

# **Energy Employment By State 2024**

United States Energy & Employment Report 2024 • www.energy.gov/USEER













# **EXECUTIVE SUMMARY**

In addition to the aggregated national data, state-level data are presented in this companion report, which includes a brief energy and employment profile for each state and the District of Columbia. The state report includes a high-level snapshot of employment in the five technology areas covered by USEER: electric power generation, transmission, distribution, and storage, fuels, energy efficiency, and motor vehicles and component parts. These data are broken down by technology application and industry.

Key findings are summarized below.

Texas (969,801), California (932,273), Michigan (401,720), Florida (351,934), and Ohio (333,110) have the most energy jobs in the United States. In terms of total energy jobs as a percentage of the total number of jobs in the state, Wyoming takes the top spot (16.2%), followed by North Dakota (13.9%), West Virginia (12.3%), Indiana (9.1%), and Michigan (9.1%).

Texas had the highest overall net growth in energy jobs in 2023 (34,000), followed by California (22,400), North Carolina (14,400), Alabama (14,100), and Michigan (13,800). Indiana experienced a decrease in total energy employment of 3,300 jobs in 2023. On a percentage basis, Alabama (9.6%), Utah (7.8%), and North Carolina (6.9%) had the fastest rate of growth from 2022 to 2023.

Jobs in clean energy technologies (exclusive of traditional transmission and distribution) are found in all 50 states. California (545,207), Texas (261,934), New York (177,202), Florida (172,115), and Illinois (130,473) have the greatest number of clean energy jobs. As a percentage of the total number of jobs in the state, Vermont has the highest proportion of clean energy jobs (5.2%), followed by Massachusetts (3.4%), California (3.1%), South Dakota (3.1%) and Maryland (3.0%).

All 50 states and the District of Columbia added jobs in renewable electric power generation. California (147,161), Texas (50,138), Florida (29,146), and New York (27,384) have the most renewable electric

MOST ENERGY JOBS IN 2023



969,801

**TEXAS** 



932,273

**CALIFORNIA** 



401,720
MICHIGAN

power generation jobs in the United States. The top four as a percentage of total number of jobs in the state are California (0.8%), Vermont (0.8%), Hawaii (0.7%), and Nevada (0.7%). The largest overall net growth in renewable electric power generation jobs was in Texas (3,700), followed by California (3,600), Florida (2,500) and New York (1,500). The states with the fastest rates of growth were Wyoming (23.3%), Montana (15.5%), Arkansas (12.6%), and Mississippi (11.2%).

Transmission, Distribution, and Storage added significant numbers of jobs across the U.S., led by North Carolina (9,600), Michigan (4,200), Georgia (3,900), South Carolina (3,700) and Arizona (3,600). The state with the largest percentage increase was North Carolina (39.4%), followed by Maine (30.7%), Utah (30.2%), Mississippi (29.3%) and South Carolina (29.0%).

The five states with the most energy efficiency jobs are California (302,176), Texas (172,917), New York (129,946), Florida (125,234), and Illinois (86,728). The top five as a percentage of the total number of jobs in the state are Vermont (3.3%), Maryland (2.5%), Wyoming (2.4%), Delaware (2.4%), and Rhode Island (2.3%). The five states that added the most jobs in energy efficiency are Texas (8,400), California (7,800), Florida (6,300), New York (3,900), and Pennsylvania (2,900). The five that had the fastest growth rate were New Mexico (7.0%), Nevada (6.9%), Colorado (5.5%), New Jersey (5.3%), and Florida (5.3%).

The five states with the most motor vehicles jobs are Michigan (254,899), California (234,932), Texas (212,331), Indiana (170,086), and Ohio (165,886). The top five as a percentage of the total number of jobs in the state are Michigan (5.8%), Indiana (5.5%), Kentucky (4.6%), Alabama (4.1%), and Tennessee (3.5%). The five states that added the most jobs in motor vehicles are Texas (12,100), Alabama (8,900), California (8,400), Michigan (7,300), and Illinois (6,600). The five states that had the fastest growth rate were Nevada (14.6%), Alabama (12.3%), West Virginia (9.0%), Utah (8.0%), and Illinois (6.6%).

MOST CLEAN ENERGY JOBS





MOST MOTOR VEHICLES JOBS



**254,899**MICHIGAN



State	Clean Energy Jobs Without Traditional Transmission and Distribution	Clean Energy Jobs Growth (Without Traditional Transmission and Distribution) 2022 - 2023	Growth Rate, 2022 – 2023
Alabama	45,889	1,826	4.1%
Alaska	5,654	126	2.3%
Arizona	65,524	2,364	3.7%
Arkansas	22,779	818	3.7%
California	545,207	16,960	3.2%
Colorado	68,814	2,335	3.5%
Connecticut	44,138	1,233	2.9%
Delaware	12,667	211	1.7%
District of Columbia	15,494	364	2.4%
Florida	172,115	7,983	4.9%
Georgia	83,350	2,563	3.2%
Hawaii	14,191	247	1.8%
Idaho	15,439	1,018	7.1%
Illinois	130,473	3,586	2.8%
Indiana	82,395	1,254	1.5%
lowa	35,659	875	2.5%
Kansas	27,380	926	3.5%
Kentucky	35,630	1,633	4.8%
Louisiana	32,423	1,239	4.0%
Maine	13,961	385	2.8%
Maryland	82,926	1,500	1.8%
Massachusetts	126,417	4,230	3.5%
Michigan	122,092	3,226	2.7%
Minnesota	64,699	1,985	3.2%
Mississippi	22,155	643	3.0%
Missouri	58,065	1,769	3.1%
Montana	10,962	417	4.0%
Nebraska	22,654	731	3.3%
Nevada	34,480	1,120	3.4%
New Hampshire	17,345	480	2.8%
New Jersey	59,668	2,703	4.7%
New Mexico	13,255	616	4.9%
New York	177,202	5,737	3.3%

North Carolina	108,521	3,312	3.1%
North Dakota	9,505	235	2.5%
Ohio	111,499	3,512	3.3%
Oklahoma	23,657	989	4.4%
Oregon	59,237	940	1.6%
Pennsylvania	103,412	3,378	3.4%
Rhode Island	14,933	390	2.7%
South Carolina	57,539	1,042	1.8%
South Dakota	13,567	407	3.1%
Tennessee	84,126	3,099	3.8%
Texas	261,934	12,686	5.1%
Utah	45,893	1,968	4.5%
Vermont	16,251	67	0.4%
Virginia	100,200	3,005	3.1%
Washington	83,279	1,897	2.3%
West Virginia	10,089	325	3.3%
Wisconsin	73,398	1,479	2.1%
Wyoming	8,559	171	2.0%

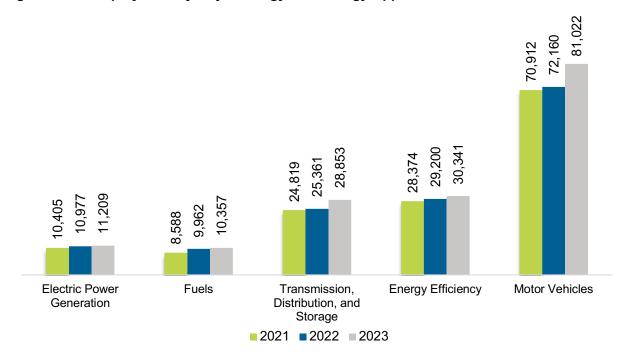
# **Alabama**

# **ENERGY AND EMPLOYMENT — 2024**

#### **OVERVIEW**

Alabama had 161,782 energy workers statewide in 2023, representing 1.9% of all U.S. energy jobs. Of these energy jobs, 11,209 are in electric power generation; 10,357 in fuels; 28,853 in transmission, distribution, and storage; 30,341 in energy efficiency; and 81,022 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 14,122 jobs, or 9.6% (Figure AL-1). The energy sector in Alabama represents 8.1% of total state employment.

Figure AL-1. Employment by Major Energy Technology Application

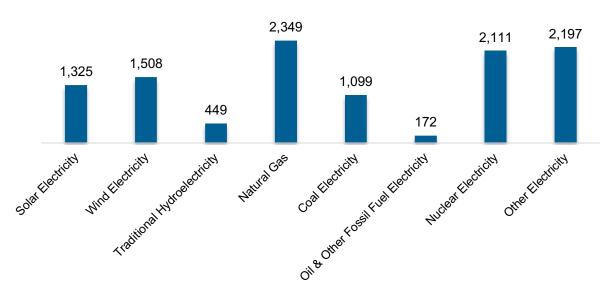


# **Breakdown by Technology Applications**

#### ELECTRIC POWER GENERATION

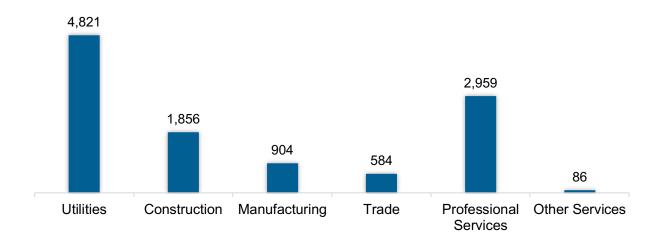
As shown in AL-2, the electric power generation sector employed 11,209 workers in Alabama,1.2% of the national electricity total, and added 232 jobs over the past year (2.1%).

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



Utilities is the largest industry sector in the electric power generation sector, with 43.0% of jobs. Professional and business services is the second largest with 26.4% (Figure AL-3).

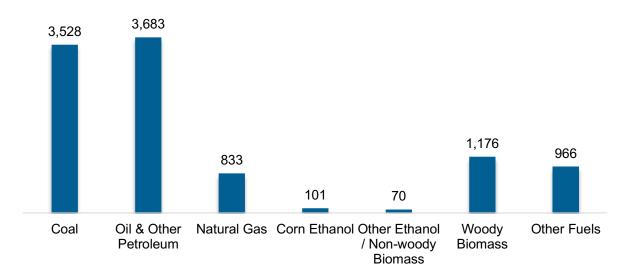
Figure AL-3. Electric Power Generation Employment by Industry Sector



#### **FUELS**

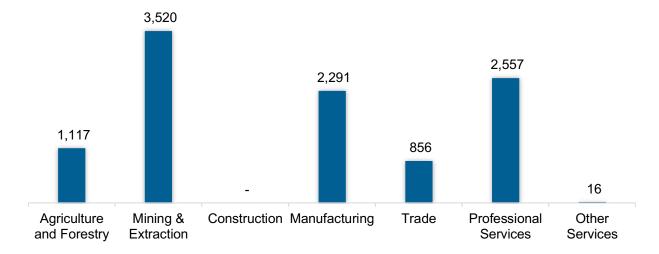
The Fuel sector employed 10,357 workers in Alabama, 1.0% of the national total in fuels. The sector gained 395 jobs and increased 4.0% in the past year (Figure AL-4).

Figure AL-4. Fuels Employment by Detailed Technology Application



Mining and extraction jobs represented 34.0% of fuel jobs in Alabama (Figure AL-5).

Figure AL-5. Fuels Employment by Industry Sector



Distribution

#### TRANSMISSION, DISTRIBUTION AND STORAGE

The transmission, distribution, and storage (TDS) sector employed 28,853 workers in Alabama, 2.0% of the national TDS total (AL-6). The sector gained 3,492 jobs and increased 13.8% in the past year.

21,248

6,241

Traditional Storage Smart Grid Micro Grid & Other Transmission and

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

Utilities is the largest proportion of TDS jobs in Alabama, accounting for 41.8% of the sector's jobs statewide (Figure AL-7).

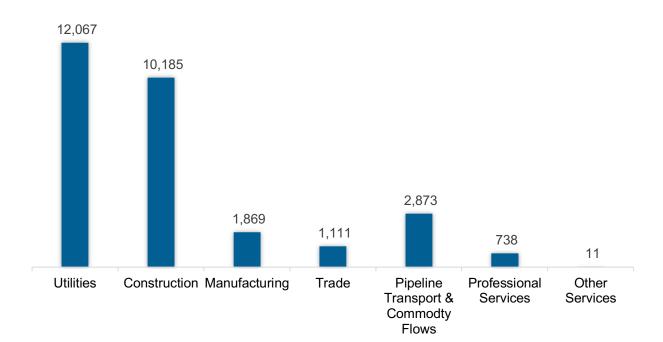
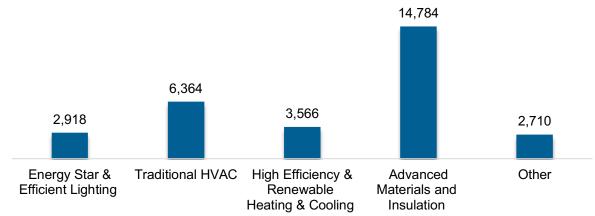


Figure AL-7. Transmission, Distribution and Storage Employment by Industry Sector

#### **ENERGY EFFICIENCY**

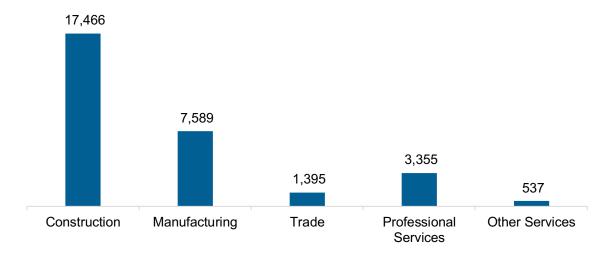
The energy efficiency (EE) sector employed 30,341 workers in Alabama, 1.3% of the national EE total. The EE sector added 1,141 jobs and increased 3.9% in the past year (Figure AL-8).

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



Energy efficiency employment is 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 81,022 workers in Alabama, 3.0% of the national total for the sector. Motor vehicles and component parts added 8,862 jobs and increased 12.3% in the past year. Manufacturing is the largest proportion of motor vehicle jobs (Figure AL-10).

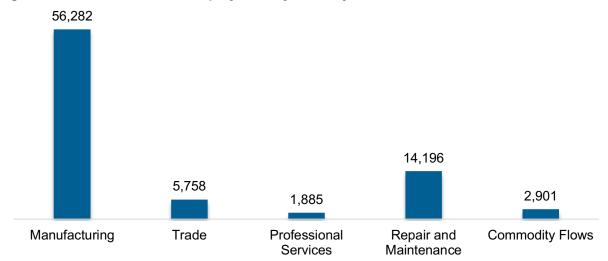


Figure AL-10. Motor Vehicle Employment by Industry Sector

#### **CLEAN ENERGY JOBS**

In 2023, there were 67,137 jobs in clean energy in Alabama if traditional transmission and distribution is included and 45,889 jobs if it is not.<sup>1</sup> These increased under either definition, growing 10.1% with traditional transmission and distribution and 5.1% without.

<sup>&</sup>lt;sup>1</sup> 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.

# **Workforce Characteristics**

# **EMPLOYER GROWTH**

Employers in Alabama are similarly optimistic to 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	6.5	6.6
Electric Power Transmission, Distribution, and Storage	6.6	6.7
Energy Efficiency	7.2	8.0
Fuels	5.7	5.1
Motor Vehicles	5.4	4.5

#### HIRING DIFFICULTY

Employers in Alabama reported 41.8% 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	21.2	20.6	7.9	50.4	41.8

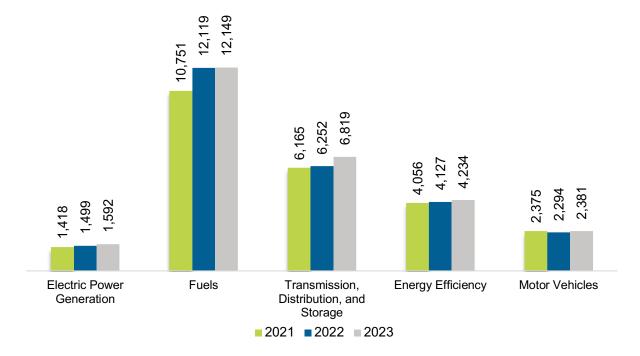
# **Alaska**

# **ENERGY AND EMPLOYMENT — 2024**

#### **OVERVIEW**

Alaska had 27,176 energy workers statewide in 2023, representing 0.3% of all U.S. energy jobs. Of these energy jobs, 1,592 are in electric power generation; 12,149 in fuels; 6,819 in transmission, distribution, and storage; 4,234 in energy efficiency; and 2,381in motor vehicles. From 2022 to 2023, energy jobs in the state increased 884 jobs, or 3.4% (Figure AK-1). The energy sector in Alaska represents 8.0% of total state employment.

Figure AK-1. Employment by Major Energy Technology Application

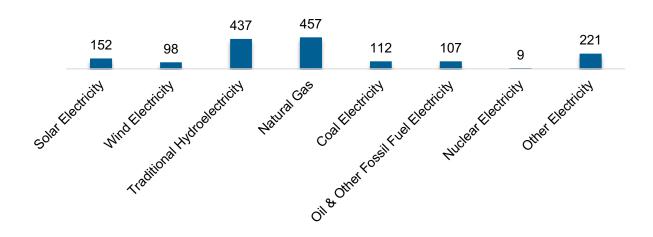


# **Breakdown by Technology Applications**

#### **ELECTRIC POWER GENERATION**

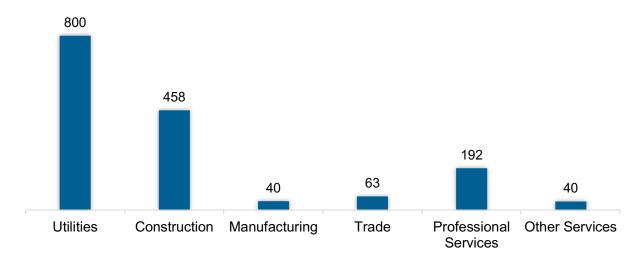
As shown in AK-2, the electric power generation sector employed 1,592 workers in Alaska,0.2% of the national electricity total, and added 94 jobs over the past year (6.2%).

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



Utilities is the largest industry sector in the electric power generation sector, with 50.3% of jobs. Construction is the second largest with 28.8% (Figure AK-3).

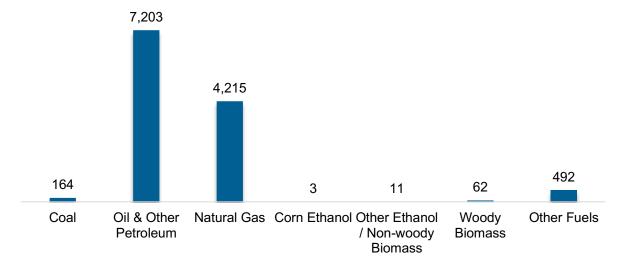
Figure AK-3. Electric Power Generation Employment by Industry Sector



#### **FUELS**

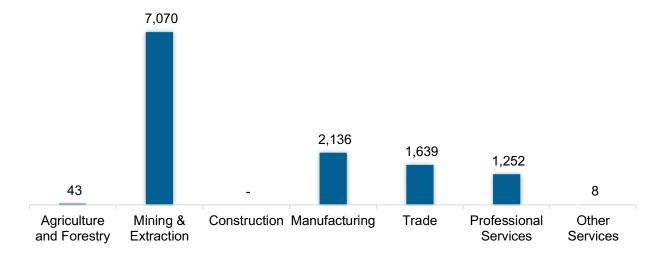
The Fuel sector employed 12,149 workers in Alaska, 1.2% of the national total in fuels. The sector gained 30 jobs and increased 0.2% in the past year (Figure AK-4).

Figure AK-4. Fuels Employment by Detailed Technology Application



Mining and extraction jobs represented 58.2% of fuel jobs in Alaska (Figure AK-5).

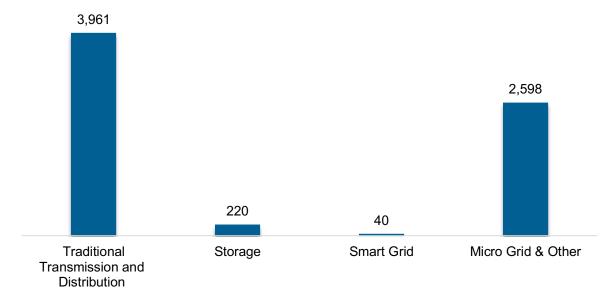
Figure AK-5. Fuels Employment by Industry Sector



#### TRANSMISSION, DISTRIBUTION AND STORAGE

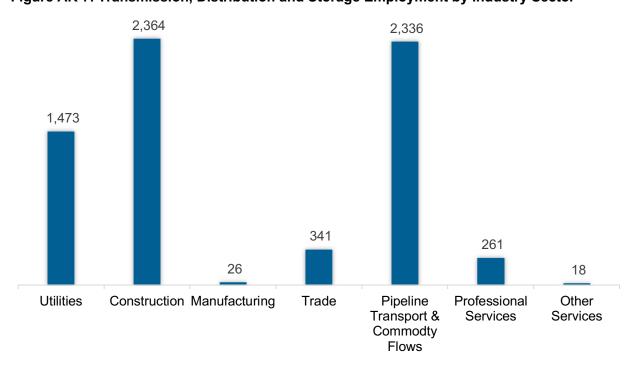
The transmission, distribution, and storage (TDS) sector employed 6,819 workers in Alaska, 0.5% of the national TDS total (AK-6). The sector gained 567 jobs and increased 9.1% in the past year.

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



Construction is the largest proportion of TDS jobs in Alaska, accounting for 34.7% of the sector's jobs statewide (Figure AK-7).

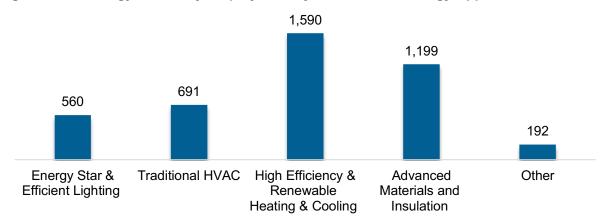
Figure AK-7. Transmission, Distribution and Storage Employment by Industry Sector



#### **ENERGY EFFICIENCY**

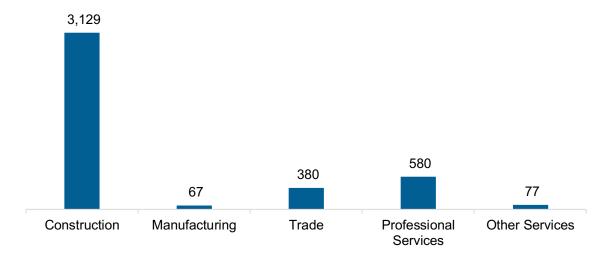
The energy efficiency (EE) sector employed 4,234 workers in Alaska, 0.2% of the national EE total. The EE sector added 106 jobs and increased 2.6% in the past year (Figure AK-8).

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



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

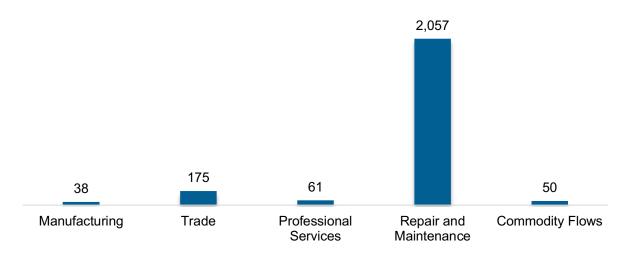
Figure AK-9. Energy Efficiency Employment by Industry Sector



#### MOTOR VEHICLES AND COMPONENT PARTS

The motor vehicles and component sector employed 2,381 workers in Alaska, 0.1% of the national total for the sector. Motor vehicles and component parts added 88 jobs and increased 3.8% in the past year. 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 2023, there were 9,614 jobs in clean energy in Alaska if traditional transmission and distribution is included and 5,654 jobs if it is not.<sup>2</sup> These increased under either definition, growing 1.3% with traditional transmission and distribution and 3.1% without.

<sup>&</sup>lt;sup>2</sup> 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.

# **Workforce Characteristics**

# **EMPLOYER GROWTH**

Employers in Alaska are less 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	4.0	6.6	
Electric Power Transmission, Distribution, and Storage	4.0	6.7	
Energy Efficiency	4.7	8.0	
Fuels	3.2	5.1	
Motor Vehicles	2.9	4.5	

#### HIRING DIFFICULTY

Employers in Alaska reported 39.7% 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	17.0	22.7	7.9	52.4	39.7

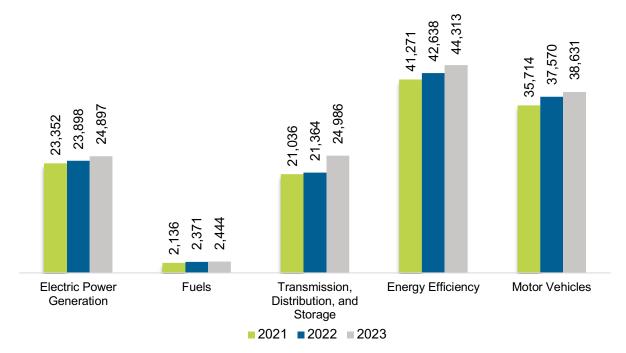
# **Arizona**

# **ENERGY AND EMPLOYMENT — 2024**

#### **OVERVIEW**

Arizona had 135,272 energy workers statewide in 2023, representing 1.6% of all U.S. energy jobs. Of these energy jobs, 24,897 are in electric power generation; 2,444 in fuels; 24,986 in transmission, distribution, and storage; 44,313 in energy efficiency; and 38,631 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 7,432 jobs, or 5.8% (Figure AZ-1). The energy sector in Arizona represents 4.8% of total state employment.

Figure AZ-1. Employment by Major Energy Technology Application

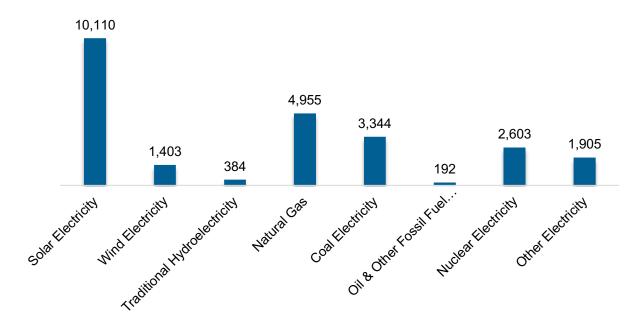


# **Breakdown by Technology Applications**

#### **ELECTRIC POWER GENERATION**

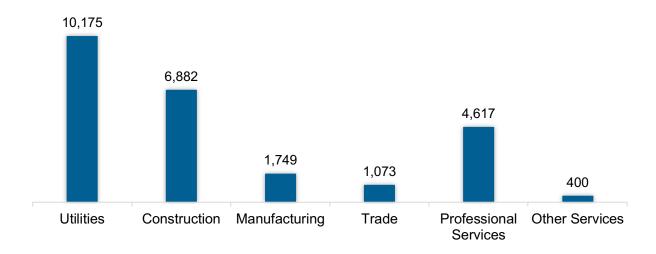
As shown in AZ-2, the electric power generation sector employed 24,897 workers in Arizona,2.7% of the national electricity total, and added 999 jobs over the past year (4.2%).

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



Utilities is the largest industry sector in the electric power generation sector, with 40.9% of jobs. Construction is the second largest with 27.6% (Figure AZ-3).

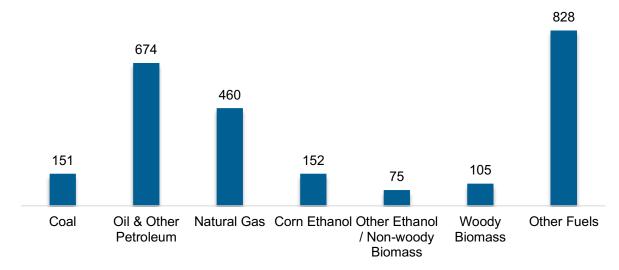
Figure AZ-3. Electric Power Generation Employment by Industry Sector



#### **FUELS**

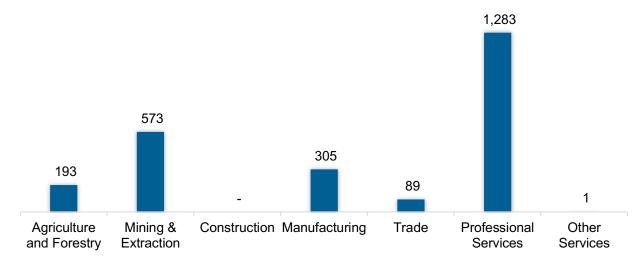
The Fuel sector employed 2,444 workers in Arizona, 0.2% of the national total in fuels. The sector gained 74 jobs and increased 3.1% in the past year (Figure AZ-4).

Figure AZ-4. Fuels Employment by Detailed Technology Application



Professional and business services jobs represented 52.5% of fuel jobs in Arizona (Figure AZ-5).

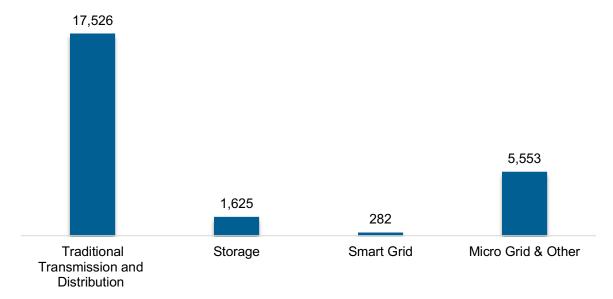
Figure AZ-5. Fuels Employment by Industry Sector



#### TRANSMISSION, DISTRIBUTION AND STORAGE

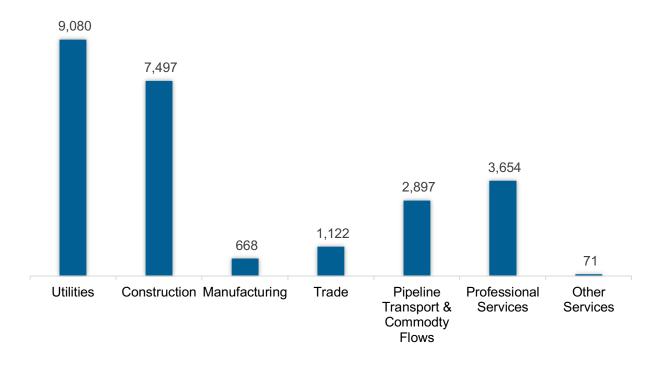
The transmission, distribution, and storage (TDS) sector employed 24,986 workers in Arizona, 1.8% of the national TDS total (AZ-6). The sector gained 3,622 jobs and increased 17.0% in the past year.

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



Utilities is the largest proportion of TDS jobs in Arizona, accounting for 36.3% of the sector's jobs statewide (Figure AZ-7).

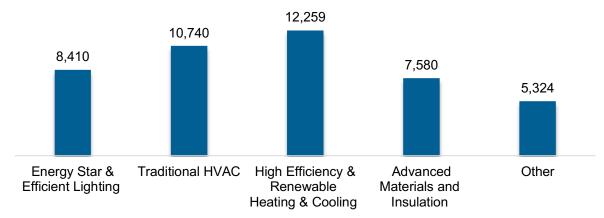
Figure AZ-7. Transmission, Distribution and Storage Employment by Industry Sector



#### **ENERGY EFFICIENCY**

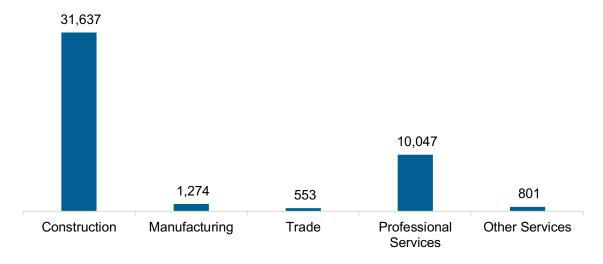
The energy efficiency (EE) sector employed 44,313 workers in Arizona, 1.9% of the national EE total. The EE sector added 1,676 jobs and increased 3.9% in the past year (Figure AZ-8).

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



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

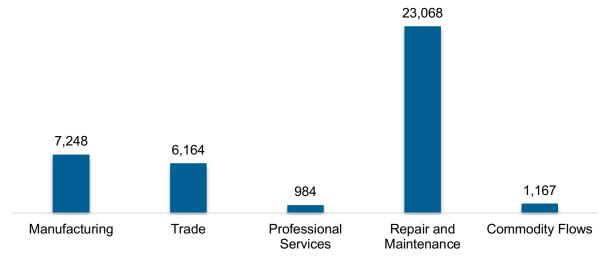
Figure AZ-9. Energy Efficiency Employment by Industry Sector



#### MOTOR VEHICLES AND COMPONENT PARTS

The motor vehicles and component sector employed 38,631 workers in Arizona, 1.4% of the national total for the sector. Motor vehicles and component parts added 1,061 jobs and increased 2.8% in the past year. 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 2023, there were 83,049 jobs in clean energy in Arizona if traditional transmission and distribution is included and 65,524 jobs if it is not.<sup>3</sup> These increased under either definition, growing 9% with traditional transmission and distribution and 4.3% without.

<sup>&</sup>lt;sup>3</sup> 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.

# **Workforce Characteristics**

# **EMPLOYER GROWTH**

Employers in Arizona are 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	9.3	6.6	
Electric Power Transmission, Distribution, and Storage	9.4	6.7	
Energy Efficiency	10.0	8.0	
Fuels	8.5	5.1	
Motor Vehicles	8.3	4.5	

#### HIRING DIFFICULTY

Employers in Arizona reported 47.5% 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	21.6	26.0	9.0	43.5	47.5

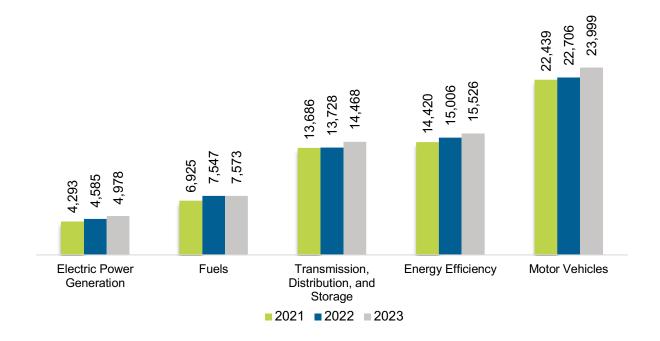
# **Arkansas**

# **ENERGY AND EMPLOYMENT — 2024**

#### **OVERVIEW**

Arkansas had 66,544 energy workers statewide in 2023, representing 0.8% of all U.S. energy jobs. Of these energy jobs, 4,978 are in electric power generation; 7,573 in fuels; 14,468 in transmission, distribution, and storage; 15,526 in energy efficiency; and 23,999 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 2,971 jobs, or 4.7% (Figure AR-1). The energy sector in Arkansas represents 5.4% of total state employment.

Figure AR-1. Employment by Major Energy Technology Application

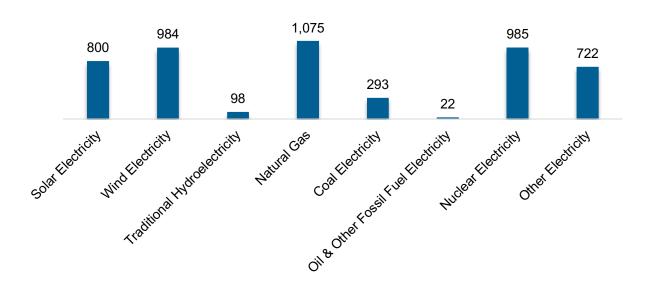


# **Breakdown by Technology Applications**

#### **ELECTRIC POWER GENERATION**

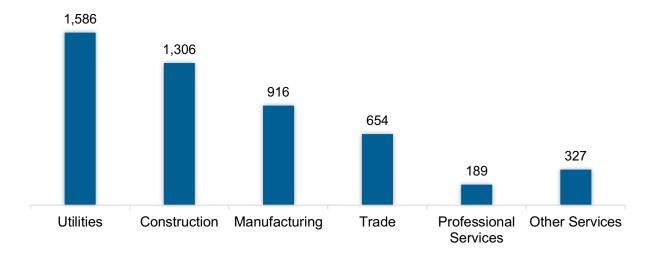
As shown in AR-2, the electric power generation sector employed 4,978 workers in Arkansas, 0.5% of the national electricity total, and added 392 jobs over the past year (8.6%).

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



Utilities is the largest industry sector in the electric power generation sector, with 31.9% of jobs. Construction is the second largest with 26.2% (Figure AR-3).

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



#### **FUELS**

24

Coal

The Fuel sector employed 7,573 workers in Arkansas, 0.7% of the national total in fuels. The sector gained 26 jobs and increased 0.3% in the past year (Figure AR-4).

3,630 1,731 783 606 448

351

Natural Gas Corn Ethanol Other Ethanol

/ Non-woody

**Biomass** 

Other Fuels

Woody

**Biomass** 

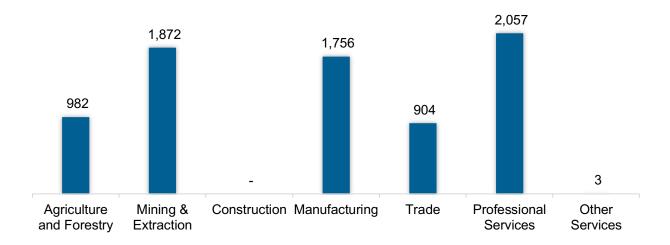
Figure AR-4. Fuels Employment by Detailed Technology Application

Professional and business services jobs represented 27.2% of fuel jobs in Arkansas (Figure AR-5).



Oil & Other

Petroleum



#### TRANSMISSION, DISTRIBUTION AND STORAGE

The transmission, distribution, and storage (TDS) sector employed 14,468 workers in Arkansas, 1.0% of the national TDS total (AR-6). The sector gained 740 jobs and increased 5.4% in the past year.

11,222

2,627

Traditional Storage Smart Grid Micro Grid & Other Transmission and Distribution

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

Utilities is the largest proportion of TDS jobs in Arkansas, accounting for 43.6% of the sector's jobs statewide (Figure AR-7).

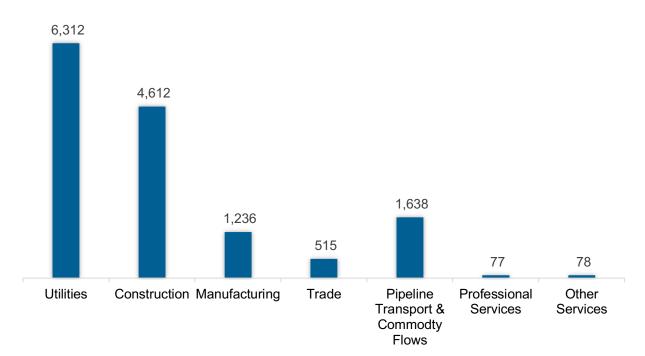
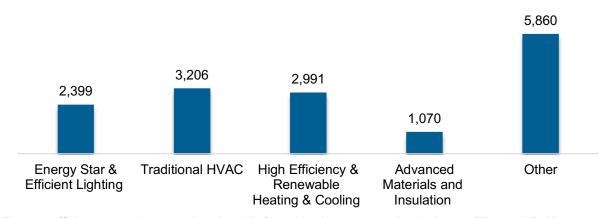


Figure AR-7. Transmission, Distribution and Storage Employment by Industry Sector

#### **ENERGY EFFICIENCY**

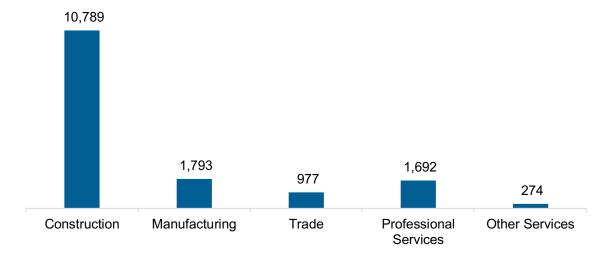
The energy efficiency (EE) sector employed 15,526 workers in Arkansas, 0.7% of the national EE total. The EE sector added 521 jobs and increased 3.5% in the past year (Figure AR-8).

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



Energy efficiency employment is 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 23,999 workers in Arkansas, 0.9% of the national total for the sector. Motor vehicles and component parts added 1,292 jobs and increased 5.7% in the past year. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure AR-10).

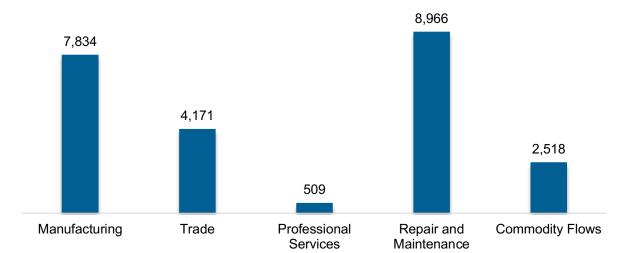


Figure AR-10. Motor Vehicle Employment by Industry Sector

#### **CLEAN ENERGY JOBS**

In 2023, there were 34,002 jobs in clean energy in Arkansas if traditional transmission and distribution is included and 22,779 jobs if it is not.<sup>4</sup> These increased under either definition, growing 5% with traditional transmission and distribution and 4.6% without.

6

<sup>&</sup>lt;sup>4</sup> 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.

# **Workforce Characteristics**

# **EMPLOYER GROWTH**

Employers in Arkansas are less 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	5.4	6.6	
Electric Power Transmission, Distribution, and Storage	5.5	6.7	
Energy Efficiency	6.1	8.0	
Fuels	4.6	5.1	
Motor Vehicles	4.3	4.5	

#### HIRING DIFFICULTY

Employers in Arkansas reported 43.9% 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	19.5	24.4	12.5	43.6	43.9

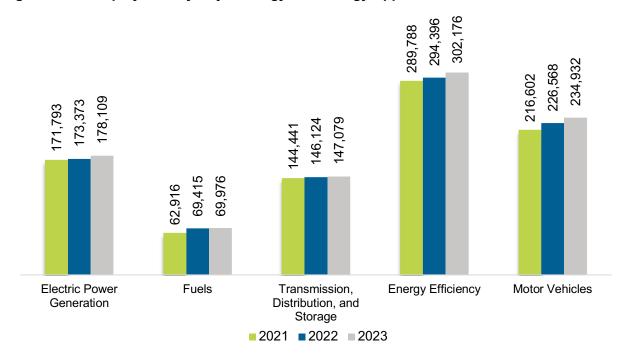
# **California**

# **ENERGY AND EMPLOYMENT — 2024**

#### **OVERVIEW**

California had 932,273 energy workers statewide in 2023, representing 11.2% of all U.S. energy jobs. Of these energy jobs, 178,109 are in electric power generation; 69,976 in fuels; 147,079 in transmission, distribution, and storage; 302,176 in energy efficiency; and 234,932 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 22,397 jobs, or 2.5% (Figure CA-1). The energy sector in California represents 5.3% of total state employment.

