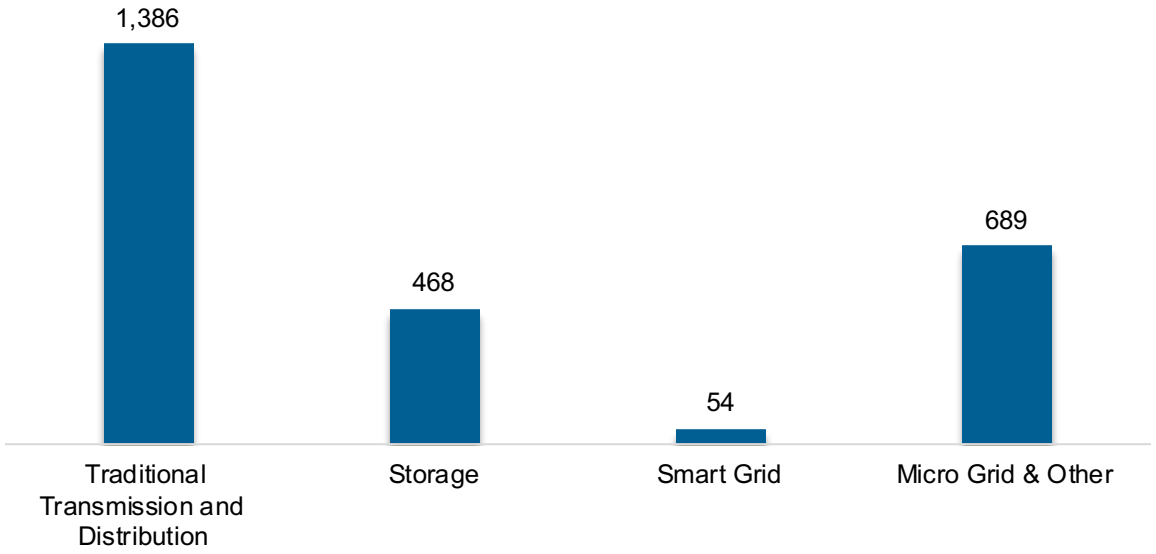
Figure VT-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

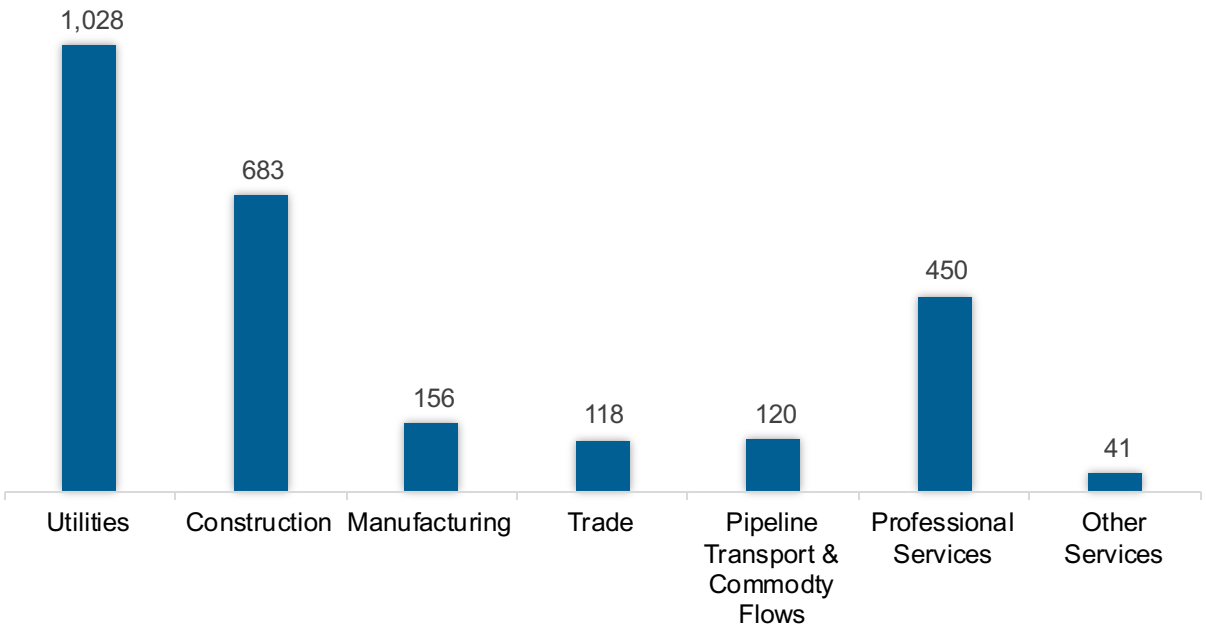
The transmission, distribution, and storage (TDS) sector employed 2,597 workers in Vermont, 0.2% of the national TDS total (Figure VT-6). The sector gained 23 jobs and increased 0.9% from 2021 to 2022.

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



Utilities was the largest proportion of TDS jobs in Vermont, accounting for 39.6% of the sector's jobs statewide (Figure VT-7).

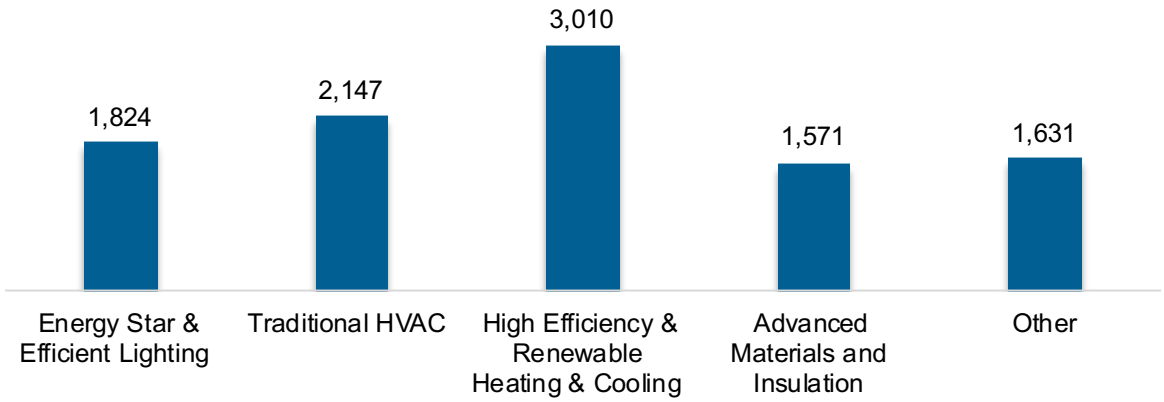
Figure VT-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

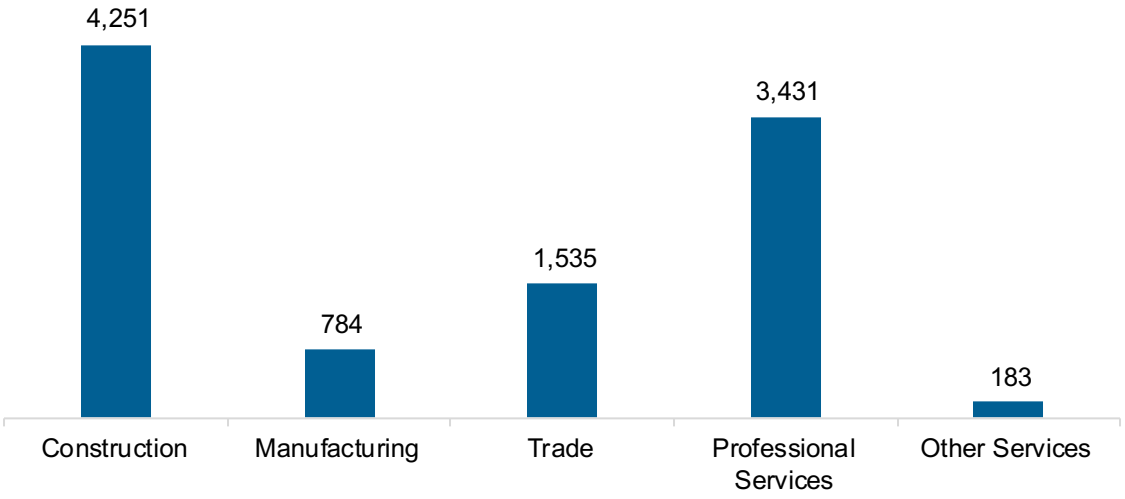
The energy efficiency (EE) sector employed 10,184 workers in Vermont, 0.5% of the national EE total. The EE sector added 45 jobs and decreased 0.4% from 2021 to 2022 (Figure VT-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure VT-9).

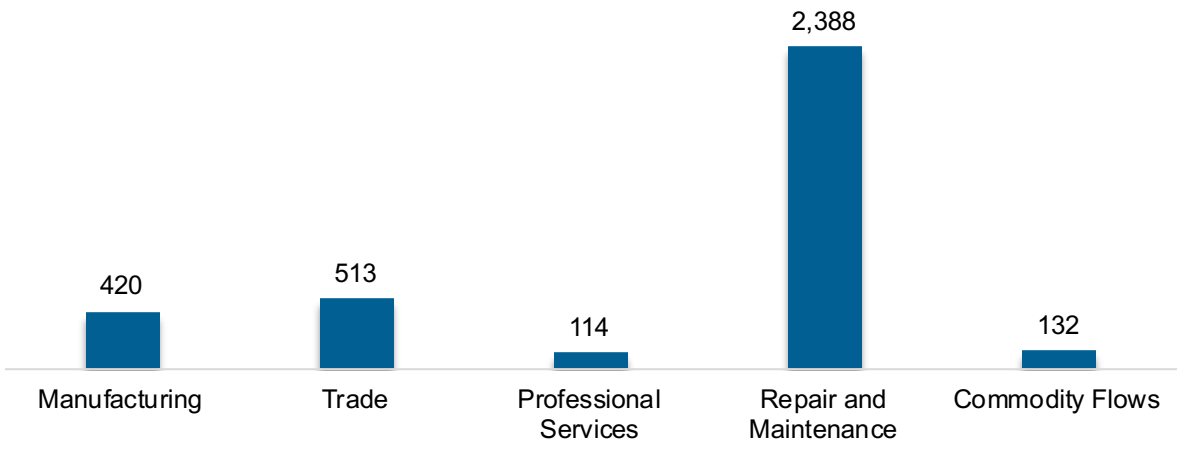
Figure VT-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 3,567 workers in Vermont, 0.1% of the national total for the sector. Motor vehicles and component parts lost 28 jobs and decreased 0.8% from 2021 to 2022. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure VT-10).

Figure VT-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 17,572 jobs in clean energy in Vermont if traditional transmission and distribution is included and 16,162 jobs if it is not.[46] These increased under either definition, growing 0.6% with traditional transmission and distribution and 0.4% without.

Employer Perspectives

Expected Growth

Employers in Vermont are similarly optimistic than their peers across the country about energy sector job growth over the next year (Table VT-1).

Table VT-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	5.9	6.0
Electric Power Transmission, Distribution, and Storage	4.8	3.9
Energy Efficiency	6.1	6.4
Fuels	3.7	1.6
Motor Vehicles	5.6	5.5

[46] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in Vermont reported 51% overall hiring difficulty (Table VT-2).

Table VT-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	27	24	4	45	51

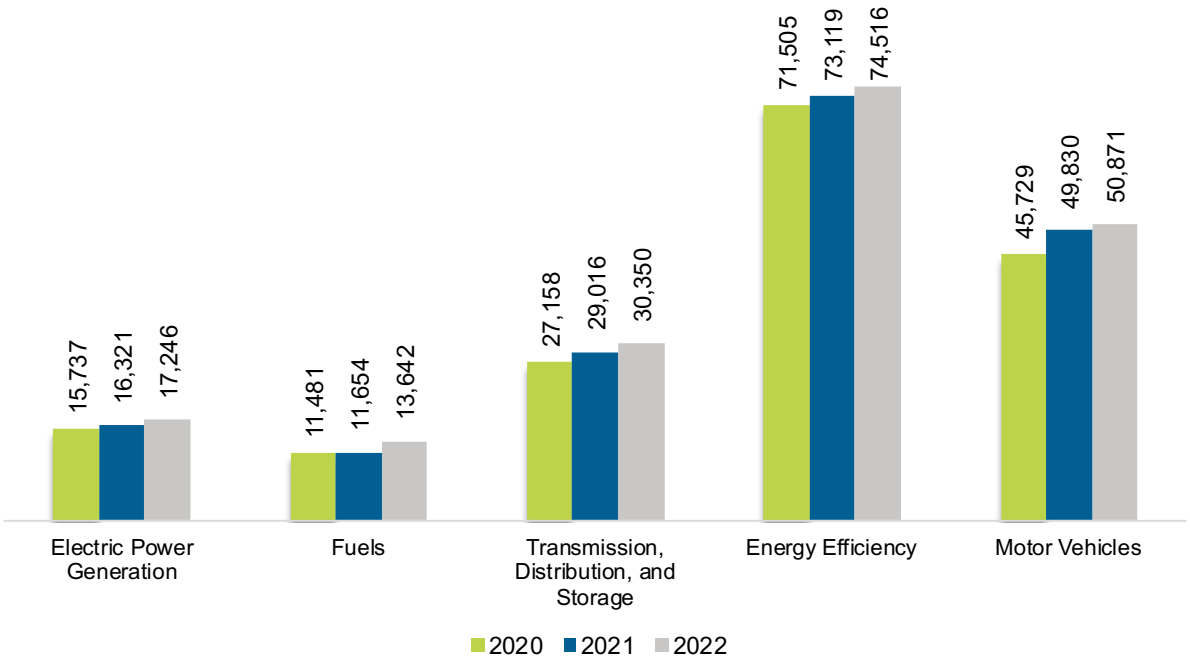
Virginia

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

Virginia had 186,624 energy workers statewide in 2022, representing 2.3% of all U.S. energy jobs. Of these energy jobs, 17,246 were in electric power generation; 13,642 in fuels; 30,350 in transmission, distribution, and storage; 74,516 in energy efficiency; and 50,871 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 6,684 jobs, or 3.7% (Figure VA-1). The energy sector in Virginia represented 4.7% of total state employment.

Figure VA-1. Employment by Major Energy Technology Application

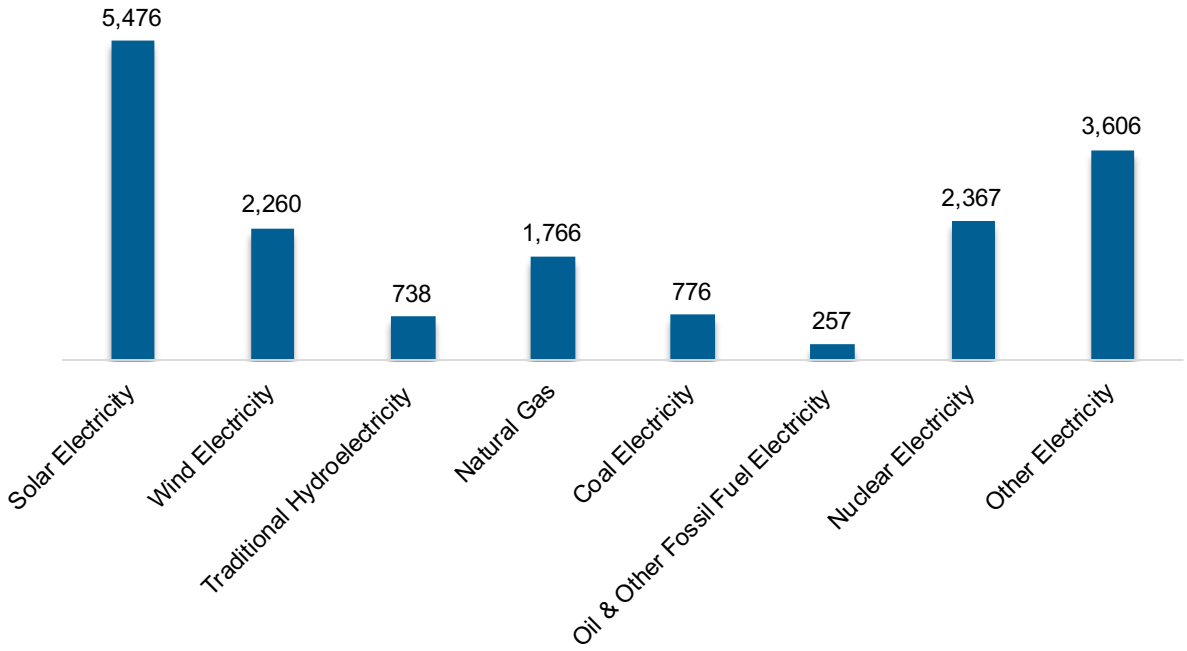


Breakdown by Technology Applications

Electric Power Generation

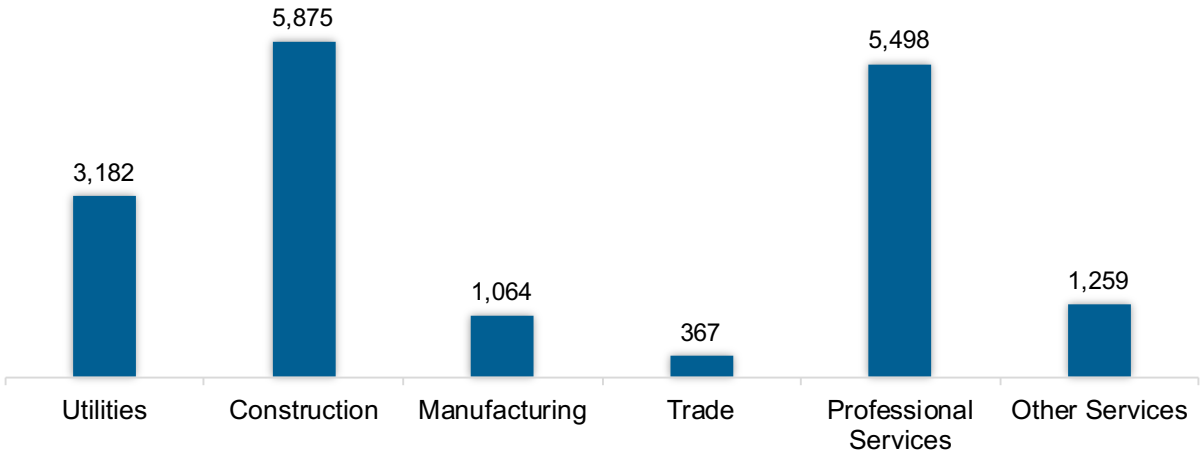
As shown in Figure VA-2, the electric power generation sector employed 17,246 workers in Virginia, 2.0% of the national electricity total, and added 925 jobs from 2021 to 2022 (5.7%).

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



Construction was the largest industry sector in the electric power generation sector, with 34.1% of jobs. Professional and business services was second largest with 31.9% (Figure VA-3).

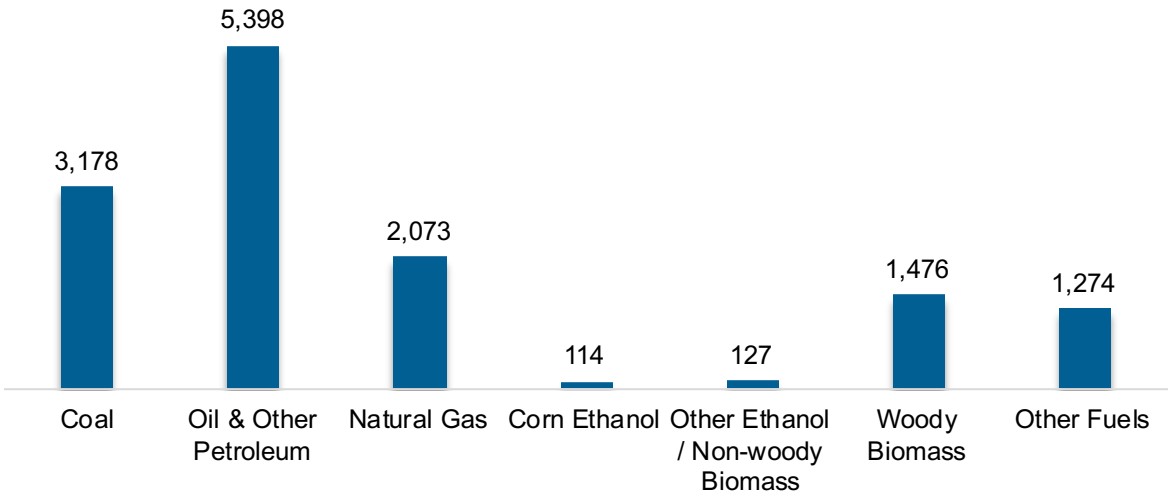
Figure VA-3. Electric Power Generation Employment by Industry Sector



Fuels

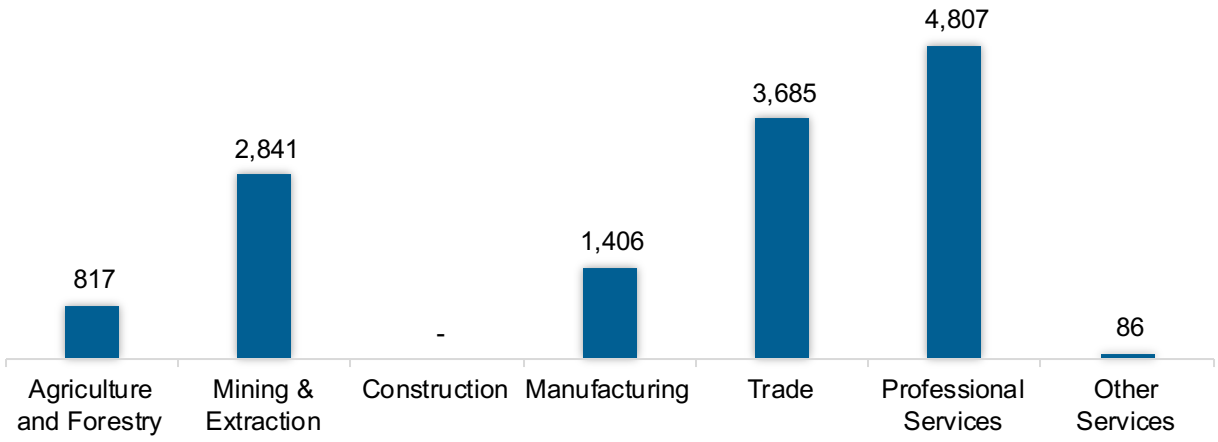
The Fuel sector employed 13,642 workers in Virginia, 1.3% of the national total in fuels (Figure VA-4). The sector gained 1,988 jobs and increased 17.1% from 2021 to 2022.

Figure VA-4. Fuels Employment by Detailed Technology Application



Professional and business services jobs represented 35.2% of fuel jobs in Virginia (Figure VA-5).

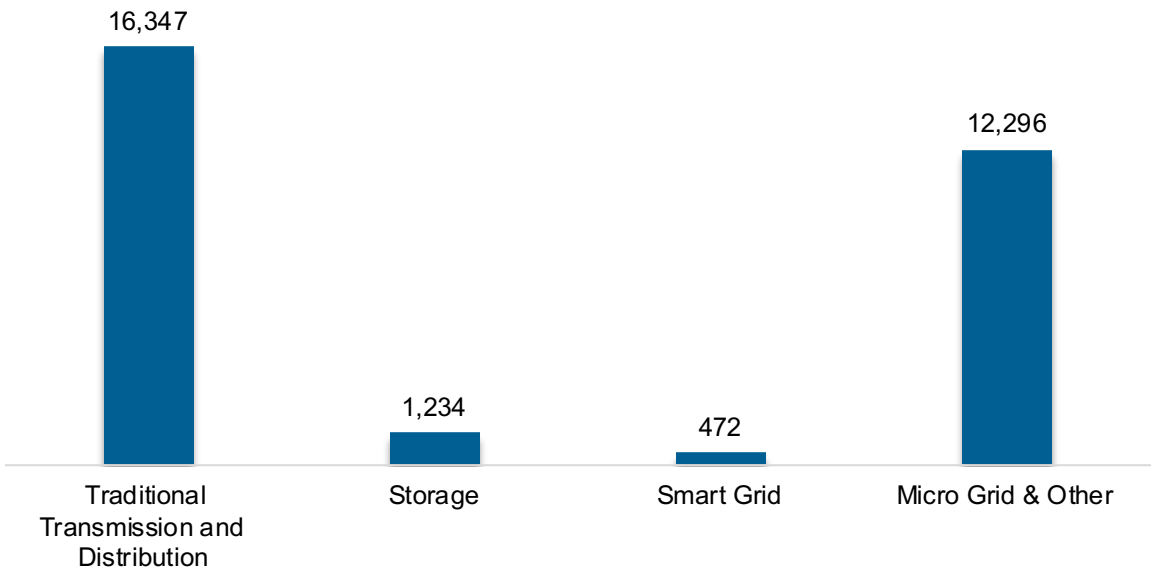
Figure VA-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

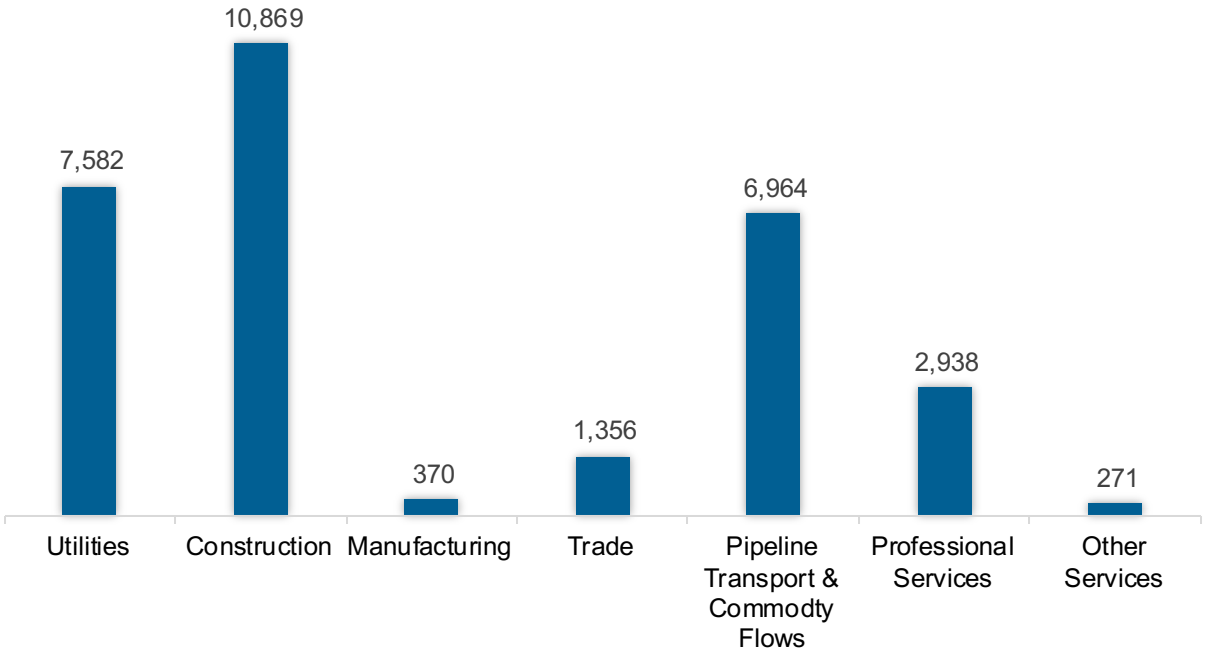
The transmission, distribution, and storage (TDS) sector employed 30,350 workers in Virginia, 1.3% of the national TDS total (Figure VA-6). The sector gained 1,334 jobs and increased 4.6% from 2021 to 2022.

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



Construction was the largest proportion of TDS jobs in Virginia, accounting for 35.8% of the sector's jobs statewide (Figure VA-7).

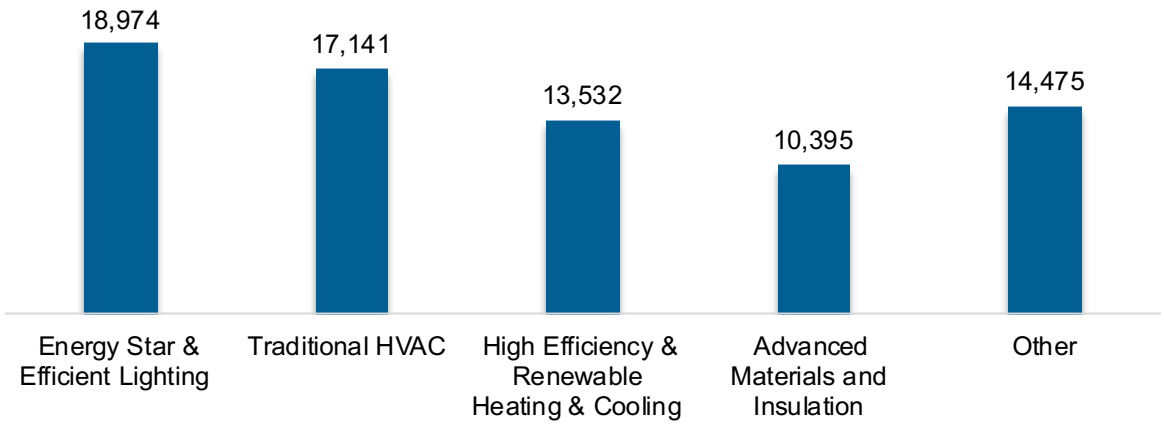
Figure VA-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

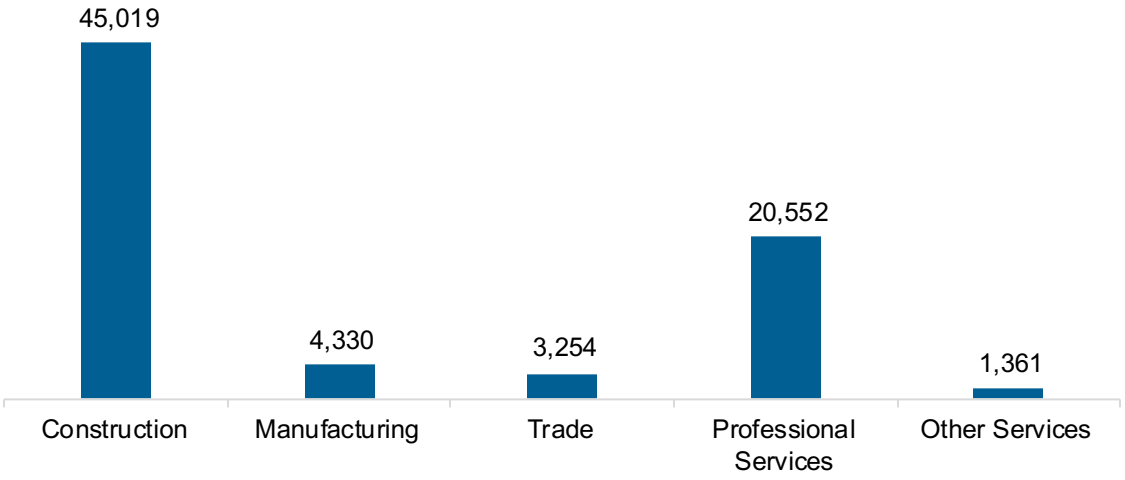
The energy efficiency (EE) sector employed 74,516 workers in Virginia, 3.4% of the national EE total. The EE sector added 1,397 jobs and increased 1.9% from 2021 to 2022 (Figure VA-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure VA-9).