Figure CA-1. Employment by Major Energy Technology Application



# **Breakdown by Technology Applications**

#### **ELECTRIC POWER GENERATION**

As shown in CA-2, the electric power generation sector employed 178,109 workers in California, 19.4% of the national electricity total, and added 4,736 jobs over the past year (2.7%).

117,946

8,132

10,570

19,837

1,814

1,007

4,158

14,644

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,814

1,007

1,007

1,007

1,007

1,007

1,007

1,007

1,007

1,007

1,007

1,007

1,007

1,007

1,00

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

Construction is the largest industry sector in the electric power generation sector, with 39.3% of jobs. Professional and business services is the second largest with 18.7% (Figure CA-3).

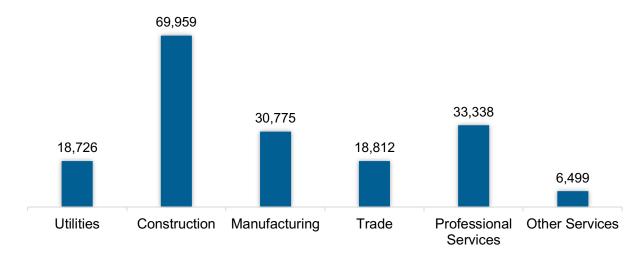
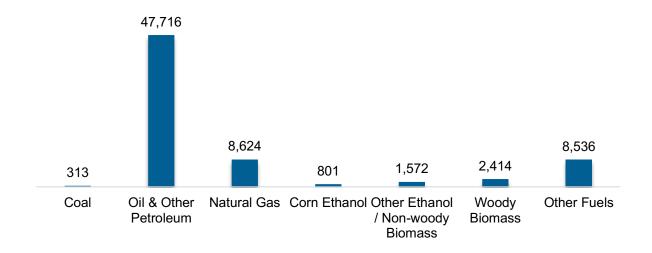


Figure CA-3. Electric Power Generation Employment by Industry Sector

#### **FUELS**

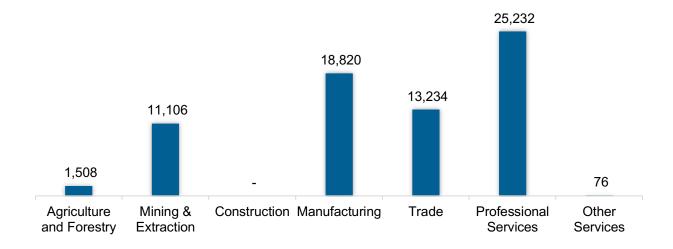
The Fuel sector employed 69,976 workers in California, 6.7% of the national total in fuels. The sector gained 561 jobs and increased 0.8% in the past year (Figure CA-4).

Figure CA-4. Fuels Employment by Detailed Technology Application



Professional and business services jobs represented 36.1% of fuel jobs in California (Figure CA-5).

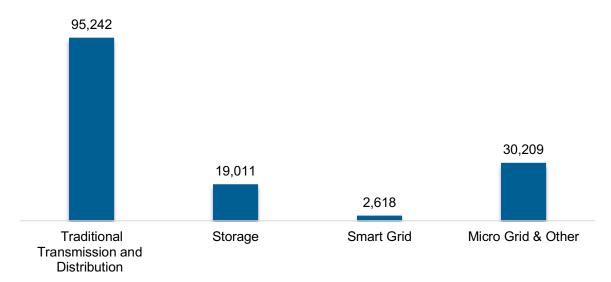
Figure CA-5. Fuels Employment by Industry Sector



### TRANSMISSION, DISTRIBUTION AND STORAGE

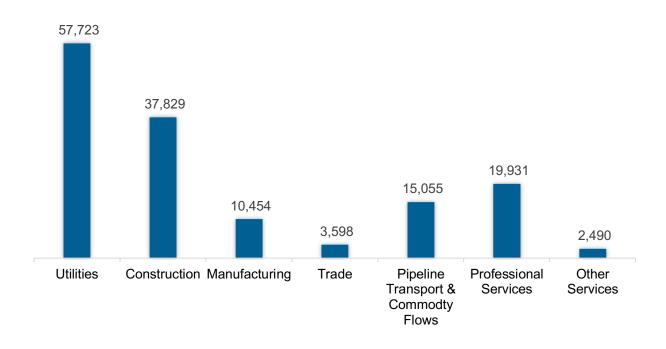
The transmission, distribution, and storage (TDS) sector employed 147,079 workers in California, 10.3% of the national TDS total (CA-6). The sector gained 955 jobs and increased 0.7% in the past year.

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



Utilities is the largest proportion of TDS jobs in California, accounting for 39.2% of the sector's jobs statewide (Figure CA-7).

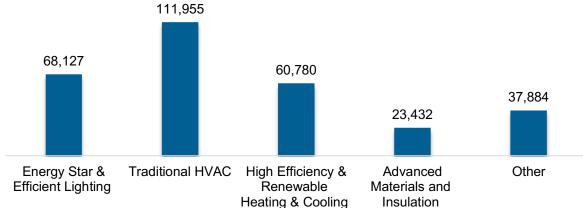
Figure CA-7. Transmission, Distribution and Storage Employment by Industry Sector



### **ENERGY EFFICIENCY**

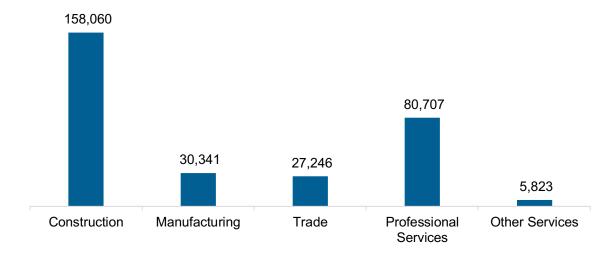
The energy efficiency (EE) sector employed 302,176 workers in California, 13.2% of the national EE total. The EE sector added 7,781 jobs and increased 2.6% in the past year (Figure CA-8).

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



Energy efficiency employment is 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 234,932 workers in California, 8.8% of the national total for the sector. Motor vehicles and component parts added 8,364 jobs and increased 3.7% in the past year. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure CA-10).

51,346
46,815
5,356
3,379

Manufacturing Trade Professional Repair and Commodity Flows

Figure CA-10. Motor Vehicle Employment by Industry Sector

#### **CLEAN ENERGY JOBS**

In 2023, there were 640,449 jobs in clean energy in California if traditional transmission and distribution is included and 545,207 jobs if it is not.<sup>5</sup> These increased under either definition, growing 3% with traditional transmission and distribution and 3.6% without.

Services

Maintenance

<sup>&</sup>lt;sup>5</sup> 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.

## **Workforce Characteristics**

## **EMPLOYER GROWTH**

Employers in California are more 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	9.0	6.6
Electric Power Transmission, Distribution, and Storage	9.0	6.7
Energy Efficiency	9.7	8.0
Fuels	8.2	5.1
Motor Vehicles	7.9	4.5

### HIRING DIFFICULTY

Employers in California reported 44.7% 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	20.9	23.8	8.0	47.3	44.7

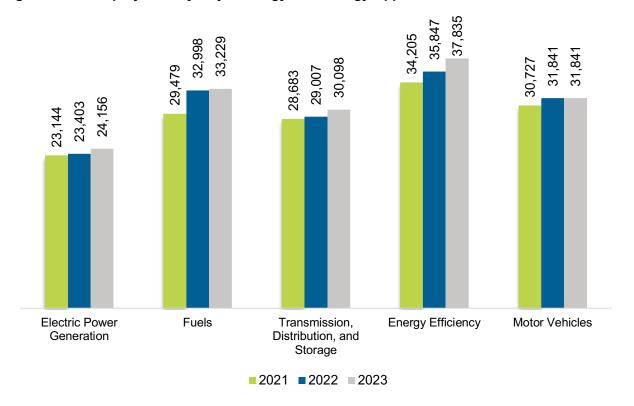
## Colorado

## **ENERGY AND EMPLOYMENT — 2024**

### **OVERVIEW**

Colorado had 157,160 energy workers statewide in 2023, representing 1.9% of all U.S. energy jobs. Of these energy jobs, 24,156 are in electric power generation; 33,229 in fuels; 30,098 in transmission, distribution, and storage; 37,835 in energy efficiency; and 31,841 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 4,064jobs, or 2.7% (Figure CO-1). The energy sector in Colorado represents 5.7% of total state employment.

Figure CO-1. Employment by Major Energy Technology Application



## **Breakdown by Technology Applications**

### **ELECTRIC POWER GENERATION**

As shown in CO-2, the electric power generation sector employed 24,156 workers in Colorado, 2.6% of the national electricity total, and added 753 jobs over the past year (3.2%).

9,017
7,880
984
989
2,089
261
116

Eschartzetricity wind treaticity wind treaticity wind treaticity wind treaticity of the treaticity of t

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

Professional and business services is the largest industry sector in the electric power generation sector, with 61.4% of jobs. Construction is the second largest with 20.3% (Figure CO-3).

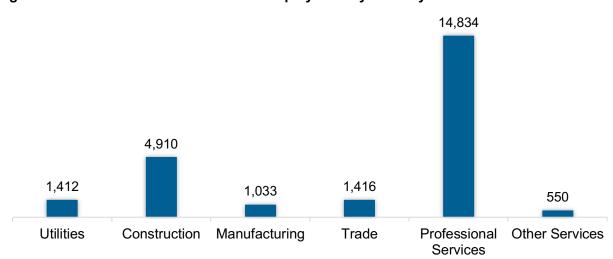


Figure CO-3. Electric Power Generation Employment by Industry Sector

### **FUELS**

The Fuel sector employed 33,229 workers in Colorado, 3.2% of the national total in fuels. The sector gained 231 jobs and increased 0.7% in the past year (Figure CO-4).

15,088 9,489 2,723 1,940 1,766 1,561 661 Oil & Other Natural Gas Corn Ethanol Other Ethanol Other Fuels Coal Woody / Non-woody Petroleum **Biomass Biomass** 

Figure CO-4. Fuels Employment by Detailed Technology Application

Mining and extraction jobs represented 55.8% of fuel jobs in Colorado (Figure CO-5).

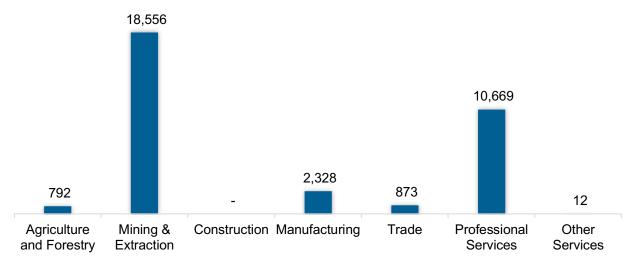


Figure CO-5. Fuels Employment by Industry Sector

Distribution

### TRANSMISSION, DISTRIBUTION AND STORAGE

The transmission, distribution, and storage (TDS) sector employed 30,098 workers in Colorado, 2.1% of the national TDS total (CO-6). The sector gained 1,092 jobs and increased 3.8% in the past year.

20,606

2,069

479

Traditional Storage Smart Grid Micro Grid & Other Transmission and

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

Utilities is the largest proportion of TDS jobs in Colorado, accounting for 31.4% of the sector's jobs statewide (Figure CO-7).

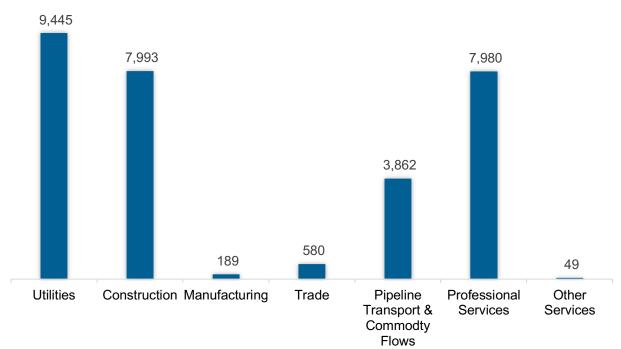


Figure CO-7. Transmission, Distribution and Storage Employment by Industry Sector

### **ENERGY EFFICIENCY**

The energy efficiency (EE) sector employed 37,835 workers in Colorado, 1.7% of the national EE total. The EE sector added 1,988 jobs and increased 5.5% in the past year (Figure CO-8).

11,410
10,865
7,596
6,303
1,661
Energy Star & Traditional HVAC High Efficiency & Advanced Materials and

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

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

**Heating & Cooling** 

Insulation

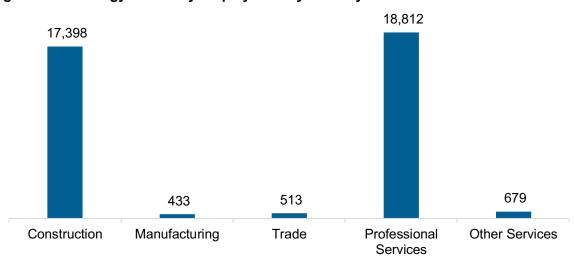
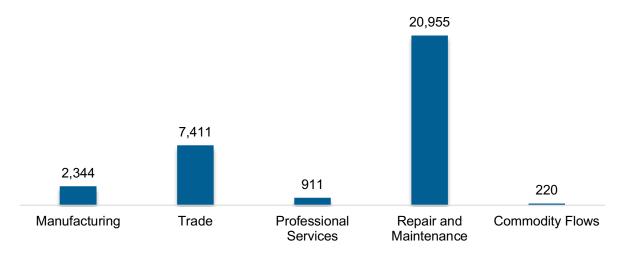


Figure CO-9. Energy Efficiency Employment by Industry Sector

#### MOTOR VEHICLES AND COMPONENT PARTS

The motor vehicles and component sector employed 31,841 workers in Colorado, 1.2% of the national total for the sector. Motor vehicles and component parts added no jobs and increased in the past year, although jobs grew in some sectors while dropping in others. 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 2023, there were 89,419 jobs in clean energy in Colorado if traditional transmission and distribution is included and 68,814 jobs if it is not.<sup>6</sup> These increased under either definition, growing 5.5% with traditional transmission and distribution and 4.2% without.

<sup>&</sup>lt;sup>6</sup> 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.

## **Workforce Characteristics**

## **EMPLOYER GROWTH**

Employers in Colorado are more 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	7.7	6.6
Electric Power Transmission, Distribution, and Storage	7.7	6.7
Energy Efficiency	8.4	8.0
Fuels	6.9	5.1
Motor Vehicles	6.6	4.5

### HIRING DIFFICULTY

Employers in Colorado reported 47.6% 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	18.9	28.6	8.7	43.8	47.6

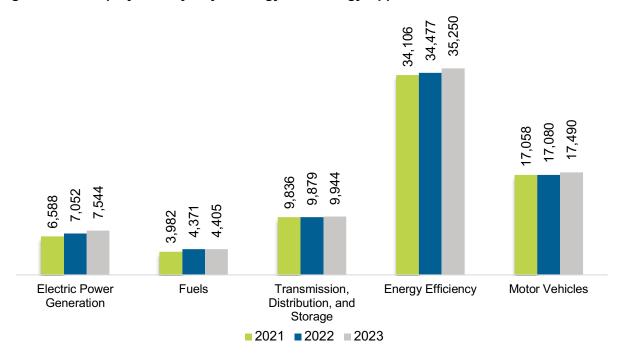
# Connecticut

## **ENERGY AND EMPLOYMENT — 2024**

### **OVERVIEW**

Connecticut had 74,632 energy workers statewide in 2023, representing 0.9% of all U.S. energy jobs. Of these energy jobs, 7,544 are in electric power generation; 4,405 in fuels; 9,944 in transmission, distribution, and storage; 35,250 in energy efficiency; and 17,490 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 1,773 jobs, or 2.4% (Figure CT-1). The energy sector in Connecticut represents 4.4% of total state employment.

Figure CT-1. Employment by Major Energy Technology Application

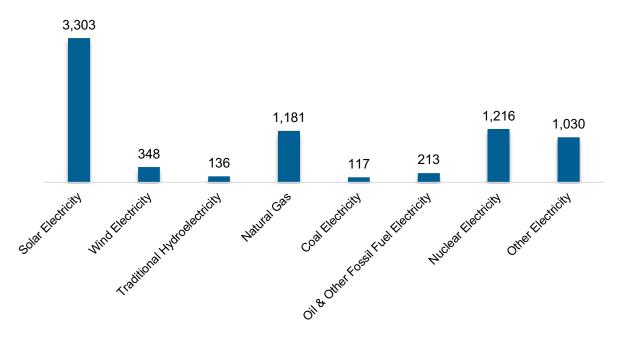


## **Breakdown by Technology Applications**

### **ELECTRIC POWER GENERATION**

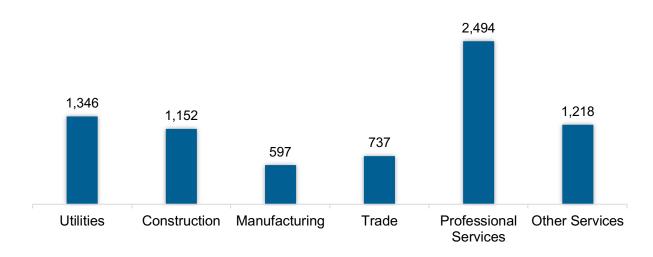
As shown in CT-2, the electric power generation sector employed 7,544 workers in Connecticut, 0.8% of the national electricity total, and added 492 jobs over the past year (7.0%).

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



Professional and business services is the largest industry sector in the electric power generation sector, with 33.1% of jobs. Utilities is the second largest with 17.8% (Figure CT-3).

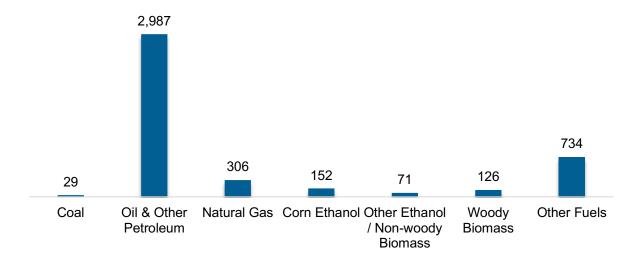
Figure CT-3. Electric Power Generation Employment by Industry Sector



### **FUELS**

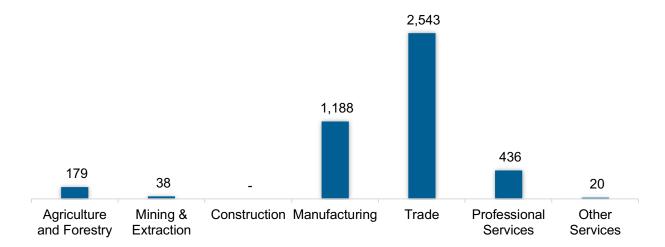
The Fuel sector employed 4,405 workers in Connecticut, 0.4% of the national total in fuels. The sector gained 34 jobs and increased 0.8% in the past year (Figure CT-4).

Figure CT-4. Fuels Employment by Detailed Technology Application



Wholesale trade jobs represented 57.7% 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 9,944 workers in Connecticut, 0.7% of the national TDS total (CT-6). The sector gained 65 jobs and increased 0.7% in the past year.

8,366

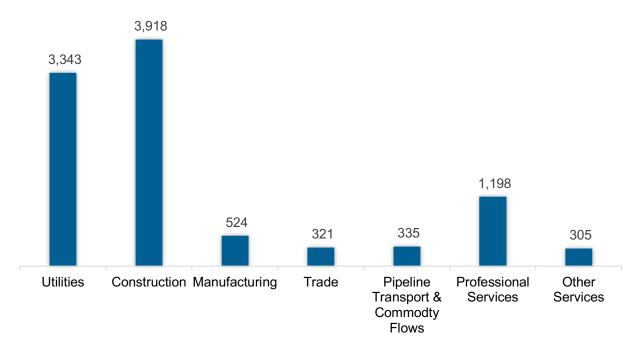
1,059

Traditional Storage Smart Grid Micro Grid & Other Transmission and Distribution

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

Construction is the largest proportion of TDS jobs in Connecticut, accounting for 39.4% of the sector's jobs statewide (Figure CT-7).

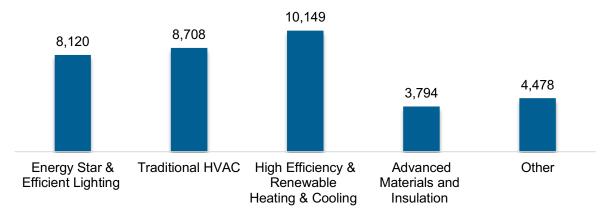
Figure CT-7. Transmission, Distribution and Storage Employment by Industry Sector



### **ENERGY EFFICIENCY**

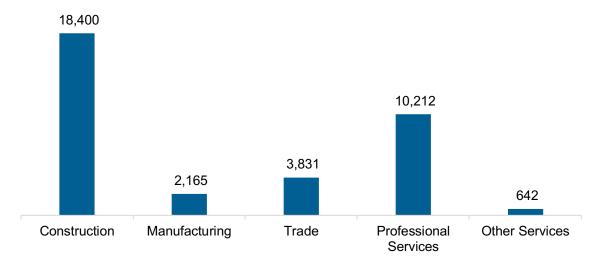
The energy efficiency (EE) sector employed 35,250 workers in Connecticut, 1.5% of the national EE total. The EE sector added 772 jobs and increased 2.2% in the past year (Figure CT-8).

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



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

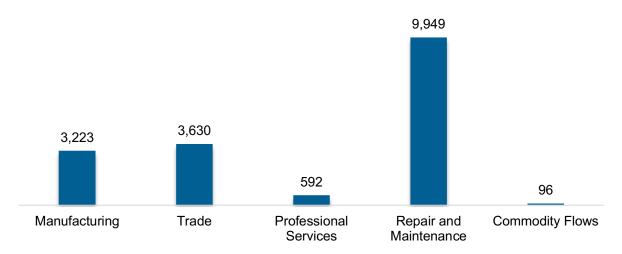
Figure CT-9. Energy Efficiency Employment by Industry Sector



#### MOTOR VEHICLES AND COMPONENT PARTS

The motor vehicles and component sector employed 17,490 workers in Connecticut, 0.7% of the national total for the sector. Motor vehicles and component parts added 410 jobs and increased 2.4% in the past year. 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 2023, there were 52,536 jobs in clean energy in Connecticut if traditional transmission and distribution is included and 44,169 jobs if it is not.<sup>7</sup> These increased under either definition, growing 2.2% with traditional transmission and distribution and 3.0% without.

<sup>&</sup>lt;sup>7</sup> 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.

## **Workforce Characteristics**

## **EMPLOYER GROWTH**

Employers in Connecticut are less 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	5.2	6.6
Electric Power Transmission, Distribution, and Storage	5.3	6.7
Energy Efficiency	5.9	8.0
Fuels	4.5	5.1
Motor Vehicles	4.2	4.5

### HIRING DIFFICULTY

Employers in Connecticut reported 41.9% 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	17.4	24.5	8.1	50.0	41.9

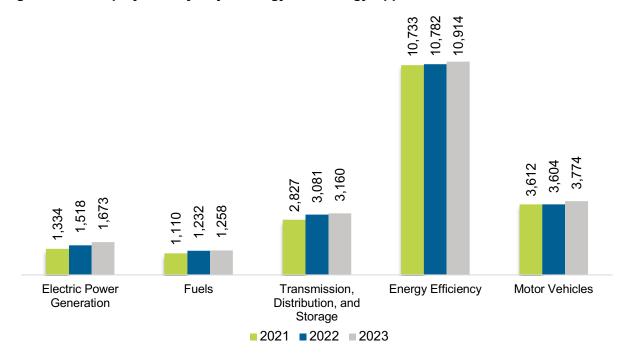
## **Delaware**

## **ENERGY AND EMPLOYMENT — 2024**

### **OVERVIEW**

Delaware had 20,780 energy workers statewide in 2023, representing 0.2% of all U.S. energy jobs. Of these energy jobs, 1,673 are in electric power generation; 1,258 in fuels; 3,160 in transmission, distribution, and storage; 10,914 in energy efficiency; and 3,774 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 562 jobs, or 2.8% (Figure DE-1). The energy sector in Delaware represents 4.5% of total state employment.

Figure DE-1. Employment by Major Energy Technology Application

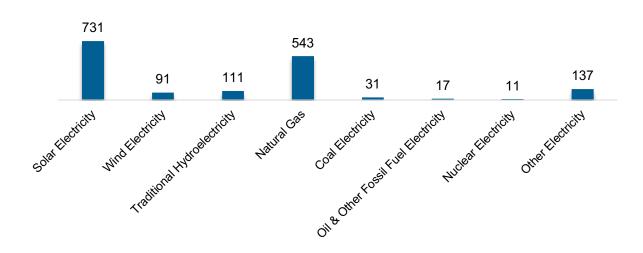


## **Breakdown by Technology Applications**

### **ELECTRIC POWER GENERATION**

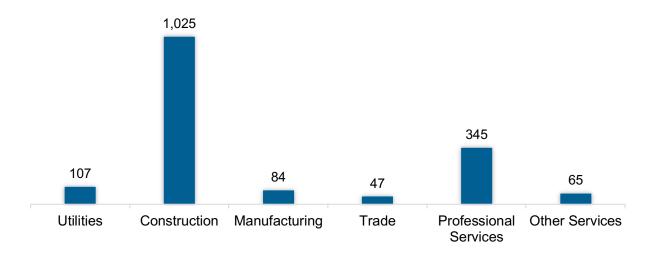
As shown in DE-2, the electric power generation sector employed 1,673 workers in Delaware, 0.2% of the national electricity total, and added 155 jobs over the past year (10.2%).

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



Construction is the largest industry sector in the electric power generation sector, with 61.3% of jobs. Professional and business services is the second largest with 20.6% (Figure DE-3).

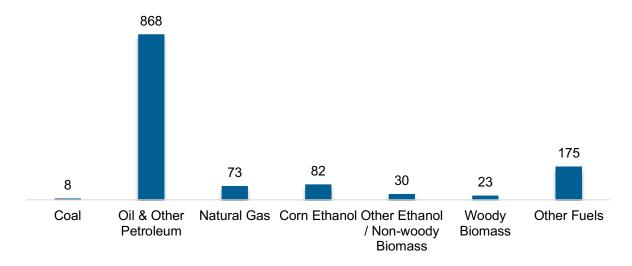
Figure DE-3. Electric Power Generation Employment by Industry Sector



### **FUELS**

The Fuel sector employed 1,258 workers in Delaware, 0.1% of the national total in fuels. The sector gained 26 jobs and increased 2.1% in the past year (Figure DE-4).

Figure DE-4. Fuels Employment by Detailed Technology Application



Manufacturing jobs represented 50.3% of fuel jobs in Delaware (Figure DE-5).

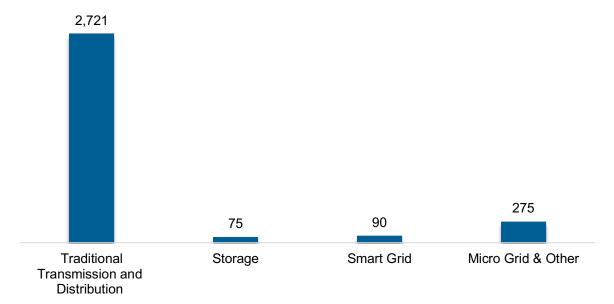
Figure DE-5. Fuels Employment by Industry Sector



### TRANSMISSION, DISTRIBUTION AND STORAGE

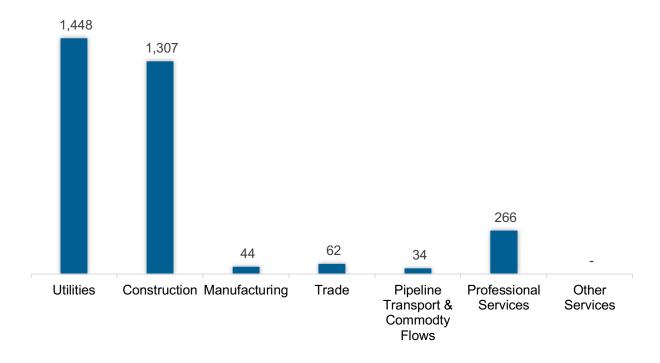
The transmission, distribution, and storage (TDS) sector employed 3,160 workers in Delaware, 0.2% of the national TDS total (DE-6). The sector gained 79 jobs and increased 2.6% in the past year.

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



Utilities is the largest proportion of TDS jobs in Delaware, accounting for 45.8% of the sector's jobs statewide (Figure DE-7).

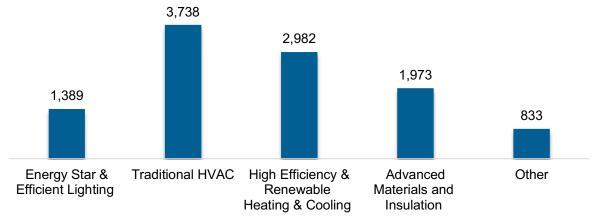
Figure DE-7. Transmission, Distribution and Storage Employment by Industry Sector



### **ENERGY EFFICIENCY**

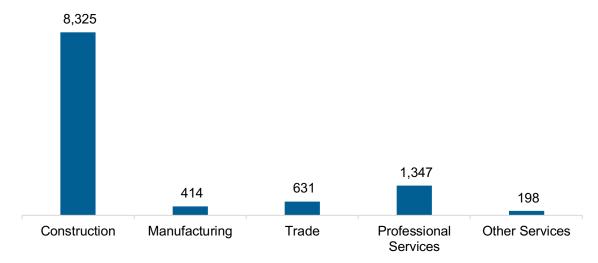
The energy efficiency (EE) sector employed 10,914 workers in Delaware, 0.5% of the national EE total. The EE sector added 133 jobs and increased 1.2% in the past year (Figure DE-8).

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



Energy efficiency employment is 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 3,774 workers in Delaware, 0.1% of the national total for the sector. Motor vehicles and component parts added 170 jobs and increased 4.7% in the past year. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure DE-10).

770

74

Manufacturing Trade Professional Services Repair and Maintenance Commodity Flows

Figure DE-10. Motor Vehicle Employment by Industry Sector

#### **CLEAN ENERGY JOBS**

In 2023, there were 15,388 jobs in clean energy in Delaware if traditional transmission and distribution is included and 12,667 jobs if it is not.<sup>8</sup> These increased under either definition, growing 1.9% with traditional transmission and distribution and 2% without.

<sup>&</sup>lt;sup>8</sup> 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.

## **Workforce Characteristics**

## **EMPLOYER GROWTH**

Employers in Delaware are less 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	3.9	6.6
Electric Power Transmission, Distribution, and Storage	4.0	6.7
Energy Efficiency	4.6	8.0
Fuels	3.2	5.1
Motor Vehicles	2.9	4.5

### HIRING DIFFICULTY

Employers in Delaware reported 34.8% 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	18.4	16.4	11.3	53.8	34.8

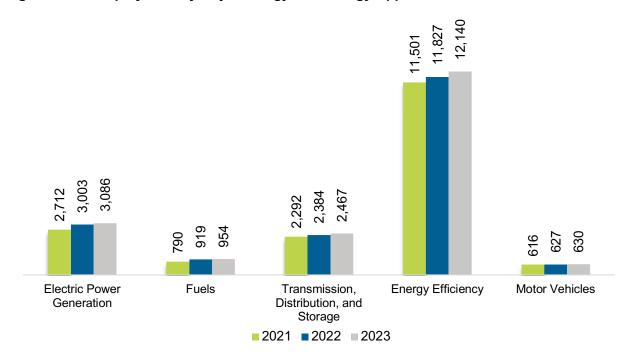
# **District of Columbia**

## **ENERGY AND EMPLOYMENT — 2024**

### **OVERVIEW**

The District of Columbia had 19,278 energy workers statewide in 2023, representing 0.2% of all U.S. energy jobs. Of these energy jobs, 3,086 are in electric power generation; 954 in fuels; 2,467 in transmission, distribution, and storage; 12,140 in energy efficiency; and 630 in motor vehicles. From 2022 to 2023, energy jobs in the district increased 517 jobs, or 2.8% (Figure DC-1). The energy sector in the District of Columbia represents 2.5% of total state employment.

Figure DC-1. Employment by Major Energy Technology Application

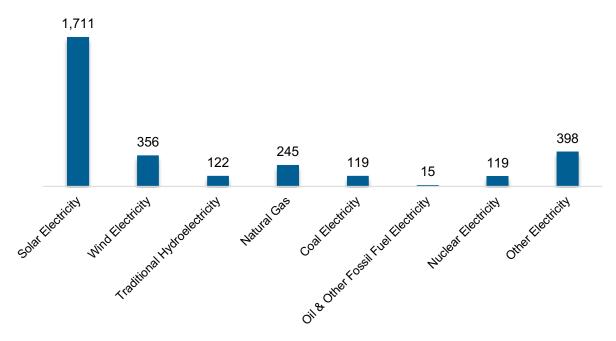


## **Breakdown by Technology Applications**

### **ELECTRIC POWER GENERATION**

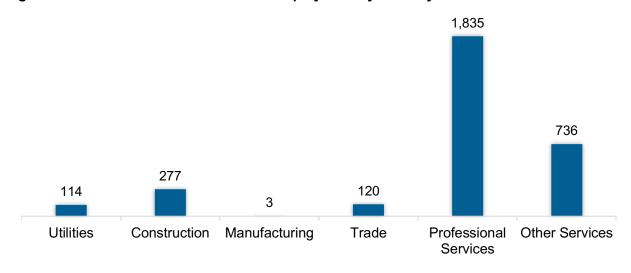
As shown in DC-2, the electric power generation sector employed 3,086 workers in the District of Columbia, 0.3% of the national electricity total, and added 82 jobs over the past year (2.7%).

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



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

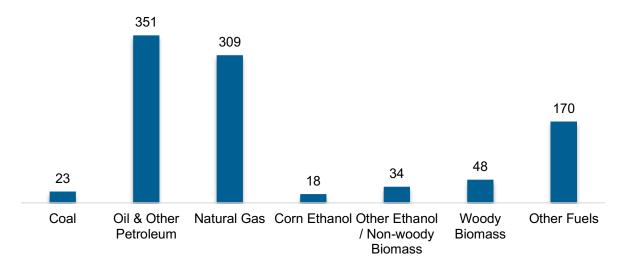
Figure DC-3. Electric Power Generation Employment by Industry Sector



### **FUELS**

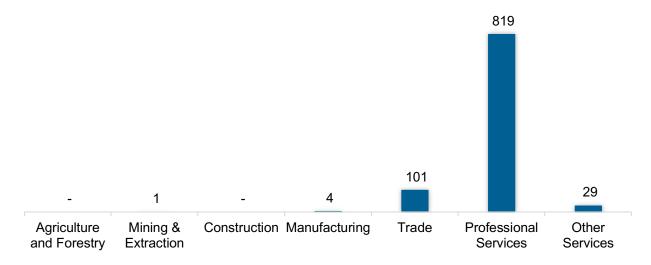
The Fuel sector employed 954 workers in District of Columbia, 0.1% of the national total in fuels. The sector gained 35 jobs and increased 3.8% in the past year (Figure DC-4).

Figure DC-4. Fuels Employment by Detailed Technology Application



Professional and business services jobs represented 85.8% of fuel jobs in District of Columbia (Figure DC-5).

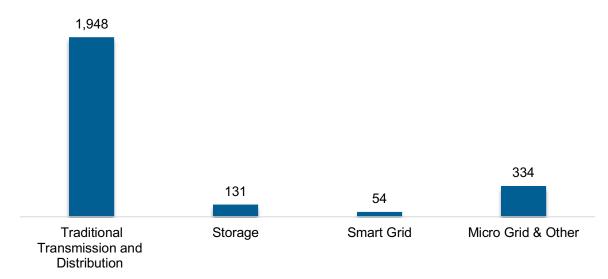
Figure DC-5. Fuels Employment by Industry Sector



### TRANSMISSION, DISTRIBUTION AND STORAGE

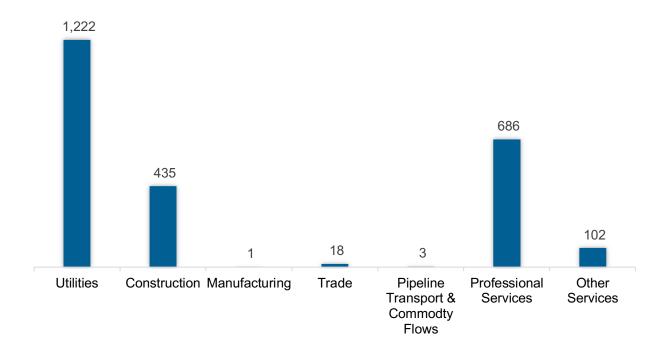
The transmission, distribution, and storage (TDS) sector employed 2,467 workers in District of Columbia, 0.2% of the national TDS total (DC-6). The sector gained 83 jobs and increased 3.5% in the past year.

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



Utilities is the largest proportion of TDS jobs in District of Columbia, accounting for 49.5% of the sector's jobs statewide (Figure DC-7).

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

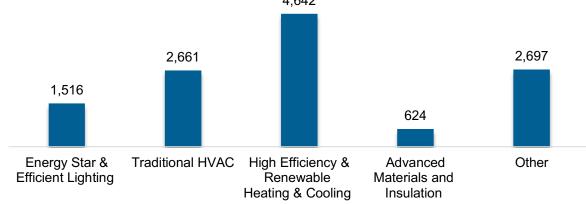


### **ENERGY EFFICIENCY**

The energy efficiency (EE) sector employed 12,140 workers in District of Columbia, 0.5% of the national EE total. The EE sector added 314 jobs and increased 2.7% in the past year (Figure DC-8).

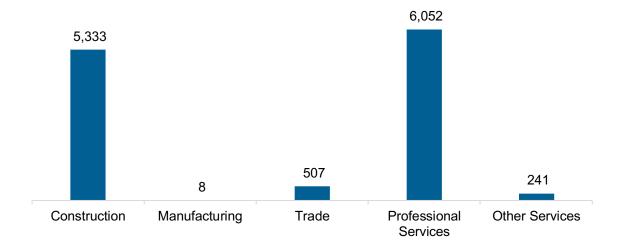
4.642

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



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

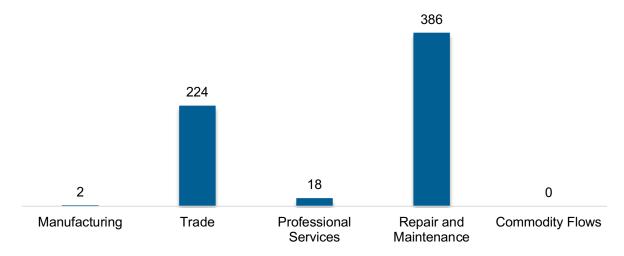
Figure DC-9. Energy Efficiency Employment by Industry Sector



#### MOTOR VEHICLES AND COMPONENT PARTS

The motor vehicles and component sector employed 630 workers in District of Columbia, 0.02% of the national total for the sector. Motor vehicles and component parts added less than 10 jobs and increased 0.4% in the past year. 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 2023, there were 17,442 jobs in clean energy in District of Columbia if traditional transmission and distribution is included and 15,494 jobs if it is not.<sup>9</sup> These increased under either definition, growing 2.6% with traditional transmission and distribution and 2.9% without.

<sup>&</sup>lt;sup>9</sup> 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.

## **Workforce Characteristics**

## **EMPLOYER GROWTH**

Employers in District of Columbia are more 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	9.0	6.6
Electric Power Transmission, Distribution, and Storage	9.1	6.7
Energy Efficiency	9.7	8.0
Fuels	8.2	5.1
Motor Vehicles	8.0	4.5

### HIRING DIFFICULTY

Employers in District of Columbia reported 44.7% 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	15.4	29.3	8.4	47.0	44.7

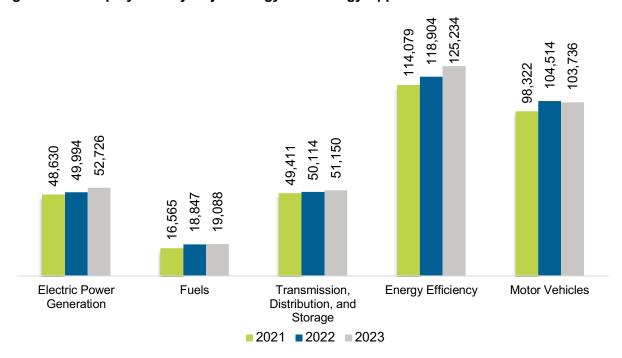
# **Florida**

## **ENERGY AND EMPLOYMENT — 2024**

### **OVERVIEW**

Florida had 351,934 energy workers statewide in 2023, representing 4.2% of all U.S. energy jobs. Of these energy jobs, 52,726 are in electric power generation; 19,088 in fuels; 51,150 in transmission, distribution, and storage; 125,234 in energy efficiency; and 103,736 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 9,562 jobs, or 2.8% (Figure FL-1). The energy sector in Florida represents 4% of total state employment.