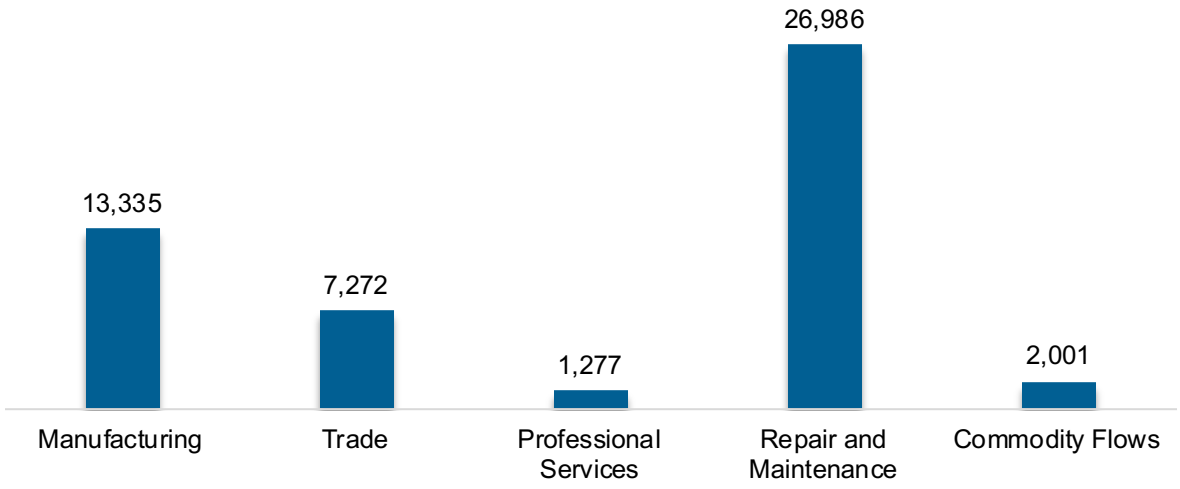
Figure VA-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 50,871 workers in Virginia, 1.9% of the national total for the sector. Motor vehicles and component parts added 1,040 jobs and increased 2.1% from 2021 to 2022. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure VA-10).

Figure VA-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 113,565 jobs in clean energy in Virginia if traditional transmission and distribution is included and 97,156 jobs if it is not.[47] These increased under either definition, growing 4.0% with traditional transmission and distribution and 3.6% without.

Employer Perspectives

Expected Growth

Employers in Virginia were more optimistic than their peers across the country about energy sector job growth over the next year (Table VA-1).

Table VA-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	7.1	6.0
Electric Power Transmission, Distribution, and Storage	6.0	3.9
Energy Efficiency	7.3	6.4
Fuels	4.9	1.6
Motor Vehicles	6.8	5.5

[47] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in Virginia reported 53% overall hiring difficulty (Table VA-2).

Table VA-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	27	26	6	42	53

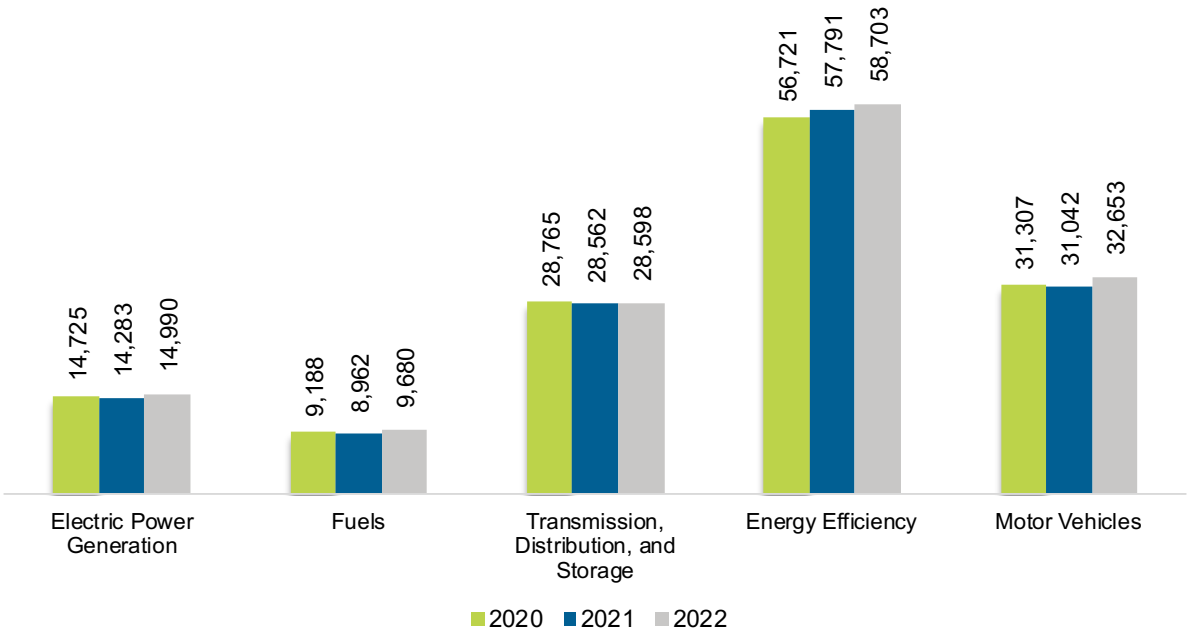
Washington

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

Washington had 144,624 energy workers statewide in 2022, representing 1.8% of all U.S. energy jobs. Of these energy jobs, 14,990 were in electric power generation; 9,680 in fuels; 28,598 in transmission, distribution, and storage; 58,703 in energy efficiency; and 32,653 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 3,983 jobs, or 2.8% (Figure WA-1). The energy sector in Washington represented 4.0% of total state employment.

Figure WA-1. Employment by Major Energy Technology Application

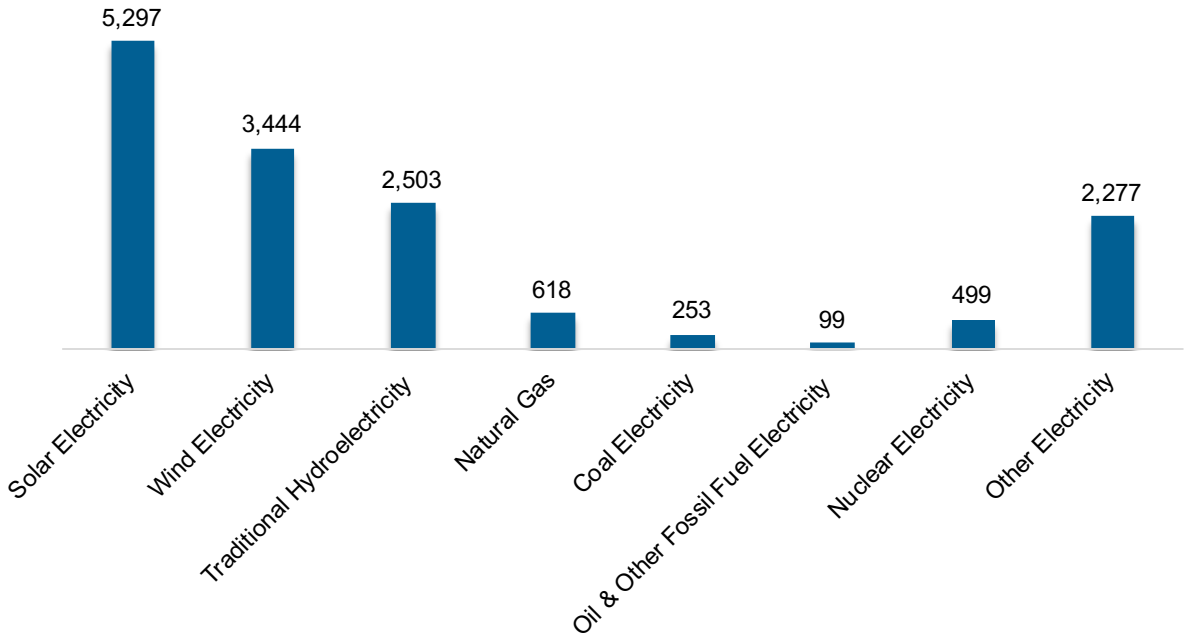


Breakdown by Technology Applications

Electric Power Generation

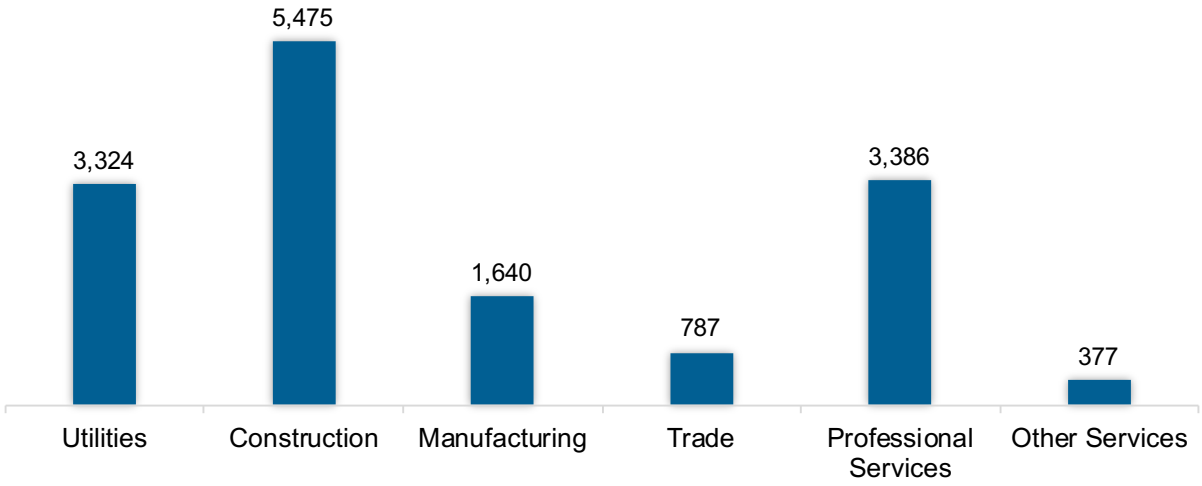
As shown in Figure WA-2, the electric power generation sector employed 14,990 workers in Washington, 1.7% of the national electricity total, and added 707 jobs from 2021 to 2022 (5.0%).

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



Construction was the largest industry sector in the electric power generation sector, with 36.5% of jobs. Professional and business services was second largest with 22.6% (Figure WA-3).

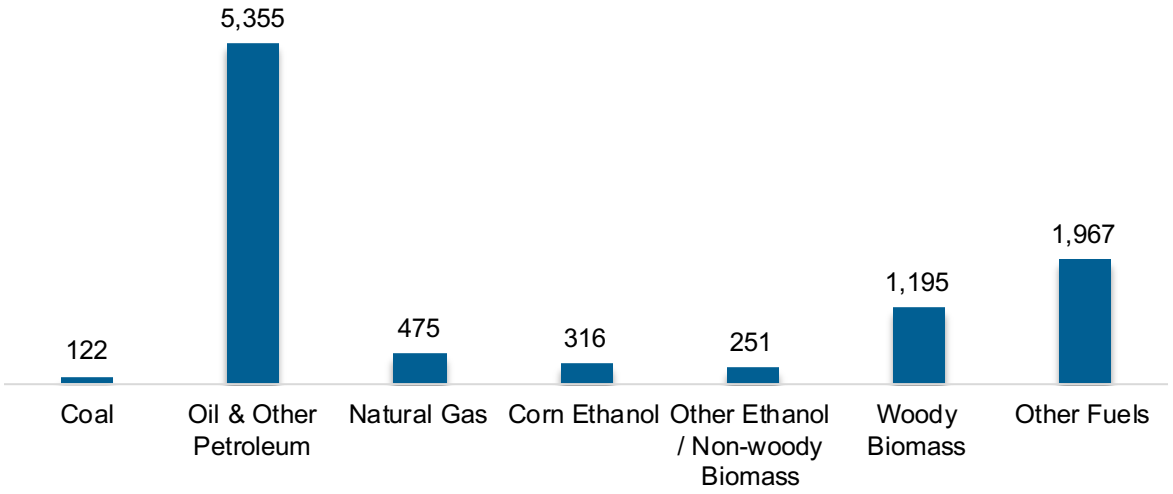
Figure WA-3. Electric Power Generation Employment by Industry Sector



Fuels

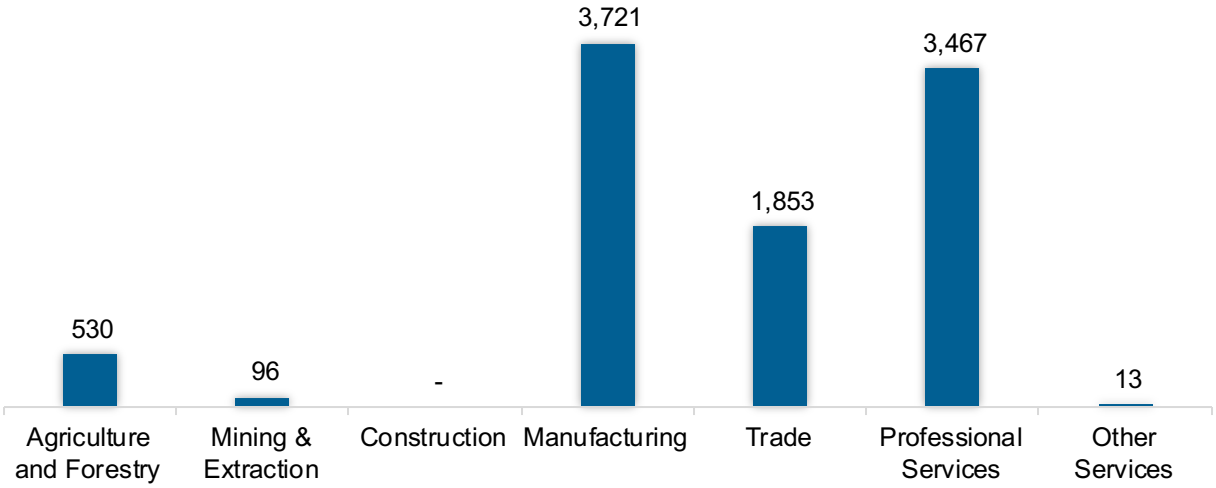
The Fuel sector employed 9,680 workers in Washington, 0.9% of the national total in fuels (Figure WA-4). The sector gained 718 jobs and increased 8.0% from 2021 to 2022.

Figure WA-4. Fuels Employment by Detailed Technology Application



Manufacturing jobs represented 38.4% of fuel jobs in Washington (Figure WA-5).

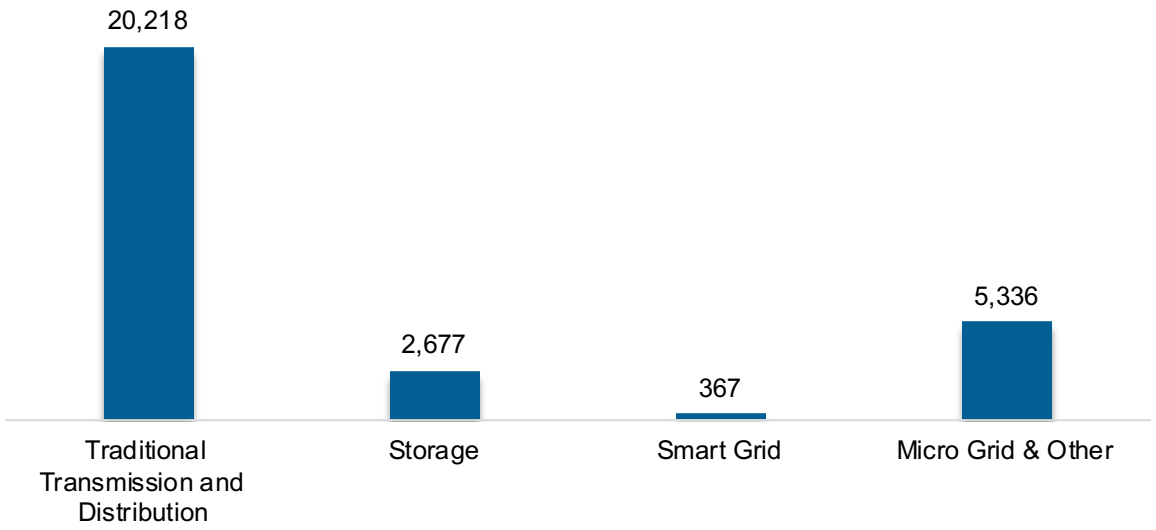
Figure WA-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

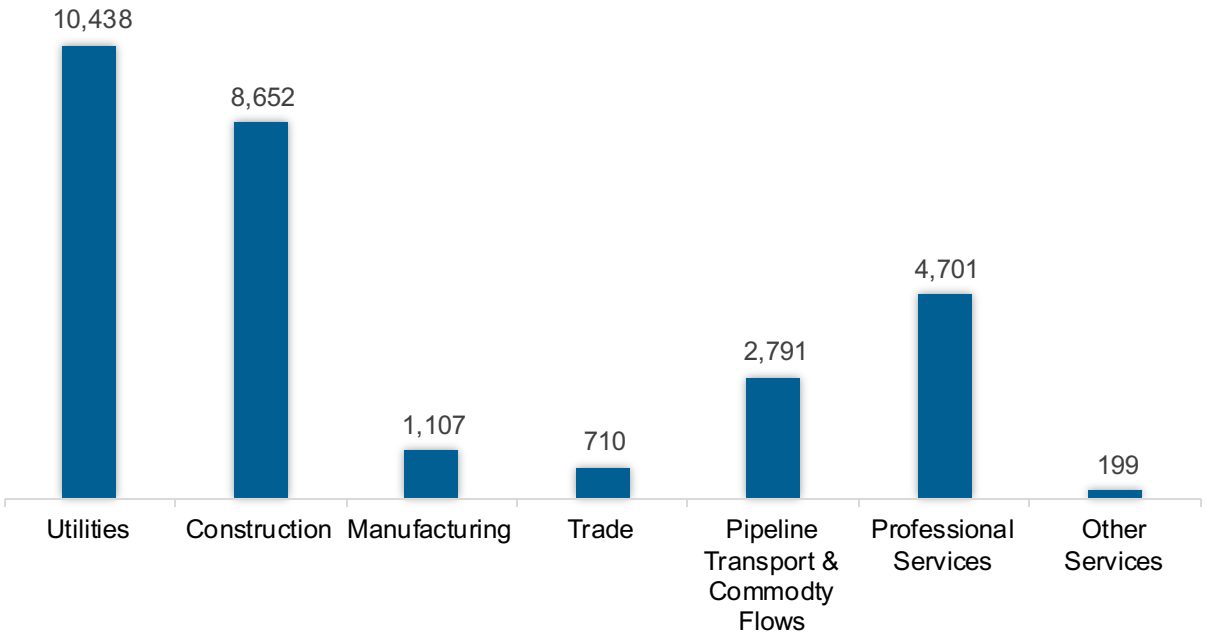
The transmission, distribution, and storage (TDS) sector employed 28,598 workers in Washington, 0.9% of the national TDS total (Figure WA-6). The sector gained 37 jobs and increased 0.1% from 2021 to 2022.

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



Utilities was the largest proportion of TDS jobs in Washington, accounting for 36.5% of the sector's jobs statewide (Figure WA-7).

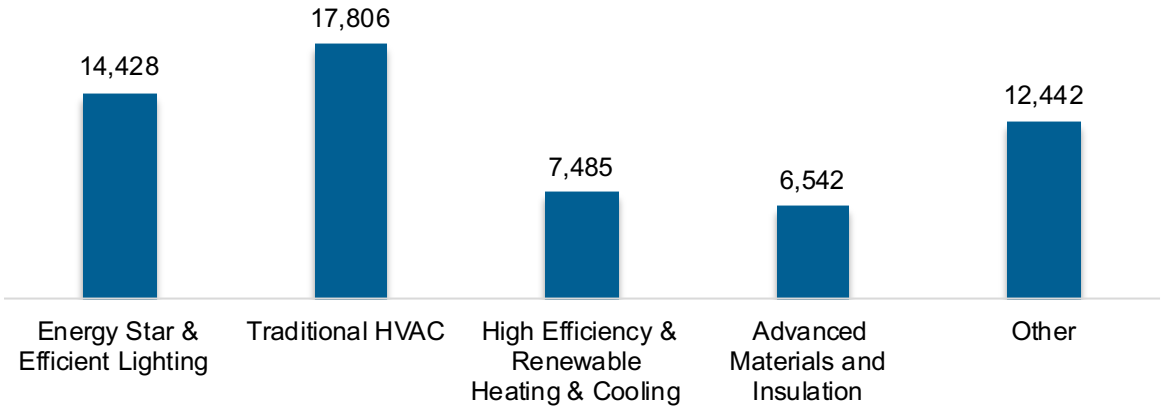
Figure WA-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

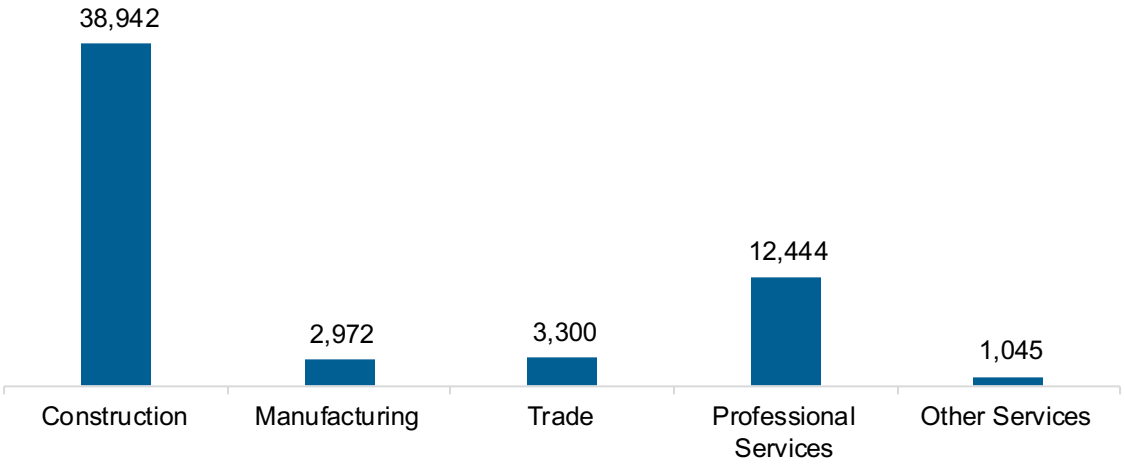
The energy efficiency (EE) sector employed 58,703 workers in Washington, 2.6% of the national EE total. The EE sector added 912 jobs and increased 1.6% from 2021 to 2022 (Figure WA-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure WA-9).

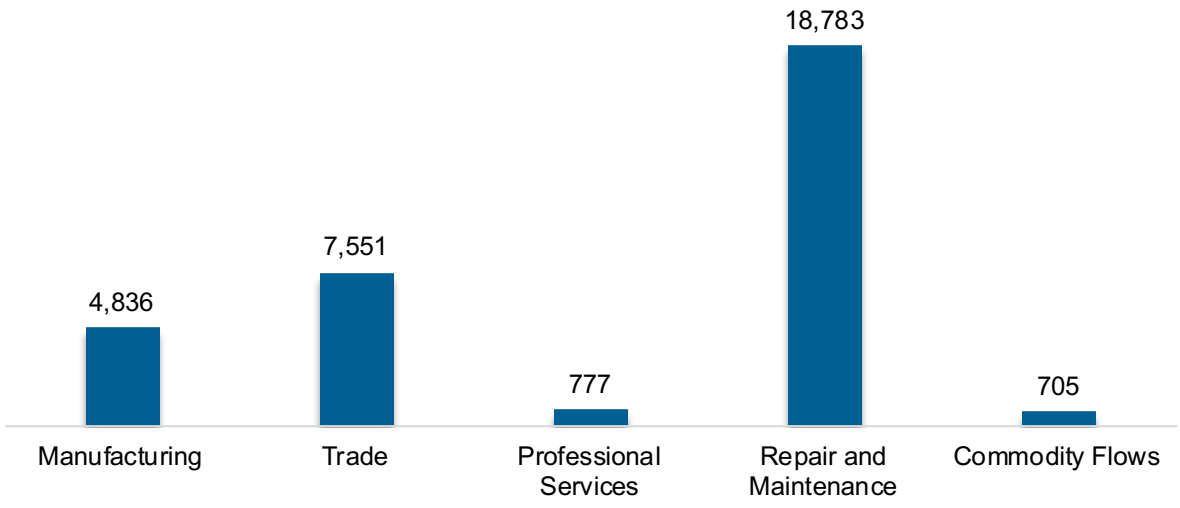
Figure WA-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 32,653 workers in Washington, 1.2% of the national total for the sector. Motor vehicles and component parts added 1,610 jobs and increased 5.2% from 2021 to 2022. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure WA-10).

Figure WA-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 101,611 jobs in clean energy in Washington if traditional transmission and distribution is included and 81,257 jobs if it is not.[48] These increased under either definition, growing 2.0% with traditional transmission and distribution and 2.5% without.

Employer Perspectives

Expected Growth

Employers in Washington were less optimistic than their peers across the country about energy sector job growth over the next year (Table WA-1).

Table WA-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	4.2	6.0
Electric Power Transmission, Distribution, and Storage	3.2	3.9
Energy Efficiency	4.4	6.4
Fuels	2.0	1.6
Motor Vehicles	4.0	5.5

[48] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in Washington reported 50% overall hiring difficulty (Table WA-2).

Table WA-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	23	27	6	43	50

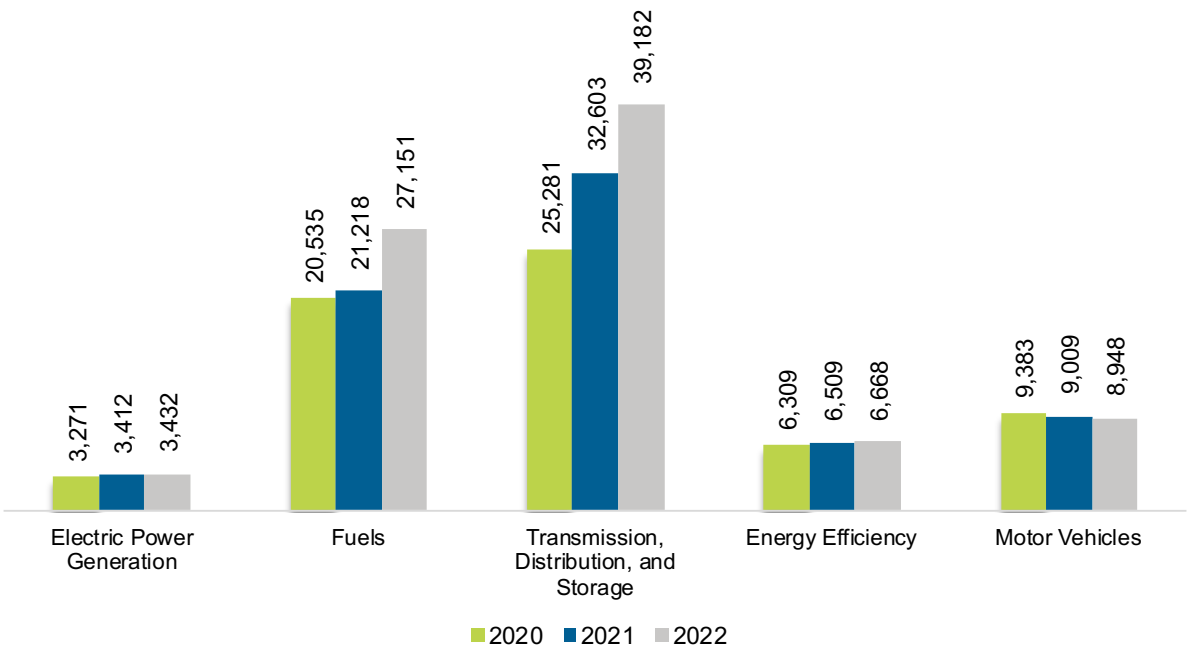
West Virginia

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

West Virginia had 85,381 energy workers statewide in 2022, representing 1.1% of all U.S. energy jobs. Of these energy jobs, 3,432 were in electric power generation; 27,151 in fuels; 39,182 in transmission, distribution, and storage; 6,668 in energy efficiency; and 8,948 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 12,631 jobs, or 17.4% (Figure WV-1). The energy sector in West Virginia represented 12.6% of total state employment.

Figure WV-1. Employment by Major Energy Technology Application

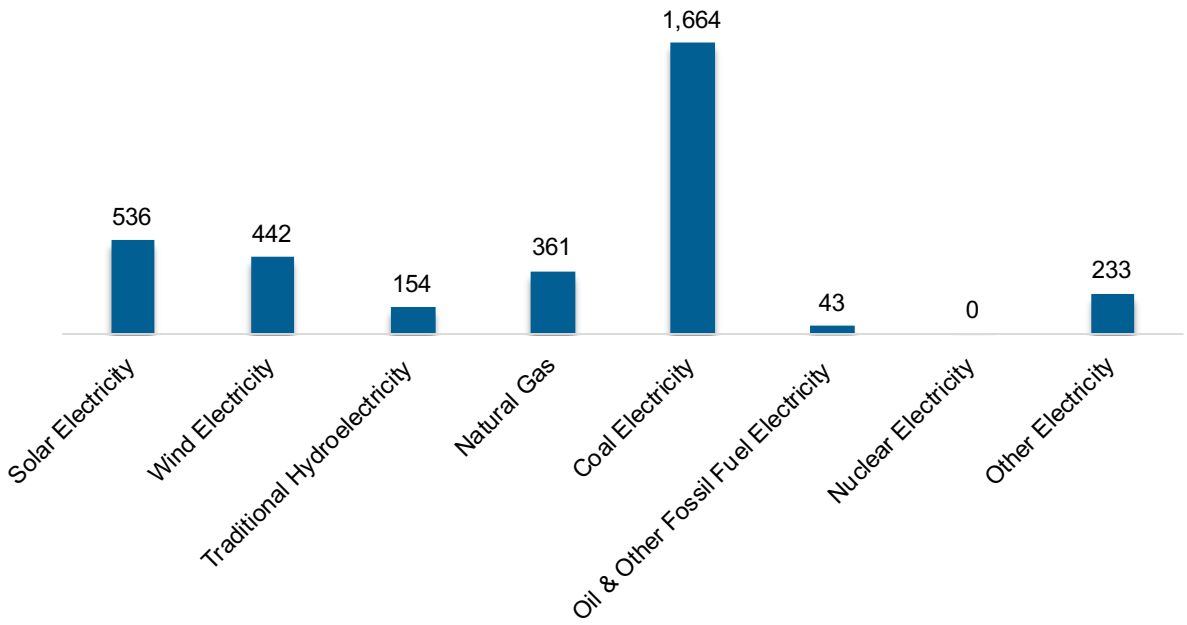


Breakdown by Technology Applications

Electric Power Generation

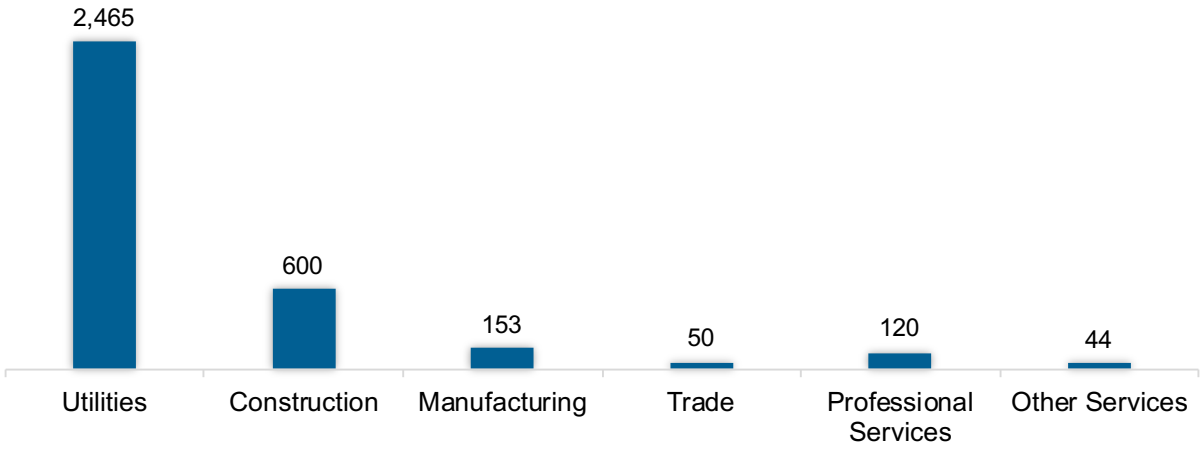
As shown in Figure WV-2, the electric power generation sector employed 3,432 workers in West Virginia, 0.4% of the national electricity total, and added 20 jobs from 2021 to 2022 (0.6%).