Figure FL-1. Employment by Major Energy Technology Application

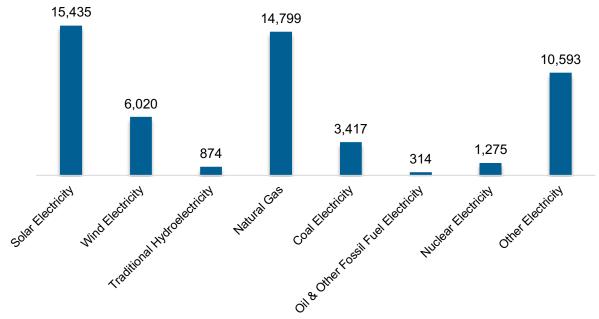


# **Breakdown by Technology Applications**

### **ELECTRIC POWER GENERATION**

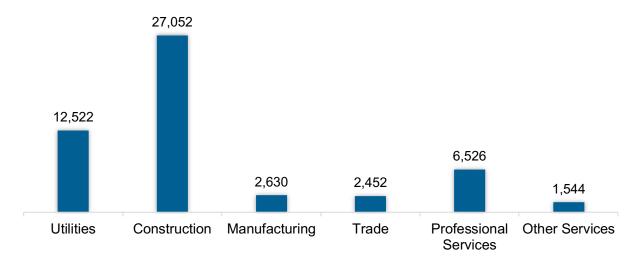
As shown in FL-2, the electric power generation sector employed 52,726 workers in Florida, 5.7% of the national electricity total, and added 2,733 jobs over the past year (5.5%).

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



Construction is the largest industry sector in the electric power generation sector, with 51.3% of jobs. Utilities is the second largest with 23.7% (Figure FL-3).

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



### **FUELS**

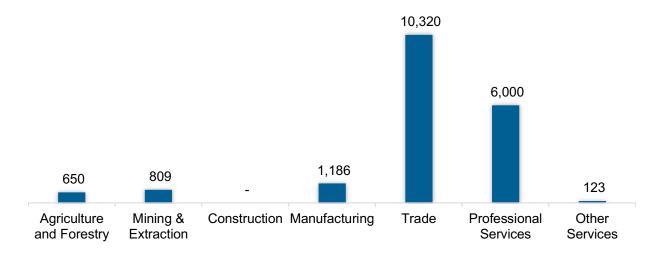
The Fuel sector employed 19,088 workers in Florida, 1.8% of the national total in fuels. The sector gained 241 jobs and increased 1.3% in the past year (Figure FL-4).

7,479 5,844 2,866 1,459 973 288 180 Coal Oil & Other Natural Gas Corn Ethanol Other Ethanol Other Fuels Woody / Non-woody Petroleum **Biomass Biomass** 

Figure FL-4. Fuels Employment by Detailed Technology Application

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

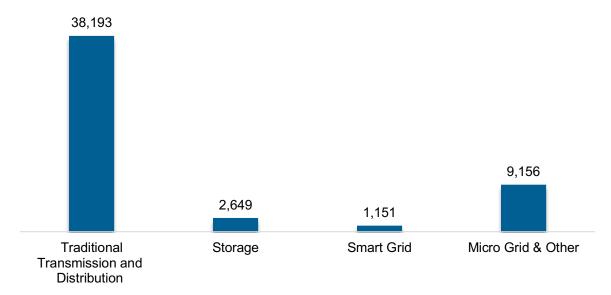




### TRANSMISSION, DISTRIBUTION AND STORAGE

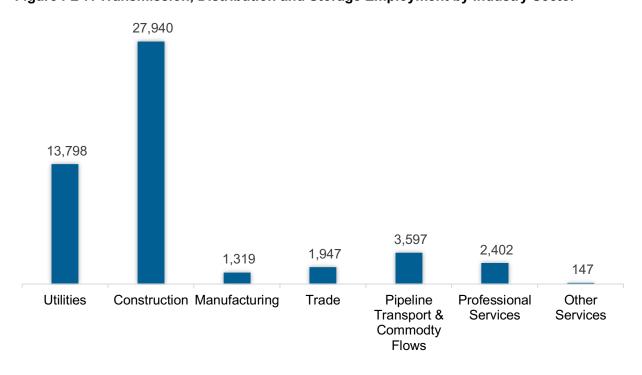
The transmission, distribution, and storage (TDS) sector employed 51,150 workers in Florida, 3.6% of the national TDS total (FL-6). The sector gained 1,036 jobs and increased 2.1% in the past year.

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



Construction is the largest proportion of TDS jobs in Florida, accounting for 54.6% of the sector's jobs statewide (Figure FL-7).

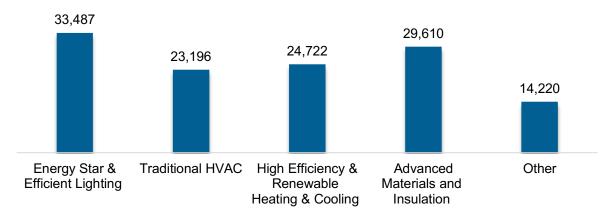
Figure FL-7. Transmission, Distribution and Storage Employment by Industry Sector



## **ENERGY EFFICIENCY**

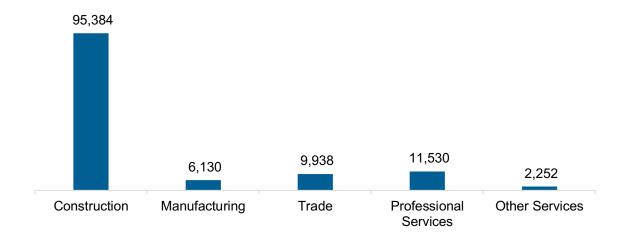
The energy efficiency (EE) sector employed 125,234 workers in Florida, 5.5% of the national EE total. The EE sector added 6,330 jobs and increased 5.3% in the past year (Figure FL-8).

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



Energy efficiency employment is 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 103,736 workers in Florida, 3.9% of the national total for the sector. Motor vehicles and component parts lost 778 jobs and decreased 0.7% in the past year. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure FL-10).

21,185

8,979

2,896

Manufacturing Trade Professional Services Repair and Maintenance Commodity Flows

Figure FL-10. Motor Vehicle Employment by Industry Sector

#### **CLEAN ENERGY JOBS**

In 2023, there were 210,308 jobs in clean energy in Florida if traditional transmission and distribution is included and 172,115 jobs if it is not.<sup>10</sup> These increased under either definition, growing 4.5% with traditional transmission and distribution and 5.7% without.

<sup>&</sup>lt;sup>10</sup> 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.

# **Workforce Characteristics**

# **EMPLOYER GROWTH**

Employers in Florida are 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	8.0	6.6
Electric Power Transmission, Distribution, and Storage	8.0	6.7
Energy Efficiency	8.7	8.0
Fuels	7.2	5.1
Motor Vehicles	6.9	4.5

# HIRING DIFFICULTY

Employers in Florida reported 41.2% 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	18.1	23.0	9.4	49.4	41.2

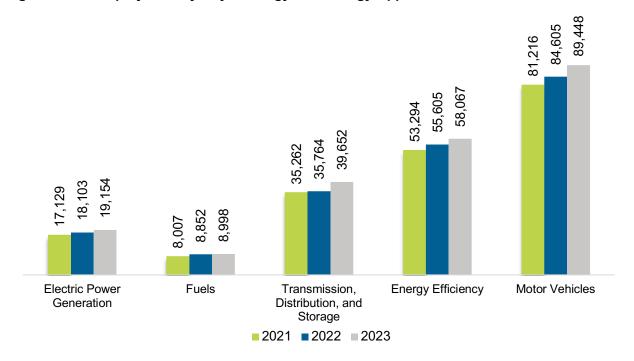
# Georgia

# **ENERGY AND EMPLOYMENT — 2024**

## **OVERVIEW**

Georgia had 215,319 energy workers statewide in 2023, representing 2.6% of all U.S. energy jobs. Of these energy jobs, 19,154 are in electric power generation; 8,998 in fuels; 39,652 in transmission, distribution, and storage; 58,067 in energy efficiency; and 89,448 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 12,390 jobs, or 6.1% (Figure GA-1). The energy sector in Georgia represents 4.8% of total state employment.

Figure GA-1. Employment by Major Energy Technology Application

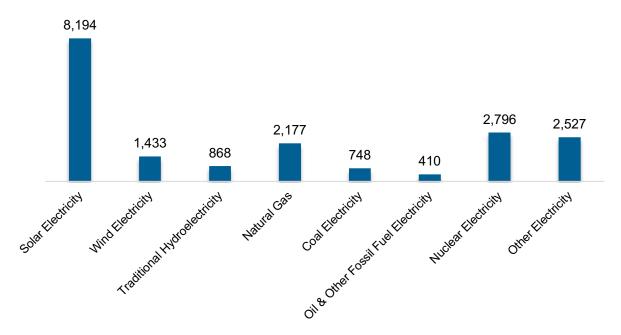


# **Breakdown by Technology Applications**

## **ELECTRIC POWER GENERATION**

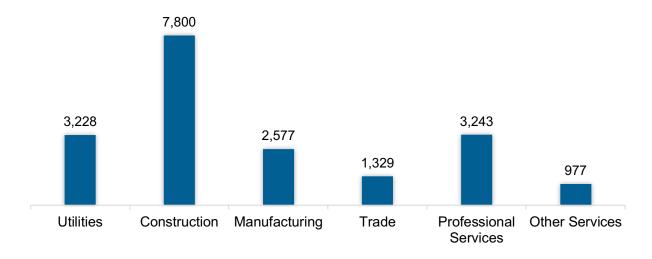
As shown in GA-2, the electric power generation sector employed 19,154 workers in Georgia, 2.1% of the national electricity total, and added 1,051 jobs over the past year (5.8%).

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



Construction is the largest industry sector in the electric power generation sector, with 40.7% of jobs. Professional and business services is the second largest with 16.9% (Figure GA-3).

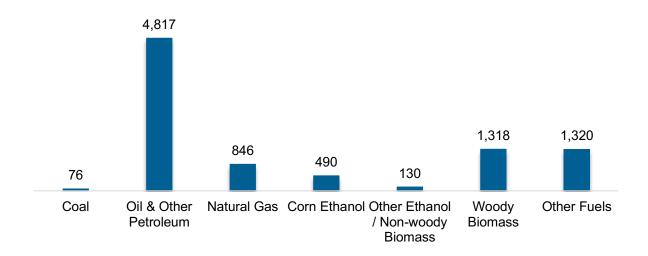
Figure GA-3. Electric Power Generation Employment by Industry Sector



## **FUELS**

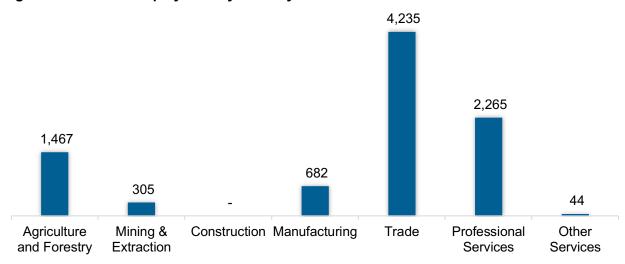
The Fuel sector employed 8,998 workers in Georgia, 0.9% of the national total in fuels. The sector gained 146 jobs and increased 1.6% in the past year (Figure GA-4).

Figure GA-4. Fuels Employment by Detailed Technology Application



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

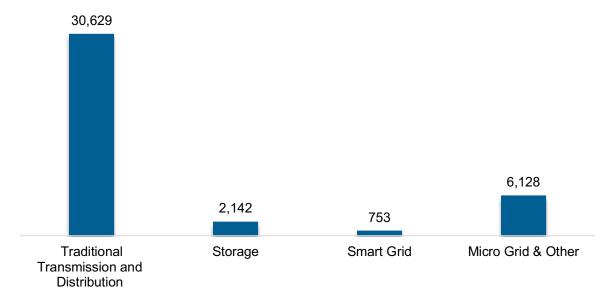
Figure GA-5. Fuels Employment by Industry Sector



## TRANSMISSION, DISTRIBUTION AND STORAGE

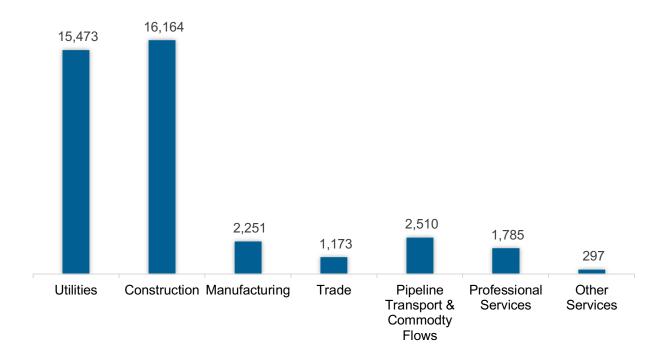
The transmission, distribution, and storage (TDS) sector employed 39,652 workers in Georgia, 2.8% of the national TDS total (GA-6). The sector gained 3,887 jobs and increased 10.9% in the past year.

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



Construction is the largest proportion of TDS jobs in Georgia, accounting for 40.8% of the sector's jobs statewide (Figure GA-7).

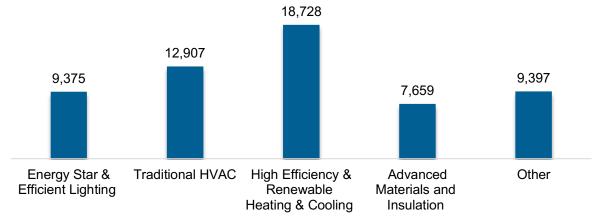
Figure GA-7. Transmission, Distribution and Storage Employment by Industry Sector



## **ENERGY EFFICIENCY**

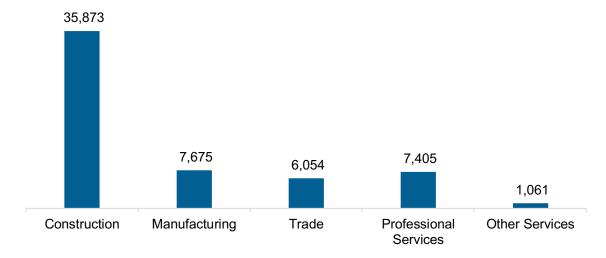
The energy efficiency (EE) sector employed 58,067 workers in Georgia, 2.5% of the national EE total. The EE sector added 2,462 jobs and increased 4.4% in the past year (Figure GA-8).

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



Energy efficiency employment is 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 89,448 workers in Georgia, 3.4% of the national total for the sector. Motor vehicles and component parts added 4,844 jobs and increased 5.7% in the past year. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure GA-10).

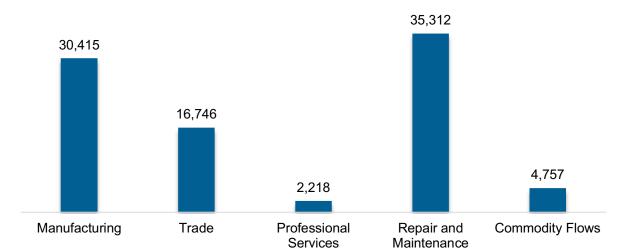


Figure GA-10. Motor Vehicle Employment by Industry Sector

#### **CLEAN ENERGY JOBS**

In 2023, there were 113,980 jobs in clean energy in Georgia if traditional transmission and distribution is included and 83,350 jobs if it is not.<sup>11</sup> These increased under either definition, growing 6.5% with traditional transmission and distribution and 4.5% without.

6

<sup>&</sup>lt;sup>11</sup> 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.

# **Workforce Characteristics**

# **EMPLOYER GROWTH**

Employers in Georgia are similarly optimistic to 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	6.7	6.6
Electric Power Transmission, Distribution, and Storage	6.8	6.7
Energy Efficiency	7.4	8.0
Fuels	5.9	5.1
Motor Vehicles	5.7	4.5

# HIRING DIFFICULTY

Employers in Georgia reported 44.2% 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	19.6	24.6	7.1	48.6	44.2

# Hawaii

# **ENERGY AND EMPLOYMENT — 2024**

## **OVERVIEW**

Electric Power

Generation

Hawaii had 25,603 energy workers statewide in 2023, representing 0.3% of all U.S. energy jobs. Of these energy jobs, 6,621 are in electric power generation; 4,022 in fuels; 5,357 in transmission, distribution, and storage; 5,759 in energy efficiency; and 3,845 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 297 jobs, or 1.2% (Figure HI-1). The energy sector in Hawaii represents 3.9% of total state employment.

6,477 3,999 4,074 4,022 5,096 5,430 5,357 5,357 5,357 5,357 5,357 5,363 3,603 3,803 3,803 3,845

Transmission,

Distribution, and Storage
■ 2021 ■ 2022 ■ 2023

**Energy Efficiency** 

Motor Vehicles

Figure HI-1. Employment by Major Energy Technology Application

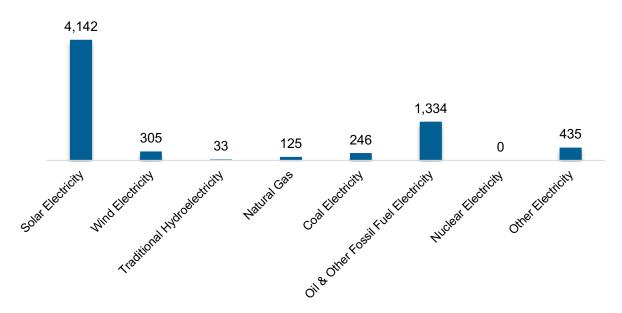
Fuels

# **Breakdown by Technology Applications**

## **ELECTRIC POWER GENERATION**

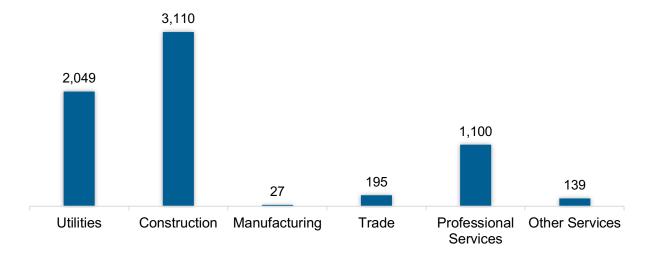
As shown in HI-2, the electric power generation sector employed 6,621 workers in Hawaii, 0.7% of the national electricity total, and added 145 jobs over the past year (2.2%).

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



Construction is the largest industry sector in the electric power generation sector, with 47.0% of jobs. Utilities is the second largest with 30.9% (Figure HI-3).

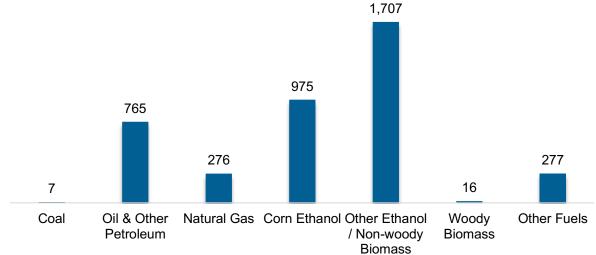
Figure HI-3. Electric Power Generation Employment by Industry Sector



## **FUELS**

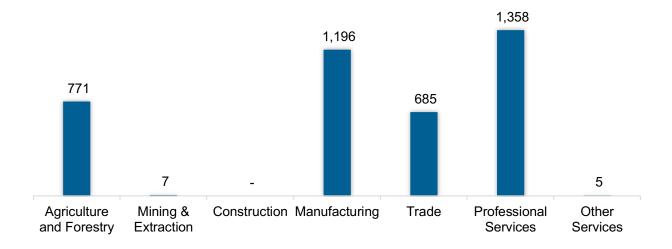
The Fuel sector employed 4,022 workers in Hawaii, 0.4% of the national total in fuels. The sector lost 52 jobs and decreased 1.3% in the past year (Figure HI-4).

Figure HI-4. Fuels Employment by Detailed Technology Application



Professional and business services jobs represented 33.8% of fuel jobs in Hawaii (Figure HI-5).

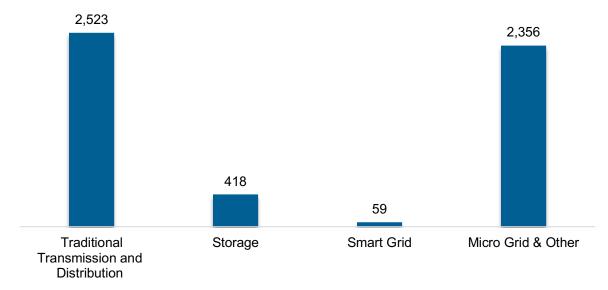
Figure HI-5. Fuels Employment by Industry Sector



## TRANSMISSION, DISTRIBUTION AND STORAGE

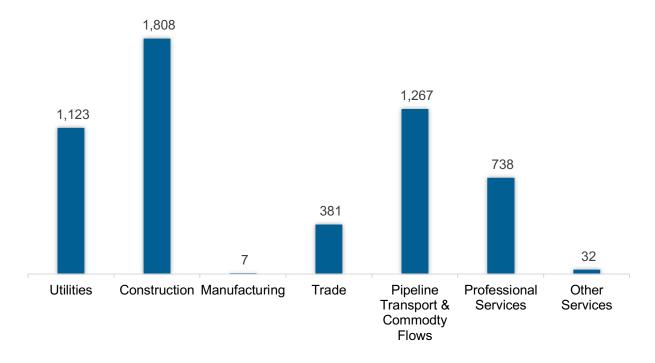
The transmission, distribution, and storage (TDS) sector employed 5,357 workers in Hawaii, 0.4% of the national TDS total (HI-6). The sector lost 73 jobs and decreased 1.3% in the past year.

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



Construction is the largest proportion of TDS jobs in Hawaii, accounting for 33.7% of the sector's jobs statewide (Figure HI-7).

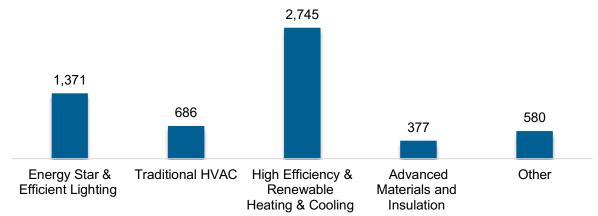
Figure HI-7. Transmission, Distribution and Storage Employment by Industry Sector



## **ENERGY EFFICIENCY**

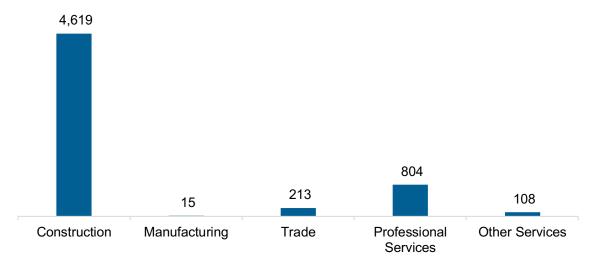
The energy efficiency (EE) sector employed 5,759 workers in Hawaii, 0.3% of the national EE total. The EE sector added 242 jobs and increased 4.4% in the past year (Figure HI-8).

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



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

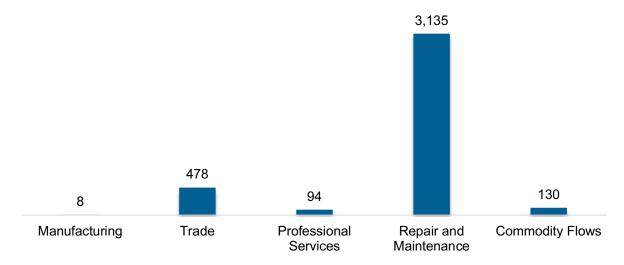
Figure HI-9. Energy Efficiency Employment by Industry Sector



## MOTOR VEHICLES AND COMPONENT PARTS

The motor vehicles and component sector employed 3,845 workers in Hawaii, 0.1% of the national total for the sector. Motor vehicles and component parts added 34 jobs and increased 0.9% in the past year. 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 2023, there were 16,714 jobs in clean energy in Hawaii if traditional transmission and distribution is included and 14,191 jobs if it is not.<sup>12</sup> These increased under either definition, growing 1.8% with traditional transmission and distribution and 2.2% without.

6

<sup>&</sup>lt;sup>12</sup> 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.

# **Workforce Characteristics**

# **EMPLOYER GROWTH**

Employers in Hawaii are less 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	5.0	6.6
Electric Power Transmission, Distribution, and Storage	5.0	6.7
Energy Efficiency	5.7	8.0
Fuels	4.2	5.1
Motor Vehicles	3.9	4.5

# HIRING DIFFICULTY

Employers in Hawaii reported 44.8% 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	21.7	23.1	8.0	47.2	44.8

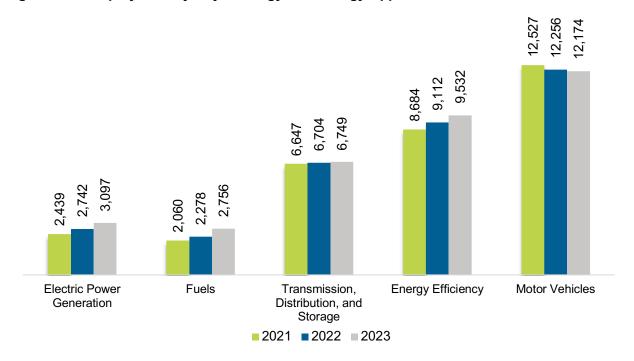
# Idaho

# **ENERGY AND EMPLOYMENT — 2024**

## **OVERVIEW**

Idaho had 34,308 energy workers statewide in 2023, representing 0.4% of all U.S. energy jobs. Of these energy jobs, 3,097 are in electric power generation; 2,756 in fuels; 6,749 in transmission, distribution, and storage; 9,532 in energy efficiency; and 12,174 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 1,215 jobs, or 3.7% (Figure ID-1). The energy sector in Idaho represents 4.5% of total state employment.

Figure ID-1. Employment by Major Energy Technology Application

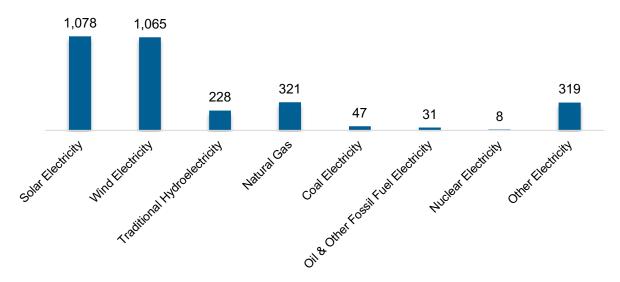


# **Breakdown by Technology Applications**

# **ELECTRIC POWER GENERATION**

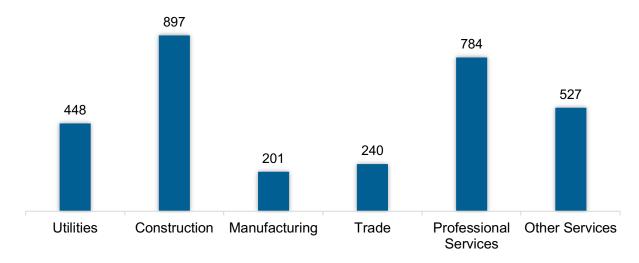
As shown in ID-2, the electric power generation sector employed 3,097 workers in Idaho, 0.3% of the national electricity total, and added 355 jobs over the past year (13.0%).

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



Construction is the largest industry sector in the electric power generation sector, with 29.0% of jobs. Professional and business services is the second largest with 25.3% (Figure ID-3).

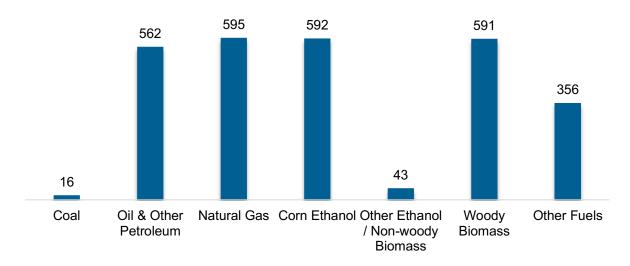
Figure ID-3. Electric Power Generation Employment by Industry Sector



## **FUELS**

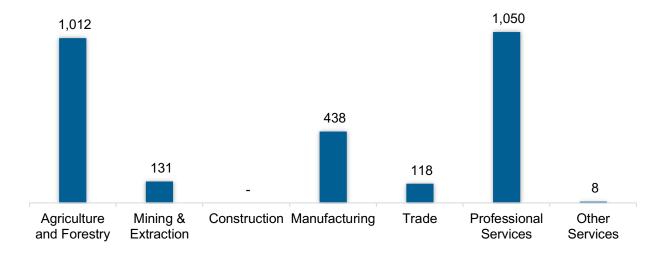
The Fuel sector employed 2,756 workers in Idaho, 0.3% of the national total in fuels. The sector gained 478 jobs and increased 21.0% in the past year (Figure ID-4).

Figure ID-4. Fuels Employment by Detailed Technology Application



Professional and business services jobs represented 38.1% of fuel jobs in Idaho (Figure ID-5).

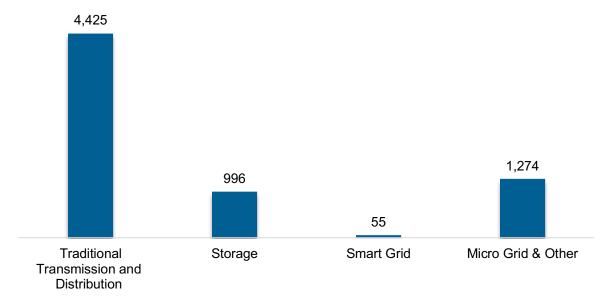
Figure ID-5. Fuels Employment by Industry Sector



## TRANSMISSION, DISTRIBUTION AND STORAGE

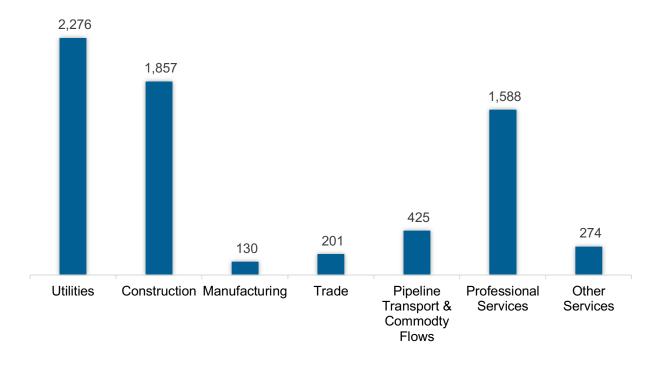
The transmission, distribution, and storage (TDS) sector employed 6,749 workers in Idaho, 0.5% of the national TDS total (ID-6). The sector gained 45 jobs and increased 0.7% in the past year.

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



Utilities is the largest proportion of TDS jobs in Idaho, accounting for 33.7% of the sector's jobs statewide (Figure ID-7).

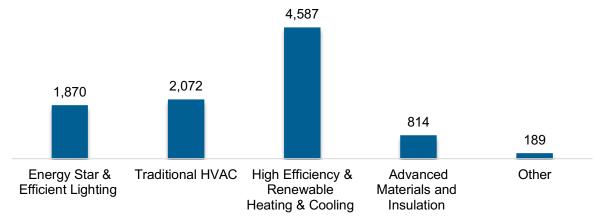
Figure ID-7. Transmission, Distribution and Storage Employment by Industry Sector



## **ENERGY EFFICIENCY**

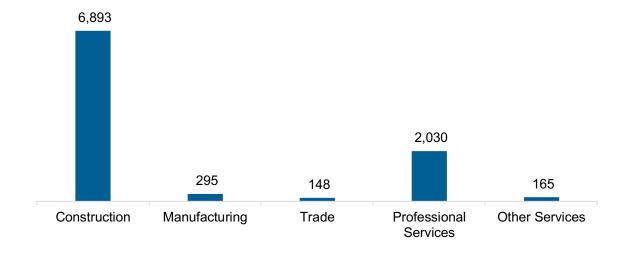
The energy efficiency (EE) sector employed 9,532 workers in Idaho, 0.4% of the national EE total. The EE sector added 420 jobs and increased 4.6% in the past year (Figure ID-8).

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



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

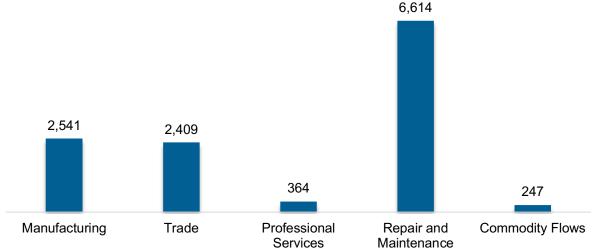
Figure ID-9. Energy Efficiency Employment by Industry Sector



## MOTOR VEHICLES AND COMPONENT PARTS

The motor vehicles and component sector employed 12,174 workers in Idaho, 0.5% of the national total for the sector. Motor vehicles and component parts lost 82 jobs and decreased 0.7% in the past year. 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 2023, there were 19,863 jobs in clean energy in Idaho if traditional transmission and distribution is included and 15,439 jobs if it is not.<sup>13</sup> These increased under either definition, growing 5.8% with traditional transmission and distribution and 7.7% without.

6

<sup>&</sup>lt;sup>13</sup> 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.

# **Workforce Characteristics**

# **EMPLOYER GROWTH**

Employers in Idaho are more 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	8.6	6.6
Electric Power Transmission, Distribution, and Storage	8.7	6.7
Energy Efficiency	9.3	8.0
Fuels	7.8	5.1
Motor Vehicles	7.5	4.5

# HIRING DIFFICULTY

Employers in Idaho reported 39.1% 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	16.7	22.3	7.7	53.2	39.1

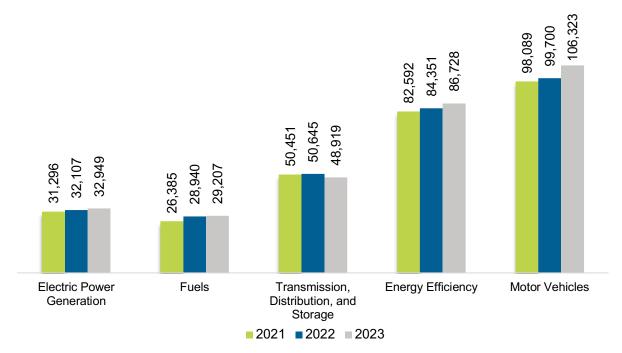
# Illinois

# **ENERGY AND EMPLOYMENT — 2024**

## **OVERVIEW**

Illinois had 304,126 energy workers statewide in 2023, representing 3.6% of all U.S. energy jobs. Of these energy jobs, 32,949 are in electric power generation; 29,207 in fuels; 48,919 in transmission, distribution, and storage; 86,728 in energy efficiency; and 106,323 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 8,383 jobs, or 2.8% (Figure IL-1). The energy sector in Illinois represents 5% of total state employment.

Figure IL-1. Employment by Major Energy Technology Application



# **Breakdown by Technology Applications**

## **ELECTRIC POWER GENERATION**

As shown in IL-2, the electric power generation sector employed 32,949 workers in Illinois, 3.6% of the national electricity total, and added 842 jobs over the past year (2.6%).

9,389

4,385

4,236

4,664

1,908

936

1,908

4444

Traditional Hutroalestricity

Arthuroa Case

Coad Electricity

Traditional Hutroalestricity

Arthuroa Case

Coad Electricity

Arthuroa Case

Arthuroa Case

Arthuroa Case

Arthuroa Case

Coad Electricity

Arthuroa Case

Arthuroa Case

Coad Electricity

Arthuroa Case

A

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

Construction is the largest industry sector in the electric power generation sector, with 32.7% of jobs. Professional and business services is the second largest with 25.9% (Figure IL-3).

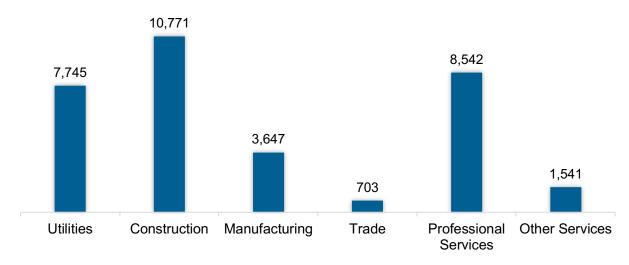
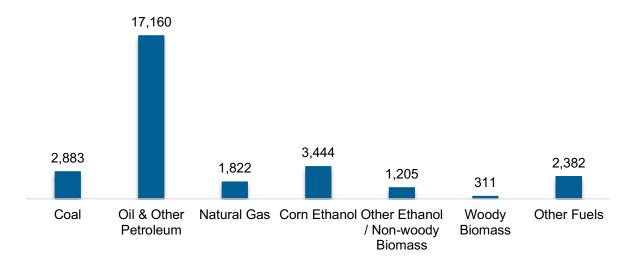


Figure IL-3. Electric Power Generation Employment by Industry Sector

## **FUELS**

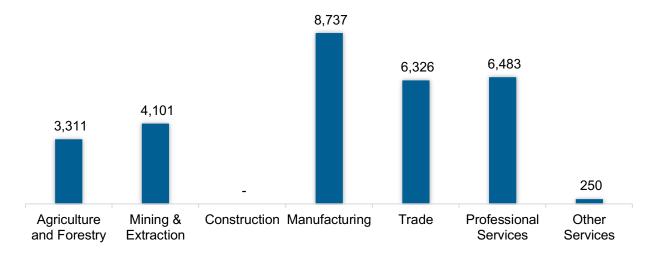
The Fuel sector employed 29,207 workers in Illinois, 2.8% of the national total in fuels. The sector gained 267 jobs and increased 0.9% in the past year (Figure IL-4).

Figure IL-4. Fuels Employment by Detailed Technology Application



Manufacturing jobs represented 29.9% of fuel jobs in Illinois (Figure IL-5).

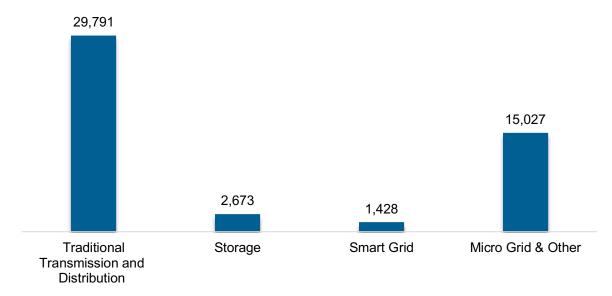
Figure IL-5. Fuels Employment by Industry Sector



# TRANSMISSION, DISTRIBUTION AND STORAGE

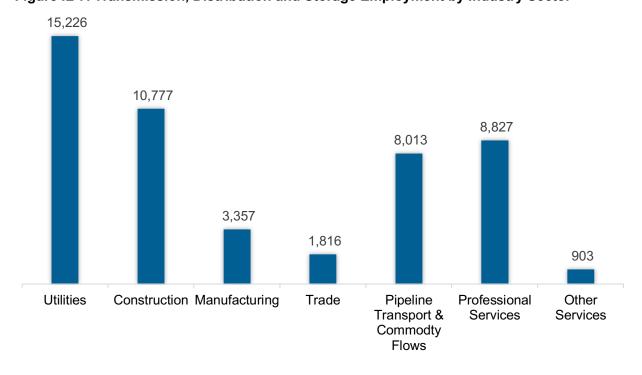
The transmission, distribution, and storage (TDS) sector employed 48,919 workers in Illinois, 3.4% of the national TDS total (IL-6). The sector lost 1,726 jobs and decreased 3.4% in the past year.

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



Utilities is the largest proportion of TDS jobs in Illinois, accounting for 31.1% of the sector's jobs statewide (Figure IL-7).

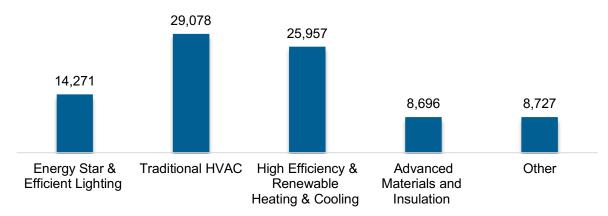
Figure IL-7. Transmission, Distribution and Storage Employment by Industry Sector



## **ENERGY EFFICIENCY**

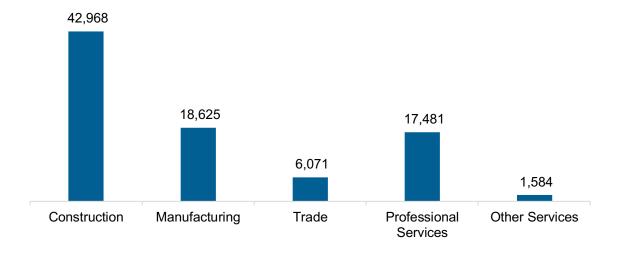
The energy efficiency (EE) sector employed 86,728 workers in Illinois, 3.8% of the national EE total. The EE sector added 2,378 jobs and increased 2.8% in the past year (Figure IL-8).

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



Energy efficiency employment is 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 106,323 workers in Illinois, 4% of the national total for the sector. Motor vehicles and component parts added 6,623 jobs and increased 6.6% in the past year. Manufacturing is the largest proportion of motor vehicle jobs (Figure IL-10).

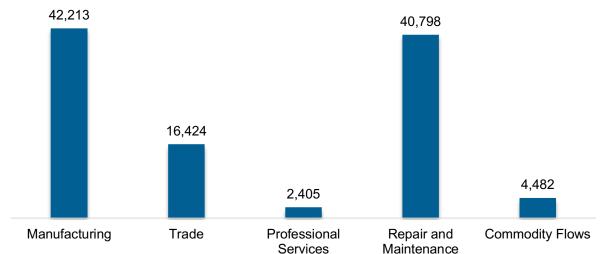


Figure IL-10. Motor Vehicle Employment by Industry Sector

## **CLEAN ENERGY JOBS**

In 2023, there were 160,263 jobs in clean energy in Illinois if traditional transmission and distribution is included and 130,473 jobs if it is not.<sup>14</sup> These increased under either definition, growing 2.6% with traditional transmission and distribution and 3.4% without.

6

<sup>&</sup>lt;sup>14</sup> 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.