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



Utilities was the largest industry sector in the electric power generation sector, with 71.8% of jobs. Construction was second largest with 17.5% (Figure WV-3).

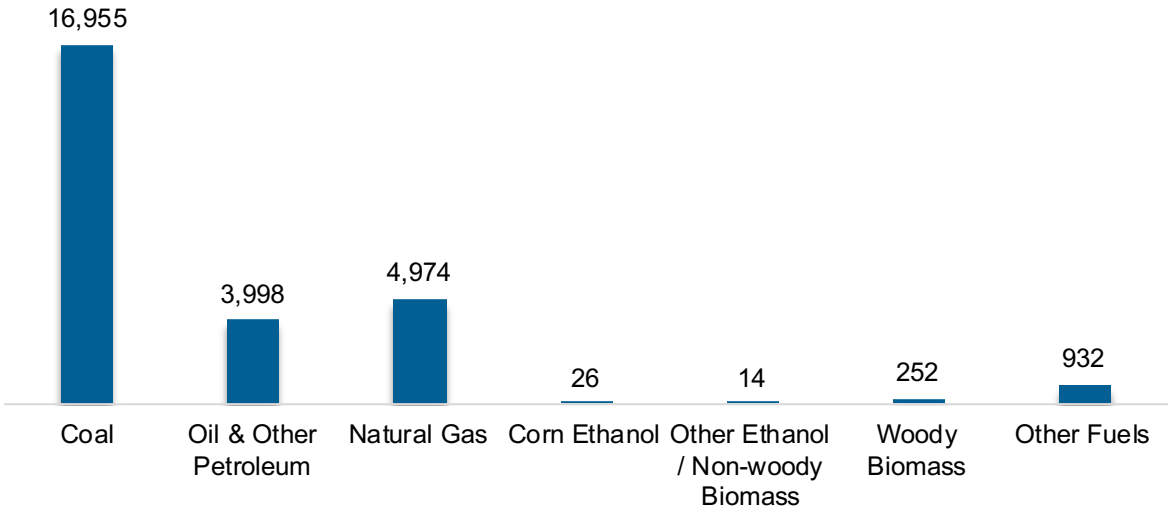
Figure WV-3. Electric Power Generation Employment by Industry Sector



Fuels

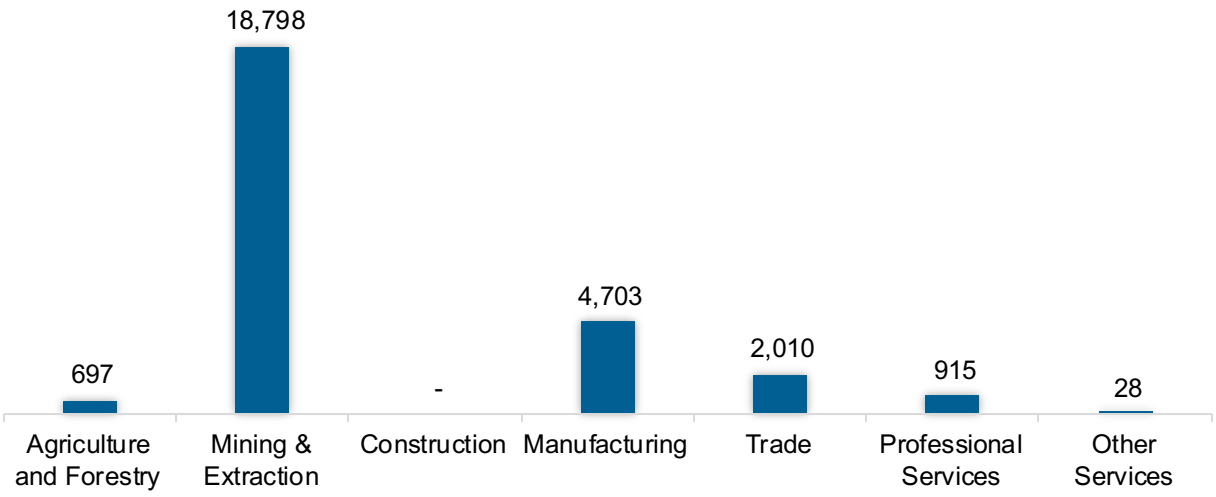
The Fuel sector employed 27,151 workers in West Virginia, 2.6% of the national total in fuels (Figure WV-4). The sector gained 5,933 jobs and increased 28.0% from 2021 to 2022.

Figure WV-4. Fuels Employment by Detailed Technology Application



Mining and extraction jobs represented 69.2% of fuel jobs in West Virginia (Figure WV-5).

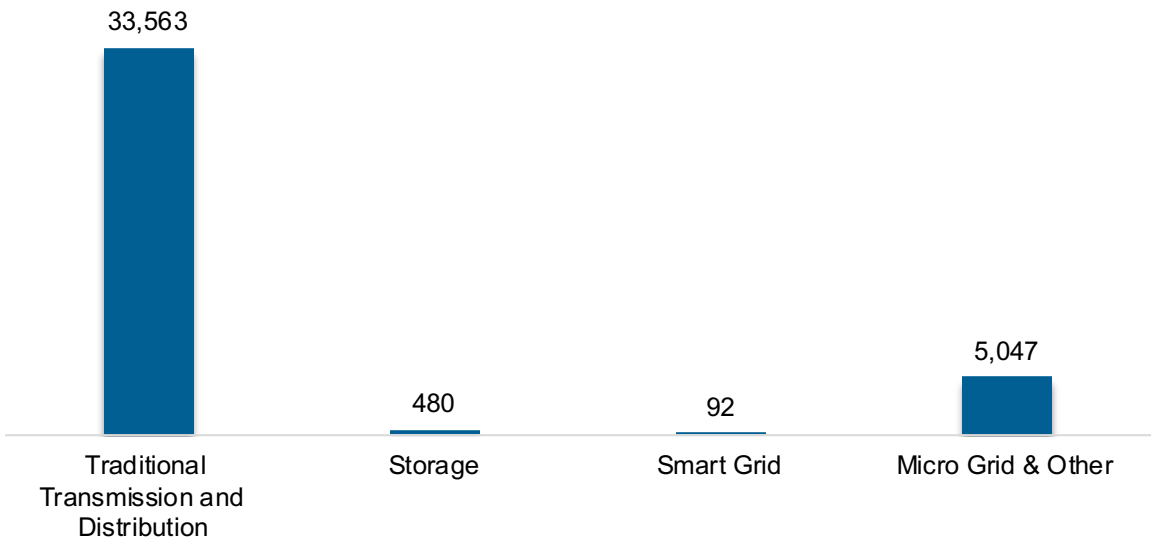
Figure WV-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

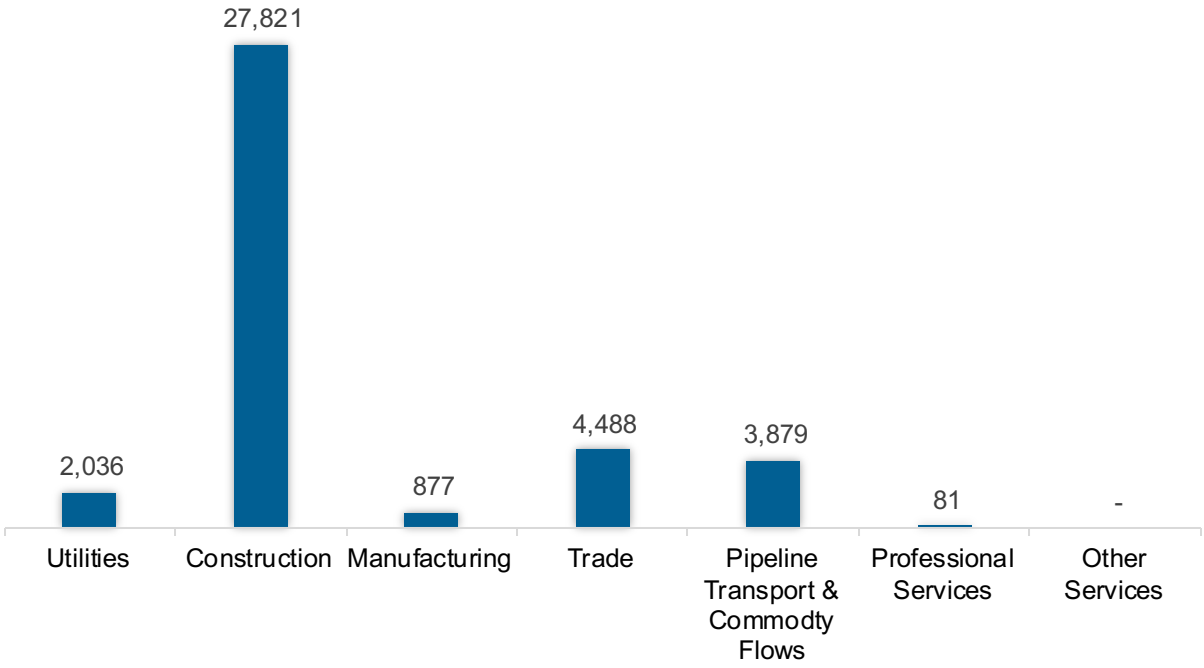
The transmission, distribution, and storage (TDS) sector employed 39,182 workers in West Virginia, 2.6% of the national TDS total (Figure WV-6). The sector gained 6,579 jobs and increased 20.2% from 2021 to 2022.

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



Construction was the largest proportion of TDS jobs in West Virginia, accounting for 71.0% of the sector's jobs statewide (Figure WV-7).

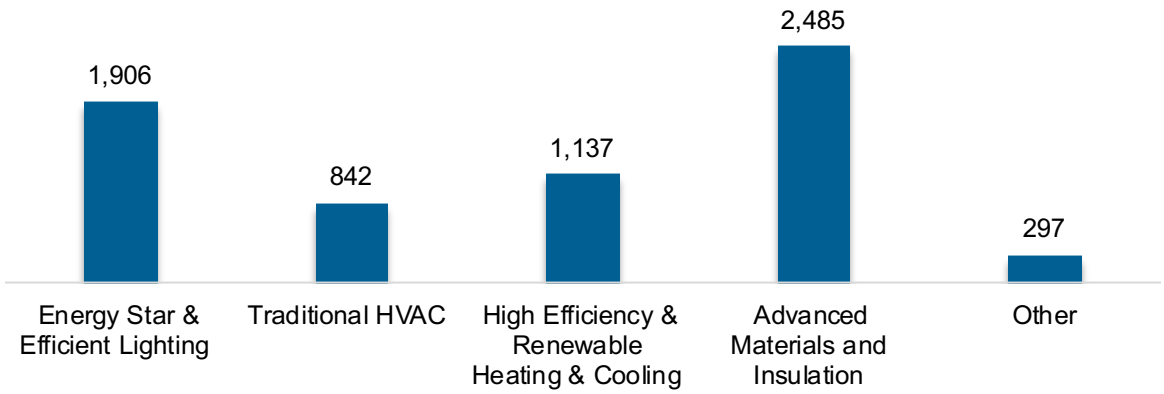
Figure WV-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

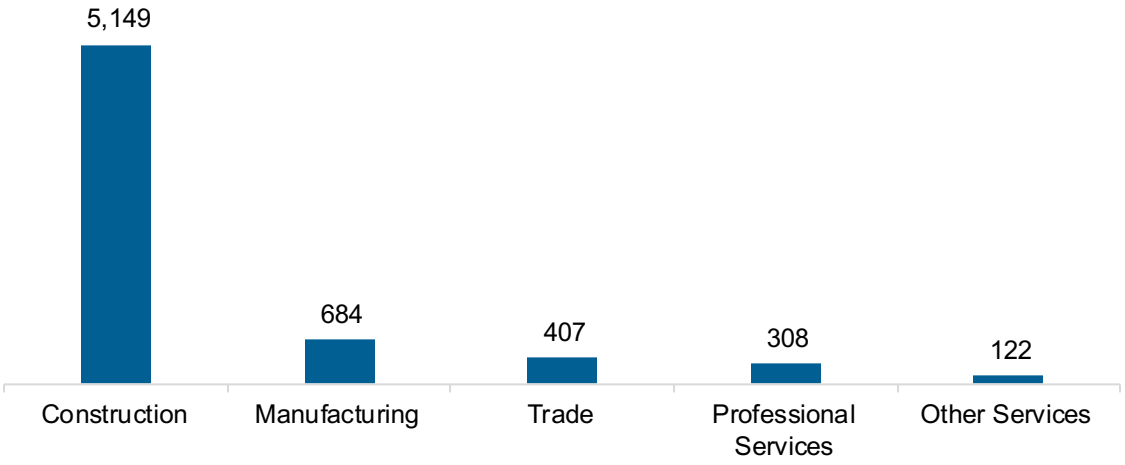
The energy efficiency (EE) sector employed 6,668 workers in West Virginia, 0.3% of the national EE total. The EE sector added 159 jobs and decreased 2.4% from 2021 to 2022 (Figure WV-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure WV-9).

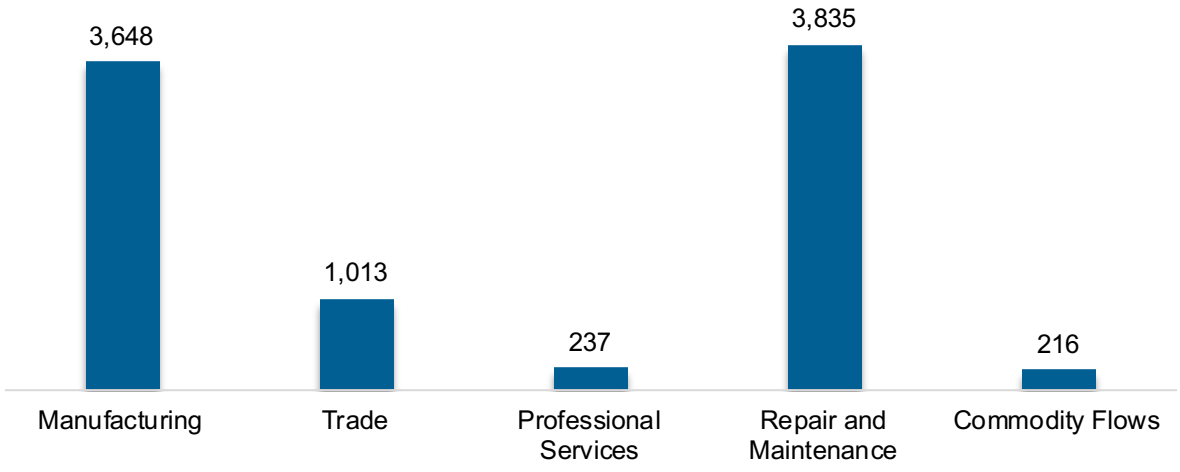
Figure WV-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 8,948 workers in West Virginia, 0.3% of the national total for the sector. Motor vehicles and component parts lost 61 jobs and decreased 0.7% from 2021 to 2022. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure WV-10).