# **Workforce Characteristics**

# **EMPLOYER GROWTH**

Employers in Illinois are 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	7.7	6.6
Electric Power Transmission, Distribution, and Storage	7.7	6.7
Energy Efficiency	8.4	8.0
Fuels	6.9	5.1
Motor Vehicles	6.6	4.5

# HIRING DIFFICULTY

Employers in Illinois reported 40.4% 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	17.7	22.7	9.3	50.3	40.4

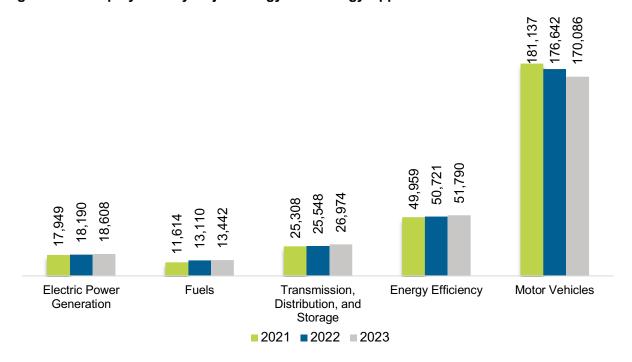
# **Indiana**

# **ENERGY AND EMPLOYMENT — 2024**

## **OVERVIEW**

Indiana had 280,900 energy workers statewide in 2023, representing 3.4% of all U.S. energy jobs. Of these energy jobs, 18,608 are in electric power generation; 13,442 in fuels; 26,974 in transmission, distribution, and storage; 51,790 in energy efficiency; and 170,086 in motor vehicles. From 2022 to 2023, energy jobs in the state decreased 3,311 jobs, or -1.2% (Figure IN-1). The energy sector in Indiana represents 9.1% of total state employment.

Figure IN-1. Employment by Major Energy Technology Application

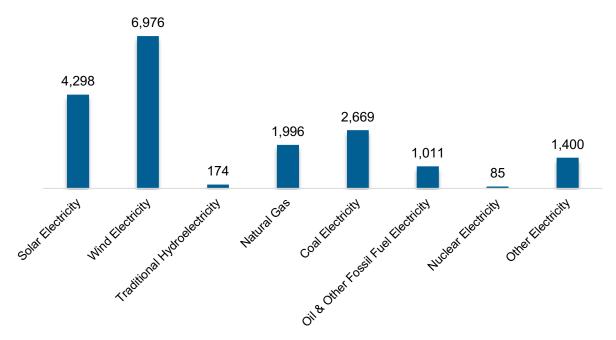


# **Breakdown by Technology Applications**

## **ELECTRIC POWER GENERATION**

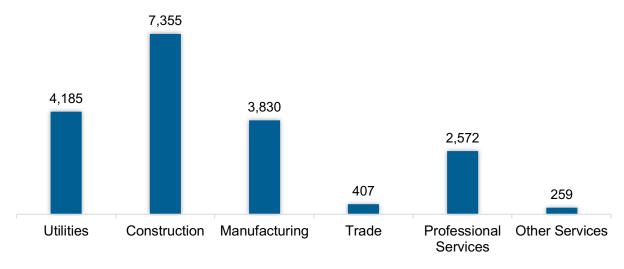
As shown in IN-2, the electric power generation sector employed 18,608 workers in Indiana, 2.0% of the national electricity total, and added 418 jobs over the past year (2.3%).

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



Construction is the largest industry sector in the electric power generation sector, with 39.5% of jobs. Utilities is the second largest with 22.5% (Figure IN-3).

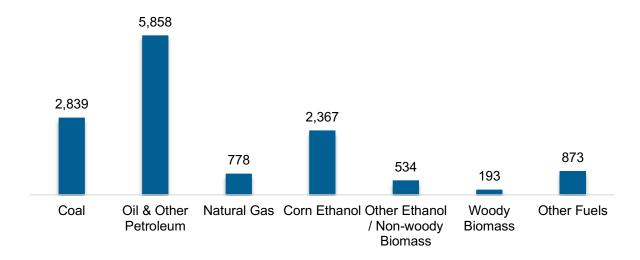
Figure IN-3. Electric Power Generation Employment by Industry Sector



## **FUELS**

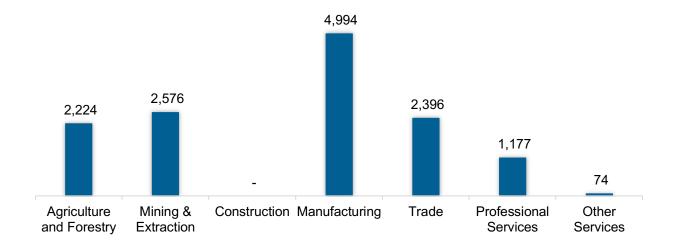
The Fuel sector employed 13,442 workers in Indiana, 1.3% of the national total in fuels. The sector gained 332 jobs and increased 2.5% in the past year (Figure IN-4).

Figure IN-4. Fuels Employment by Detailed Technology Application



Manufacturing jobs represented 37.2% 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 26,974 workers in Indiana, 1.9% of the national TDS total (IN-6). The sector gained 1,426 jobs and increased 5.6% in the past year.

16,794

7,459

Traditional Storage Smart Grid Micro Grid & Other Transmission and Distribution

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

Utilities is the largest proportion of TDS jobs in Indiana, accounting for 32.7% of the sector's jobs statewide (Figure IN-7).

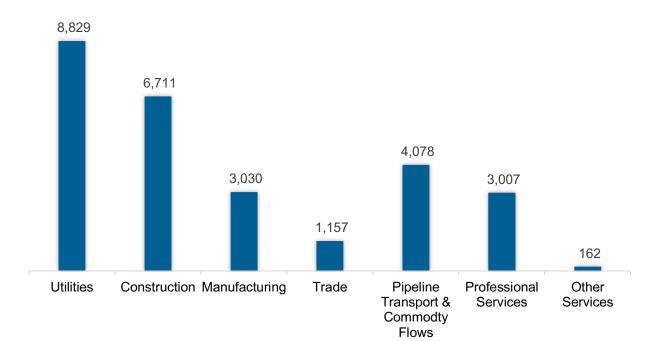
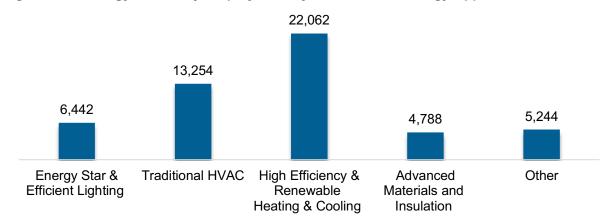


Figure IN-7. Transmission, Distribution and Storage Employment by Industry Sector

## **ENERGY EFFICIENCY**

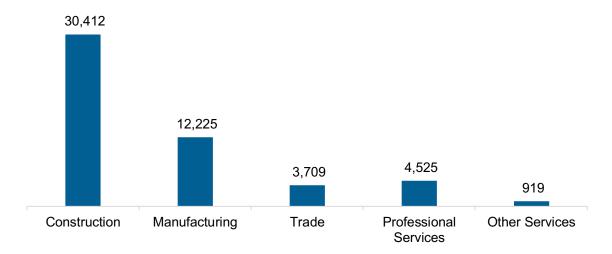
The energy efficiency (EE) sector employed 51,790 workers in Indiana, 2.3% of the national EE total. The EE sector added 1,068 jobs and increased 2.1% in the past year (Figure IN-8).

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



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

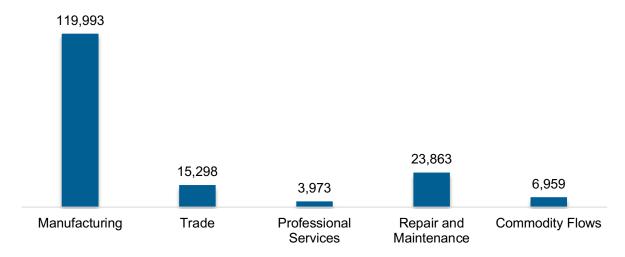
Figure IN-9. Energy Efficiency Employment by Industry Sector



#### MOTOR VEHICLES AND COMPONENT PARTS

The motor vehicles and component sector employed 170,086 workers in Indiana, 6.4% of the national total for the sector. Motor vehicles and component parts lost 6,556 jobs and decreased 1.9% in the past year. 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 2023, there were 99,189 jobs in clean energy in Indiana if traditional transmission and distribution is included and 82,395 jobs if it is not.<sup>15</sup> These increased under either definition, growing 3.3% with traditional transmission and distribution and 1.9% without.

6

<sup>&</sup>lt;sup>15</sup> 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.

## **Workforce Characteristics**

### **EMPLOYER GROWTH**

Employers in Indiana are less 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	4.5	6.6
Electric Power Transmission, Distribution, and Storage	4.6	6.7
Energy Efficiency	5.2	8.0
Fuels	3.8	5.1
Motor Vehicles	3.5	4.5

#### HIRING DIFFICULTY

Employers in Indiana reported 41.7% 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	19.0	22.6	7.3	51.0	41.7

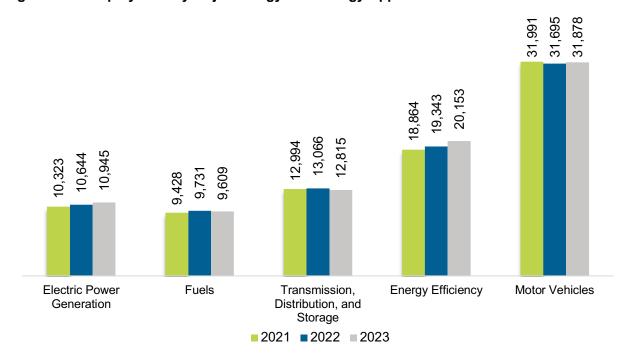
# lowa

### **ENERGY AND EMPLOYMENT — 2024**

#### **OVERVIEW**

lowa had 85,399 energy workers statewide in 2023, representing 1.0% of all U.S. energy jobs. Of these energy jobs, 10,945 are in electric power generation; 9,609 in fuels; 12,815 in transmission, distribution, and storage; 20,153 in energy efficiency; and 31,878 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 920 jobs, or 1.1% (Figure IA-1). The energy sector in lowa represents 5.4% of total state employment.

Figure IA-1. Employment by Major Energy Technology Application

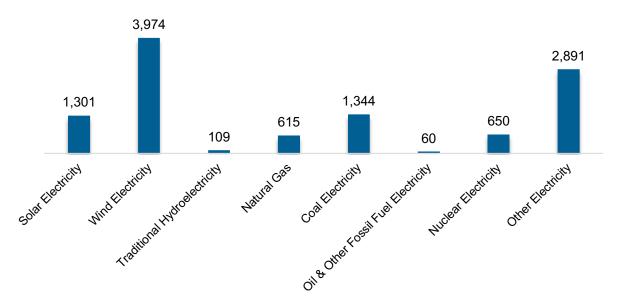


# **Breakdown by Technology Applications**

#### **ELECTRIC POWER GENERATION**

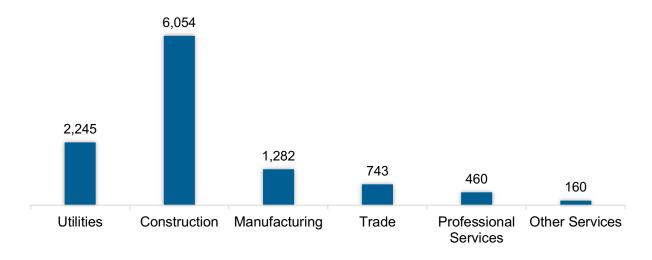
As shown in IA-2, the electric power generation sector employed 10,945 workers in Iowa, 1.2% of the national electricity total, and added 300 jobs over the past year (2.8%).

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



Construction is the largest industry sector in the electric power generation sector, with 55.3% of jobs. Utilities is the second largest with 20.5% (Figure IA-3).

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



#### **FUELS**

The Fuel sector employed 9,609 workers in Iowa, 0.9% of the national total in fuels. The sector lost 122 jobs and decreased 1.3% in the past year (Figure IA-4).

4,192

3,590

643

766

27

Coal Oil & Other Petroleum

Natural Gas Corn Ethanol Other Ethanol Woody Petroleum

Non-woody Biomass

**Biomass** 

Figure IA-4. Fuels Employment by Detailed Technology Application

Wholesale trade jobs represented 43.3% of fuel jobs in Iowa (Figure IA-5).

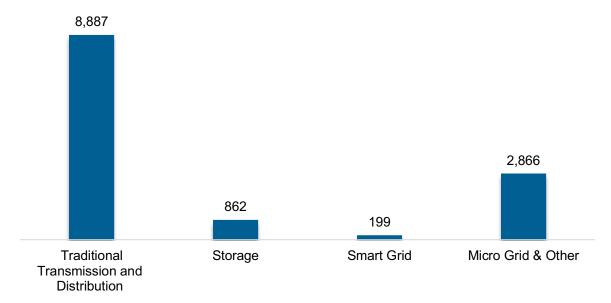


Figure IA-5. Fuels Employment by Industry Sector

#### TRANSMISSION, DISTRIBUTION AND STORAGE

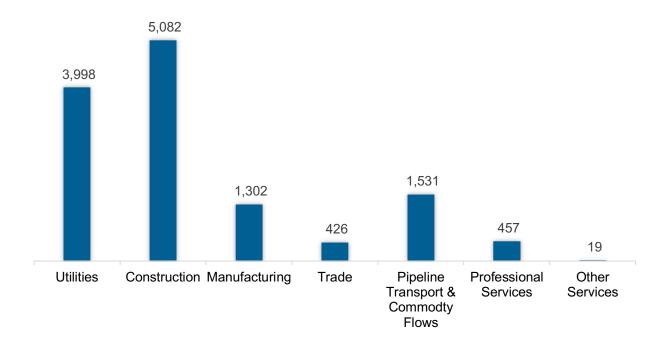
The transmission, distribution, and storage (TDS) sector employed 12,815 workers in Iowa, 0.9% of the national TDS total (IA-6). The sector lost 251 jobs and decreased 1.9% in the past year.

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



Construction is the largest proportion of TDS jobs in Iowa, accounting for 39.7% of the sector's jobs statewide (Figure IA-7).

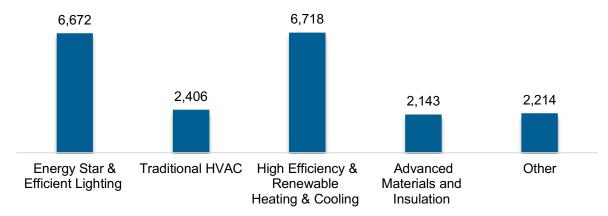
Figure IA-7. Transmission, Distribution and Storage Employment by Industry Sector



#### **ENERGY EFFICIENCY**

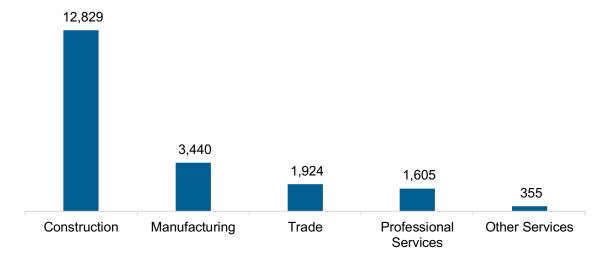
The energy efficiency (EE) sector employed 20,153 workers in Iowa, 0.9% of the national EE total. The EE sector added 810 jobs and increased 4.2% in the past year (Figure IA-8).

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



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

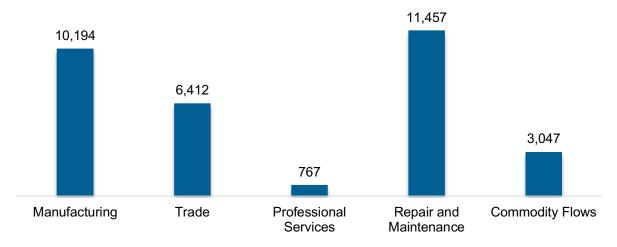
Figure IA-9. Energy Efficiency Employment by Industry Sector



#### MOTOR VEHICLES AND COMPONENT PARTS

The motor vehicles and component sector employed 31,878 workers in lowa, 1.2% of the national total for the sector. Motor vehicles and component parts added 183 jobs and increased 0.6% in the past year. 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 2023, there were 44,546 jobs in clean energy in lowa if traditional transmission and distribution is included and 35,659 jobs if it is not.<sup>16</sup> These increased under either definition, growing 2.5% with traditional transmission and distribution and 3.4% without.

6

<sup>&</sup>lt;sup>16</sup> 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.

## **Workforce Characteristics**

### **EMPLOYER GROWTH**

Employers in Iowa are 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	5.4	6.6
Electric Power Transmission, Distribution, and Storage	5.5	6.7
Energy Efficiency	6.1	8.0
Fuels	4.7	5.1
Motor Vehicles	4.4	4.5

#### HIRING DIFFICULTY

Employers in Iowa reported 43.2% 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	19.8	23.4	8.1	48.7	43.2

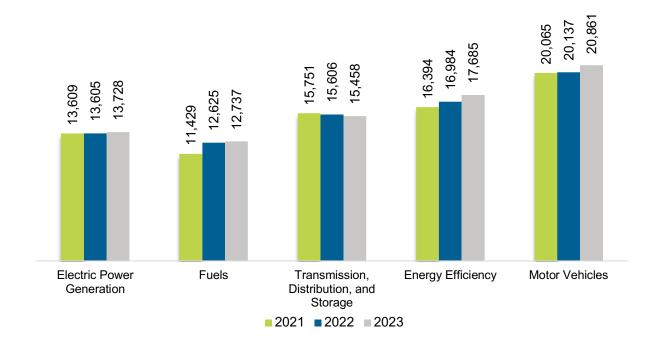
# **Kansas**

### **ENERGY AND EMPLOYMENT — 2024**

#### **OVERVIEW**

Kansas had 80,469 energy workers statewide in 2023, representing 1.0% of all U.S. energy jobs. Of these energy jobs, 13,728 are in electric power generation; 12,737 in fuels; 15,458 in transmission, distribution, and storage; 17,685 in energy efficiency; and 20,861 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 1,511 jobs, or 1.9% (Figure KS-1). The energy sector in Kansas represents 5.7% of total state employment.

Figure KS-1. Employment by Major Energy Technology Application

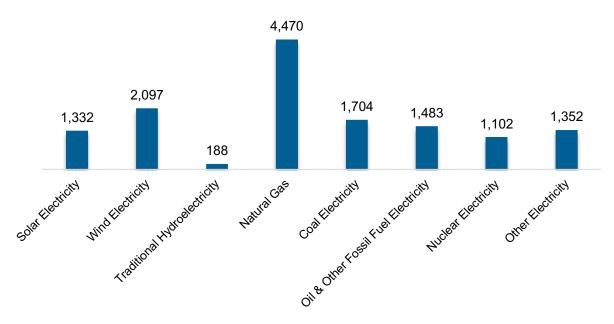


# **Breakdown by Technology Applications**

#### **ELECTRIC POWER GENERATION**

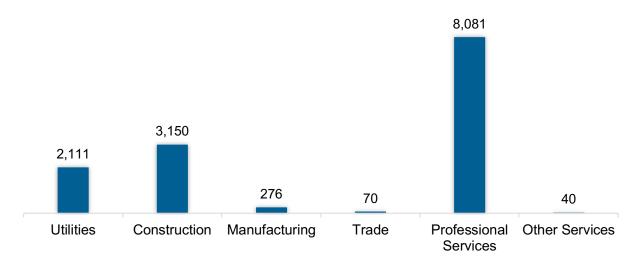
As shown in KS-2, the electric power generation sector employed 13,728 workers in Kansas, 1.5% of the national electricity total, and added 123 jobs over the past year (0.9%).

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



Professional and business services is the largest industry sector in the electric power generation sector, with 58.9% of jobs. Construction is the second largest with 22.9% (Figure KS-3).

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



#### **FUELS**

The Fuel sector employed 12,737 workers in Kansas, 1.2% of the national total in fuels. The sector gained 113 jobs and increased 0.9% in the past year (Figure KS-4).

8,229 2,096 1,296 853 53

Natural Gas Corn Ethanol Other Ethanol

/ Non-woody

**Biomass** 

Woody

**Biomass** 

Other Fuels

Figure KS-4. Fuels Employment by Detailed Technology Application

Mining and extraction jobs represented 43.5% of fuel jobs in Kansas (Figure KS-5).

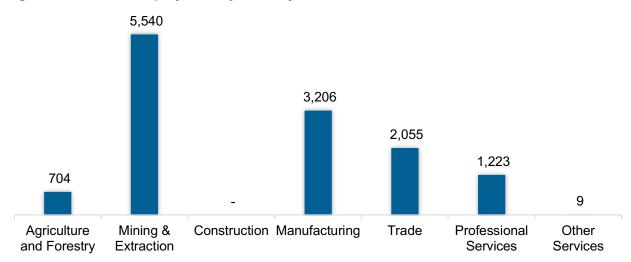


Figure KS-5. Fuels Employment by Industry Sector

Oil & Other

Petroleum

Coal

#### TRANSMISSION, DISTRIBUTION AND STORAGE

The transmission, distribution, and storage (TDS) sector employed 15,458 workers in Kansas, 1.1% of the national TDS total (KS-6). The sector lost 149 jobs and decreased 1.0% in the past year.

13,115

672
203

Traditional Storage Smart Grid Micro Grid & Other Transmission and Distribution

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

Professional and business services is the largest proportion of TDS jobs in Kansas, accounting for 42.8% of the sector's jobs statewide (Figure KS-7).

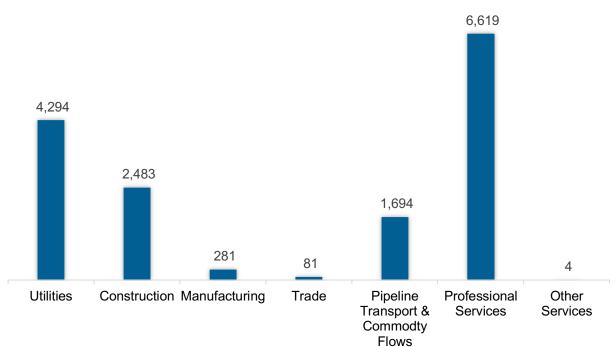


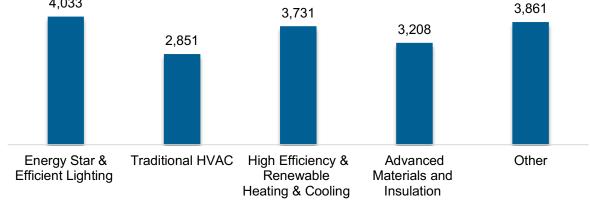
Figure KS-7. Transmission, Distribution and Storage Employment by Industry Sector

#### **ENERGY EFFICIENCY**

The energy efficiency (EE) sector employed 17,685 workers in Kansas, 0.8% of the national EE total. The EE sector added 701 jobs and increased 4.1% in the past year (Figure KS-8).

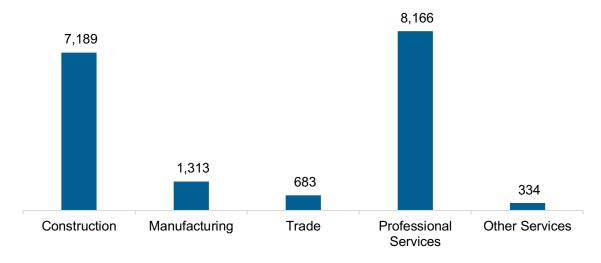
4,033 3,861 3,731 3,208

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



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

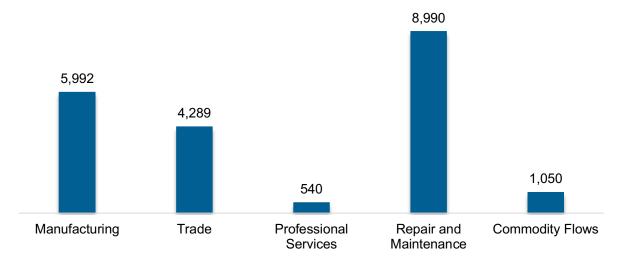




#### MOTOR VEHICLES AND COMPONENT PARTS

The motor vehicles and component sector employed 20,861 workers in Kansas, 0.8% of the national total for the sector. Motor vehicles and component parts added 724 jobs and increased 3.6% in the past year. 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 2023, there were 40,495 jobs in clean energy in Kansas if traditional transmission and distribution is included and 27,380 jobs if it is not.<sup>17</sup> These increased under either definition, growing 2.1% with traditional transmission and distribution and 4.2% without.

6

<sup>&</sup>lt;sup>17</sup> 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.

## **Workforce Characteristics**

### **EMPLOYER GROWTH**

Employers in Kansas are 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	5.2	6.6
Electric Power Transmission, Distribution, and Storage	5.3	6.7
Energy Efficiency	5.9	8.0
Fuels	4.4	5.1
Motor Vehicles	4.2	4.5

#### HIRING DIFFICULTY

Employers in Kansas reported 44.1% 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	19.0	25.1	8.3	47.7	44.1

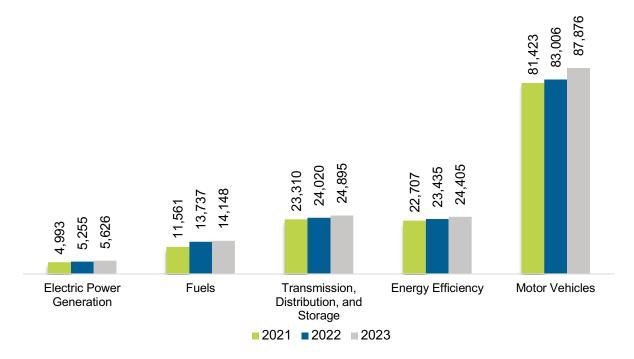
# **Kentucky**

### **ENERGY AND EMPLOYMENT — 2024**

#### **OVERVIEW**

Kentucky had 156,950 energy workers statewide in 2023, representing 1.9% of all U.S. energy jobs. Of these energy jobs, 5,626 are in electric power generation; 14,148 in fuels; 24,895 in transmission, distribution, and storage; 24,405 in energy efficiency; and 87,876 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 7,497 jobs, or 5% (Figure KY-1). The energy sector in Kentucky represents 8.2% of total state employment.

Figure KY-1. Employment by Major Energy Technology Application

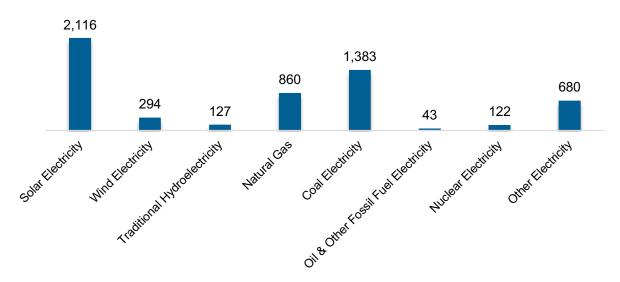


# **Breakdown by Technology Applications**

#### **ELECTRIC POWER GENERATION**

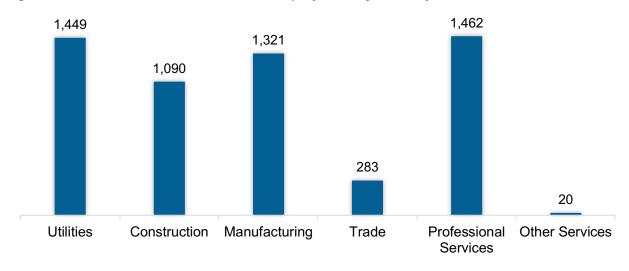
As shown in KY-2, the electric power generation sector employed 5,626 workers in Kentucky, 0.6% of the national electricity total, and added 371 jobs over the past year (7.1%).

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



Professional and business services is the largest industry sector in the electric power generation sector, with 26.0% of jobs. Utilities is the second largest with 25.8% (Figure KY-3).

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



#### **FUELS**

The Fuel sector employed 14,148 workers in Kentucky, 1.3% of the national total in fuels. The sector gained 412 jobs and increased 3.0% in the past year (Figure KY-4).

4,057

592

726

203

186

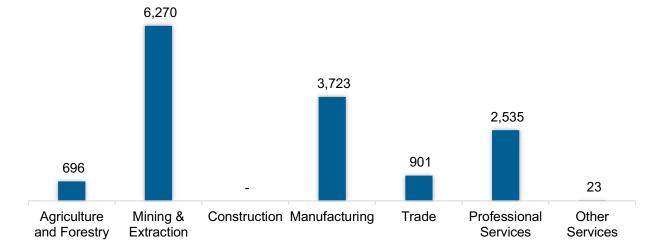
Figure KY-4. Fuels Employment by Detailed Technology Application

1,065

Mining and extraction jobs represented 44.3% 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 24,895 workers in Kentucky, 1.7% of the national TDS total (KY-6). The sector gained 874 jobs and increased 3.6% in the past year.

Traditional Storage Smart Grid Micro Grid & Other Transmission and Distribution

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

Construction is the largest proportion of TDS jobs in Kentucky, accounting for 29.9% of the sector's jobs statewide (Figure KY-7).

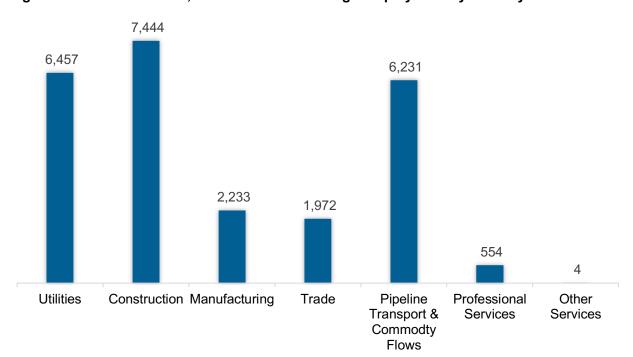
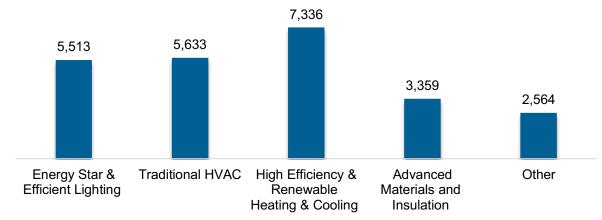


Figure KY-7. Transmission, Distribution and Storage Employment by Industry Sector

#### **ENERGY EFFICIENCY**

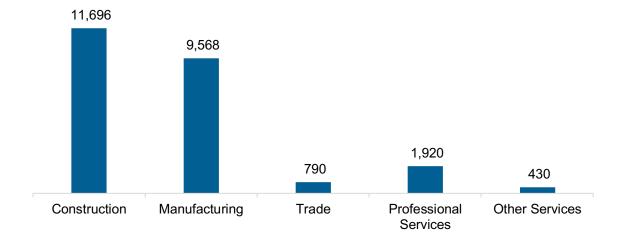
The energy efficiency (EE) sector employed 24,405 workers in Kentucky, 1.1% of the national EE total. The EE sector added 969 jobs and increased 4.1% in the past year (Figure KY-8).

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



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

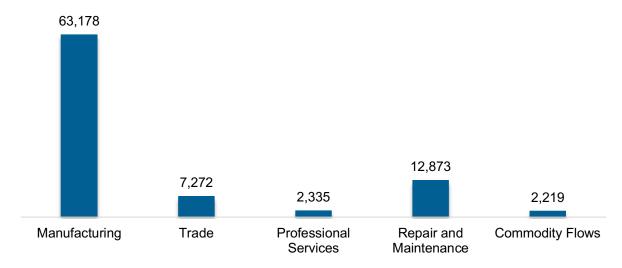
Figure KY-9. Energy Efficiency Employment by Industry Sector



#### MOTOR VEHICLES AND COMPONENT PARTS

The motor vehicles and component sector employed 87,876 workers in Kentucky, 3.3% of the national total for the sector. Motor vehicles and component parts added 4,870 jobs and increased 5.9% in the past year. 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 2023, there were 49,797 jobs in clean energy in Kentucky if traditional transmission and distribution is included and 35,630 jobs if it is not.<sup>18</sup> These increased under either definition, growing 7.9% with traditional transmission and distribution and 5.6% without.

6

<sup>&</sup>lt;sup>18</sup> 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.

## **Workforce Characteristics**

### **EMPLOYER GROWTH**

Employers in Kentucky are 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	3.9	6.6
Electric Power Transmission, Distribution, and Storage	3.9	6.7
Energy Efficiency	4.6	8.0
Fuels	3.1	5.1
Motor Vehicles	2.8	4.5

#### HIRING DIFFICULTY

Employers in Kentucky reported 35.9% 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	14.5	21.4	5.8	58.3	35.9

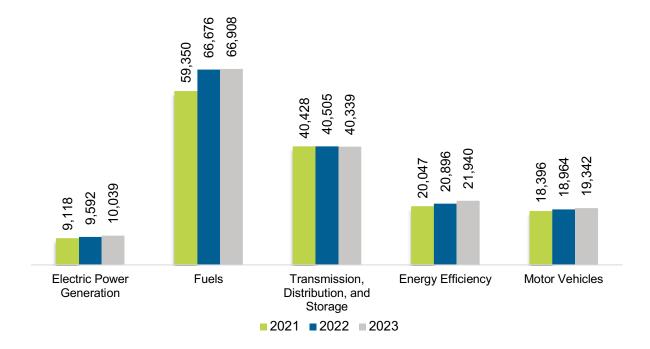
# Louisiana

### **ENERGY AND EMPLOYMENT — 2024**

#### **OVERVIEW**

Louisiana had 158,568 energy workers statewide in 2023, representing 1.9% of all U.S. energy jobs. Of these energy jobs, 10,039 are in electric power generation; 66,908 in fuels; 40,339 in transmission, distribution, and storage; 21,940 in energy efficiency; and 19,342 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 1,934 jobs, or 1.2% (Figure LA-1). The energy sector in Louisiana represents 8.3% of total state employment.

Figure LA-1. Employment by Major Energy Technology Application

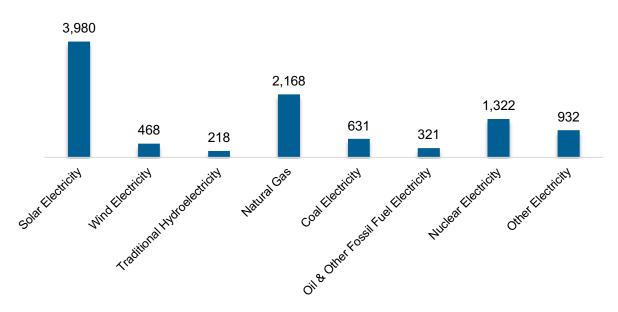


# **Breakdown by Technology Applications**

#### **ELECTRIC POWER GENERATION**

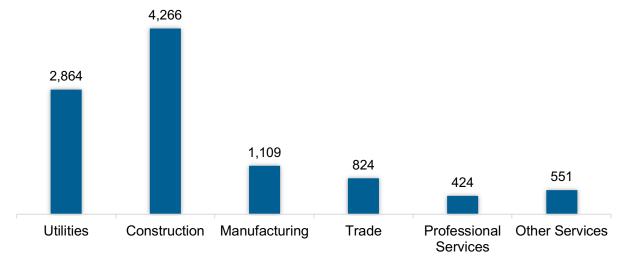
As shown in LA-2, the electric power generation sector employed 10,039 workers in Louisiana, 1.1% of the national electricity total, and added 447 jobs over the past year (4.7%).

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



Construction is the largest industry sector in the electric power generation sector, with 42.5% of jobs. Utilities is the second largest with 28.5% (Figure LA-3).

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



#### **FUELS**

The Fuel sector employed 66,908 workers in Louisiana, 6.4% of the national total in fuels. The sector gained 231 jobs and increased 0.3% in the past year (Figure LA-4).

42,674 20,065 2,964 691 166 200 148 Coal Oil & Other Natural Gas Corn Ethanol Other Ethanol Woody Other Fuels Petroleum / Non-woody **Biomass Biomass** 

Figure LA-4. Fuels Employment by Detailed Technology Application

Mining and extraction jobs represented 42.2% of fuel jobs in Louisiana (Figure LA-5).

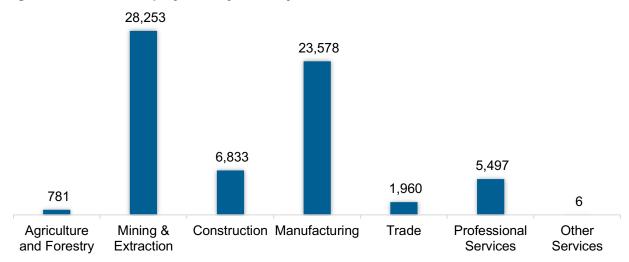
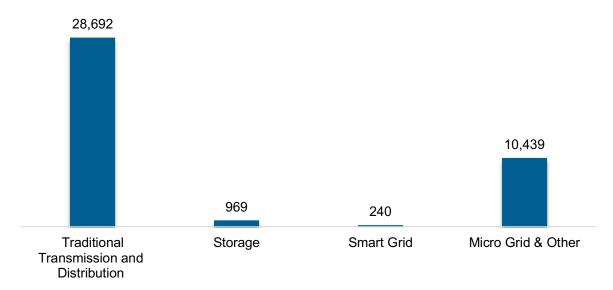


Figure LA-5. Fuels Employment by Industry Sector

#### TRANSMISSION, DISTRIBUTION AND STORAGE

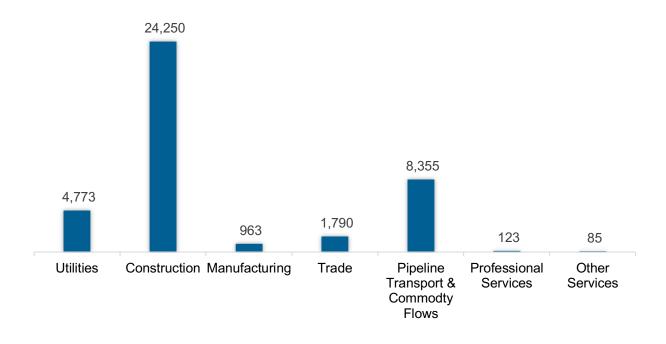
The transmission, distribution, and storage (TDS) sector employed 40,339 workers in Louisiana, 2.8% of the national TDS total (LA-6). The sector lost 165 jobs and decreased 0.4% in the past year.

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



Construction is the largest proportion of TDS jobs in Louisiana, accounting for 60.1% of the sector's jobs statewide (Figure LA-7).

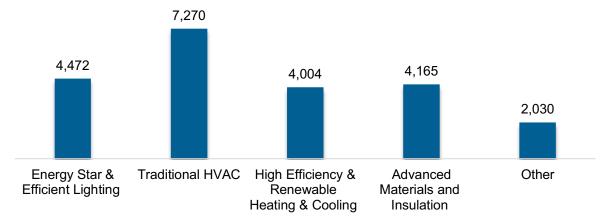
Figure LA-7. Transmission, Distribution and Storage Employment by Industry Sector



#### **ENERGY EFFICIENCY**

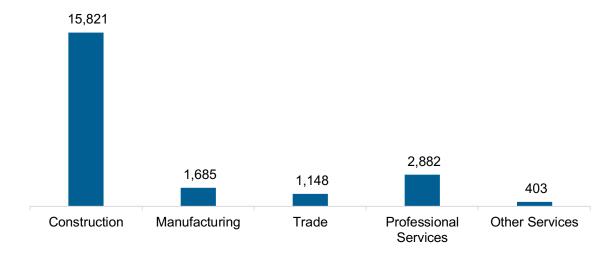
The energy efficiency (EE) sector employed 21,940 workers in Louisiana, 1.0% of the national EE total. The EE sector added 1,043 jobs and increased 5.0% in the past year (Figure LA-8).

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



Energy efficiency employment is 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 19,342 workers in Louisiana, 0.7% of the national total for the sector. Motor vehicles and component parts added 378 jobs and increased 2% in the past year. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure LA-10).

3,415

1,016

Manufacturing

Trade

Professional Services

Repair and Maintenance

Commodity Flows

Maintenance

Figure LA-10. Motor Vehicle Employment by Industry Sector

#### **CLEAN ENERGY JOBS**

In 2023, there were 61,115 jobs in clean energy in Louisiana if traditional transmission and distribution is included and 32,423 jobs if it is not.<sup>19</sup> These increased under either definition, growing 2.2% with traditional transmission and distribution and 4.9% without.

6

<sup>&</sup>lt;sup>19</sup> 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.

## **Workforce Characteristics**

### **EMPLOYER GROWTH**

Employers in Louisiana are 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	7.8	6.6
Electric Power Transmission, Distribution, and Storage	7.8	6.7
Energy Efficiency	8.5	8.0
Fuels	7.0	5.1
Motor Vehicles	6.7	4.5

#### HIRING DIFFICULTY

Employers in Louisiana reported 42.8% 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	20.0	22.8	11.2	46.0	42.8

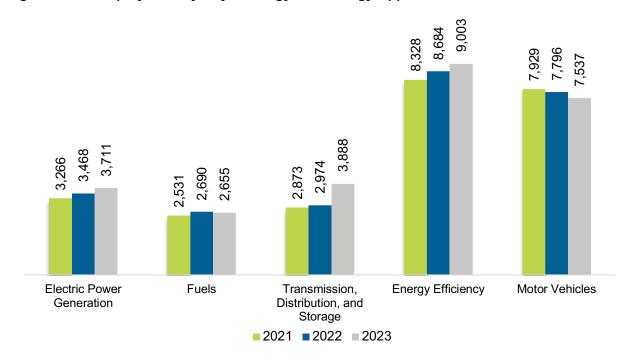
# Maine

### **ENERGY AND EMPLOYMENT — 2024**

#### **OVERVIEW**

Maine had 26,795 energy workers statewide in 2023, representing 0.3% of all U.S. energy jobs. Of these energy jobs, 3,711 are in electric power generation; 2,655 in fuels; 3,888 in transmission, distribution, and storage; 9,003 in energy efficiency; and 7,537 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 1,183 jobs, or 4.6% (Figure ME-1). The energy sector in Maine represents 4.2% of total state employment.

Figure ME-1. Employment by Major Energy Technology Application

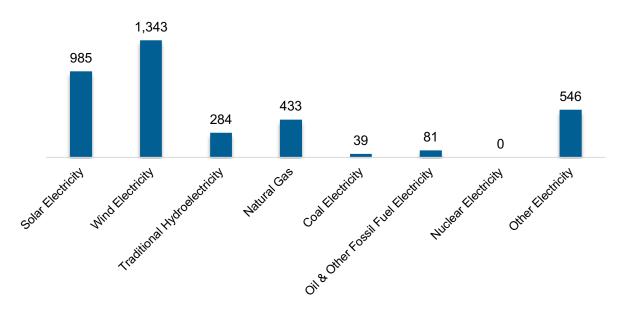


# **Breakdown by Technology Applications**

#### **ELECTRIC POWER GENERATION**

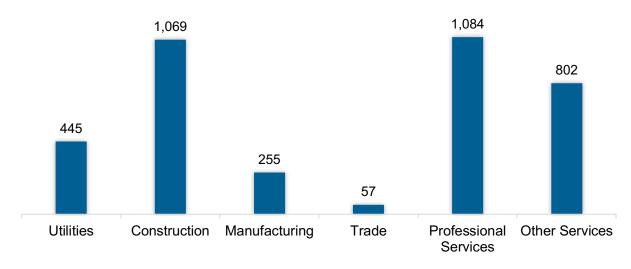
As shown in ME-2, the electric power generation sector employed 3,711 workers in Maine, 0.4% of the national electricity total, and added 243 jobs over the past year (7.0%).

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



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

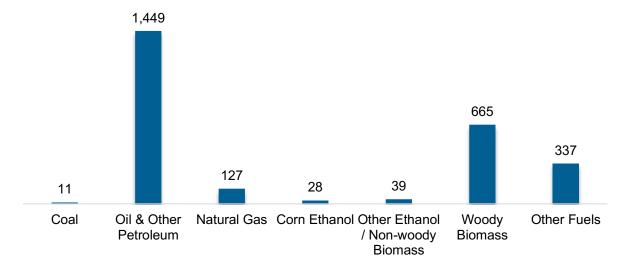
Figure ME-3. Electric Power Generation Employment by Industry Sector



#### **FUELS**

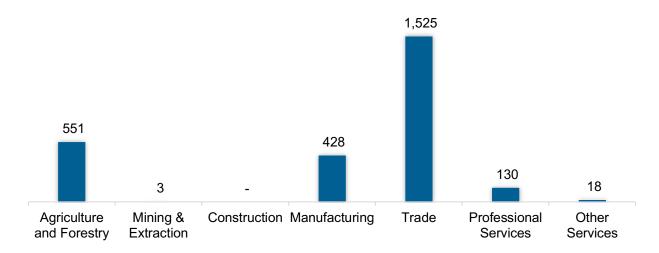
The Fuel sector employed 2,655 workers in Maine, 0.3% of the national total in fuels. The sector lost 34 jobs and decreased 1.3% in the past year (Figure ME-4).

Figure ME-4. Fuels Employment by Detailed Technology Application



Wholesale trade jobs represented 57.4% of fuel jobs in Maine (Figure ME-5).

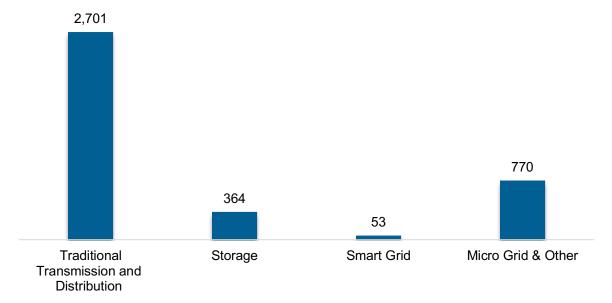
Figure ME-5. Fuels Employment by Industry Sector



#### TRANSMISSION, DISTRIBUTION AND STORAGE

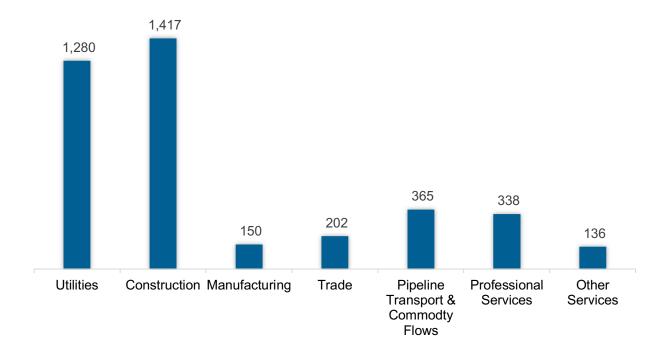
The transmission, distribution, and storage (TDS) sector employed 3,888 workers in Maine, 0.3% of the national TDS total (ME-6). The sector gained 914 jobs and increased 30.7% in the past year.

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



Construction is the largest proportion of TDS jobs in Maine, accounting for 36.4% of the sector's jobs statewide (Figure ME-7).

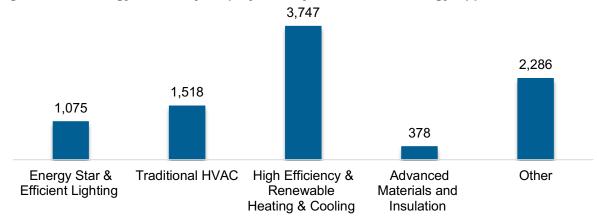
Figure ME-7. Transmission, Distribution and Storage Employment by Industry Sector



#### **ENERGY EFFICIENCY**

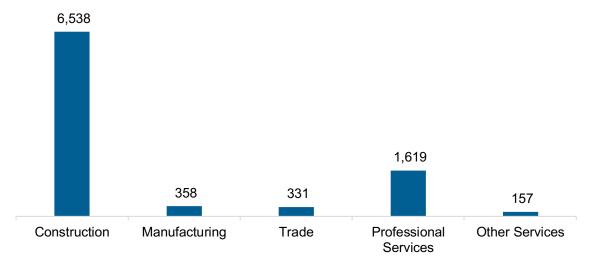
The energy efficiency (EE) sector employed 9,003 workers in Maine, 0.4% of the national EE total. The EE sector added 318 jobs and increased 3.7% in the past year (Figure ME-8).

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



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

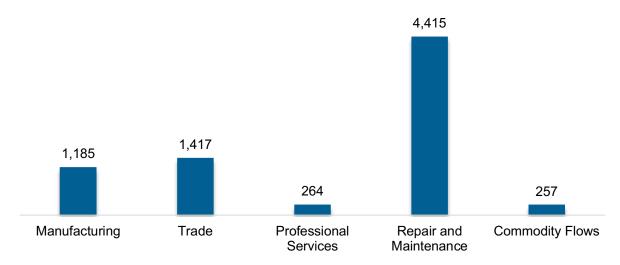
Figure ME-9. Energy Efficiency Employment by Industry Sector



#### MOTOR VEHICLES AND COMPONENT PARTS

The motor vehicles and component sector employed 7,537workers in Maine, 0.3% of the national total for the sector. Motor vehicles and component parts lost 259 jobs and decreased 3.3% in the past year. 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 2023, there were 16,662 jobs in clean energy in Maine if traditional transmission and distribution is included and 13,961 jobs if it is not.<sup>20</sup> These increased under either definition, growing 8.7% with traditional transmission and distribution and 3.4% without.

6

<sup>&</sup>lt;sup>20</sup> 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.

# **Workforce Characteristics**

## **EMPLOYER GROWTH**

Employers in Maine are 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	4.6	6.6
Electric Power Transmission, Distribution, and Storage	4.6	6.7
Energy Efficiency	5.3	8.0
Fuels	3.8	5.1
Motor Vehicles	3.5	4.5

### HIRING DIFFICULTY

Employers in Maine reported 48.3% 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	23.9	24.4	7.4	44.3	48.3

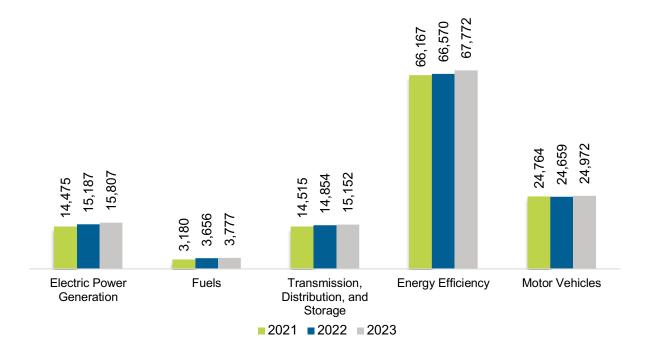
# Maryland

## **ENERGY AND EMPLOYMENT — 2024**

#### **OVERVIEW**

Maryland had 127,479 energy workers statewide in 2023, representing 1.5% of all U.S. energy jobs. Of these energy jobs, 15,807 are in electric power generation; 3,777 in fuels; 15,152 in transmission, distribution, and storage; 67,772 in energy efficiency; and 24,972 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 2,553 jobs, or 2% (Figure MD-1). The energy sector in Maryland represents 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 MD-2, the electric power generation sector employed 15,807 workers in Maryland, 1.7% of the national electricity total, and added 620 jobs over the past year (4.1%).

2,086
1,599
1,143
1,280
232
107
107

Solar Leericist In Ind Electricist Ind Electricist In Ind Electricist Ind Electricist Ind Electricist In Ind Electricist Ind Electricist

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

Construction is the largest industry sector in the electric power generation sector, with 45.5% of jobs. Utilities is the second largest with 20.1% (Figure MD-3).

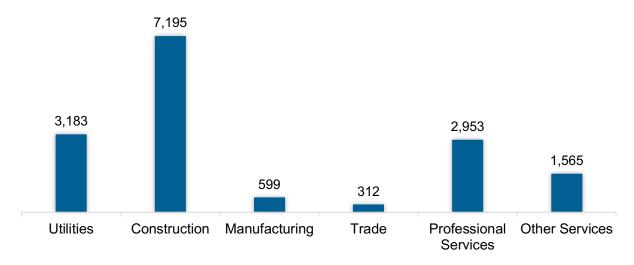
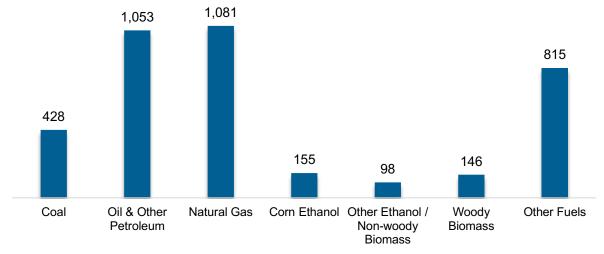


Figure MD-3. Electric Power Generation Employment by Industry Sector

#### **FUELS**

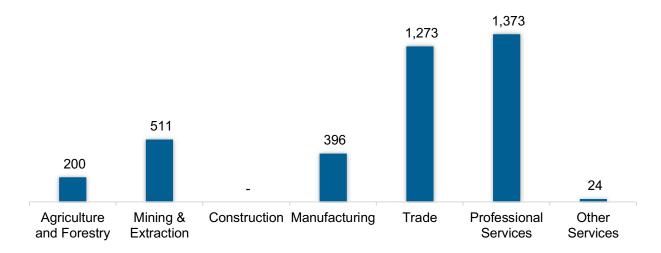
The Fuel sector employed 3,777 workers in Maryland, 0.4% of the national total in fuels. The sector gained 121 jobs and increased 3.3% in the past year (Figure MD-4).

Figure MD-4. Fuels Employment by Detailed Technology Application



Professional and business services jobs represented 36.4% 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 15,152 workers in Maryland, 1.1% of the national TDS total (MD-6). The sector gained 297 jobs and increased 2.0% in the past year.

10,734

2,946

1,018

453

Traditional Storage Smart Grid Micro Grid & Other Transmission and Distribution

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

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

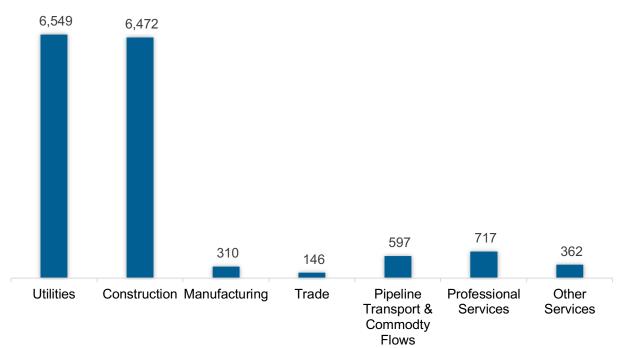
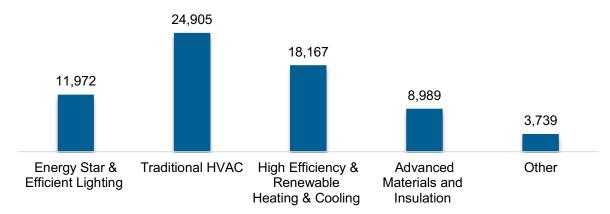


Figure MD-7. Transmission, Distribution and Storage Employment by Industry Sector

#### **ENERGY EFFICIENCY**

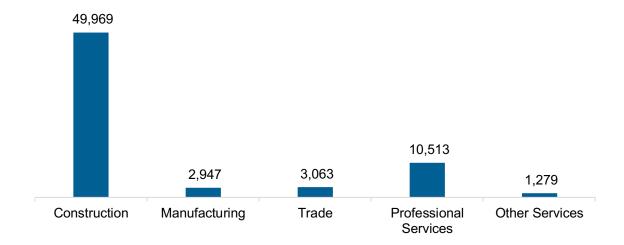
The energy efficiency (EE) sector employed 67,772 workers in Maryland, 3.0% of the national EE total. The EE sector added 1,202 jobs and increased 1.8% in the past year (Figure MD-8).

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



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

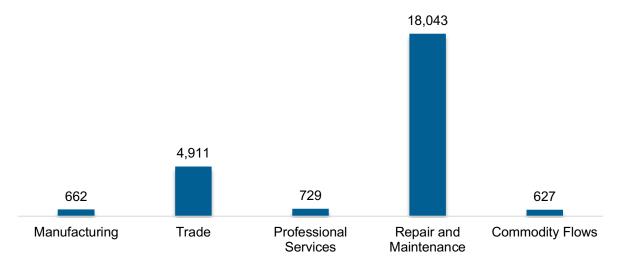
Figure MD-9. Energy Efficiency Employment by Industry Sector



#### MOTOR VEHICLES AND COMPONENT PARTS

The motor vehicles and component sector employed 24,972 workers in Maryland, 0.9% of the national total for the sector. Motor vehicles and component parts added 313 jobs and increased 1.3% in the past year. 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 2023, there were 93,661 jobs in clean energy in Maryland if traditional transmission and distribution is included and 82,926 jobs if it is not.<sup>21</sup> These increased under either definition, growing 2.1% with traditional transmission and distribution and 2.4% without.

6

<sup>&</sup>lt;sup>21</sup> 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.

# **Workforce Characteristics**

## **EMPLOYER GROWTH**

Employers in Maryland are 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	8.0	6.6
Electric Power Transmission, Distribution, and Storage	8.0	6.7
Energy Efficiency	8.6	8.0
Fuels	7.2	5.1
Motor Vehicles	6.9	4.5

### HIRING DIFFICULTY

Employers in Maryland reported 46.3% 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	17.9	28.4	7.7	46.1	46.3

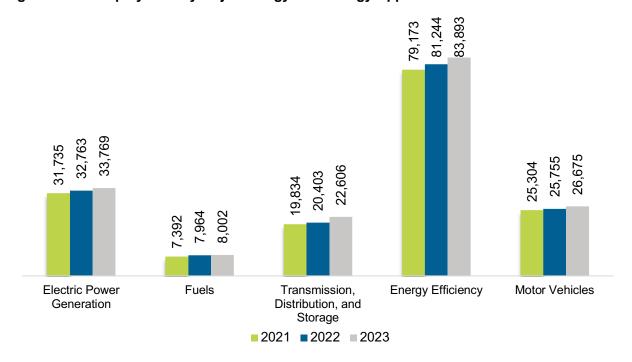
# **Massachusetts**

# **ENERGY AND EMPLOYMENT — 2024**

#### **OVERVIEW**

Massachusetts had 174,946 energy workers statewide in 2023, representing 2.1% of all U.S. energy jobs. Of these energy jobs, 33,769 are in electric power generation; 8,002 in fuels; 22,606 in transmission, distribution, and storage; 83,893 in energy efficiency; and 26,675 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 6,817 jobs, or 4.1% (Figure MA-1). The energy sector in Massachusetts represents 4.7% of total state employment.

Figure MA-1. Employment by Major Energy Technology Application



# **Breakdown by Technology Applications**

#### **ELECTRIC POWER GENERATION**

As shown in MA-2, the electric power generation sector employed 33,769 workers in Massachusetts, 3.7% of the national electricity total, and added 1,006 jobs over the past year (3.1%).

5,232
4,664
2,768
1,631
1,232
401
941

Solar Electricist Introduced Liberticist Introduced

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

Professional and business services is the largest industry sector in the electric power generation sector, with 33.9% of jobs. Utilities is the second largest with 17.5% (Figure MA-3).

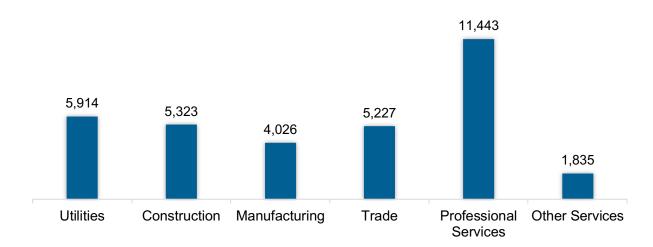
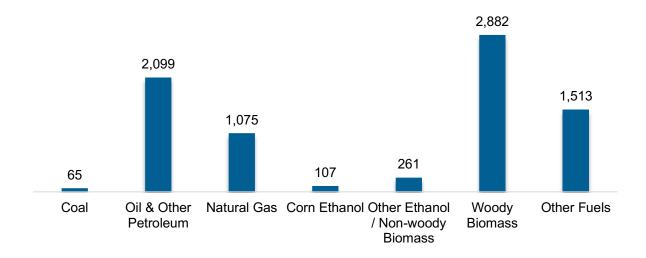


Figure MA-3. Electric Power Generation Employment by Industry Sector

#### **FUELS**

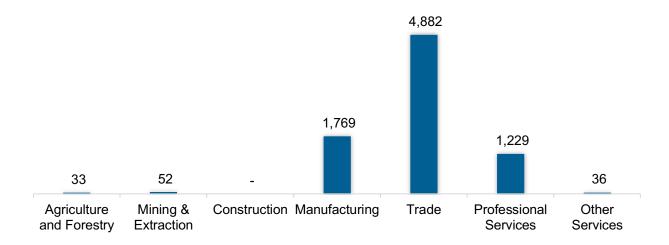
The Fuel sector employed 8,002 workers in Massachusetts, 0.8% of the national total in fuels. The sector gained 38 jobs and increased 0.5% in the past year (Figure MA-4).

Figure MA-4. Fuels Employment by Detailed Technology Application



Wholesale trade jobs represented 61.0% of fuel jobs in Massachusetts (Figure MA-5).

Figure MA-5. Fuels Employment by Industry Sector



Traditional

Transmission and Distribution

#### TRANSMISSION, DISTRIBUTION AND STORAGE

The transmission, distribution, and storage (TDS) sector employed 22,606 workers in Massachusetts, 1.6% of the national TDS total (MA-6). The sector gained 2,203 jobs and increased 10.8% in the past year.

13,481 5,354 3,116

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

Utilities is the largest proportion of TDS jobs in Massachusetts, accounting for 36.2% of the sector's jobs statewide (Figure MA-7).

655

Smart Grid

Micro Grid & Other

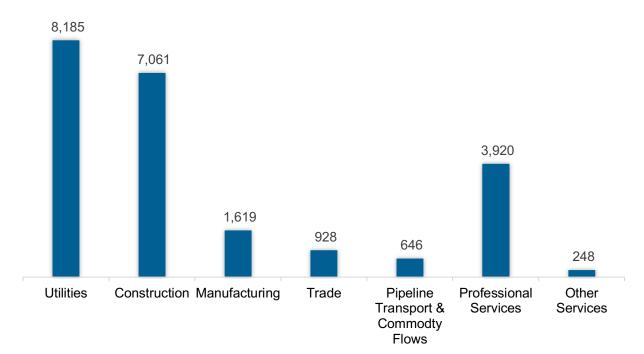


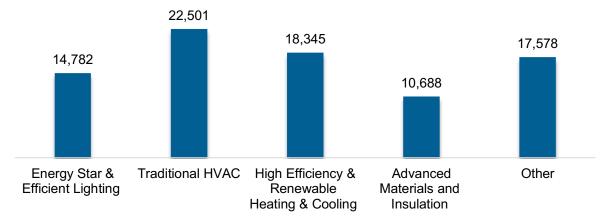
Figure MA-7. Transmission, Distribution and Storage Employment by Industry Sector

Storage

#### **ENERGY EFFICIENCY**

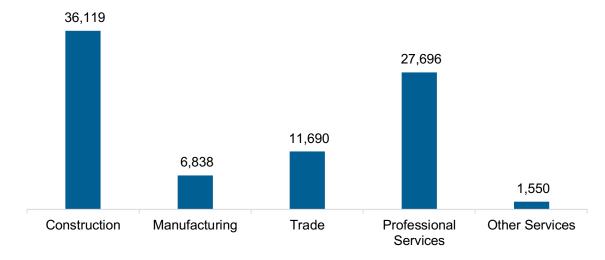
The energy efficiency (EE) sector employed 83,893 workers in Massachusetts, 3.7% of the national EE total. The EE sector added 2,650 jobs and increased 3.3% in the past year (Figure MA-8).

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



Energy efficiency employment is 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 26,675 workers in Massachusetts, 1.0% of the national total for the sector. Motor vehicles and component parts added 920 jobs and increased 3.6% in the past year. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure MA-10).

6,409

691

921

Manufacturing Trade Professional Repair and Commodity Flows

Figure MA-10. Motor Vehicle Employment by Industry Sector

#### **CLEAN ENERGY JOBS**

In 2023, there were 139,898 jobs in clean energy in Massachusetts if traditional transmission and distribution is included and 126,417 jobs if it is not.<sup>22</sup> These increased under either definition, growing 4.6% with traditional transmission and distribution and 3.6% without.

Services

Maintenance

<sup>&</sup>lt;sup>22</sup> 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.

# **Workforce Characteristics**

## **EMPLOYER GROWTH**

Employers in Massachusetts are more 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	6.7	6.6
Electric Power Transmission, Distribution, and Storage	6.7	6.7
Energy Efficiency	7.4	8.0
Fuels	5.9	5.1
Motor Vehicles	5.6	4.5

### HIRING DIFFICULTY

Employers in Massachusetts reported 42.7% 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	18.4	24.3	8.1	49.3	42.7

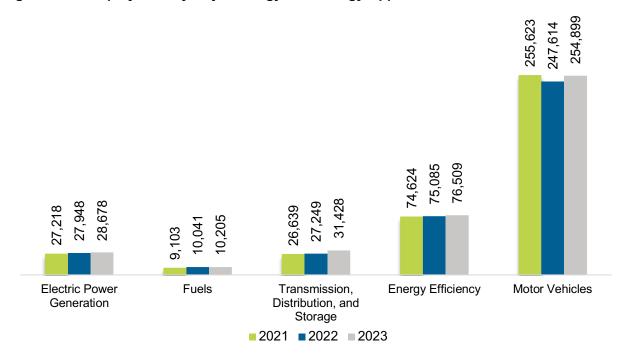
# **Michigan**

## **ENERGY AND EMPLOYMENT — 2024**

#### **OVERVIEW**

Michigan had 401,720 energy workers statewide in 2023, representing 4.8% of all U.S. energy jobs. Of these energy jobs, 28,678 are in electric power generation; 10,205 in fuels; 31,428 in transmission, distribution, and storage; 76,509 in energy efficiency; and 254,899 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 13,784 jobs, or 3.6% (Figure MI-1). The energy sector in Michigan represents 9.1% of total state employment.

Figure MI-1. Employment by Major Energy Technology Application



# **Breakdown by Technology Applications**

#### **ELECTRIC POWER GENERATION**

As shown in MI-2, the electric power generation sector employed 28,678 workers in Michigan, 3.1% of the national electricity total, and added 731 jobs over the past year (2.6%).

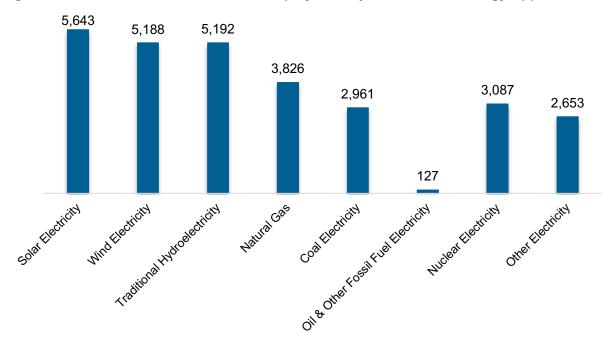


Figure MI-2. Electric Power Generation Employment by Detailed Technology Application

Utilities is the largest industry sector in the electric power generation sector, with 34.7% of jobs. Construction is the second largest with 22.5% (Figure MI-3).

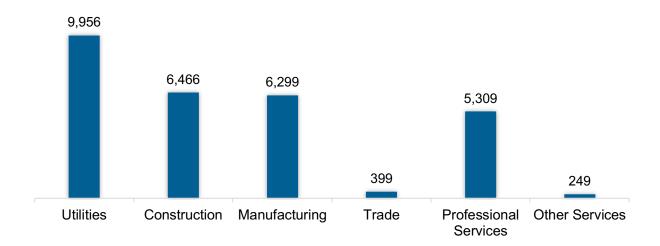
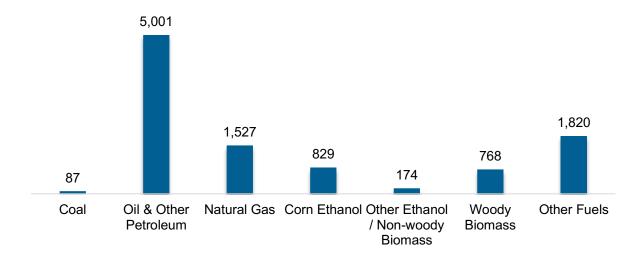


Figure MI-3. Electric Power Generation Employment by Industry Sector

#### **FUELS**

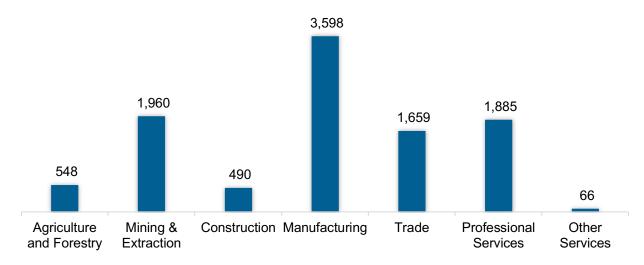
The Fuel sector employed 10,205 workers in Michigan, 1.0% of the national total in fuels. The sector gained 164 jobs and increased 1.6% in the past year (Figure MI-4).

Figure MI-4. Fuels Employment by Detailed Technology Application



Manufacturing jobs represented 35.3% of fuel jobs in Michigan (Figure MI-5).

Figure MI-5. Fuels Employment by Industry Sector



Distribution

#### TRANSMISSION, DISTRIBUTION AND STORAGE

The transmission, distribution, and storage (TDS) sector employed 31,428 workers in Michigan, 2.2% of the national TDS total (MI-6). The sector gained 4,180 jobs and increased 15.3% in the past year.

21,631

6,532

2,825

440

Traditional Storage Smart Grid Micro Grid & Other Transmission and

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

Utilities is the largest proportion of TDS jobs in Michigan, accounting for 34.5% of the sector's jobs statewide (Figure MI-7).

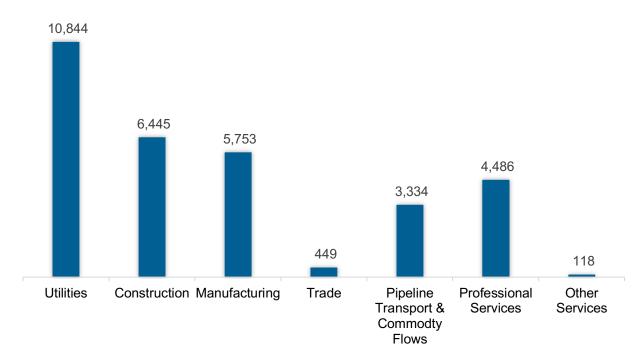
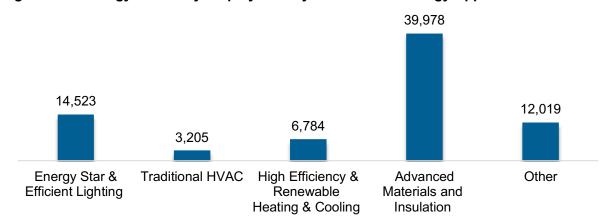


Figure MI-7. Transmission, Distribution and Storage Employment by Industry Sector

#### **ENERGY EFFICIENCY**

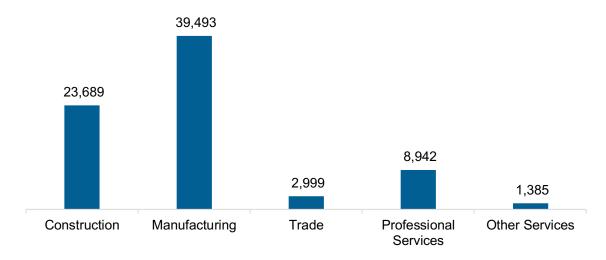
The energy efficiency (EE) sector employed 76,509 workers in Michigan, 3.3% of the national EE total. The EE sector added 1,424 jobs and increased 1.9% in the past year (Figure MI-8).

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



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

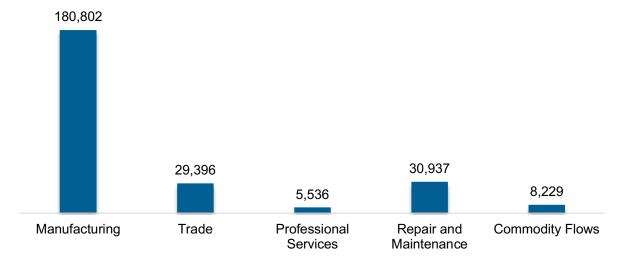
Figure MI-9. Energy Efficiency Employment by Industry Sector



#### MOTOR VEHICLES AND COMPONENT PARTS

The motor vehicles and component sector employed 254,899 workers in Michigan, 9.6% of the national total for the sector. Motor vehicles and component parts added 7,285 jobs and increased 2.9% in the past year. 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 2023, there were 143,723 jobs in clean energy in Michigan if traditional transmission and distribution is included and 122,092 jobs if it is not.<sup>23</sup> These increased under either definition, growing 5.6% with traditional transmission and distribution and 3.1% without.

6

<sup>&</sup>lt;sup>23</sup> 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.

# **Workforce Characteristics**

## **EMPLOYER GROWTH**

Employers in Michigan are more 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	8.2	6.6
Electric Power Transmission, Distribution, and Storage	8.2	6.7
Energy Efficiency	8.9	8.0
Fuels	7.4	5.1
Motor Vehicles	7.1	4.5

### HIRING DIFFICULTY

Employers in Michigan reported 39.5% 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	20.5	19.0	9.0	51.5	39.5

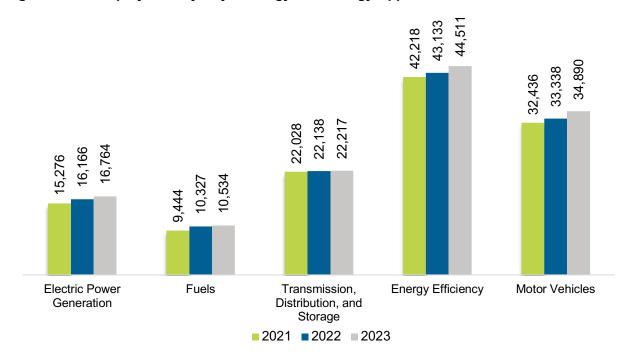
# **Minnesota**

## **ENERGY AND EMPLOYMENT — 2024**

#### **OVERVIEW**

Minnesota had 128,916 energy workers statewide in 2023, representing 1.5% of all U.S. energy jobs. Of these energy jobs, 16,764 are in electric power generation; 10,534 in fuels; 22,217 in transmission, distribution, and storage; 44,511 in energy efficiency; and 34,890 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 3,816 jobs, or 3.1% (Figure MN-1). The energy sector in Minnesota represents 4.4% of total state employment.

Figure MN-1. Employment by Major Energy Technology Application

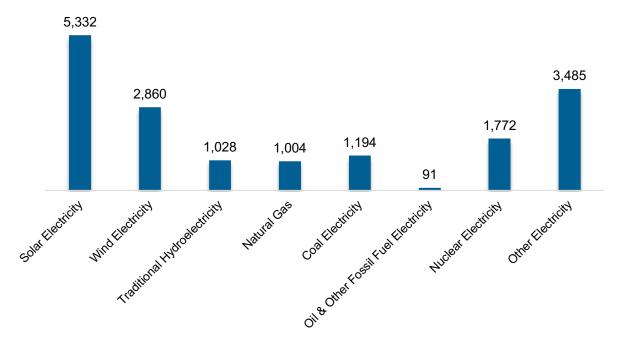


# **Breakdown by Technology Applications**

#### **ELECTRIC POWER GENERATION**

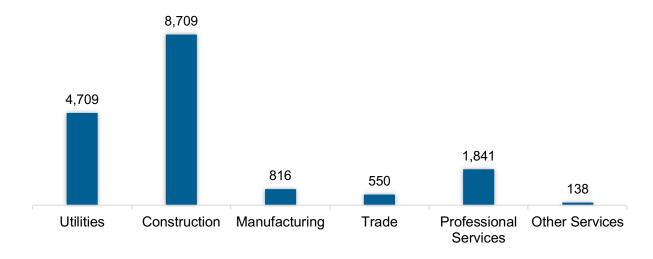
As shown in MN-2, the electric power generation sector employed 16,764 workers in Minnesota, 1.8% of the national electricity total, and added 599 jobs over the past year (3.7%).

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



Construction is the largest industry sector in the electric power generation sector, with 52.0% of jobs. Utilities is the second largest with 28.1% (Figure MN-3).

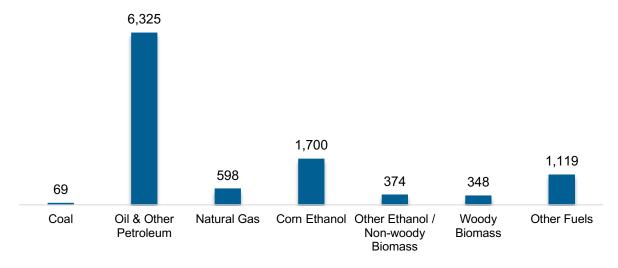
Figure MN-3. Electric Power Generation Employment by Industry Sector



#### **FUELS**

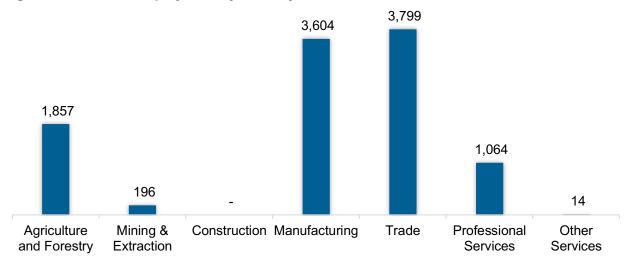
The Fuel sector employed 10,534 workers in Minnesota, 1.0% of the national total in fuels. The sector gained 207 jobs and increased 2.0% in the past year (Figure MN-4).

Figure MN-4. Fuels Employment by Detailed Technology Application



Wholesale trade jobs represented 36.1% 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 22,217 workers in Minnesota, 1.6% of the national TDS total (MN-6). The sector gained 79 jobs and increased 0.4% in the past year.

16,967

2,145

2,824

Traditional Storage Smart Grid Micro Grid & Other Transmission and Distribution

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

Utilities is the largest proportion of TDS jobs in Minnesota, accounting for 40.3% of the sector's jobs statewide (Figure MN-7).

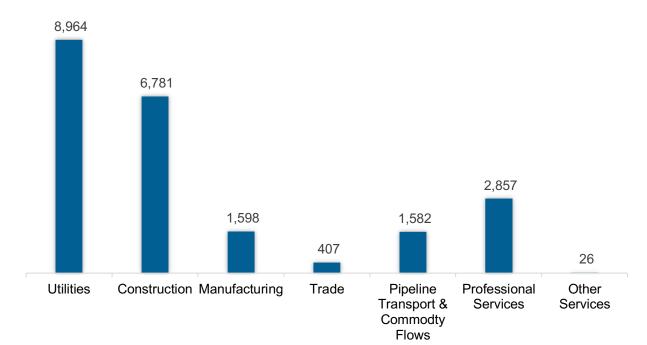
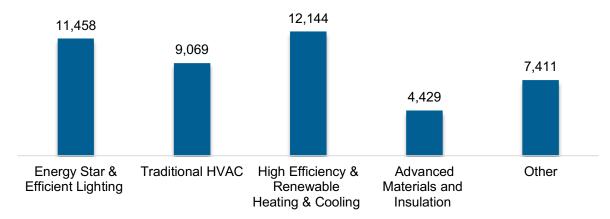


Figure MN-7. Transmission, Distribution and Storage Employment by Industry Sector

#### **ENERGY EFFICIENCY**

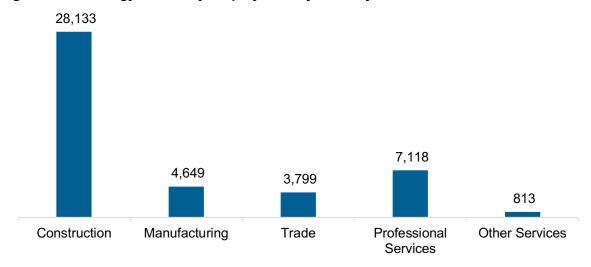
The energy efficiency (EE) sector employed 44,511 workers in Minnesota, 1.9% of the national EE total. The EE sector added 1,378 jobs and increased 3.2% in the past year (Figure MN-8).

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



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

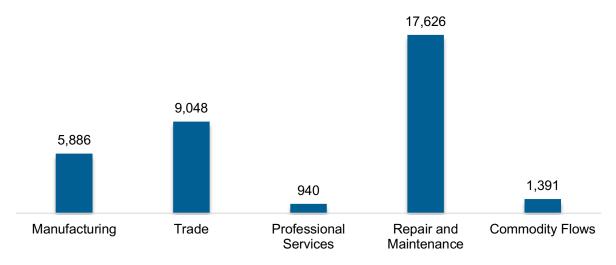
Figure MN-9. Energy Efficiency Employment by Industry Sector



#### MOTOR VEHICLES AND COMPONENT PARTS

The motor vehicles and component sector employed 34,890 workers in Minnesota, 1.3% of the national total for the sector. Motor vehicles and component parts added 1,553 jobs and increased 4.7% in the past year. 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 2023, there were 81,666 jobs in clean energy in Minnesota if traditional transmission and distribution is included and 64,699 jobs if it is not.<sup>24</sup> These increased under either definition, growing 2.8% with traditional transmission and distribution and 3.7% without.

6

<sup>&</sup>lt;sup>24</sup> 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.

# **Workforce Characteristics**

## **EMPLOYER GROWTH**

Employers in Minnesota are more 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	6.9	6.6
Electric Power Transmission, Distribution, and Storage	7.0	6.7
Energy Efficiency	7.6	8.0
Fuels	6.1	5.1
Motor Vehicles	5.9	4.5

### HIRING DIFFICULTY

Employers in Minnesota reported 44.2% 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	20.3	23.9	9.2	46.6	44.2

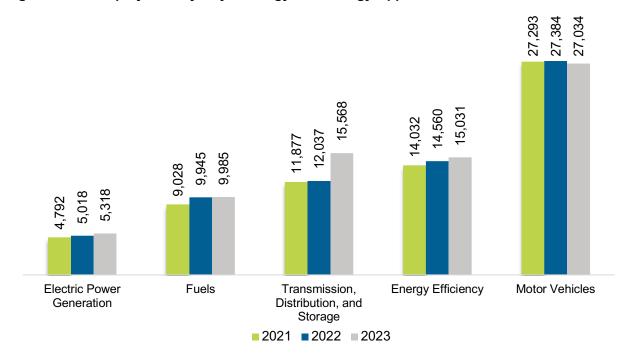
# Mississippi

## **ENERGY AND EMPLOYMENT — 2024**

#### **OVERVIEW**

Mississippi had 72,937 energy workers statewide in 2023, representing 0.9% of all U.S. energy jobs. Of these energy jobs, 5,318 are in electric power generation; 9,985 in fuels; 15,568 in transmission, distribution, and storage; 15,031 in energy efficiency; and 27,034 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 3,992 jobs, or 5.8% (Figure MS-1). The energy sector in Mississippi represents 6.4% of total state employment.

Figure MS-1. Employment by Major Energy Technology Application

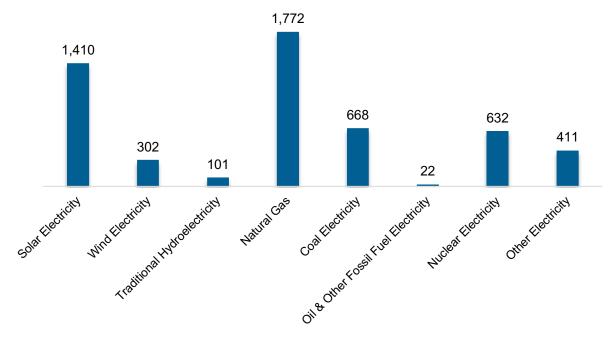


# **Breakdown by Technology Applications**

#### **ELECTRIC POWER GENERATION**

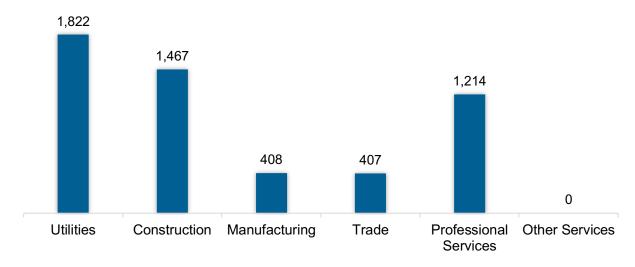
As shown in MS-2, the electric power generation sector employed 5,318 workers in Mississippi, 0.6% of the national electricity total, and added 300 jobs over the past year (6.0%).