Figure WV-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 43,331 jobs in clean energy in West Virginia if traditional transmission and distribution is included and 9,743 jobs if it is not.[49] These increased under either definition, growing 19.3% with traditional transmission and distribution and 3.6% without.

Employer Perspectives

Expected Growth

Employers in West Virginia were less optimistic than their peers across the country about energy sector job growth over the next year (Table WV-1).

Table WV-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	4.5	6.0
Electric Power Transmission, Distribution, and Storage	3.4	3.9
Energy Efficiency	4.7	6.4
Fuels	2.3	1.6
Motor Vehicles	4.2	5.5

[49] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in West Virginia reported 50% overall hiring difficulty (Table WV-2).

Table WV-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	33	17	4	45	50

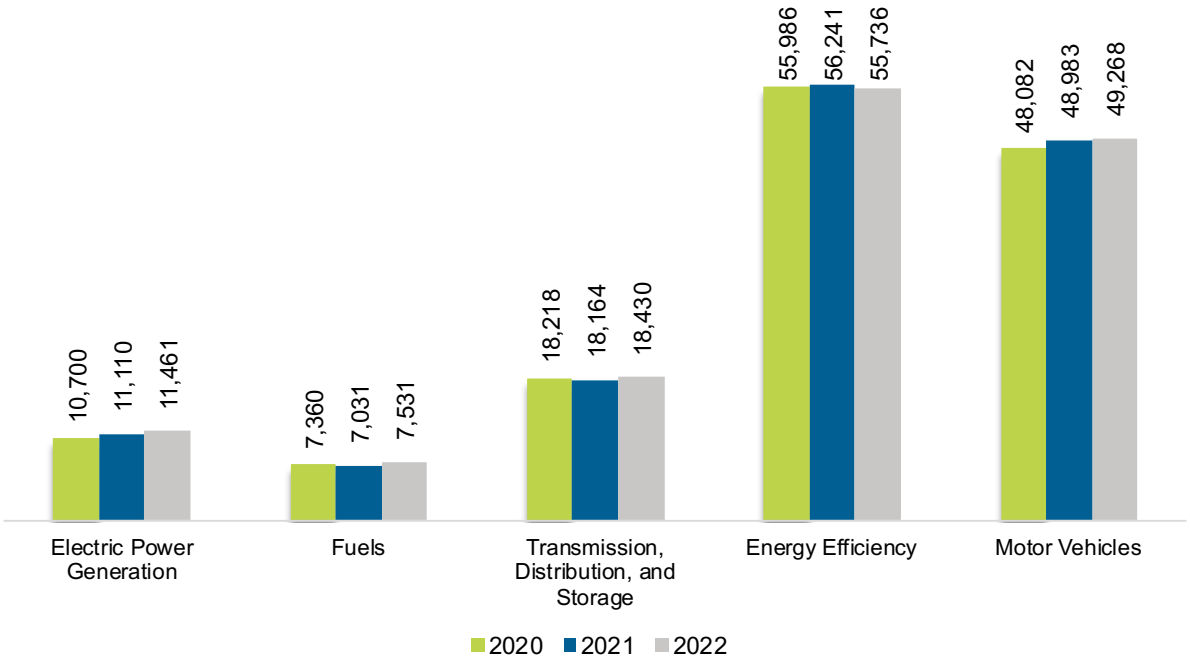
Wisconsin

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

Wisconsin had 142,426 energy workers statewide in 2022, representing 1.8% of all U.S. energy jobs. Of these energy jobs, 11,461 were in electric power generation; 7,531 in fuels; 18,430 in transmission, distribution, and storage; 55,736 in energy efficiency; and 49,268 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 895 jobs, or 0.6% (Figure WI-1). The energy sector in Wisconsin represented 4.9% of total state employment.

Figure WI-1. Employment by Major Energy Technology Application

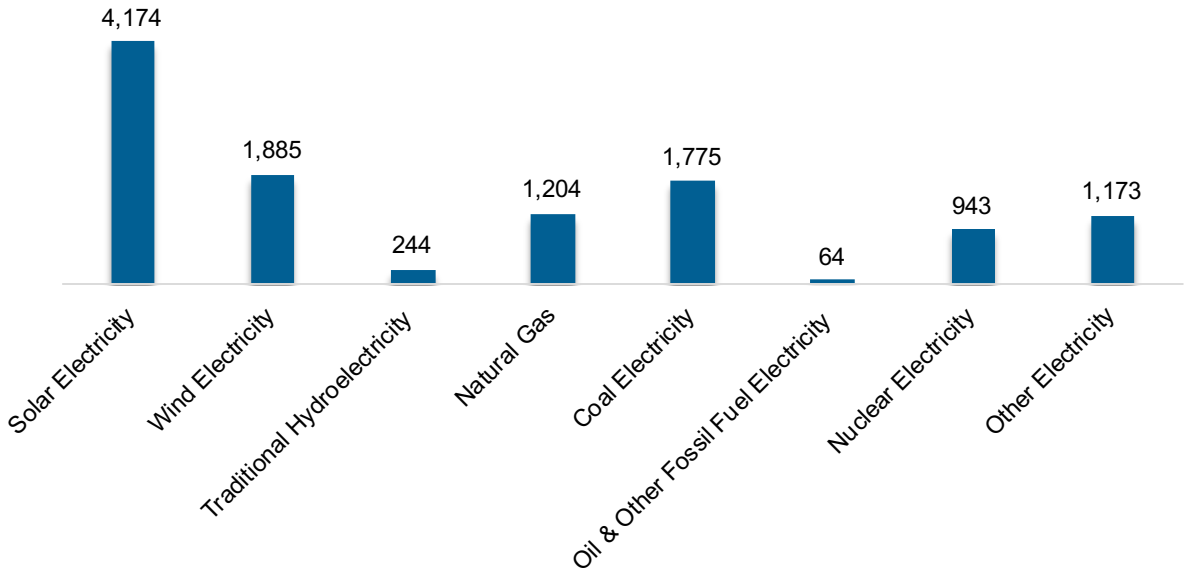


Breakdown by Technology Applications

Electric Power Generation

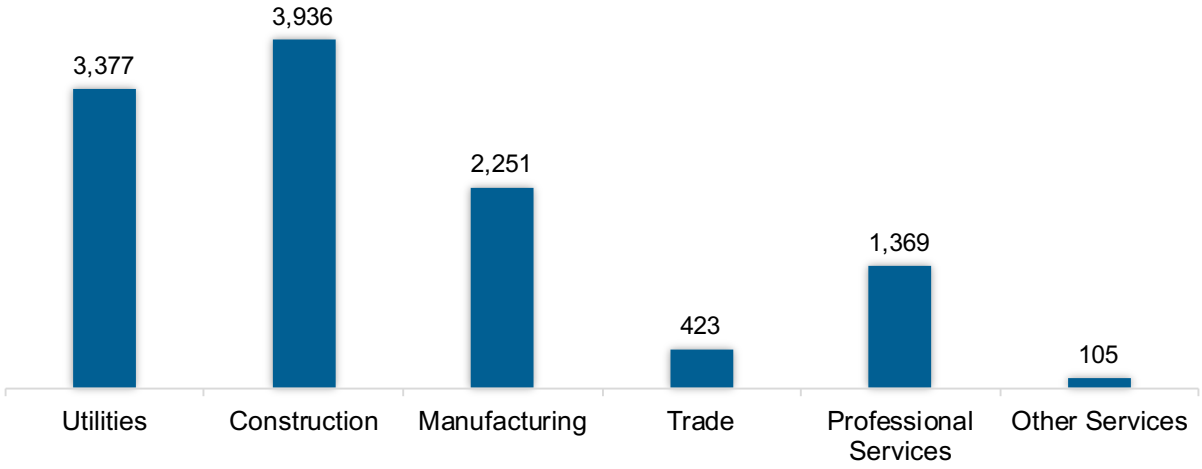
As shown in Figure WI-2, the electric power generation sector employed 11,461 workers in Wisconsin, 1.3% of the national electricity total, and added 351 jobs from 2021 to 2022 (3.2%).

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



Construction was the largest industry sector in the electric power generation sector, with 34.3% of jobs. Utilities was second largest with 29.5% (Figure WI-3).

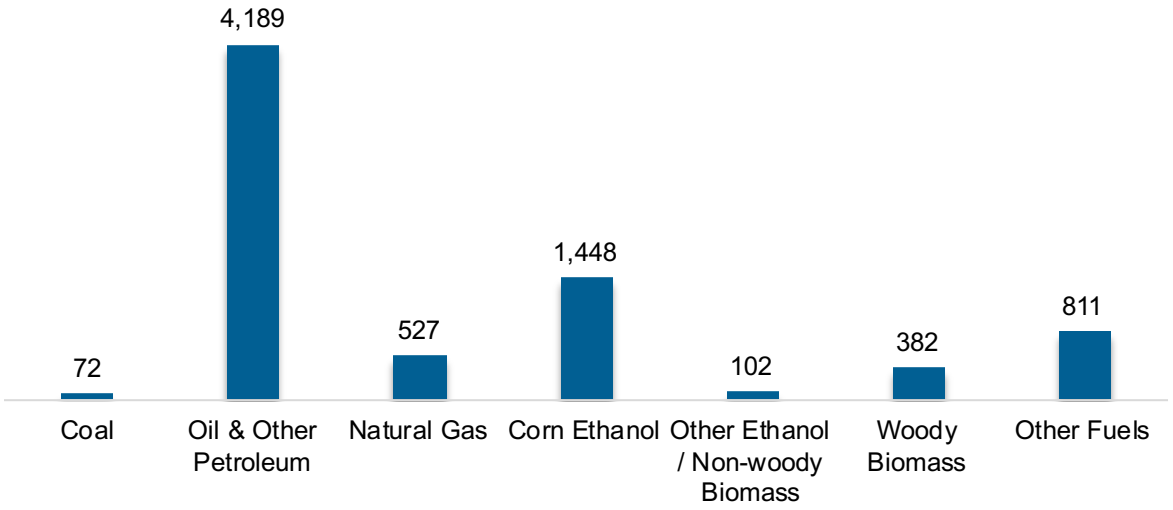
Figure WI-3. Electric Power Generation Employment by Industry Sector



Fuels

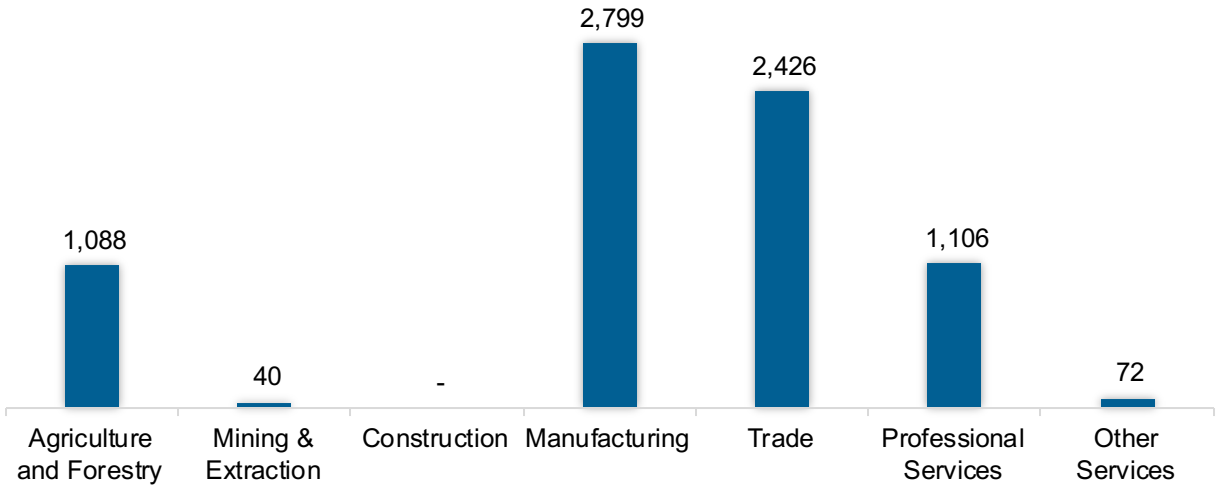
The Fuel sector employed 7,531 workers in Wisconsin, 0.7% of the national total in fuels (Figure WI-4). The sector gained 500 jobs and increased 7.1% from 2021 to 2022.

Figure WI-4. Fuels Employment by Detailed Technology Application



Manufacturing jobs represented 37.2% of fuel jobs in Wisconsin (Figure WI-5).

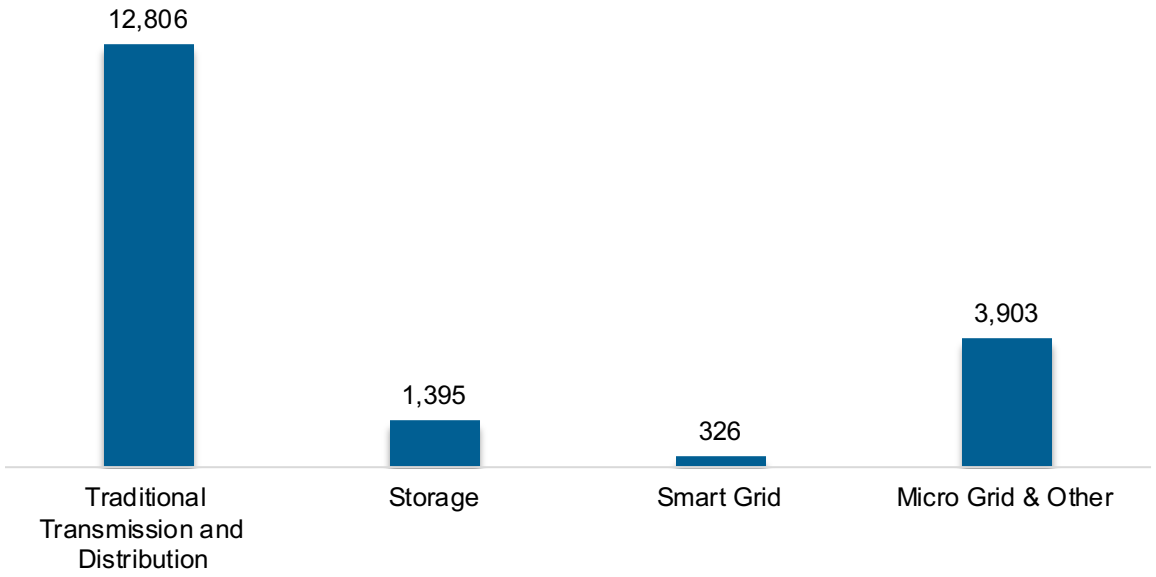
Figure WI-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

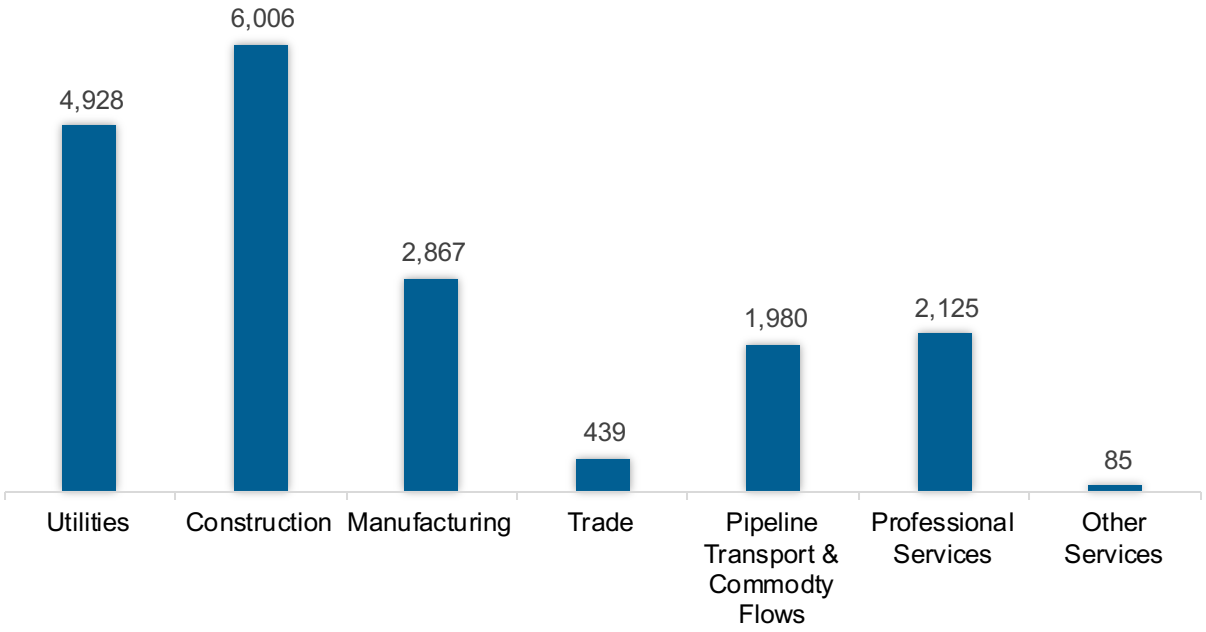
The transmission, distribution, and storage (TDS) sector employed 18,430 workers in Wisconsin, 0.7% of the national TDS total (Figure WI-6). The sector gained 266 jobs and increased 1.5% from 2021 to 2022.