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



Utilities is the largest industry sector in the electric power generation sector, with 34.3% of jobs. Construction is the second largest with 27.6% (Figure MS-3).

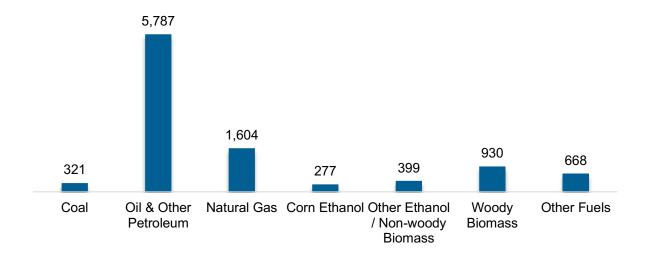
Figure MS-3. Electric Power Generation Employment by Industry Sector



#### **FUELS**

The Fuel sector employed 9,985 workers in Mississippi, 1.0% of the national total in fuels. The sector gained 41 jobs and increased 0.4% in the past year (Figure MS-4).

Figure MS-4. Fuels Employment by Detailed Technology Application



Manufacturing jobs represented 35.7% 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 15,568 workers in Mississippi, 1.1% of the national TDS total (MS-6). The sector gained 3,531 jobs and increased 29.3% in the past year.

12,604

2,334

481

Traditional Storage Smart Grid Micro Grid & Other Transmission and Distribution

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

Construction is the largest proportion of TDS jobs in Mississippi, accounting for 40.4% of the sector's jobs statewide (Figure MS-7).

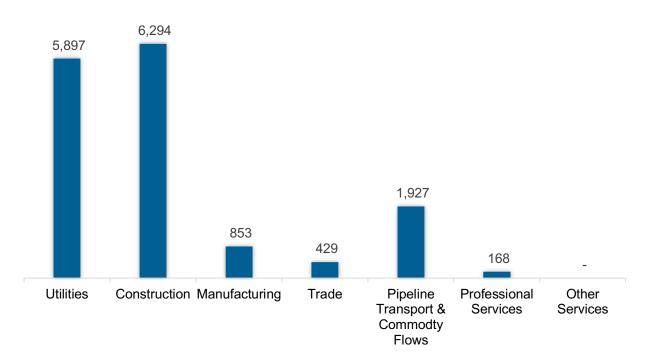
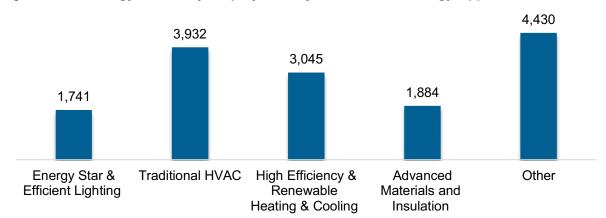


Figure MS-7. Transmission, Distribution and Storage Employment by Industry Sector

#### **ENERGY EFFICIENCY**

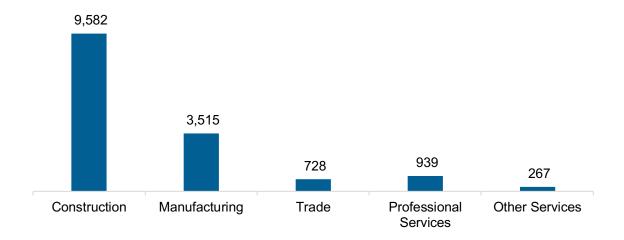
The energy efficiency (EE) sector employed 15,031 workers in Mississippi, 0.7% of the national EE total. The EE sector added 471 jobs and increased 3.2% in the past year (Figure MS-8).

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



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

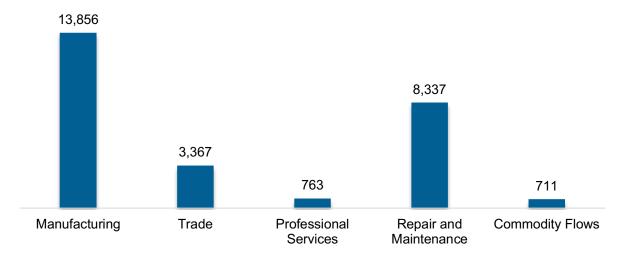
Figure MS-9. Energy Efficiency Employment by Industry Sector



#### MOTOR VEHICLES AND COMPONENT PARTS

The motor vehicles and component sector employed 27,034 workers in Mississippi, 1.0% of the national total for the sector. Motor vehicles and component parts lost 350 jobs and decreased 1.3% in the past year. 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 2023, there were 34,758 jobs in clean energy in Mississippi if traditional transmission and distribution is included and 22,155 jobs if it is not.<sup>25</sup> These increased under either definition, growing 13.8% with traditional transmission and distribution and 3.7% without.

6

<sup>&</sup>lt;sup>25</sup> 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.

# **Workforce Characteristics**

## **EMPLOYER GROWTH**

Employers in Mississippi are more 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	7.3	6.6
Electric Power Transmission, Distribution, and Storage	7.4	6.7
Energy Efficiency	8.0	8.0
Fuels	6.5	5.1
Motor Vehicles	6.2	4.5

### HIRING DIFFICULTY

Employers in Mississippi reported 43.3% 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	19.8	23.5	7.5	49.2	43.3

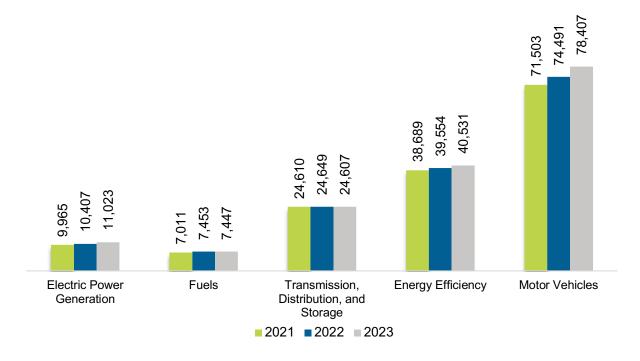
## Missouri

## **ENERGY AND EMPLOYMENT — 2024**

## **OVERVIEW**

Missouri had 162,015 energy workers statewide in 2023, representing 1.9% of all U.S. energy jobs. Of these energy jobs, 11,023 are in electric power generation; 7,447 in fuels; 24,607 in transmission, distribution, and storage; 40,531 in energy efficiency; and 78,407 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 5,460 jobs, or 3.5% (Figure MO-1). The energy sector in Missouri represents 5.7% of total state employment.

Figure MO-1. Employment by Major Energy Technology Application



## **Breakdown by Technology Applications**

## **ELECTRIC POWER GENERATION**

As shown in MO-2, the electric power generation sector employed 11,023 workers in Missouri, 1.2% of the national electricity total, and added 616 jobs over the past year (5.9%).

3,639

1,544

1,898

1,558

978

437

92

1,558

878

1,558

Other Liebrician Andrea Cost Coal Liebrician Andrea Cost Coal Liebrician Coal Lie

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

Construction is the largest industry sector in the electric power generation sector, with 44.7% of jobs. Utilities is the second largest with 35.3% (Figure MO-3).

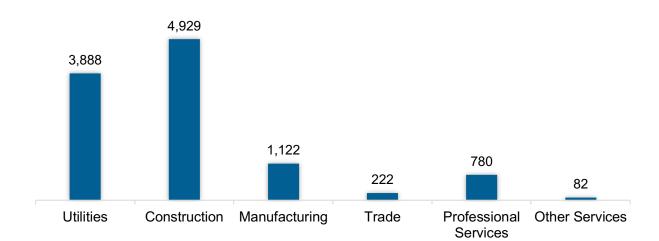
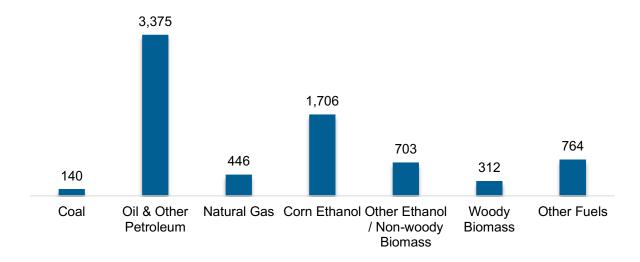


Figure MO-3. Electric Power Generation Employment by Industry Sector

## **FUELS**

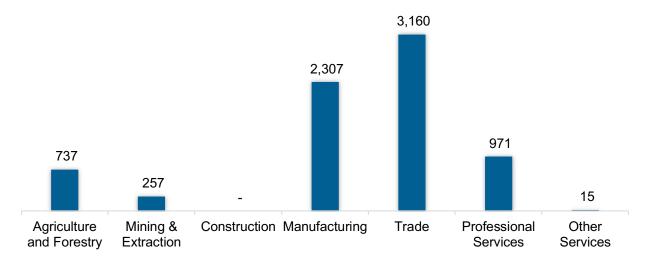
The Fuel sector employed 7,447 workers in Missouri, 0.7% of the national total in fuels. The sector lost 6 jobs and decreased 0.1% in the past year (Figure MO-4).

Figure MO-4. Fuels Employment by Detailed Technology Application



Wholesale trade jobs represented 42.4% of fuel jobs in Missouri (Figure MO-5).

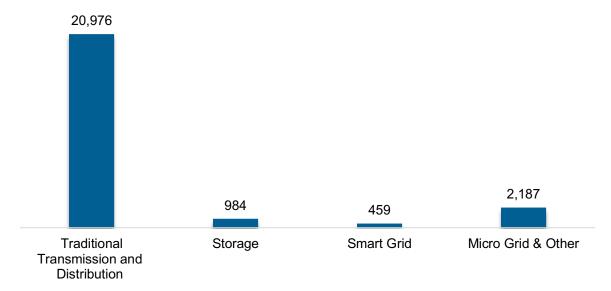
Figure MO-5. Fuels Employment by Industry Sector



## TRANSMISSION, DISTRIBUTION AND STORAGE

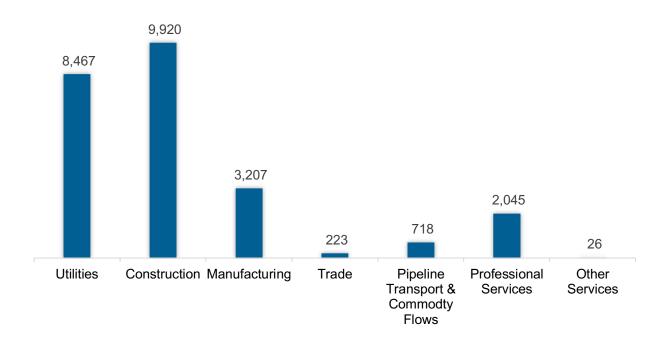
The transmission, distribution, and storage (TDS) sector employed 24,607 workers in Missouri, 1.7% of the national TDS total (MO-6). The sector lost 43 jobs and decreased 0.2% in the past year.

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



Construction is the largest proportion of TDS jobs in Missouri, accounting for 40.3% of the sector's jobs statewide (Figure MO-7).

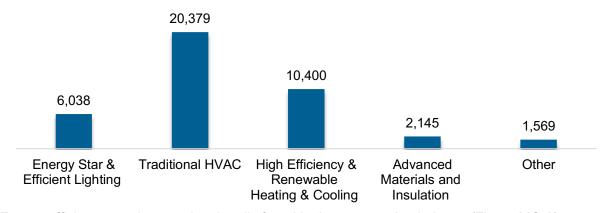
Figure MO-7. Transmission, Distribution and Storage Employment by Industry Sector



## **ENERGY EFFICIENCY**

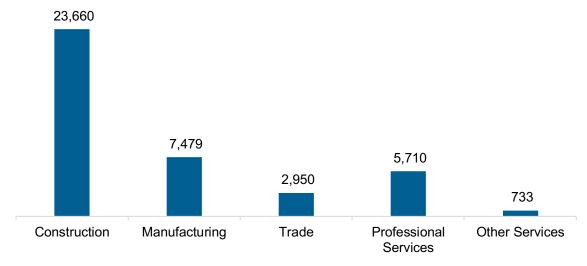
The energy efficiency (EE) sector employed 40,531 workers in Missouri, 1.8% of the national EE total. The EE sector added 977 jobs and increased 2.5% in the past year (Figure MO-8).

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



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

Figure MO-9. Energy Efficiency Employment by Industry Sector



#### MOTOR VEHICLES AND COMPONENT PARTS

Figure MO-10. Motor Vehicle Employment by Industry Sector

Trade

The motor vehicles and component sector employed 78,407 workers in Missouri, 2.9% of the national total for the sector. Motor vehicles and component parts added 3,917 jobs and increased 5.3% in the past year. Manufacturing is the largest proportion of motor vehicle jobs (Figure MO-10).

27,116 21,730

15,039 12,893

1,629

Professional

Services

Repair and

Maintenance

Commodity Flows

## **CLEAN ENERGY JOBS**

Manufacturing

In 2023, there were 79,041 jobs in clean energy in Missouri if traditional transmission and distribution is included and 58,065 jobs if it is not.26 These increased under either definition, growing 2.4% with traditional transmission and distribution and 3.9% without.

6

<sup>&</sup>lt;sup>26</sup> 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.

## **Workforce Characteristics**

## **EMPLOYER GROWTH**

Employers in Missouri are less 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	5.9	6.6
Electric Power Transmission, Distribution, and Storage	6.0	6.7
Energy Efficiency	6.6	8.0
Fuels	5.2	5.1
Motor Vehicles	4.9	4.5

## HIRING DIFFICULTY

Employers in Missouri reported 47.2% 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	20.5	26.7	9.2	43.6	47.2

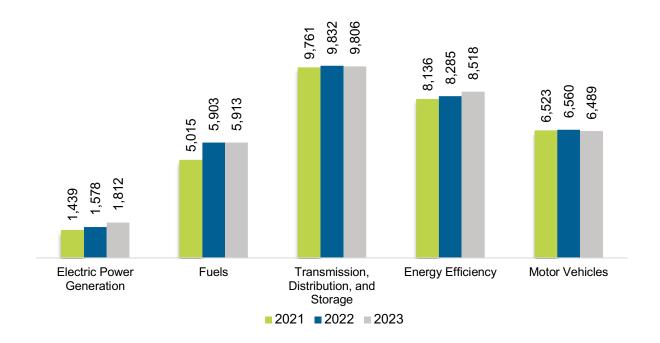
## **Montana**

## **ENERGY AND EMPLOYMENT — 2024**

## **OVERVIEW**

Montana had 32,537 energy workers statewide in 2023, representing 0.4% of all U.S. energy jobs. Of these energy jobs, 1,812 are in electric power generation; 5,913 in fuels; 9,806 in transmission, distribution, and storage; 8,518 in energy efficiency; and 6,489 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 379 jobs, or 1.2% (Figure MT-1). The energy sector in Montana represents 6.7% of total state employment.

Figure MT-1. Employment by Major Energy Technology Application

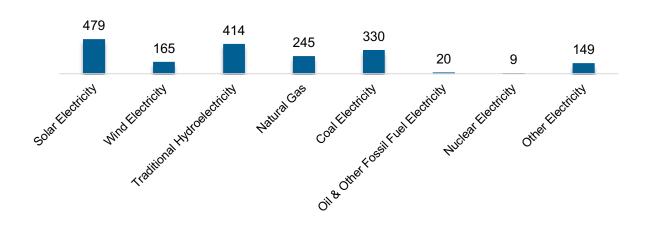


## **Breakdown by Technology Applications**

## **ELECTRIC POWER GENERATION**

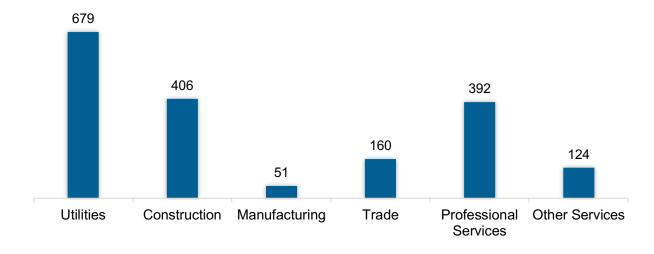
As shown in MT-2, the electric power generation sector employed 1,812 workers in Montana, 0.2% of the national electricity total, and added 234 jobs over the past year (14.8%).

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



Utilities is the largest industry sector in the electric power generation sector, with 37.5% of jobs. Construction is the second largest with 22.4% (Figure MT-3).

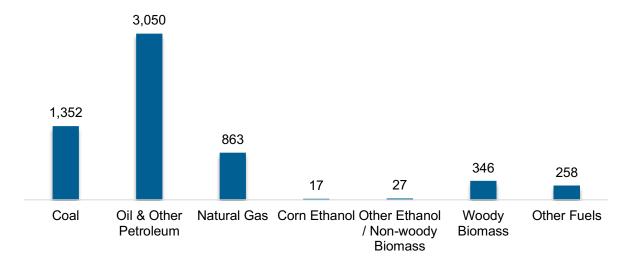
Figure MT-3. Electric Power Generation Employment by Industry Sector



## **FUELS**

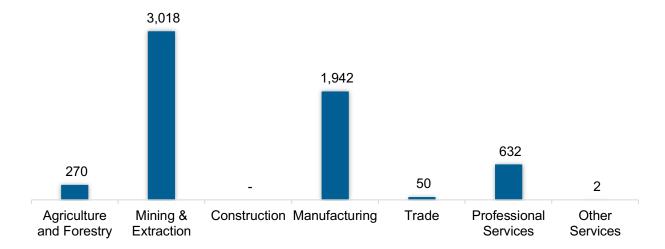
The Fuel sector employed 5,913 workers in Montana, 0.6% of the national total in fuels. The sector gained 9 jobs and increased 0.2% in the past year (Figure MT-4).

Figure MT-4. Fuels Employment by Detailed Technology Application



Mining and extraction jobs represented 51.0% of fuel jobs in Montana (Figure MT-5).

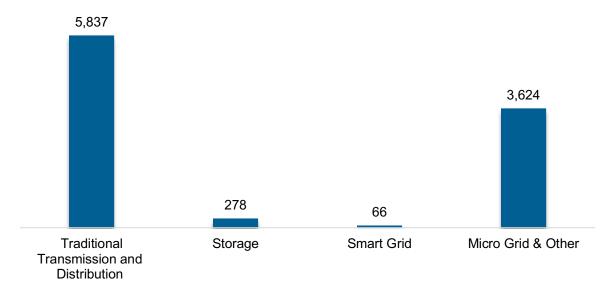
Figure MT-5. Fuels Employment by Industry Sector



## TRANSMISSION, DISTRIBUTION AND STORAGE

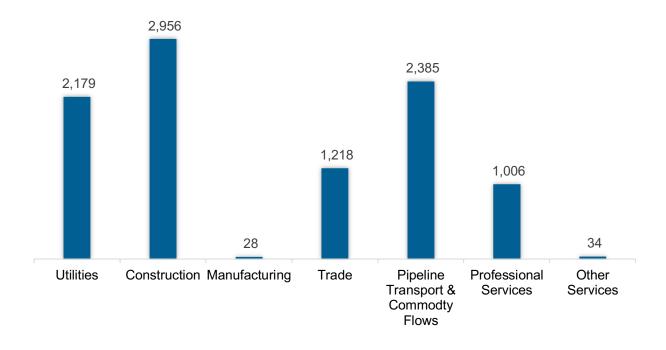
The transmission, distribution, and storage (TDS) sector employed 9,806 workers in Montana, 0.7% of the national TDS total (MT-6). The sector lost 26 jobs and decreased 0.3% in the past year.

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



Construction is the largest proportion of TDS jobs in Montana, accounting for 30.1% of the sector's jobs statewide (Figure MT-7).

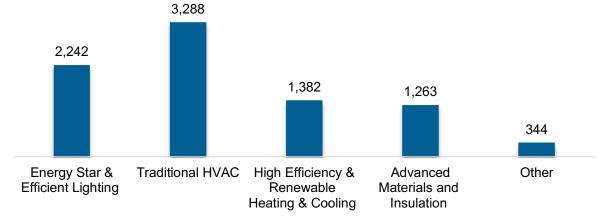
Figure MT-7. Transmission, Distribution and Storage Employment by Industry Sector



## **ENERGY EFFICIENCY**

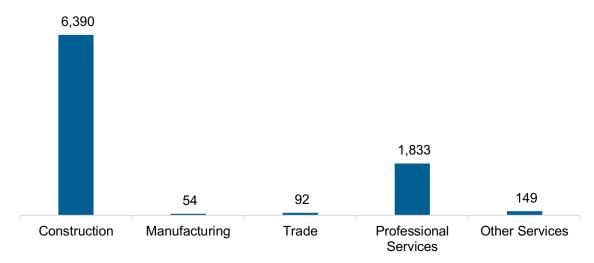
The energy efficiency (EE) sector employed 8,518 workers in Montana, 0.4% of the national EE total. The EE sector added 234 jobs and increased 2.8% in the past year (Figure MT-8).

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



Energy efficiency employment is 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 6,489 workers in Montana, 0.2% of the national total for the sector. Motor vehicles and component parts lost 71 jobs and decreased 1.1% in the past year. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure MT-10).

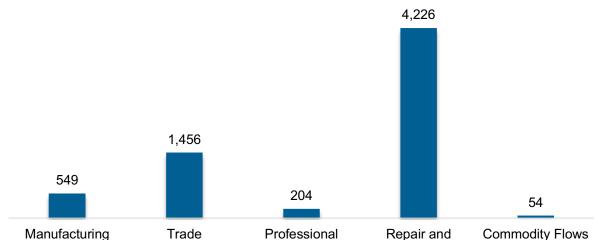


Figure MT-10. Motor Vehicle Employment by Industry Sector

## **CLEAN ENERGY JOBS**

In 2023, there were 16,800 jobs in clean energy in Montana if traditional transmission and distribution is included and 10,962 jobs if it is not.<sup>27</sup> These increased under either definition, growing 7.6% with traditional transmission and distribution and 4.7% without.

Services

Maintenance

<sup>&</sup>lt;sup>27</sup> 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.

## **Workforce Characteristics**

## **EMPLOYER GROWTH**

Employers in Montana are less 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	4.4	6.6
Electric Power Transmission, Distribution, and Storage	4.5	6.7
Energy Efficiency	5.1	8.0
Fuels	3.6	5.1
Motor Vehicles	3.3	4.5

## HIRING DIFFICULTY

Employers in Montana reported 40.4% 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	16.5	23.9	7.6	52.0	40.4

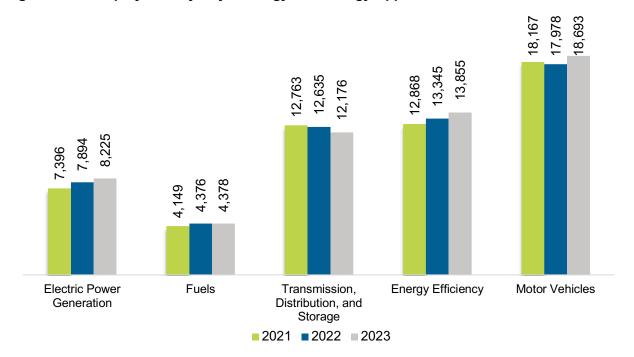
## Nebraska

## **ENERGY AND EMPLOYMENT — 2024**

## **OVERVIEW**

Nebraska had 57,326 energy workers statewide in 2023, representing 0.7% of all U.S. energy jobs. Of these energy jobs, 8,225 are in electric power generation; 4,378 in fuels; 12,176 in transmission, distribution, and storage; 13,855 in energy efficiency; and 18,693 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 1,098 jobs, or 2% (Figure NE-1). The energy sector in Nebraska represents 5.8% of total state employment.

Figure NE-1. Employment by Major Energy Technology Application

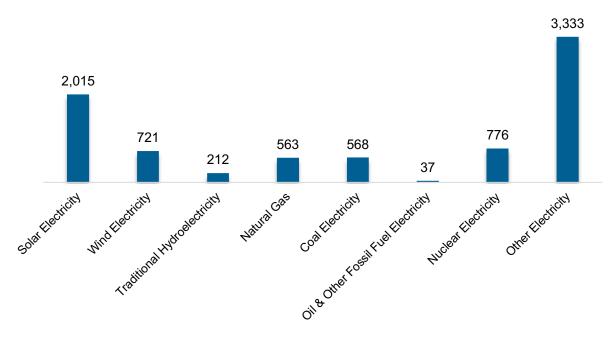


## **Breakdown by Technology Applications**

## **ELECTRIC POWER GENERATION**

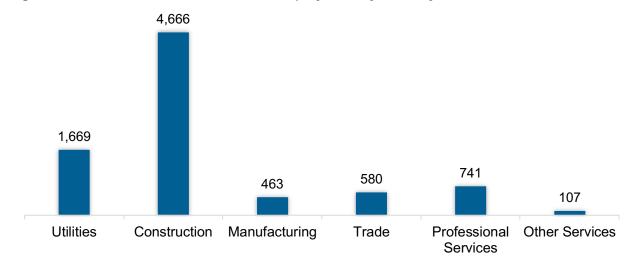
As shown in NE-2, the electric power generation sector employed 8,225 workers in Nebraksa, 0.9% of the national electricity total, and added 331 jobs over the past year (4.2%).

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



Construction is the largest industry sector in the electric power generation sector, with 56.7% of jobs. Utilities is the second largest with 20.3% (Figure NE-3).

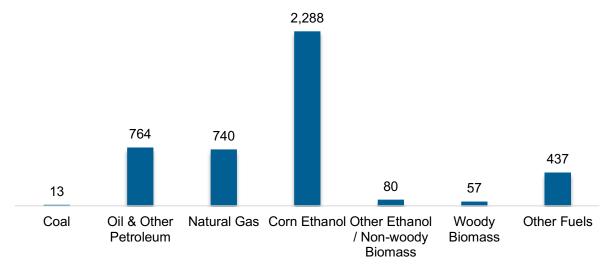
Figure NE-3. Electric Power Generation Employment by Industry Sector



## **FUELS**

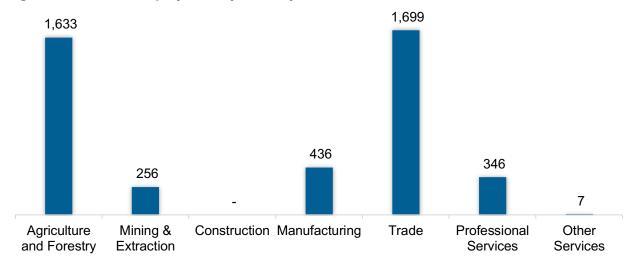
The Fuel sector employed 4,378 workers in Nebraska, 0.4% of the national total in fuels. The sector gained 2 jobs and increased 0.0% in the past year (Figure NE-4).

Figure NE-4. Fuels Employment by Detailed Technology Application



Wholesale trade jobs represented 38.8% of fuel jobs in Nebraska (Figure NE-5).

Figure NE-5. Fuels Employment by Industry Sector



Transmission and Distribution

## TRANSMISSION, DISTRIBUTION AND STORAGE

The transmission, distribution, and storage (TDS) sector employed 12,176 workers in Nebraska, 0.9% of the national TDS total (NE-6). The sector lost 459 jobs and decreased 3.6% in the past year.

9,297

2,515

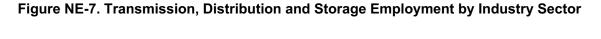
267

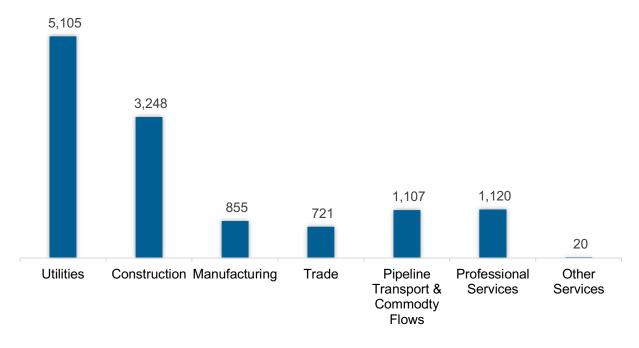
97

Traditional Storage Smart Grid Micro Grid & Other

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

Utilities is the largest proportion of TDS jobs in Nebraska, accounting for 41.9% of the sector's jobs statewide (Figure NE-7).

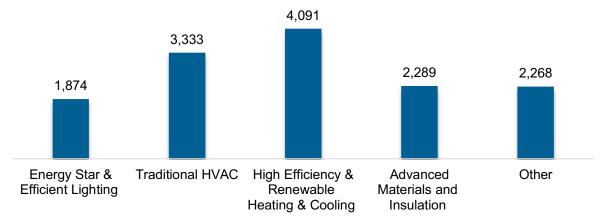




## **ENERGY EFFICIENCY**

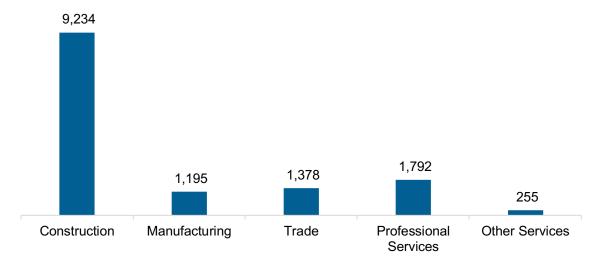
The energy efficiency (EE) sector employed 13,855 workers in Nebraska, 0.6% of the national EE total. The EE sector added 509 jobs and increased 3.8% in the past year (Figure NE-8).

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



Energy efficiency employment is 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 18,693 workers in Nebraska, 0.7% of the national total for the sector. Motor vehicles and component parts added 715 jobs and increased 4% in the past year. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure NE-10).

7,866
6,046
2,990
1,310
Manufacturing Trade Professional Repair and Commodity Flows

Figure NE-10. Motor Vehicle Employment by Industry Sector

#### **CLEAN ENERGY JOBS**

In 2023, there were 31,951 jobs in clean energy in Nebraska if traditional transmission and distribution is included and 22,654 jobs if it is not.<sup>28</sup> These increased under either definition, growing 2.2% with traditional transmission and distribution and 3.9% without.

Services

Maintenance

6

<sup>&</sup>lt;sup>28</sup> 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.

## **Workforce Characteristics**

## **EMPLOYER GROWTH**

Employers in Nebraska are 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	5.9	6.6
Electric Power Transmission, Distribution, and Storage	6.0	6.7
Energy Efficiency	6.6	8.0
Fuels	5.1	5.1
Motor Vehicles	4.9	4.5

## HIRING DIFFICULTY

Employers in Nebraska reported 41.2% 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	12.8	28.3	8.2	50.7	41.2

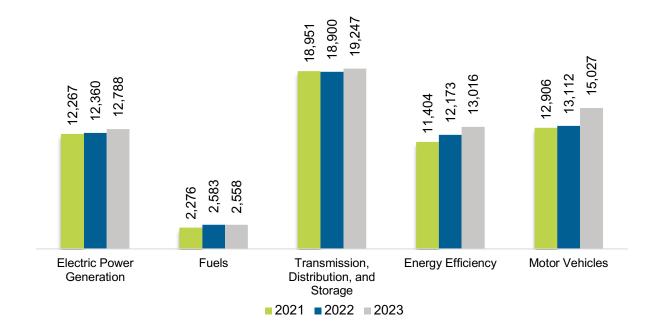
## Nevada

## **ENERGY AND EMPLOYMENT — 2024**

## **OVERVIEW**

Nevada had 62,637 energy workers statewide in 2023, representing 0.8% of all U.S. energy jobs. Of these energy jobs, 12,788 are in electric power generation; 2,558 in fuels; 19,247 in transmission, distribution, and storage; 13,016 in energy efficiency; and 15,027 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 3,509 jobs, or 5.9% (Figure NV-1). The energy sector in Nevada represents 4.4% of total state employment.

Figure NV-1. Employment by Major Energy Technology Application



## **Breakdown by Technology Applications**

## **ELECTRIC POWER GENERATION**

As shown in NV-2, the electric power generation sector employed 12,788 workers in Nevada, 1.4% of the national electricity total, and added 428 jobs over the past year (3.5%).

9,071

1,825

297

98

128

18

136

Traditional Hidrodeerhold Returned Case Codd Electricity Codd Electrici

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

Construction is the largest industry sector in the electric power generation sector, with 58.3% of jobs. Professional and business services is the second largest with 14.3% (Figure NV-3).

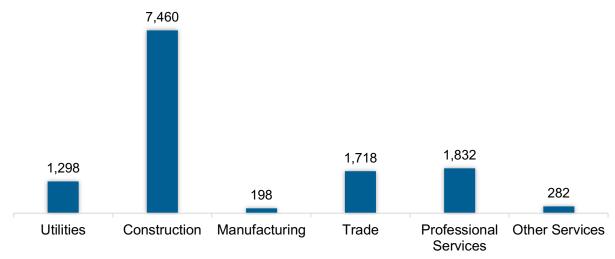
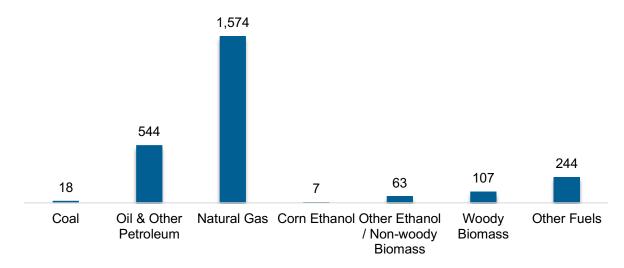


Figure NV-3. Electric Power Generation Employment by Industry Sector

## **FUELS**

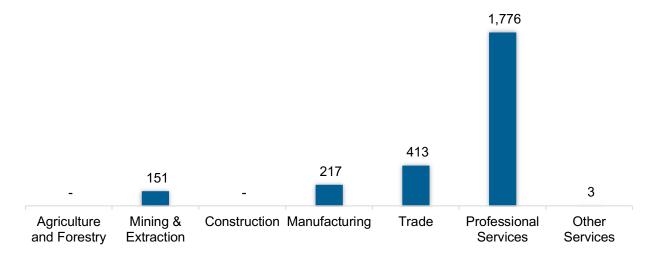
The Fuel sector employed 2,558 workers in Nevada, 0.2% of the national total in fuels. The sector lost 25 jobs and decreased 1.0% in the past year (Figure NV-4).

Figure NV-4. Fuels Employment by Detailed Technology Application



Professional and business services jobs represented 69.4% of fuel jobs in Nevada (Figure NV-5).

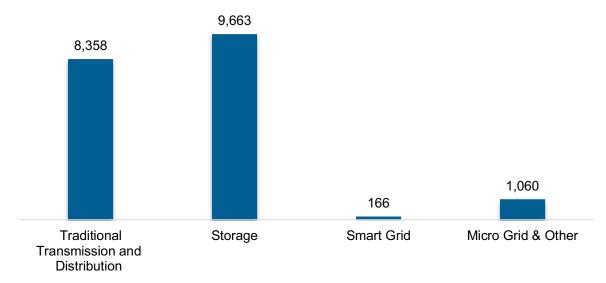
Figure NV-5. Fuels Employment by Industry Sector



## TRANSMISSION, DISTRIBUTION AND STORAGE

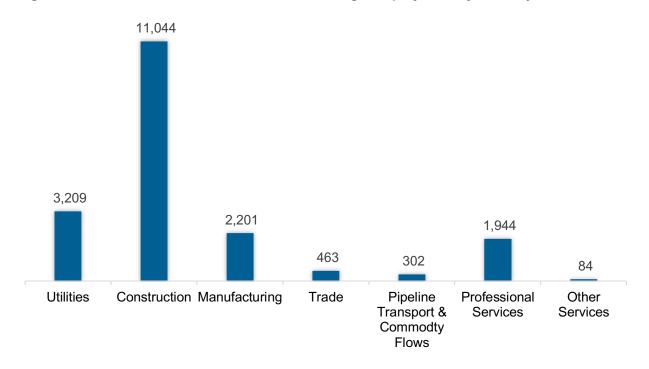
The transmission, distribution, and storage (TDS) sector employed 19,247 workers in Nevada, 1.4% of the national TDS total (NV-6). The sector gained 348 jobs and increased 1.8% in the past year.

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



Construction is the largest proportion of TDS jobs in Nevada, accounting for 57.4% of the sector's jobs statewide (Figure NV-7).

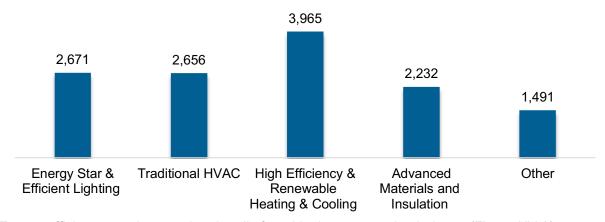
Figure NV-7. Transmission, Distribution and Storage Employment by Industry Sector



## **ENERGY EFFICIENCY**

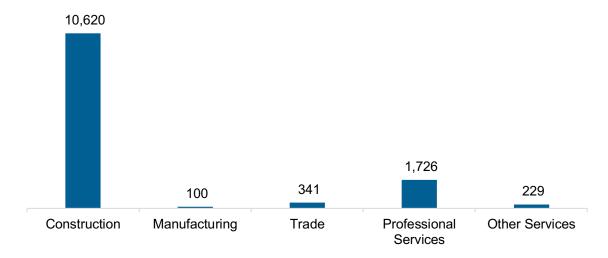
The energy efficiency (EE) sector employed 13,016 workers in Nevada, 0.6% of the national EE total. The EE sector added 843 jobs and increased 6.9% in the past year (Figure NV-8).

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



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

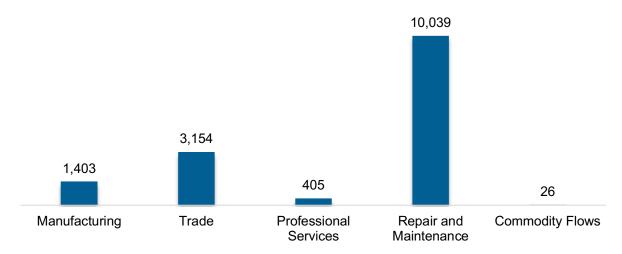
Figure NV-9. Energy Efficiency Employment by Industry Sector



#### MOTOR VEHICLES AND COMPONENT PARTS

The motor vehicles and component sector employed 15,027 workers in Nevada, 0.6% of the national total for the sector. Motor vehicles and component parts added 1,915 jobs and increased 14.6% in the past year. 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 2023, there were 42,838 jobs in clean energy in Nevada if traditional transmission and distribution is included and 34,480 jobs if it is not.<sup>29</sup> These increased under either definition, growing 2.9% with traditional transmission and distribution and 3.8% without.

6

<sup>&</sup>lt;sup>29</sup> 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.

## **Workforce Characteristics**

## **EMPLOYER GROWTH**

Employers in Nevada are similarly optimistic to 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	6.0	6.6
Electric Power Transmission, Distribution, and Storage	6.0	6.7
Energy Efficiency	6.7	8.0
Fuels	5.2	5.1
Motor Vehicles	4.9	4.5

## HIRING DIFFICULTY

Employers in Nevada reported 41.0% 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	18.7	22.3	9.7	49.3	41.0

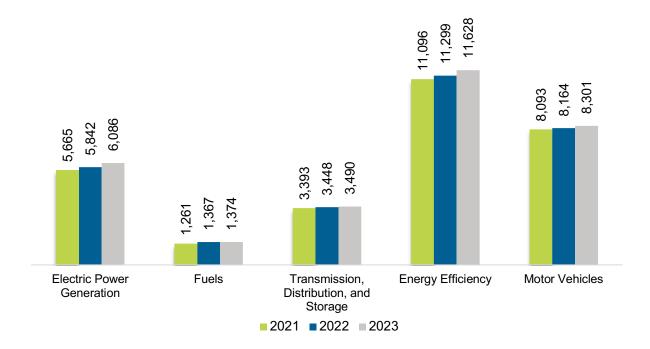
# **New Hampshire**

## **ENERGY AND EMPLOYMENT — 2024**

## **OVERVIEW**

New Hampshire had 30,879 energy workers statewide in 2023, representing 0.4% of all U.S. energy jobs. Of these energy jobs, 6,086 are in electric power generation; 1,374 in fuels; 3,490 in transmission, distribution, and storage; 11,628 in energy efficiency; and 8,301 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 758 jobs, or 2.5% (Figure NH-1). The energy sector in New Hampshire represents 4.6% of total state employment.

Figure NH-1. Employment by Major Energy Technology Application

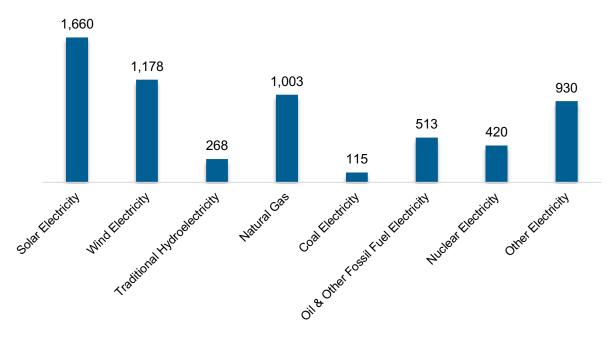


## **Breakdown by Technology Applications**

## **ELECTRIC POWER GENERATION**

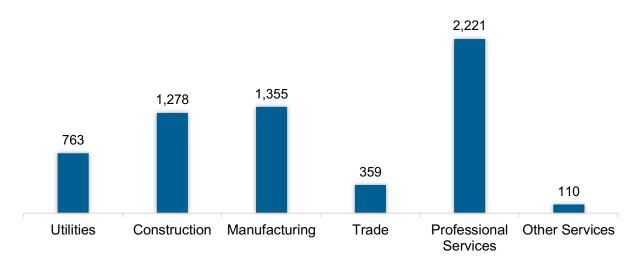
As shown in NH-2, the electric power generation sector employed 6,086 workers in New Hampshire, 0.7% of the national electricity total, and added 244 jobs over the past year (4.2%).