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



Construction was the largest proportion of TDS jobs in Wisconsin, accounting for 32.6% of the sector's jobs statewide (Figure WI-7).

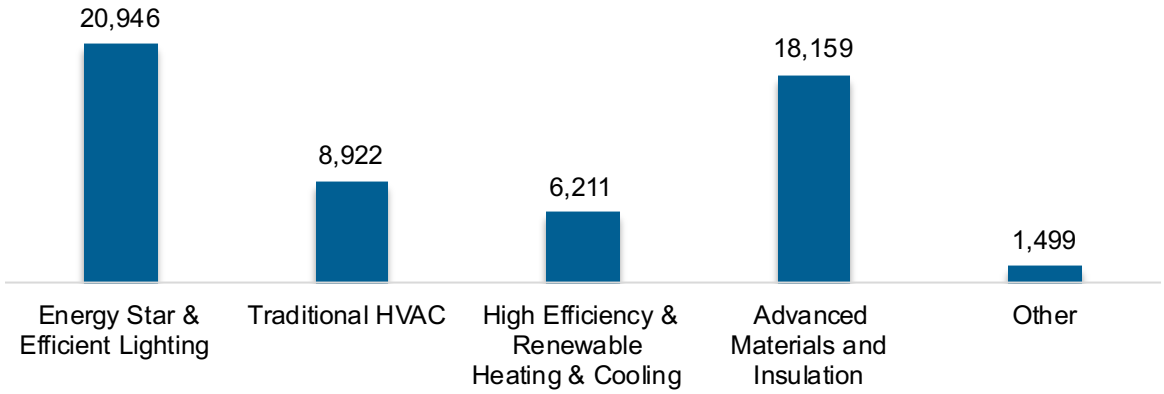
Figure WI-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

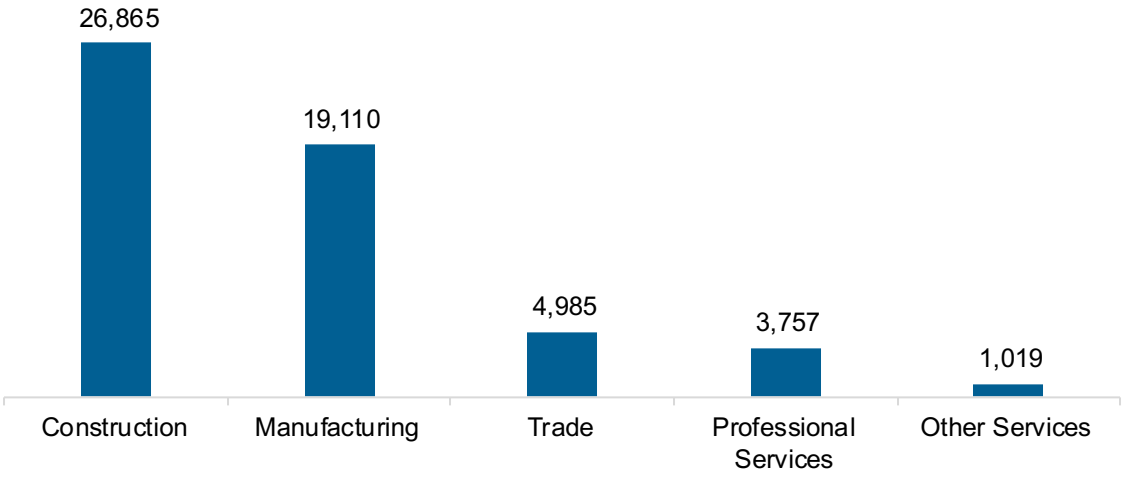
The energy efficiency (EE) sector employed 55,736 workers in Wisconsin, 2.5% of the national EE total. The EE sector lost 505 jobs and increased 0.9% from 2021 to 2022 (Figure WI-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure WI-9).

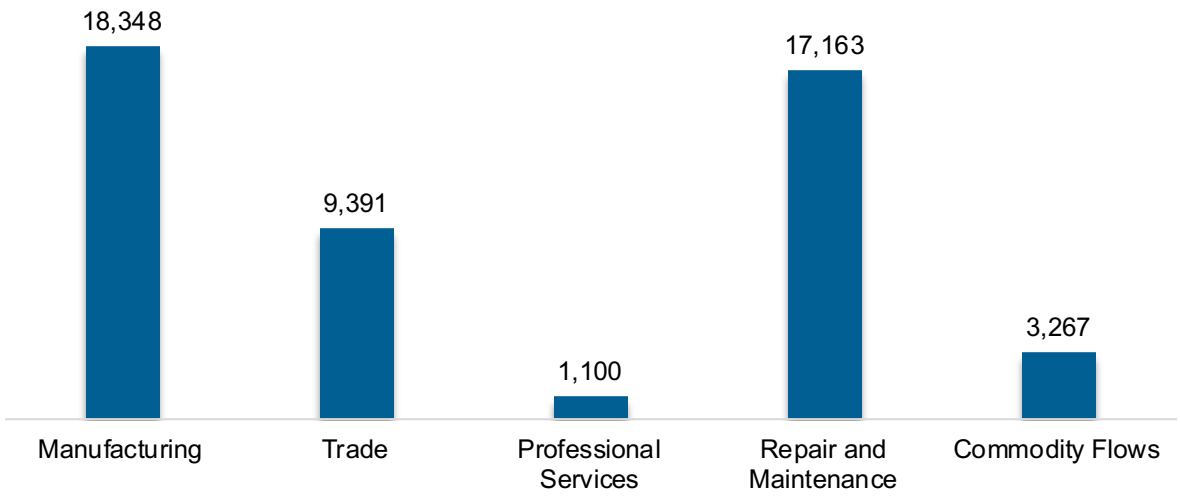
Figure WI-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 49,268 workers in Wisconsin, 1.9% of the national total for the sector. Motor vehicles and component parts added 285 jobs and increased 0.6% from 2021 to 2022. Manufacturing is the largest proportion of motor vehicle jobs (Figure WI-10).

Figure WI-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 84,747 jobs in clean energy in Wisconsin if traditional transmission and distribution is included and 71,870 jobs if it is not.[50] These increased under either definition, growing 0.6% with traditional transmission and distribution and 0.6% without.

Employer Perspectives

Expected Growth

Employers in Wisconsin were more optimistic than their peers across the country about energy sector job growth over the next year (Table WI-1).

Table WI-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	6.5	6.0
Electric Power Transmission, Distribution, and Storage	5.5	3.9
Energy Efficiency	6.7	6.4
Fuels	4.3	1.6
Motor Vehicles	6.3	5.5

[50] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in Wisconsin reported 53% overall hiring difficulty (Table WI-2).

Table WI-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	28	25	4	42	53

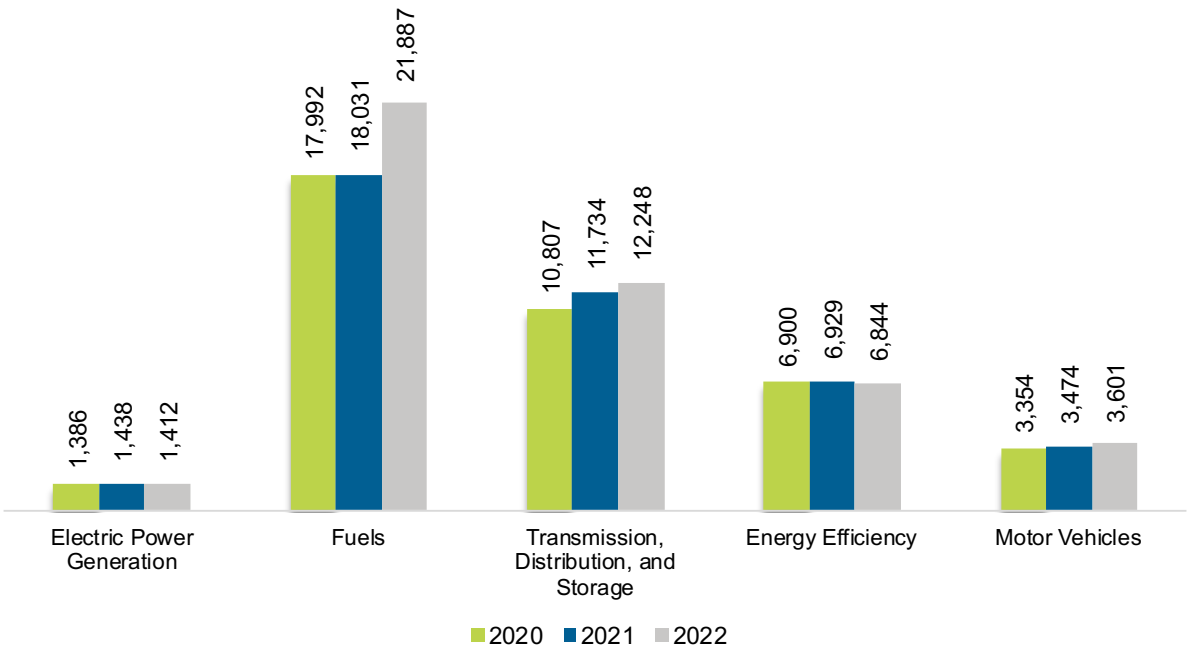
Wyoming

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

Wyoming had 45,992 energy workers statewide in 2022, representing 0.6% of all U.S. energy jobs. Of these energy jobs, 1,412 were in electric power generation; 21,887 in fuels; 12,248 in transmission, distribution, and storage; 6,844 in energy efficiency; and 3,601 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 4,387 jobs, or 10.5% (Figure WY-1). The energy sector in Wyoming represented 16.5% of total state employment.

Figure WY-1. Employment by Major Energy Technology Application

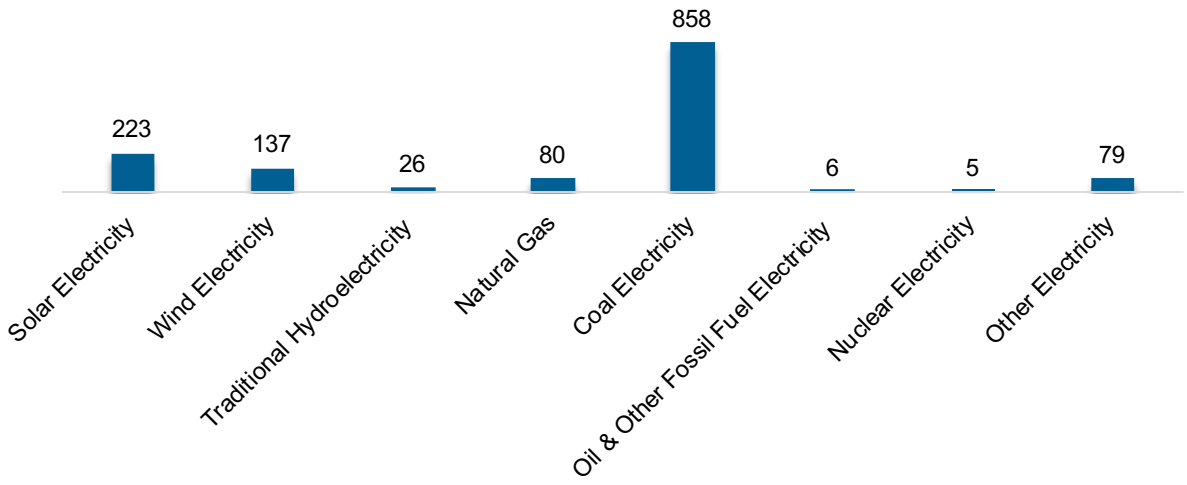


Breakdown by Technology Applications

Electric Power Generation

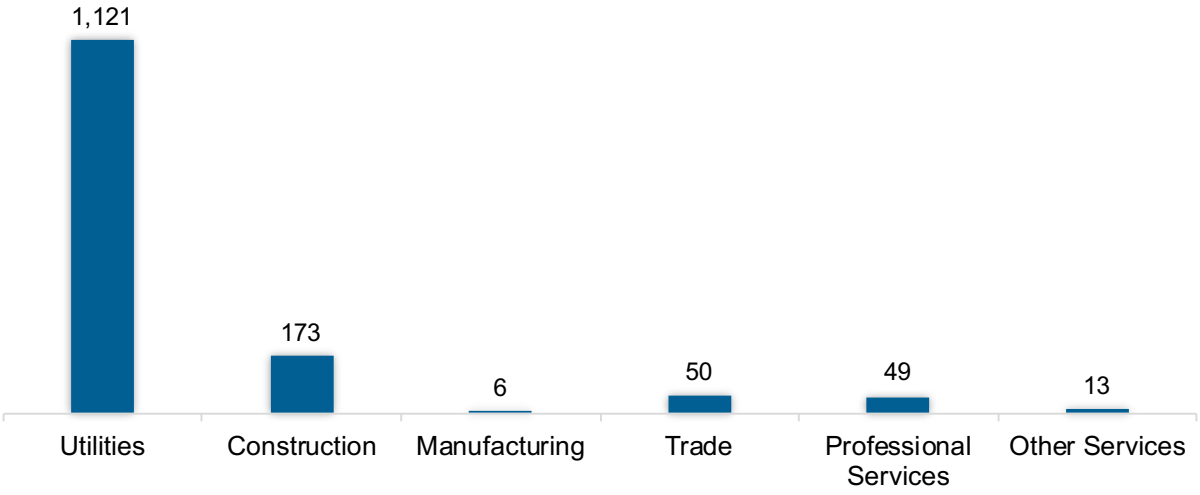
As shown in Figure WY-2, the electric power generation sector employed 1,412 workers in Wyoming, 0.2% of the national electricity total, and lost 26 jobs from 2021 to 2022 (-1.8%).

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



Utilities was the largest industry sector in the electric power generation sector, with 79.4% of jobs. Construction was second largest with 12.2% (Figure WY-3).