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



Professional and business services is the largest industry sector in the electric power generation sector, with 36.5% of jobs. Manufacturing is the second largest with 22.3% (Figure NH-3).

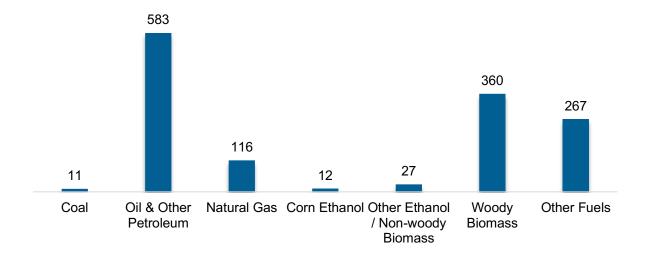
Figure NH-3. Electric Power Generation Employment by Industry Sector



## **FUELS**

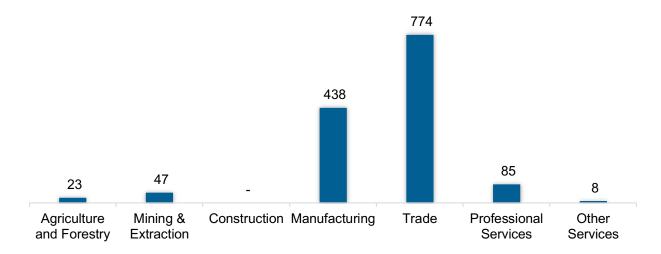
The Fuel sector employed 1,374 workers in New Hampshire, 0.1% of the national total in fuels. The sector gained 7 jobs and increased 0.5% in the past year (Figure NH-4).

Figure NH-4. Fuels Employment by Detailed Technology Application



Wholesale trade jobs represented 56.3% of fuel jobs in New Hampshire (Figure NH-5).

Figure NH-5. Fuels Employment by Industry Sector



Distribution

## TRANSMISSION, DISTRIBUTION AND STORAGE

The transmission, distribution, and storage (TDS) sector employed 3,490 workers in New Hampshire, 0.2% of the national TDS total (NH-6). The sector gained 42 jobs and increased 1.2% in the past year.

2,623

648

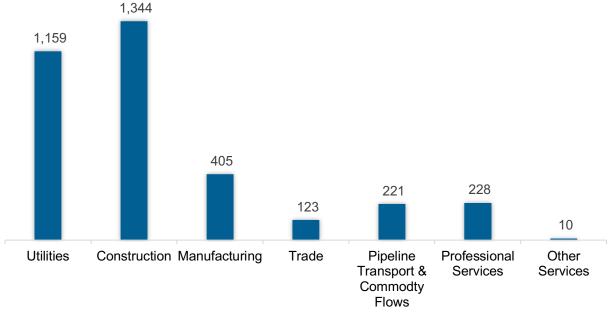
Traditional Storage Smart Grid Micro Grid & Other Transmission and

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

Construction is the largest proportion of TDS jobs in New Hampshire, accounting for 38.5% of the sector's jobs statewide (Figure NH-7).



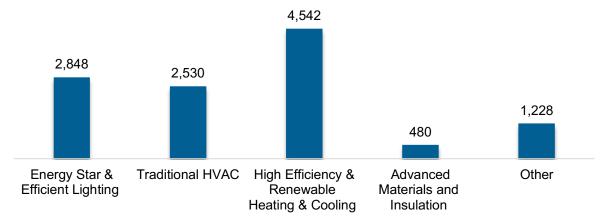
Figure NH-7. Transmission, Distribution and Storage Employment by Industry Sector



## **ENERGY EFFICIENCY**

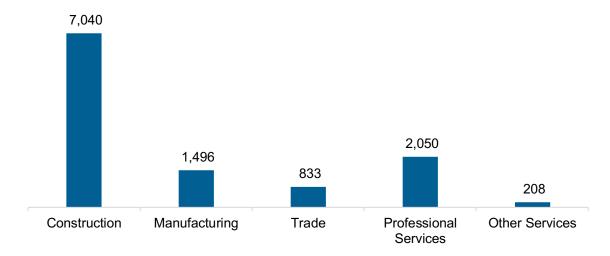
The energy efficiency (EE) sector employed 11,628 workers in New Hampshire, 0.5% of the national EE total. The EE sector added 328 jobs and increased 2.9% in the past year (Figure NH-8).

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



Energy efficiency employment is 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 8,301 workers in New Hampshire, 0.3% of the national total for the sector. Motor vehicles and component parts added 136 jobs and increased 1.7% in the past year. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure NH-10).

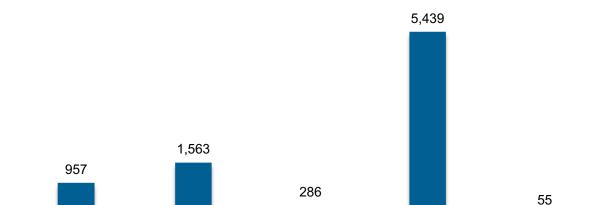


Figure NH-10. Motor Vehicle Employment by Industry Sector

Trade

#### **CLEAN ENERGY JOBS**

Manufacturing

In 2023, there were 19,967 jobs in clean energy in New Hampshire if traditional transmission and distribution is included and 17,345 jobs if it is not.<sup>30</sup> These increased under either definition, growing 2.8% with traditional transmission and distribution and 3.3% without.

Professional

Services

Repair and

Maintenance

Commodity Flows

<sup>&</sup>lt;sup>30</sup> 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.

## **Workforce Characteristics**

## **EMPLOYER GROWTH**

Employers in New Hampshire are less 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	5.3	6.6
Electric Power Transmission, Distribution, and Storage	5.4	6.7
Energy Efficiency	6.0	8.0
Fuels	4.5	5.1
Motor Vehicles	4.3	4.5

## HIRING DIFFICULTY

Employers in New Hampshire reported 45.9% 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	17.6	28.3	8.2	45.9	45.9

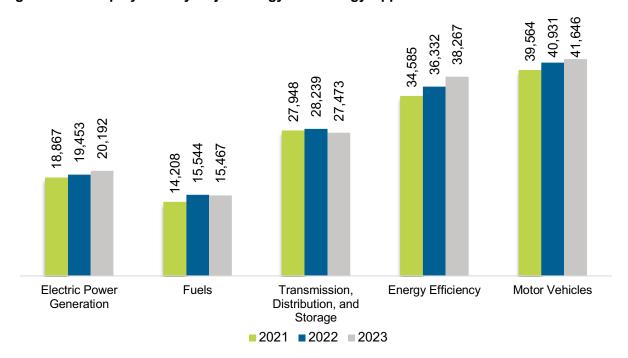
# **New Jersey**

## **ENERGY AND EMPLOYMENT — 2024**

## **OVERVIEW**

New Jersey had 143,045 energy workers statewide in 2023, representing 1.7% of all U.S. energy jobs. Of these energy jobs, 20,192 are in electric power generation; 15,467 in fuels; 27,473 in transmission, distribution, and storage; 38,267 in energy efficiency; and 41,646 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 2,545 jobs, or 1.8% (Figure NJ-1). The energy sector in New Jersey represents 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 NJ-2, the electric power generation sector employed 20,192 workers in New Jersey, 2.2% of the national electricity total, and added 738 jobs over the past year (3.8%).

9,263

3,726

2,043

1,117

90

2,464

1,117

90

2,464

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1,117

1

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

Manufacturing is the largest industry sector in the electric power generation sector, with 24.9% of jobs. Construction is the second largest with 24.6% (Figure NJ-3).

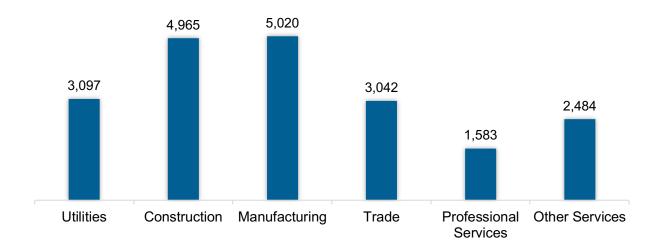
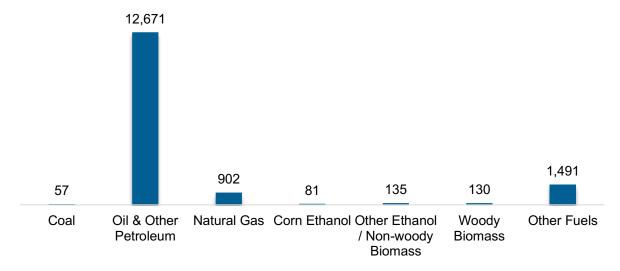


Figure NJ-3. Electric Power Generation Employment by Industry Sector

# **FUELS**

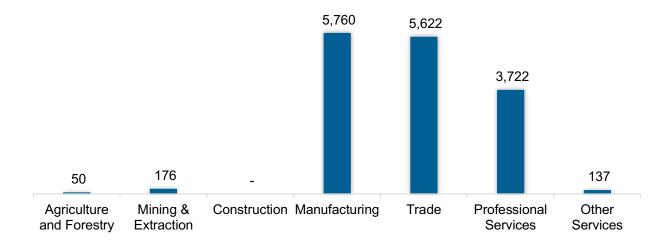
The Fuel sector employed 15,467 workers in New Jersey, 1.5% of the national total in fuels. The sector lost 77 jobs and decreased 0.5% in the past year (Figure NJ-4).

Figure NJ-4. Fuels Employment by Detailed Technology Application



Manufacturing jobs represented 37.2% 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 27,473 workers in New Jersey, 1.9% of the national TDS total (NJ-6). The sector lost 766 jobs and decreased 2.7% in the past year.

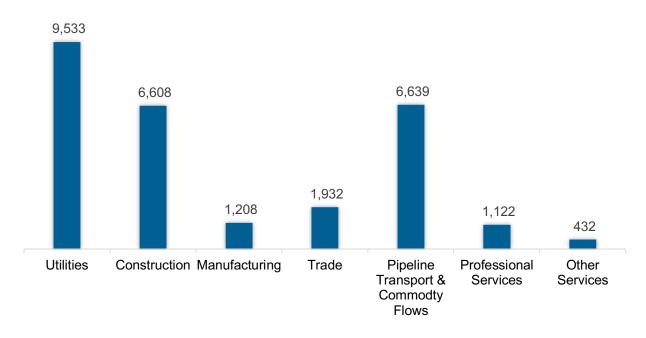
11,311

Traditional Storage Smart Grid Micro Grid & Other Transmission and Distribution

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

Utilities is the largest proportion of TDS jobs in New Jersey, accounting for 34.7% of the sector's jobs statewide (Figure NJ-7).

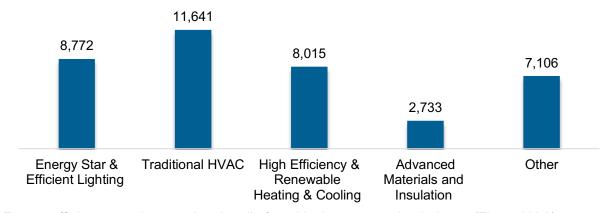




# **ENERGY EFFICIENCY**

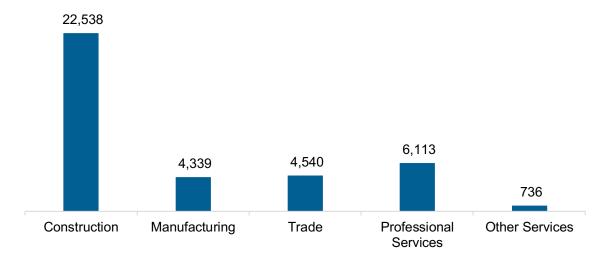
The energy efficiency (EE) sector employed 38,267 workers in New Jersey, 1.7% of the national EE total. The EE sector added 1,934 jobs and increased 5.3% in the past year (Figure NJ-8).

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



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

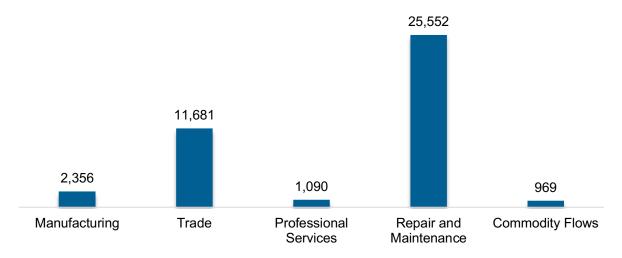
Figure NJ-9. Energy Efficiency Employment by Industry Sector



### MOTOR VEHICLES AND COMPONENT PARTS

The motor vehicles and component sector employed 41,646 workers in New Jersey, 1.6% of the national total for the sector. Motor vehicles and component parts added 715 jobs and increased 1.7% in the past year. 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 2023, there were 74,548 jobs in clean energy in New Jersey if traditional transmission and distribution is included and 59,668 jobs if it is not.<sup>31</sup> These increased under either definition, growing 4.2% with traditional transmission and distribution and 5.3% without.

6

<sup>&</sup>lt;sup>31</sup> 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.

# **Workforce Characteristics**

# **EMPLOYER GROWTH**

Employers in New Jersey are 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	7.8	6.6
Electric Power Transmission, Distribution, and Storage	7.9	6.7
Energy Efficiency	8.5	8.0
Fuels	7.1	5.1
Motor Vehicles	6.8	4.5

# HIRING DIFFICULTY

Employers in New Jersey reported 42.1% 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	17.3	24.8	9.0	48.9	42.1

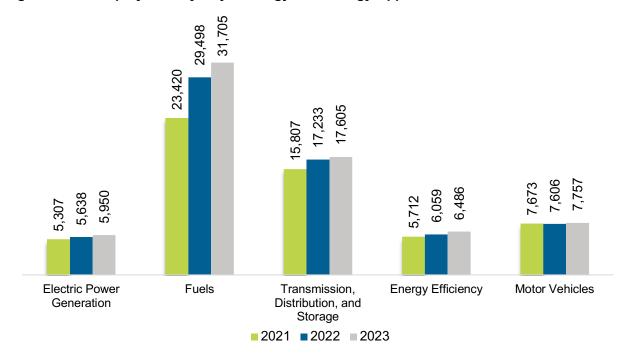
# **New Mexico**

# **ENERGY AND EMPLOYMENT — 2024**

# **OVERVIEW**

New Mexico had 69,502 energy workers statewide in 2023, representing 0.8% of all U.S. energy jobs. Of these energy jobs, 5,950 are in electric power generation; 31,705 in fuels; 17,605 in transmission, distribution, and storage; 6,486 in energy efficiency; and 7,757 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 3,467 jobs, or 5.3% (Figure NM-1). The energy sector in New Mexico represents 8.3% of total state employment.

Figure NM-1. Employment by Major Energy Technology Application

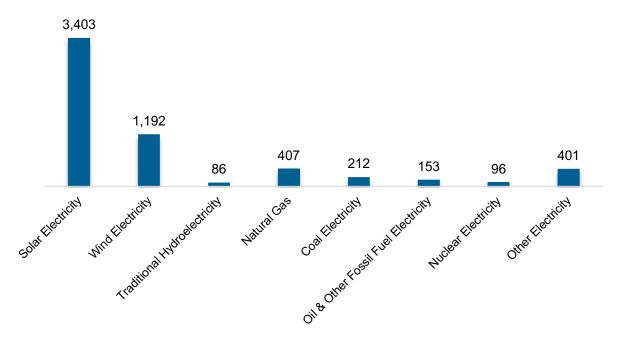


# **Breakdown by Technology Applications**

# **ELECTRIC POWER GENERATION**

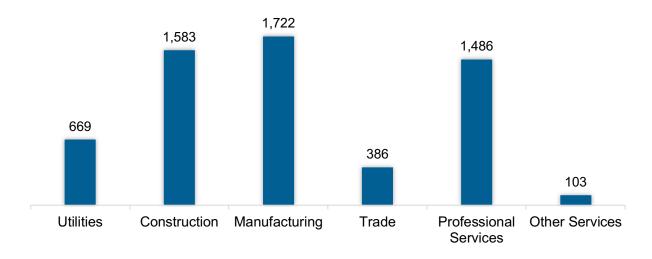
As shown in NM-2, the electric power generation sector employed 5,950 workers in New Mexico, 0.6% of the national electricity total, and added 311 jobs over the past year (5.5%).

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



Manufacturing is the largest industry sector in the electric power generation sector, with 28.9% of jobs. Construction is the second largest with 26.6% (Figure NM-3).

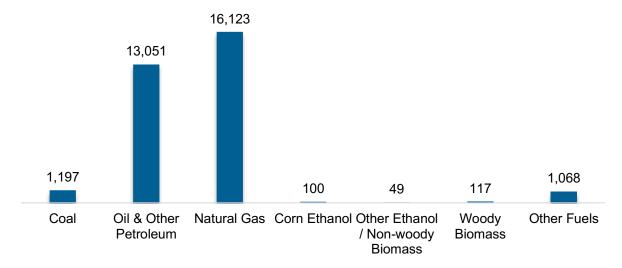
Figure NM-3. Electric Power Generation Employment by Industry Sector



# **FUELS**

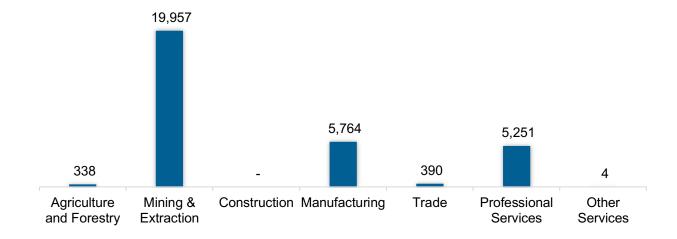
The Fuel sector employed 31,705 workers in New Mexico, 3.0% of the national total in fuels. The sector gained 2,206 jobs and increased 7.5% in the past year (Figure NM-4).

Figure NM-4. Fuels Employment by Detailed Technology Application



Mining and extraction jobs represented 62.9% of fuel jobs in New Mexico (Figure NM-5).

Figure NM-5. Fuels Employment by Industry Sector



Traditional

Transmission and Distribution

# TRANSMISSION, DISTRIBUTION AND STORAGE

The transmission, distribution, and storage (TDS) sector employed 17,605 workers in New Mexico, 1.2% of the national TDS total (NM-6). The sector gained 372 jobs and increased 2.2% in the past year.

13,922 3,088

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

Construction is the largest proportion of TDS jobs in New Mexico, accounting for 52.5% of the sector's jobs statewide (Figure NM-7).

Smart Grid

Micro Grid & Other

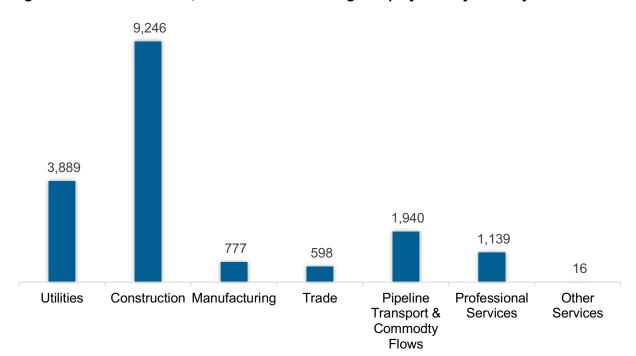


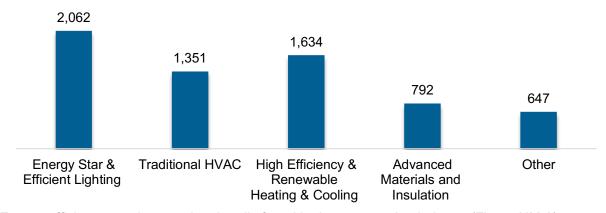
Figure NM-7. Transmission, Distribution and Storage Employment by Industry Sector

Storage

# **ENERGY EFFICIENCY**

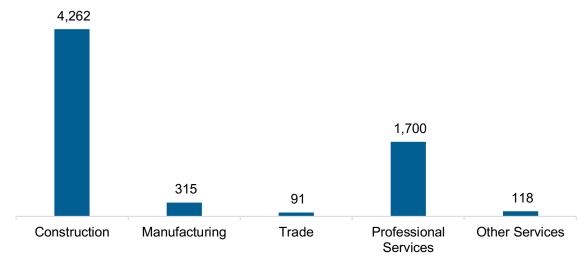
The energy efficiency (EE) sector employed 6,486 workers in New Mexico, 0.3% of the national EE total. The EE sector added 427 jobs and increased 7.0% in the past year (Figure NM-8).

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



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

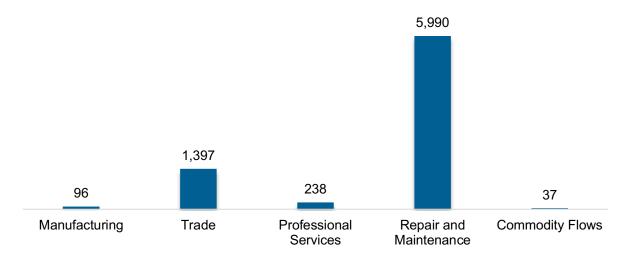
Figure NM-9. Energy Efficiency Employment by Industry Sector



### MOTOR VEHICLES AND COMPONENT PARTS

The motor vehicles and component sector employed 7,757 workers in New Mexico, 0.3% of the national total for the sector. Motor vehicles and component parts added 151 jobs and increased 2% in the past year. 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 2023, there were 27,177 jobs in clean energy in New Mexico if traditional transmission and distribution is included and 13,255 jobs if it is not.<sup>32</sup> These increased under either definition, growing 5.6% with traditional transmission and distribution and 5.9% without.

6

<sup>&</sup>lt;sup>32</sup> 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.

# **Workforce Characteristics**

# **EMPLOYER GROWTH**

Employers in New Mexico are more 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	7.1	6.6
Electric Power Transmission, Distribution, and Storage	7.1	6.7
Energy Efficiency	7.8	8.0
Fuels	6.3	5.1
Motor Vehicles	6.0	4.5

# HIRING DIFFICULTY

Employers in New Mexico reported 46.7% 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	19.2	27.6	7.4	45.9	46.7

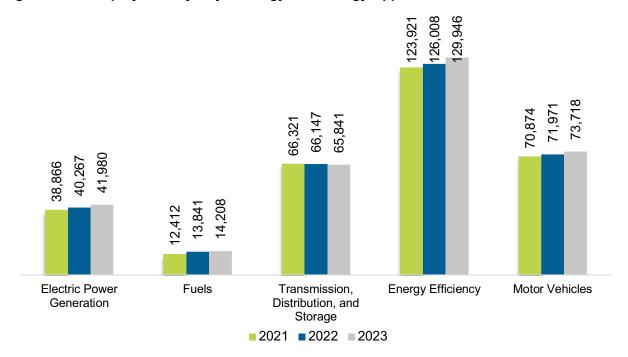
# **New York**

# **ENERGY AND EMPLOYMENT — 2024**

# **OVERVIEW**

New York had 325,693 energy workers statewide in 2023, representing 3.9% of all U.S. energy jobs. Of these energy jobs, 41,980 are in electric power generation; 14,208 in fuels; 65,841 in transmission, distribution, and storage; 129,946 in energy efficiency; and 73,718 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 7,460 jobs, or 2.3% (Figure NY-1). The energy sector in New York represents 3.4% of total state employment.

Figure NY-1. Employment by Major Energy Technology Application

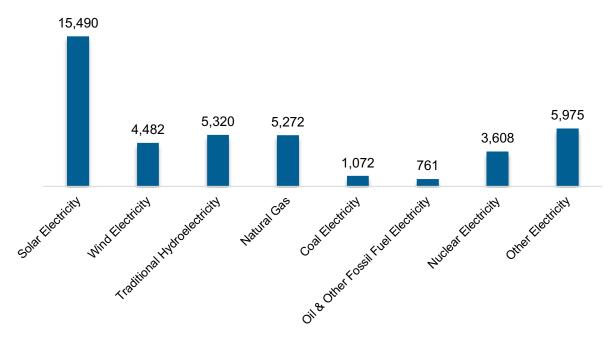


# **Breakdown by Technology Applications**

# **ELECTRIC POWER GENERATION**

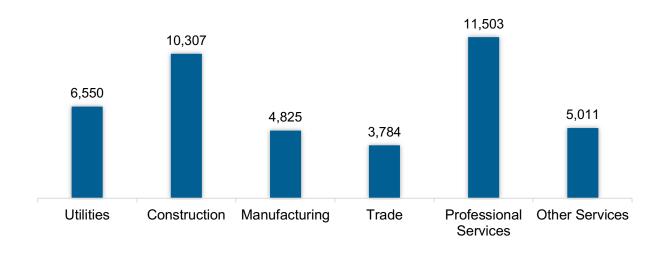
As shown in NY-2, the electric power generation sector employed 41,980 workers in New York, 4.6% of the national electricity total, and added 1,713 jobs over the past year (4.3%).

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



Professional and business services is the largest industry sector in the electric power generation sector, with 27.4% of jobs. Construction is the second largest with 24.6% (Figure NY-3).

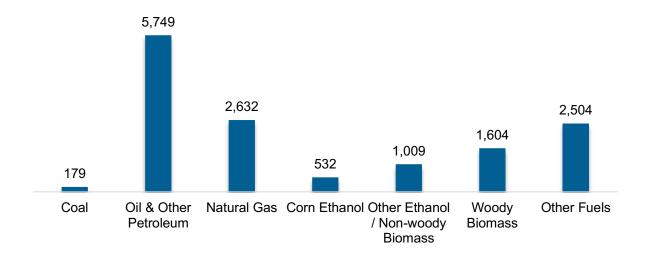
Figure NY-3. Electric Power Generation Employment by Industry Sector



# **FUELS**

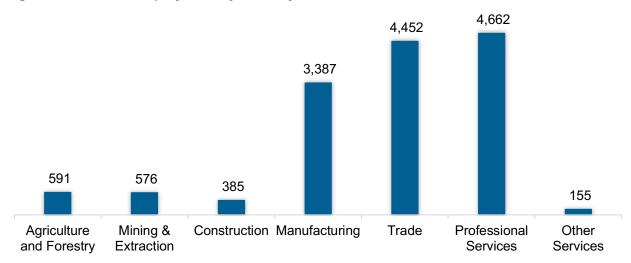
The Fuel sector employed 14,208 workers in New York, 1.4% of the national total in fuels. The sector gained 368 jobs and increased 2.7% in the past year (Figure NY-4).

Figure NY-4. Fuels Employment by Detailed Technology Application



Professional and business services jobs represented 32.8% of fuel jobs in New York (Figure NY-5).

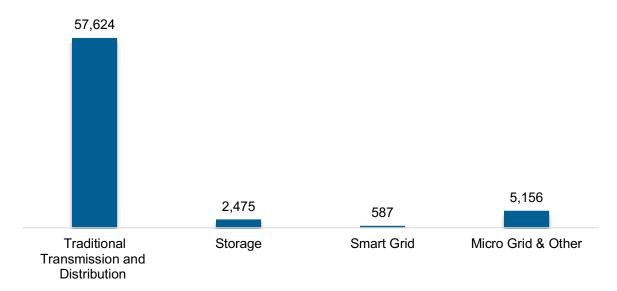
Figure NY-5. Fuels Employment by Industry Sector



# TRANSMISSION, DISTRIBUTION AND STORAGE

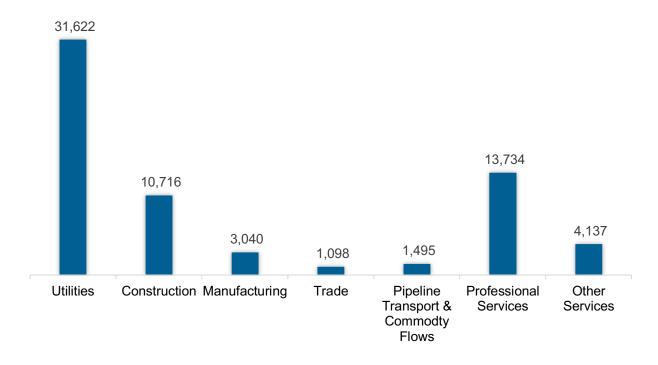
The transmission, distribution, and storage (TDS) sector employed 65,841 workers in New York, 4.6% of the national TDS total (NY-6). The sector lost 305 jobs and decreased 0.5% in the past year.

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



Utilities is the largest proportion of TDS jobs in New York, accounting for 48.0% 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 129,946 workers in New York, 5.7% of the national EE total. The EE sector added 3,938 jobs and increased 3.1% in the past year (Figure NY-8).

37,549
35,584
37,166
9,126
10,521

Energy Star & Traditional HVAC High Efficiency & Advanced Materials and

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

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

**Heating & Cooling** 

Insulation

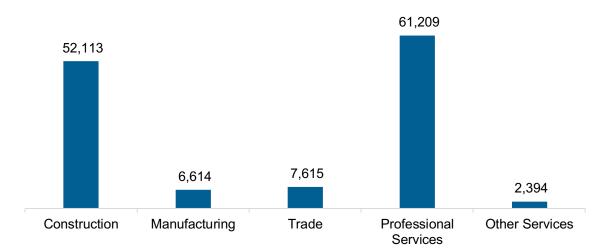


Figure NY-9. Energy Efficiency Employment by Industry Sector

### MOTOR VEHICLES AND COMPONENT PARTS

The motor vehicles and component sector employed 73,718 workers in New York, 2.8% of the national total for the sector. Motor vehicles and component parts added 1,747 jobs and increased 2.4% in the past year. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure NY-10).

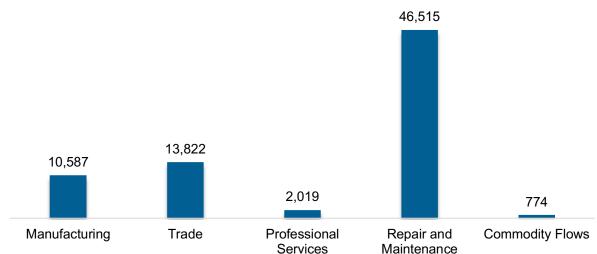


Figure NY-10. Motor Vehicle Employment by Industry Sector

### **CLEAN ENERGY JOBS**

In 2023, there were 234,825 jobs in clean energy in New York if traditional transmission and distribution is included and 177,202 jobs if it is not.<sup>33</sup> These increased under either definition, growing 2.4% with traditional transmission and distribution and 3.8% without.

6

<sup>&</sup>lt;sup>33</sup> 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.

# **Workforce Characteristics**

# **EMPLOYER GROWTH**

Employers in New York are more 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	8.5	6.6
Electric Power Transmission, Distribution, and Storage	8.6	6.7
Energy Efficiency	9.2	8.0
Fuels	7.7	5.1
Motor Vehicles	7.4	4.5

# HIRING DIFFICULTY

Employers in New York reported 46.8% 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	18.8	28.1	6.7	46.5	46.8

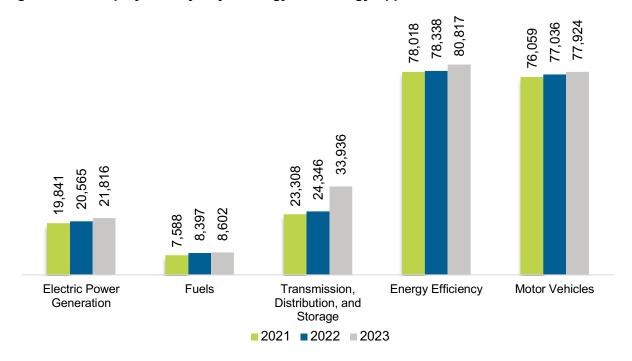
# **North Carolina**

# **ENERGY AND EMPLOYMENT — 2024**

# **OVERVIEW**

North Carolina had 223,095 energy workers statewide in 2023, representing 2.7% of all U.S. energy jobs. Of these energy jobs, 21,816 are in electric power generation; 8,602 in fuels; 33,936 in transmission, distribution, and storage; 80,817 in energy efficiency; and 77,924 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 14,413 jobs, or 6.9% (Figure NC-1). The energy sector in North Carolina represents 4.9% of total state employment.

Figure NC-1. Employment by Major Energy Technology Application

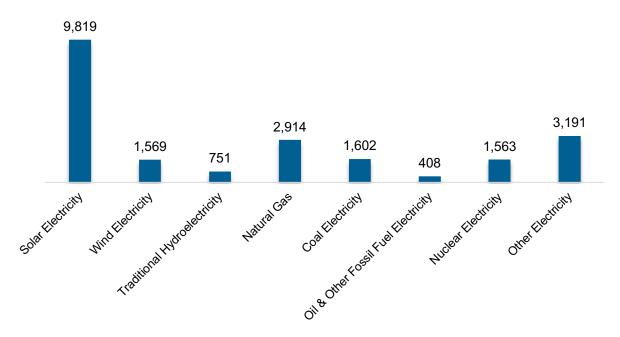


# **Breakdown by Technology Applications**

# **ELECTRIC POWER GENERATION**

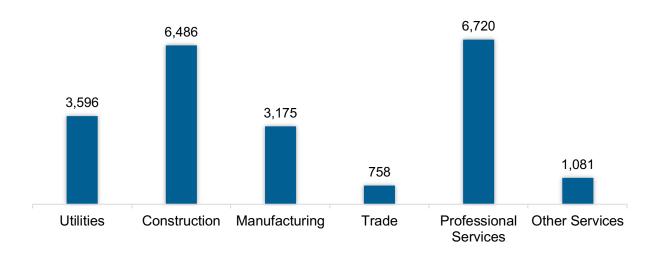
As shown in NC-2, the electric power generation sector employed 21,816 workers in North Carolina, 2.4% of the national electricity total, and added 1,251 jobs over the past year (6.1%).

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



Professional and business services is the largest industry sector in the electric power generation sector, with 30.8% of jobs. Construction is the second largest with 29.7% (Figure NC-3).

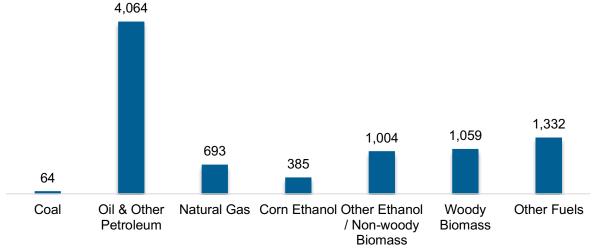
Figure NC-3. Electric Power Generation Employment by Industry Sector



# **FUELS**

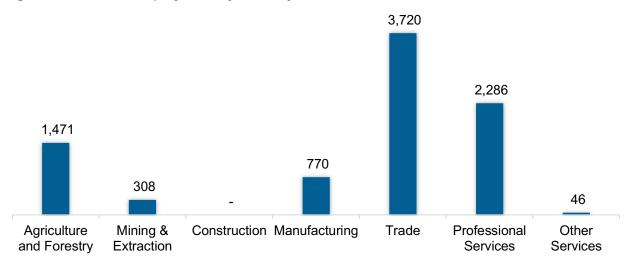
The Fuel sector employed 8,602 workers in North Carolina, 0.8% of the national total in fuels. The sector gained 205 jobs and increased 2.4% in the past year (Figure NC-4).

Figure NC-4. Fuels Employment by Detailed Technology Application



Wholesale trade jobs represented 43.2% 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 33,936 workers in North Carolina, 2.4% of the national TDS total (NC-6). The sector gained 9,590 jobs and increased 39.4% in the past year.

26,974

1,872

Traditional Storage Smart Grid Micro Grid & Other Transmission and Distribution

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

Construction is the largest proportion of TDS jobs in North Carolina, accounting for 39.6% of the sector's jobs statewide (Figure NC-7).

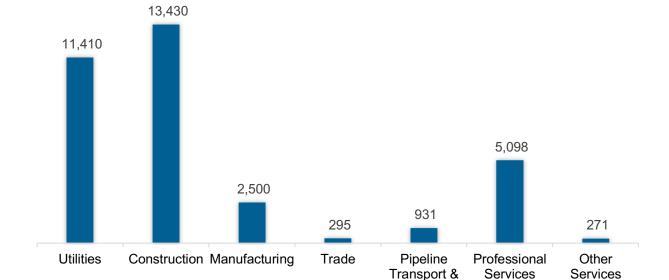


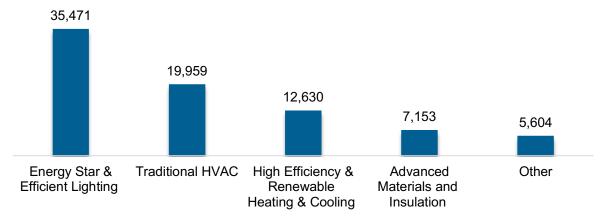
Figure NC-7. Transmission, Distribution and Storage Employment by Industry Sector

Commodty Flows

# **ENERGY EFFICIENCY**

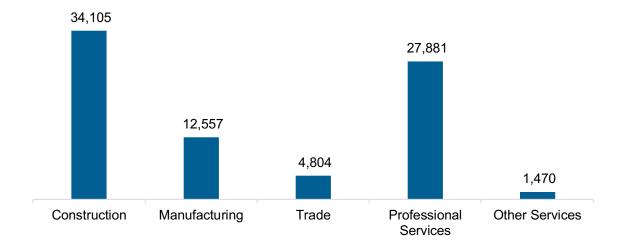
The energy efficiency (EE) sector employed 80,817 workers in North Carolina, 3.5% of the national EE total. The EE sector added 2,479 jobs and increased 3.2% in the past year (Figure NC-8).

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



Energy efficiency employment is 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 77,924 workers in North Carolina, 2.9% of the national total for the sector. Motor vehicles and component parts added 888 jobs and increased 1.2% in the past year. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure NC-10).

25,589

2,091

Professional

Services

1,880

Commodity Flows

Repair and

Maintenance

Figure NC-10. Motor Vehicle Employment by Industry Sector

Trade

### **CLEAN ENERGY JOBS**

Manufacturing

In 2023, there were 135,495 jobs in clean energy in North Carolina if traditional transmission and distribution is included and 108,521 jobs if it is not.<sup>34</sup> These increased under either definition, growing 10.6% with traditional transmission and distribution and 4% without.

6

<sup>&</sup>lt;sup>34</sup> 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.

# **Workforce Characteristics**

# **EMPLOYER GROWTH**

Employers in North Carolina are similarly optimistic to 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	6.3	6.6
Electric Power Transmission, Distribution, and Storage	6.4	6.7
Energy Efficiency	7.0	8.0
Fuels	5.5	5.1
Motor Vehicles	5.3	4.5

# HIRING DIFFICULTY

Employers in North Carolina reported 46.2% 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	20.5	25.7	8.4	45.5	46.2

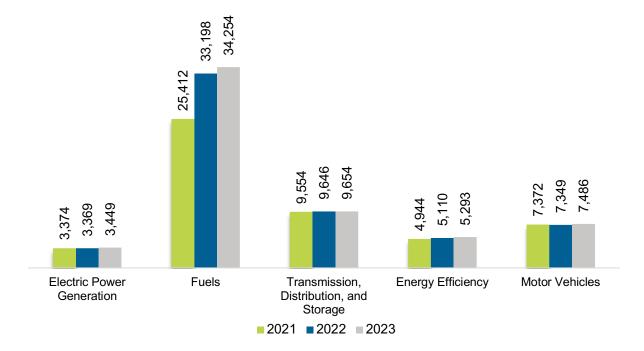
# **North Dakota**

# **ENERGY AND EMPLOYMENT — 2024**

# **OVERVIEW**

North Dakota had 60,137 energy workers statewide in 2023, representing 0.7% of all U.S. energy jobs. Of these energy jobs, 3,449 are in electric power generation; 34,254 in fuels; 9,654 in transmission, distribution, and storage; 5,293 in energy efficiency; and 7,486 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 1,465 jobs, or 2.5% (Figure ND-1). The energy sector in North Dakota represents 13.9% of total state employment.

Figure ND-1. Employment by Major Energy Technology Application

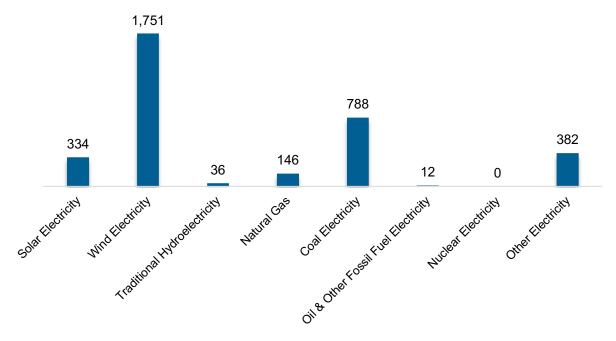


# **Breakdown by Technology Applications**

# **ELECTRIC POWER GENERATION**

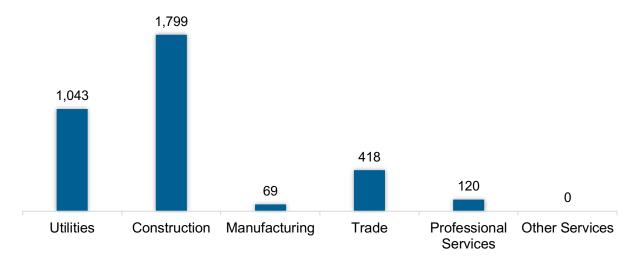
As shown in ND-2, the electric power generation sector employed 3,449 workers in North Dakota, 0.4% of the national electricity total, and added 80 jobs over the past year (2.4%).

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



Construction is the largest industry sector in the electric power generation sector, with 52.2% of jobs. Utilities is the second largest with 30.2% (Figure ND-3).