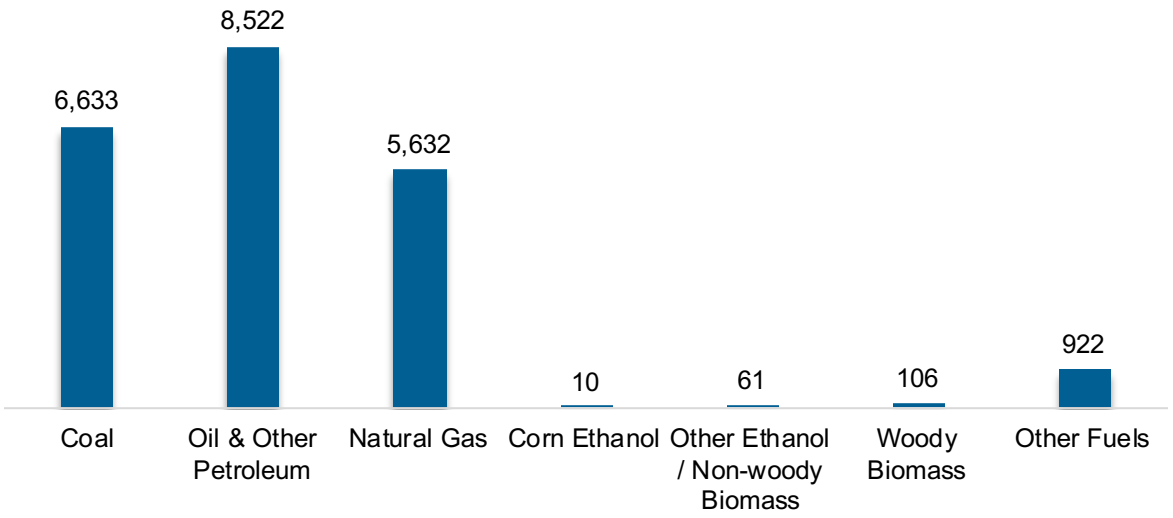
Figure WY-3. Electric Power Generation Employment by Industry Sector



Fuels

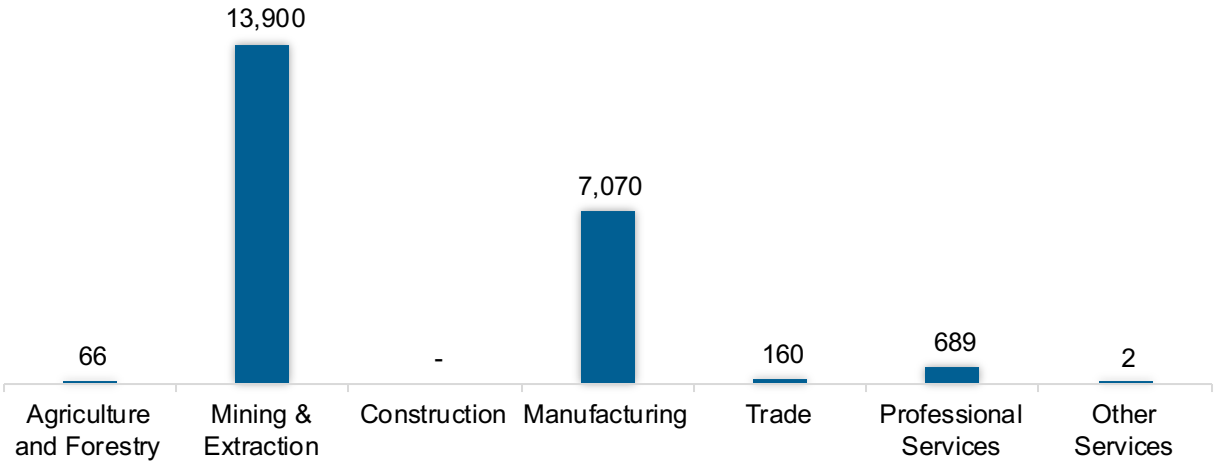
The Fuel sector employed 21,887 workers in Wyoming, 2.1% of the national total in fuels (Figure WY-4). The sector gained 3,855 jobs and increased 21.4% from 2021 to 2022.

Figure WY-4. Fuels Employment by Detailed Technology Application



Mining and extraction jobs represented 63.5% of fuel jobs in Wyoming (Figure WY-5).

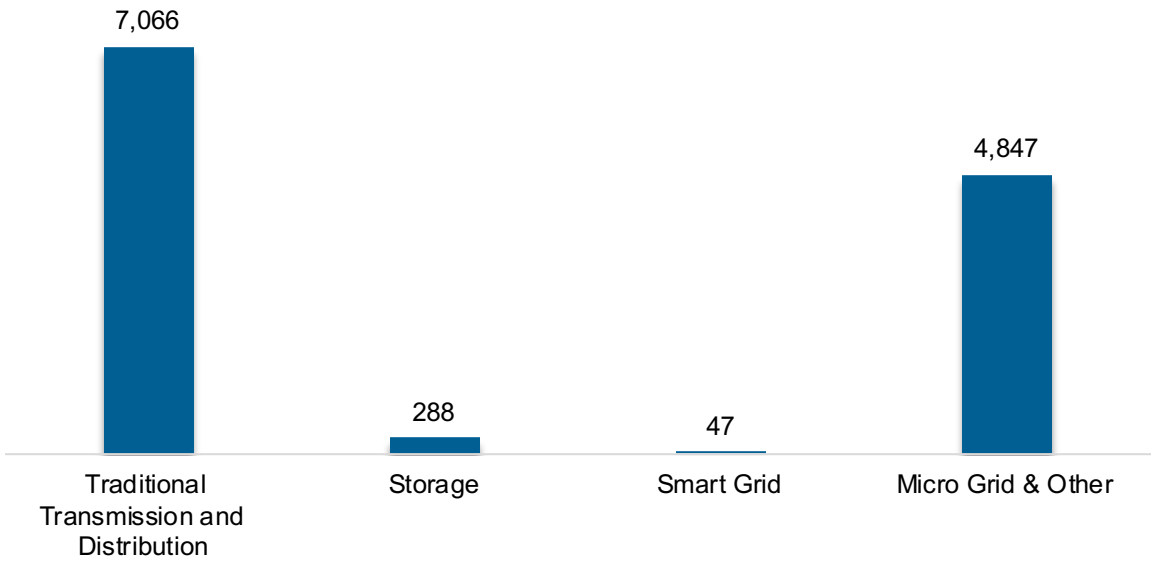
Figure WY-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

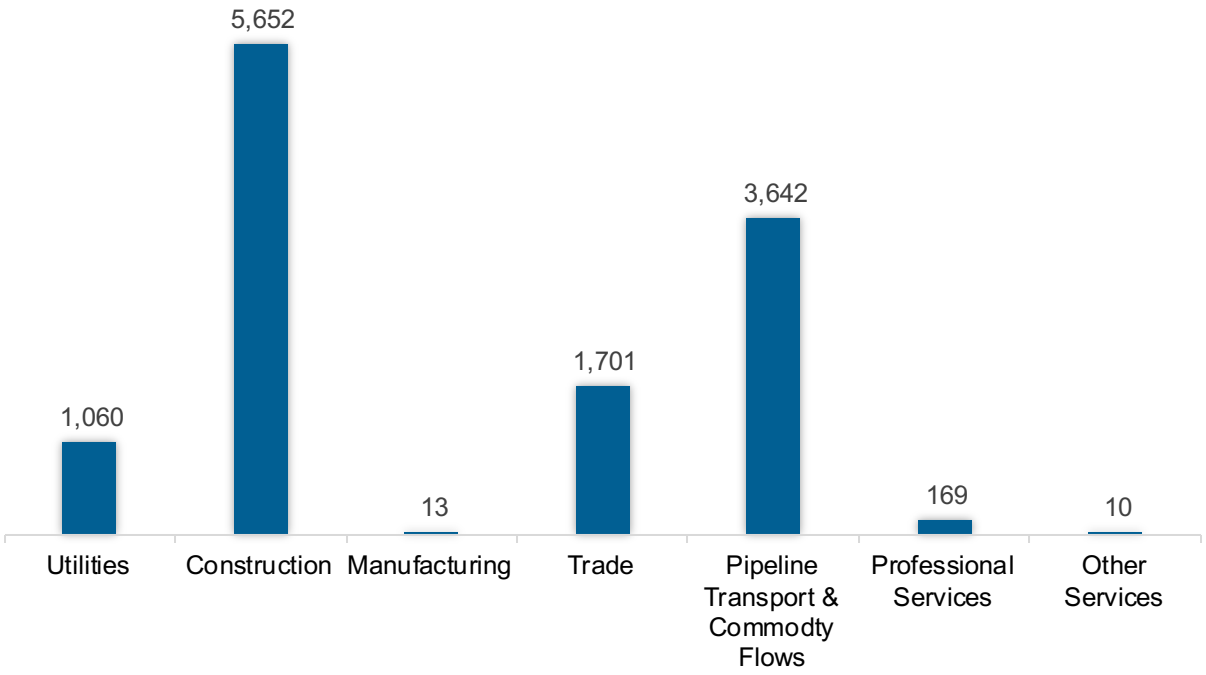
The transmission, distribution, and storage (TDS) sector employed 12,248 workers in Wyoming, 2.1% of the national TDS total (Figure WY-6). The sector gained 514 jobs and increased 4.4% from 2021 to 2022.

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



Construction was the largest proportion of TDS jobs in Wyoming, accounting for 46.1% of the sector's jobs statewide (Figure WY-7).

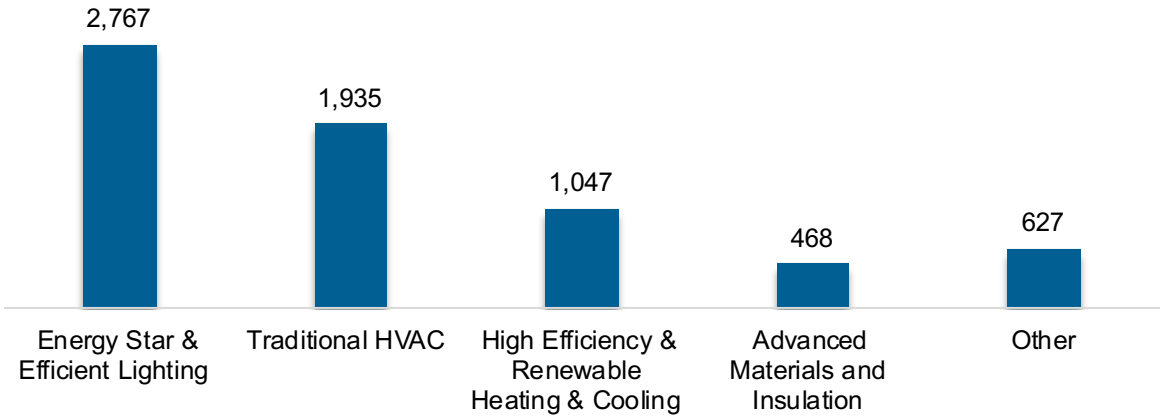
Figure WY-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

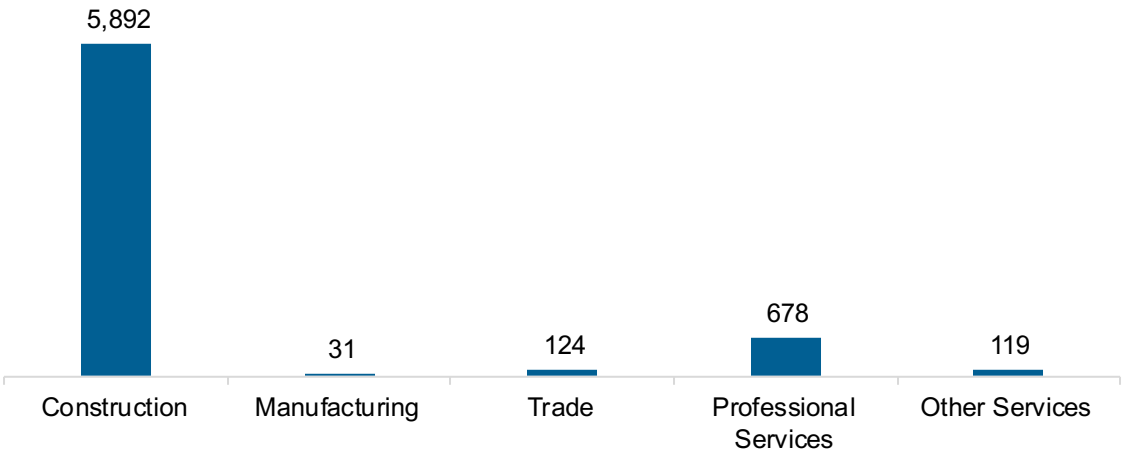
The energy efficiency (EE) sector employed 6,844 workers in Wyoming, 0.3% of the national EE total. The EE sector lost 84 jobs and increased 1.2% from 2021 to 2022 (Figure WY-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure WY-9).

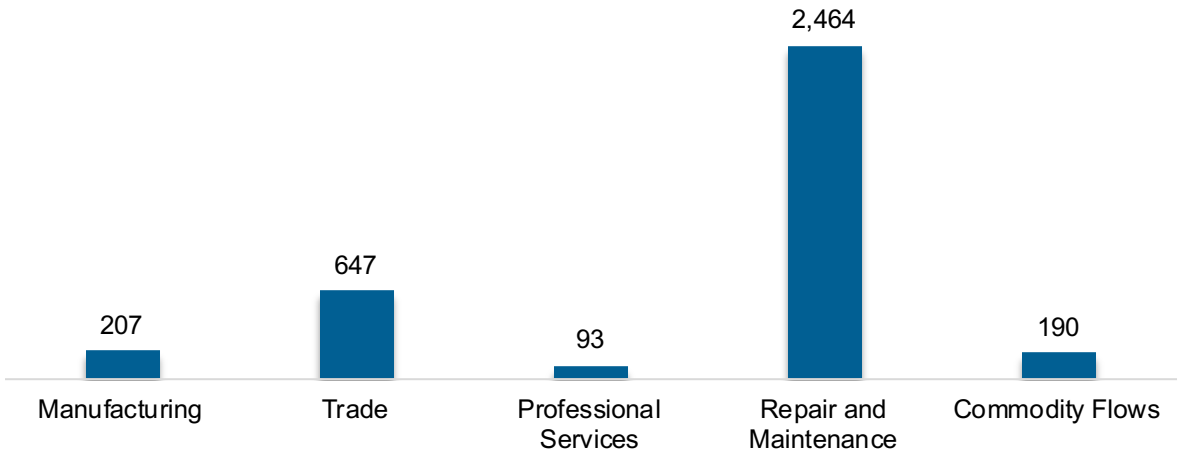
Figure WY-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 3,601 workers in Wyoming, 0.1% of the national total for the sector. Motor vehicles and component parts added 127 jobs and increased 3.7% from 2021 to 2022. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure WY-10).

Figure WY-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 15,455 jobs in clean energy in Wyoming if traditional transmission and distribution is included and 8,374 jobs if it is not.[51] These increased under either definition, growing 3.7% with traditional transmission and distribution and 0.4% without.

Employer Perspectives

Expected Growth

Employers in Wyoming are similarly optimistic than their peers across the country about energy sector job growth over the next year (Table WY-1).

Table WY-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	6.1	6.0
Electric Power Transmission, Distribution, and Storage	5.0	3.9
Energy Efficiency	6.3	6.4
Fuels	3.9	1.6
Motor Vehicles	5.8	5.5

[51] The definition of "clean energy" at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in Wyoming reported 44% overall hiring difficulty (Table WY-2).

Table WY-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	16	28	4	51	44

Publication Number: DOE/OP-0021

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U.S. DEPARTMENT OF ENERGY

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DOE/OP-0021 • June 2023