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



# **FUELS**

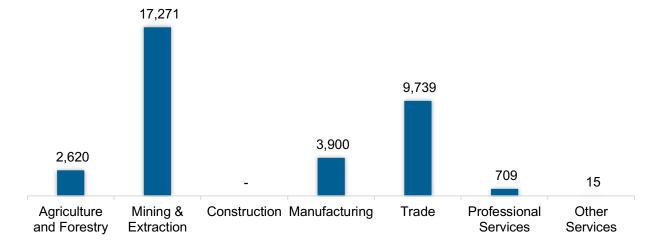
The Fuel sector employed 34,254 workers in North Dakota, 3.3% of the national total in fuels. The sector gained 1,056 jobs and increased 3.2% in the past year (Figure ND-4).

16,929 13,746 1,824 945 716 70 23 Natural Gas Corn Ethanol Other Ethanol Woody Other Fuels Coal Oil & Other Petroleum / Non-woody **Biomass Biomass** 

Figure ND-4. Fuels Employment by Detailed Technology Application

Mining and extraction jobs represented 50.4% of fuel jobs in North Dakota (Figure ND-5).





Distribution

# TRANSMISSION, DISTRIBUTION AND STORAGE

The transmission, distribution, and storage (TDS) sector employed 9,654 workers in North Dakota, 0.7% of the national TDS total (ND-6). The sector gained 8 jobs and increased 0.1% in the past year.

7,028

2,180

Traditional Storage Smart Grid Micro Grid & Other Transmission and

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

Construction is the largest proportion of TDS jobs in North Dakota, accounting for 41.3% of the sector's jobs statewide (Figure ND-7).

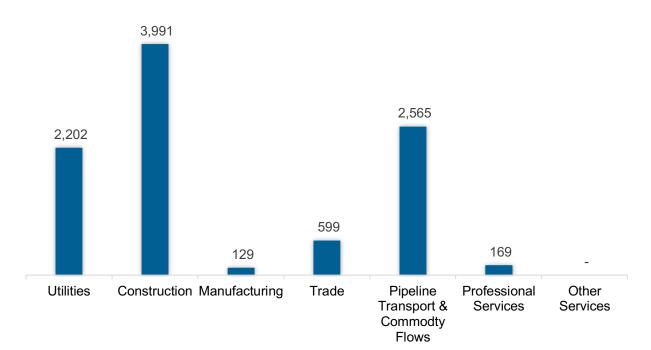
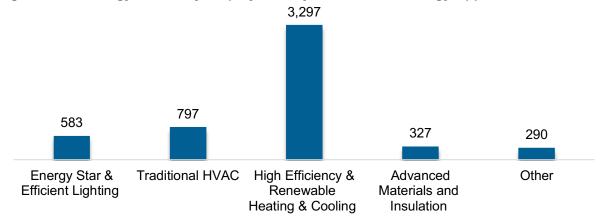


Figure ND-7. Transmission, Distribution and Storage Employment by Industry Sector

# **ENERGY EFFICIENCY**

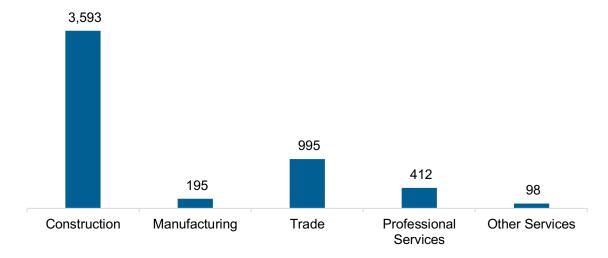
The energy efficiency (EE) sector employed 5,293 workers in North Dakota, 0.2% of the national EE total. The EE sector added 184 jobs and increased 3.6% in the past year (Figure ND-8).

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



Energy efficiency employment is 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 7,486 workers in North Dakota, 0.3% of the national total for the sector. Motor vehicles and component parts added 137 jobs and increased 1.9% in the past year. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure ND-10).

1,304
1,573
1,304
1,201
Manufacturing Trade Professional Services Repair and Maintenance Commodity Flows

Figure ND-10. Motor Vehicle Employment by Industry Sector

### **CLEAN ENERGY JOBS**

In 2023, there were 16,533 jobs in clean energy in North Dakota if traditional transmission and distribution is included and 9,505 jobs if it is not.<sup>35</sup> These increased under either definition, growing 2.1% with traditional transmission and distribution and 3.2% without.

6

<sup>&</sup>lt;sup>35</sup> 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.

# **Workforce Characteristics**

# **EMPLOYER GROWTH**

Employers in North Dakota are similarly optimistic to 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	6.6	6.6
Electric Power Transmission, Distribution, and Storage	6.7	6.7
Energy Efficiency	7.3	8.0
Fuels	5.9	5.1
Motor Vehicles	5.6	4.5

# HIRING DIFFICULTY

Employers in North Dakota reported 40.4% 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	12.8	27.6	5.8	53.8	40.4

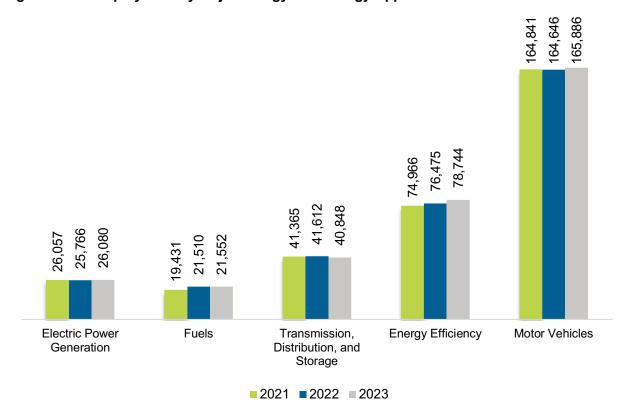
# Ohio

# **ENERGY AND EMPLOYMENT — 2024**

# **OVERVIEW**

Ohio had 333,110 energy workers statewide in 2023, representing 4% of all U.S. energy jobs. Of these energy jobs, 26,080 are in electric power generation; 21,552 in fuels; 40,848 in transmission, distribution, and storage; 78,744 in energy efficiency; and 165,886 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 3,101 jobs, or 0.9% (Figure OH-1). The energy sector in Ohio represents 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 OH-2, the electric power generation sector employed 26,080 workers in Ohio, 2.8% of the national electricity total, and added 314 jobs over the past year (1.2%).

8,736

8,406

3,173

1,575

1,804

1,866

352

168

168

Coal Lectricial Number Lectricial Other Lectricial

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

Construction is the largest industry sector in the electric power generation sector, with 40.3% of jobs. Professional and business services is the second largest with 19.4% (Figure OH-3).

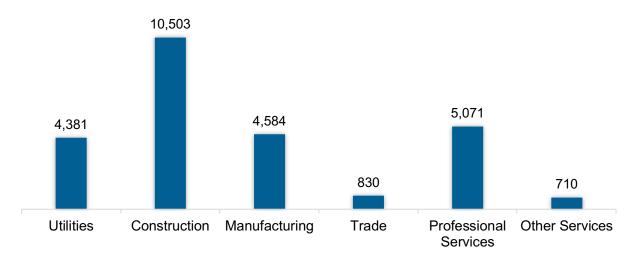
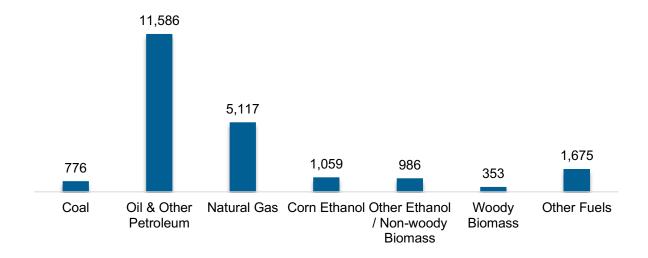


Figure OH-3. Electric Power Generation Employment by Industry Sector

#### **FUELS**

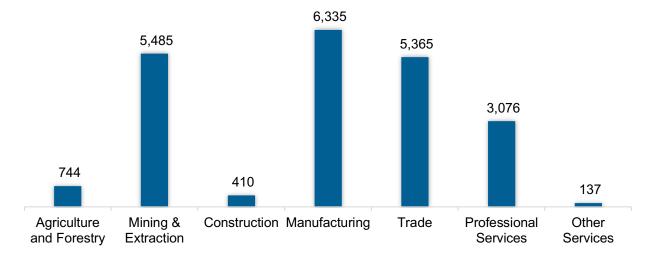
The Fuel sector employed 21,552 workers in Ohio, 2.1% of the national total in fuels. The sector gained 43 jobs and increased 0.2% in the past year (Figure OH-4).

Figure OH-4. Fuels Employment by Detailed Technology Application



Manufacturing jobs represented 29.4% of fuel jobs in Ohio (Figure OH-5).

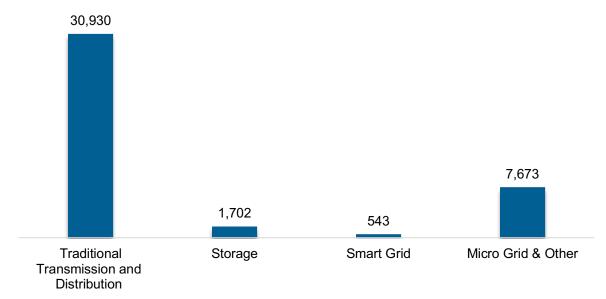
Figure OH-5. Fuels Employment by Industry Sector



#### TRANSMISSION, DISTRIBUTION AND STORAGE

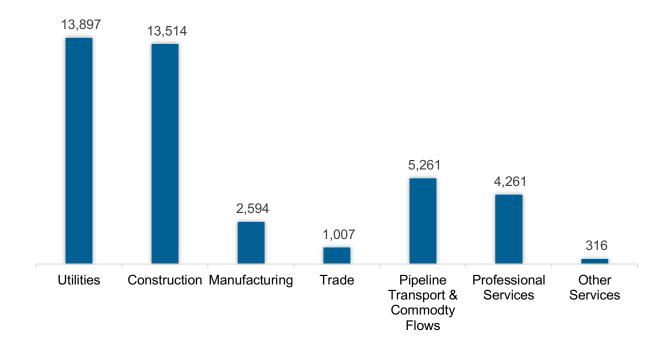
The transmission, distribution, and storage (TDS) sector employed 40,848 workers in Ohio, 2.9% of the national TDS total (OH-6). The sector lost 764 jobs and decreased 1.8% in the past year.

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



Utilities is the largest proportion of TDS jobs in Ohio, accounting for 34.0% of the sector's jobs statewide (Figure OH-7).

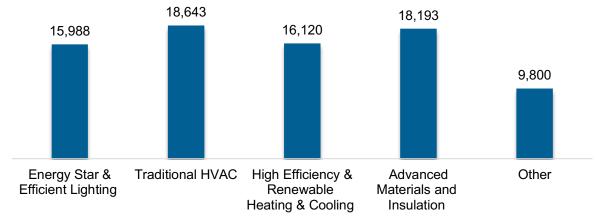
Figure OH-7. Transmission, Distribution and Storage Employment by Industry Sector



#### **ENERGY EFFICIENCY**

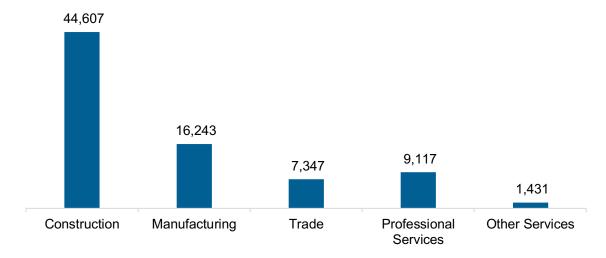
The energy efficiency (EE) sector employed 78,744 workers in Ohio, 3.4% of the national EE total. The EE sector added 2,269 jobs and increased 3.0% in the past year (Figure OH-8).

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



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

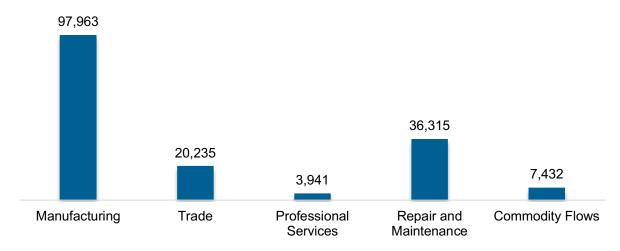
Figure OH-9. Energy Efficiency Employment by Industry Sector



#### MOTOR VEHICLES AND COMPONENT PARTS

The motor vehicles and component sector employed 165,886 workers in Ohio, 6.2% of the national total for the sector. Motor vehicles and component parts added 1,240 jobs and increased 0.8% in the past year. 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 2023, there were 142,429 jobs in clean energy in Ohio if traditional transmission and distribution is included and 111,499 jobs if it is not.<sup>36</sup> These increased under either definition, growing 2.7% with traditional transmission and distribution and 3.8% without.

6

<sup>&</sup>lt;sup>36</sup> 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.

## **Workforce Characteristics**

## **EMPLOYER GROWTH**

Employers in Ohio are more 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	7.4	6.6
Electric Power Transmission, Distribution, and Storage	7.4	6.7
Energy Efficiency	8.1	8.0
Fuels	6.6	5.1
Motor Vehicles	6.3	4.5

#### HIRING DIFFICULTY

Employers in Ohio reported 46.9% 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	20.2	26.6	6.7	46.4	46.9

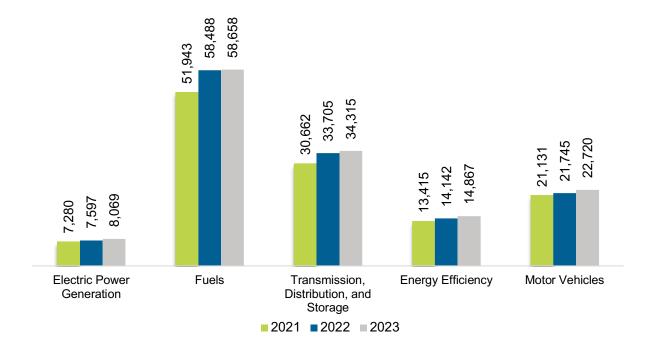
# **Oklahoma**

## **ENERGY AND EMPLOYMENT — 2024**

#### **OVERVIEW**

Oklahoma had 138,629 energy workers statewide in 2023, representing 1.7% of all U.S. energy jobs. Of these energy jobs, 8,069 are in electric power generation; 58,658 in fuels; 34,315 in transmission, distribution, and storage; 14,867 in energy efficiency; and 22,720 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 2,953 jobs, or 2.2% (Figure OK-1). The energy sector in Oklahoma represents 8.6% of total state employment.

Figure OK-1. Employment by Major Energy Technology Application

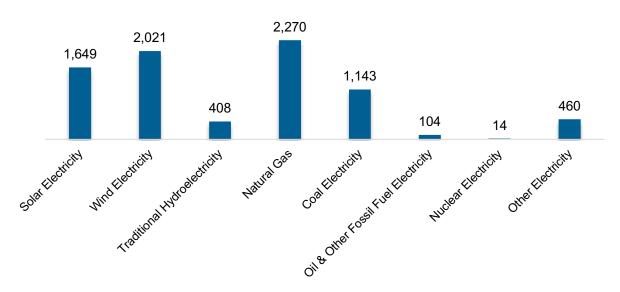


# **Breakdown by Technology Applications**

#### **ELECTRIC POWER GENERATION**

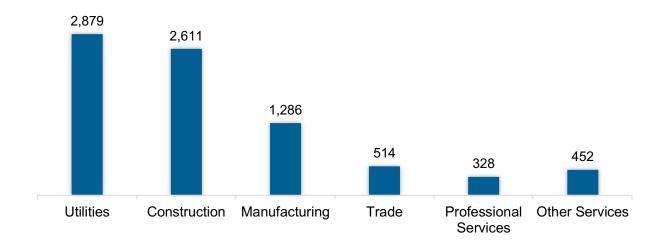
As shown in OK-2, the electric power generation sector employed 8,069 workers in Oklahoma, 0.9% of the national electricity total, and added 472 jobs over the past year (6.2%).

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



Utilities is the largest industry sector in the electric power generation sector, with 35.7% of jobs. Construction is the second largest with 32.4% (Figure OK-3).

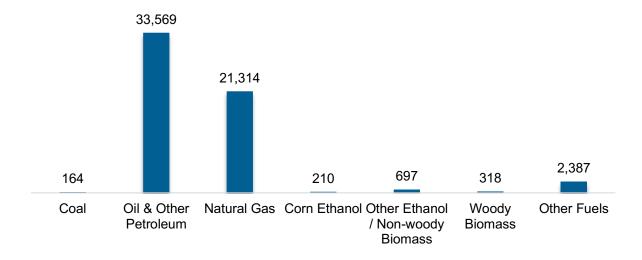
Figure OK-3. Electric Power Generation Employment by Industry Sector



#### **FUELS**

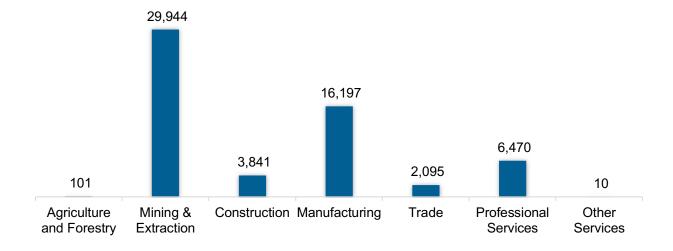
The Fuel sector employed 58,658 workers in Oklahoma, 5.6% of the national total in fuels. The sector gained 171 jobs and increased 0.3% in the past year (Figure OK-4).

Figure OK-4. Fuels Employment by Detailed Technology Application



Mining and extraction jobs represented 51.0% of fuel jobs in Oklahoma (Figure OK-5).

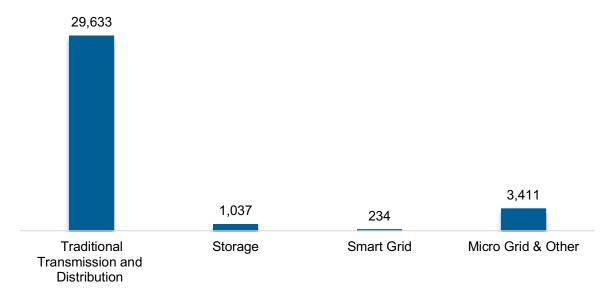
Figure OK-5. Fuels Employment by Industry Sector



#### TRANSMISSION, DISTRIBUTION AND STORAGE

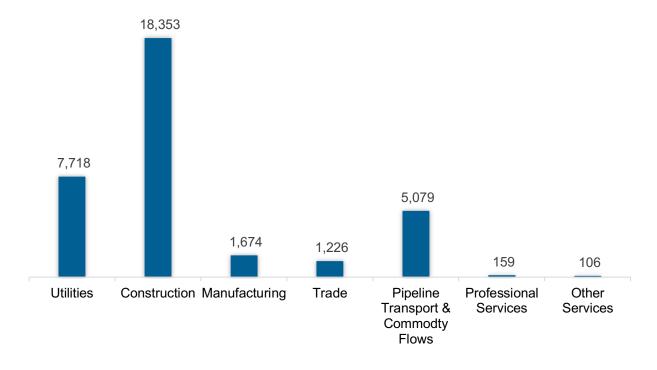
The transmission, distribution, and storage (TDS) sector employed 34,315 workers in Oklahoma, 2.4% of the national TDS total (OK-6). The sector gained 610 jobs and increased 1.8% in the past year.

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



Construction is the largest proportion of TDS jobs in Oklahoma, accounting for 53.5% of the sector's jobs statewide (Figure OK-7).

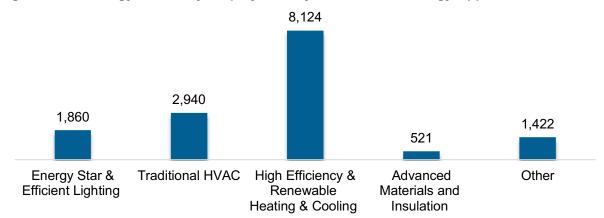
Figure OK-7. Transmission, Distribution and Storage Employment by Industry Sector



#### **ENERGY EFFICIENCY**

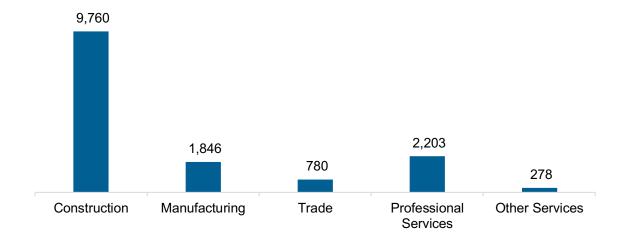
The energy efficiency (EE) sector employed 14,867 workers in Oklahoma, 0.6% of the national EE total. The EE sector added 725 jobs and increased 5.1% in the past year (Figure OK-8).

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



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

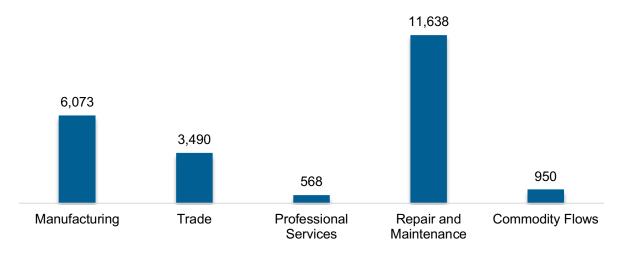
Figure OK-9. Energy Efficiency Employment by Industry Sector



#### MOTOR VEHICLES AND COMPONENT PARTS

The motor vehicles and component sector employed 22,720 workers in Oklahoma, 0.9% of the national total for the sector. Motor vehicles and component parts added 975 jobs and increased 4.5% in the past year. 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 2023, there were 53,290 jobs in clean energy in Oklahoma if traditional transmission and distribution is included and 23,657 jobs if it is not.<sup>37</sup> These increased under either definition, growing 3.9% with traditional transmission and distribution and 5.5% without.

6

<sup>&</sup>lt;sup>37</sup> 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.

## **Workforce Characteristics**

## **EMPLOYER GROWTH**

Employers in Oklahoma are 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	4.4	6.6
Electric Power Transmission, Distribution, and Storage	4.4	6.7
Energy Efficiency	5.1	8.0
Fuels	3.6	5.1
Motor Vehicles	3.3	4.5

#### HIRING DIFFICULTY

Employers in Oklahoma reported 45.9% 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	21.7	24.3	9.7	44.4	45.9

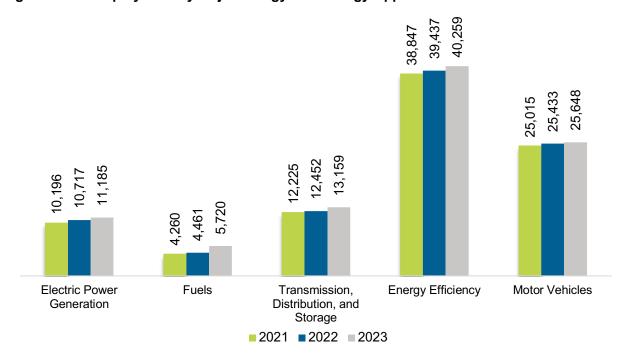
# **Oregon**

## **ENERGY AND EMPLOYMENT — 2024**

#### **OVERVIEW**

Oregon had 95,972 energy workers statewide in 2023, representing 1.1% of all U.S. energy jobs. Of these energy jobs, 11,185 are in electric power generation; 5,720 in fuels; 13,159 in transmission, distribution, and storage; 40,259 in energy efficiency; and 25,648 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 3,472 jobs, or 3.8% (Figure OR-1). The energy sector in Oregon represents 4.9% of total state employment.

Figure OR-1. Employment by Major Energy Technology Application

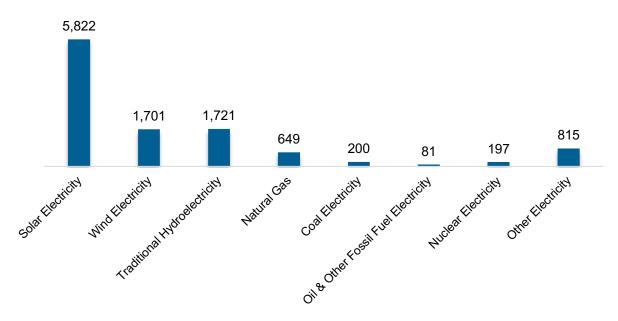


# **Breakdown by Technology Applications**

#### **ELECTRIC POWER GENERATION**

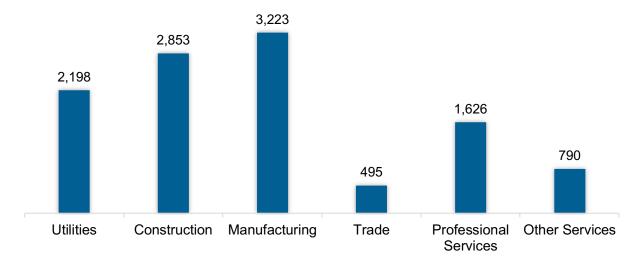
As shown in OR-2, the electric power generation sector employed 11,185 workers in Oregon, 1.2% of the national electricity total, and added 468 jobs over the past year (4.4%).

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



Manufacturing is the largest industry sector in the electric power generation sector, with 28.8% of jobs. Construction is the second largest with 25.5% (Figure OR-3).

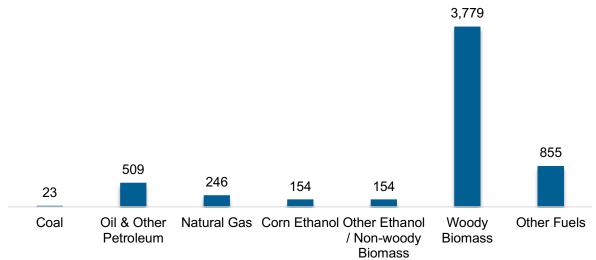
Figure OR-3. Electric Power Generation Employment by Industry Sector



#### **FUELS**

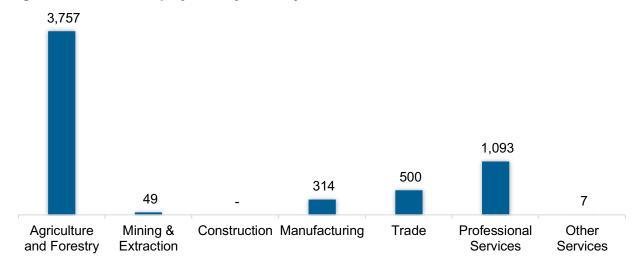
The Fuel sector employed 5,720 workers in Oregon, 0.5% of the national total in fuels. The sector gained 1,260 jobs and increased 28.2% in the past year (Figure OR-4).

Figure OR-4. Fuels Employment by Detailed Technology Application



Agriculture jobs represented 65.7% of fuel jobs in Oregon (Figure OR-5).

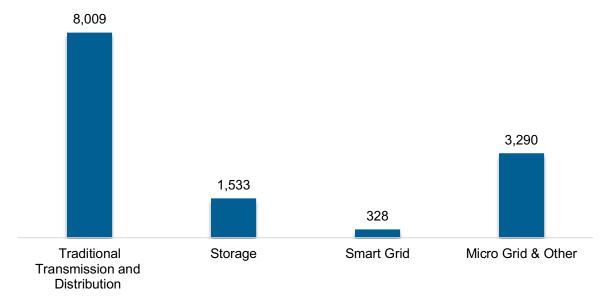
Figure OR-5. Fuels Employment by Industry Sector



#### TRANSMISSION, DISTRIBUTION AND STORAGE

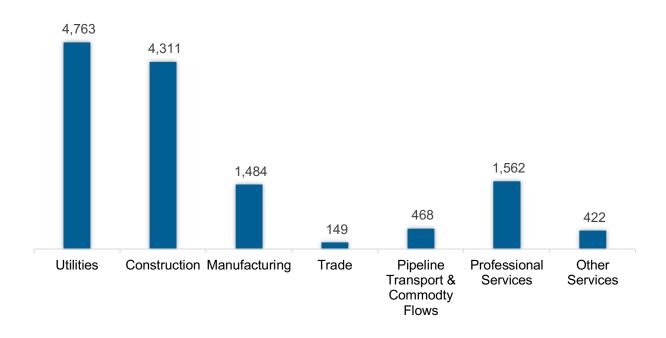
The transmission, distribution, and storage (TDS) sector employed 13,159 workers in Oregon, 0.9% of the national TDS total (OR-6). The sector gained 707 jobs and increased 5.7% in the past year.

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



Utilities is the largest proportion of TDS jobs in Oregon, accounting for 36.2% of the sector's jobs statewide (Figure OR-7).

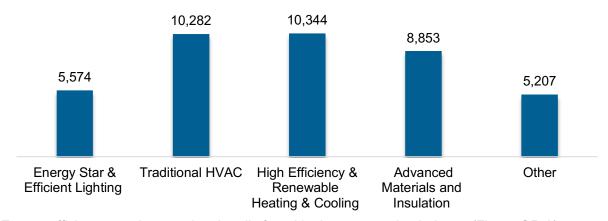
Figure OR-7. Transmission, Distribution and Storage Employment by Industry Sector



#### **ENERGY EFFICIENCY**

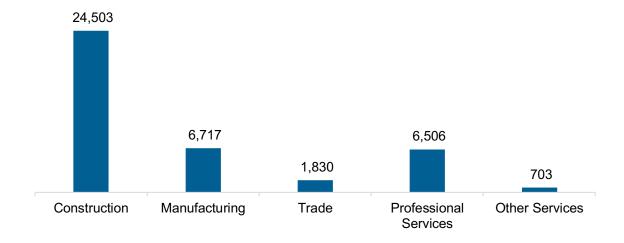
The energy efficiency (EE) sector employed 40,259 workers in Oregon, 1.8% of the national EE total. The EE sector added 822 jobs and increased 2.1% in the past year (Figure OR-8).

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



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

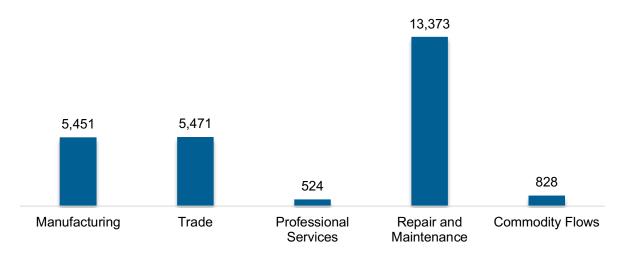
Figure OR-9. Energy Efficiency Employment by Industry Sector



#### MOTOR VEHICLES AND COMPONENT PARTS

The motor vehicles and component sector employed 25,648 workers in Oregon, 1% of the national total for the sector. Motor vehicles and component parts added 215 jobs and increased 0.8% in the past year. 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 2023, there were 67,246 jobs in clean energy in Oregon if traditional transmission and distribution is included and 59,237 jobs if it is not.<sup>38</sup> These increased under either definition, growing 4.9% with traditional transmission and distribution and 4.6% without.

6

<sup>&</sup>lt;sup>38</sup> 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.

## **Workforce Characteristics**

## **EMPLOYER GROWTH**

Employers in Oregon are more 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	7.9	6.6
Electric Power Transmission, Distribution, and Storage	8.0	6.7
Energy Efficiency	8.6	8.0
Fuels	7.1	5.1
Motor Vehicles	6.8	4.5

#### HIRING DIFFICULTY

Employers in Oregon reported 42.1% 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	18.0	24.1	8.4	49.6	42.1

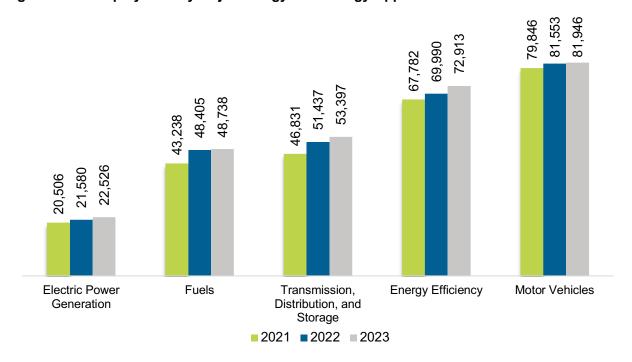
# Pennsylvania

## **ENERGY AND EMPLOYMENT — 2024**

#### **OVERVIEW**

Pennsylvania had 279,521 energy workers statewide in 2023, representing 3.3% of all U.S. energy jobs. Of these energy jobs, 22,526 are in electric power generation; 48,738 in fuels; 53,397 in transmission, distribution, and storage; 72,913 in energy efficiency; and 81,946 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 6,556 jobs, or 2.4% (Figure PA-1). The energy sector in Pennsylvania represents 4.7% of total state employment.

Figure PA-1. Employment by Major Energy Technology Application

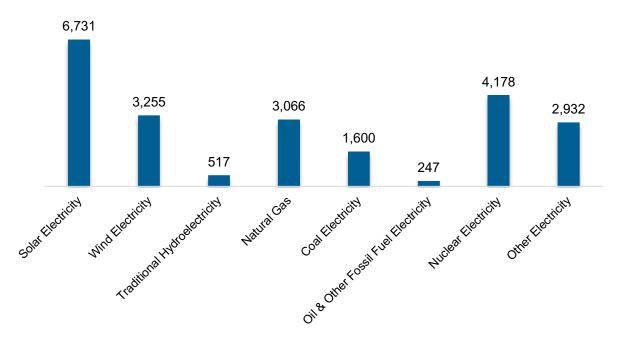


# **Breakdown by Technology Applications**

#### **ELECTRIC POWER GENERATION**

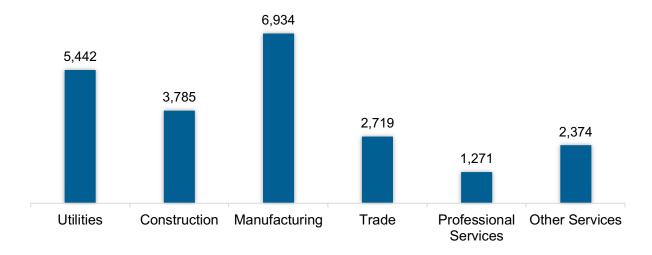
As shown in PA-2, the electric power generation sector employed 22,526 workers in Pennsylvania, 2.5% of the national electricity total, and added 946 jobs over the past year (4.4%).

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



Manufacturing is the largest industry sector in the electric power generation sector, with 30.8% of jobs. Utilities is the second largest with 24.2% (Figure PA-3).

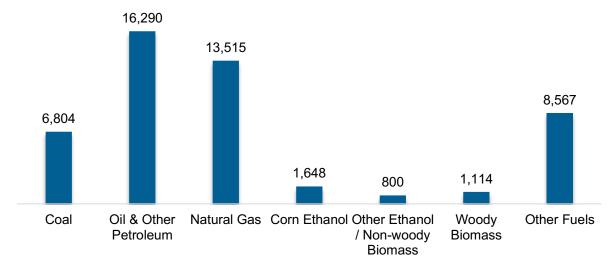
Figure PA-3. Electric Power Generation Employment by Industry Sector



#### **FUELS**

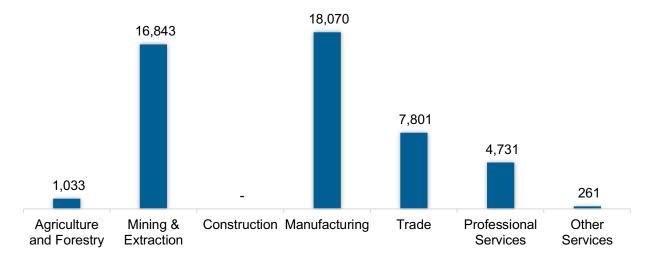
The Fuel sector employed 48,738 workers in Pennsylvania, 4.6% of the national total in fuels. The sector gained 333 jobs and increased 0.7% in the past year (Figure PA-4).

Figure PA-4. Fuels Employment by Detailed Technology Application



Manufacturing jobs represented 37.1% 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 53,397 workers in Pennsylvania, 3.7% of the national TDS total (PA-6). The sector gained 1,960 jobs and increased 3.8% in the past year.

41,741

8,886

2,188

Traditional Storage Smart Grid Micro Grid & Other Transmission and Distribution

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

Construction is the largest proportion of TDS jobs in Pennsylvania, accounting for 44.6% of the sector's jobs statewide (Figure PA-7).

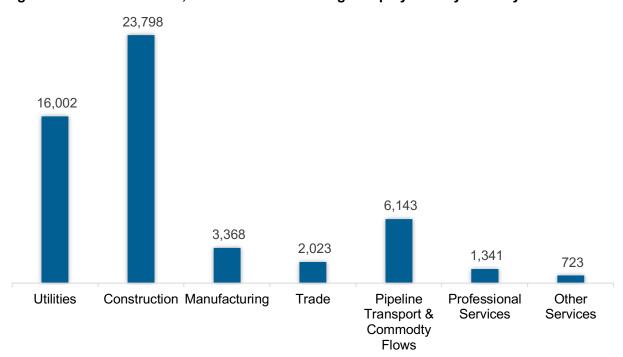
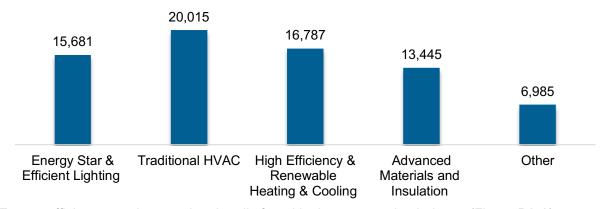


Figure PA-7. Transmission, Distribution and Storage Employment by Industry Sector

#### **ENERGY EFFICIENCY**

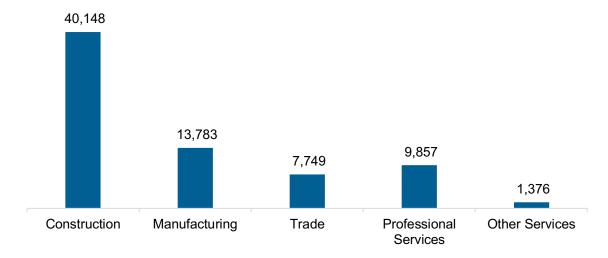
The energy efficiency (EE) sector employed 72,913 workers in Pennsylvania, 3.2% of the national EE total. The EE sector added 2,923 jobs and increased 4.2% in the past year (Figure PA-8).

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



Energy efficiency employment is 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 81,946 workers in Pennsylvania, 3.1% of the national total for the sector. Motor vehicles and component parts added 393 jobs and increased 0.5% in the past year. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure PA-10).

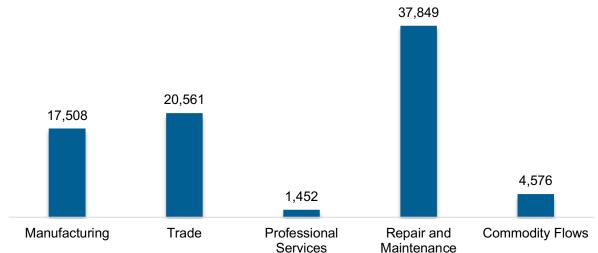


Figure PA-10. Motor Vehicle Employment by Industry Sector

#### **CLEAN ENERGY JOBS**

In 2023, there were 145,153 jobs in clean energy in Pennsylvania if traditional transmission and distribution is included and 103,412 jobs if it is not.<sup>39</sup> These increased under either definition, growing 4.9% with traditional transmission and distribution and 4.1% without.

6

<sup>&</sup>lt;sup>39</sup> 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.

## **Workforce Characteristics**

## **EMPLOYER GROWTH**

Employers in Pennsylvania are less 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	4.5	6.6
Electric Power Transmission, Distribution, and Storage	4.5	6.7
Energy Efficiency	5.2	8.0
Fuels	3.7	5.1
Motor Vehicles	3.4	4.5

#### HIRING DIFFICULTY

Employers in Pennsylvania reported 43.0% 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	20.3	22.7	7.4	49.6	43.0

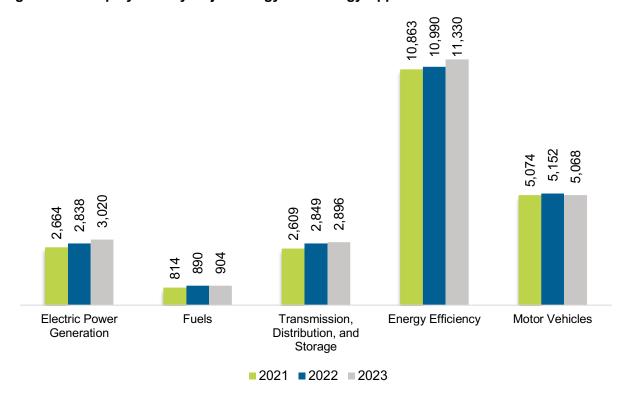
# **Rhode Island**

## **ENERGY AND EMPLOYMENT — 2024**

#### **OVERVIEW**

Rhode Island had 23,217 energy workers statewide in 2023, representing 0.3% of all U.S. energy jobs. Of these energy jobs, 3,020 are in electric power generation; 904 in fuels; 2,896 in transmission, distribution, and storage; 11,330 in energy efficiency; and 5,068 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 499 jobs, or 2.2% (Figure RI-1). The energy sector in Rhode Island represents 4.7% of total state employment.

Figure RI-1. Employment by Major Energy Technology Application

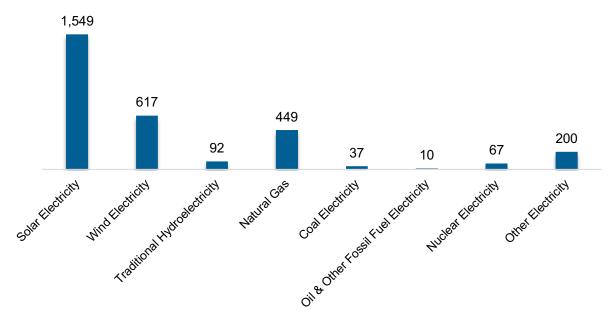


## **Breakdown by Technology Applications**

#### **ELECTRIC POWER GENERATION**

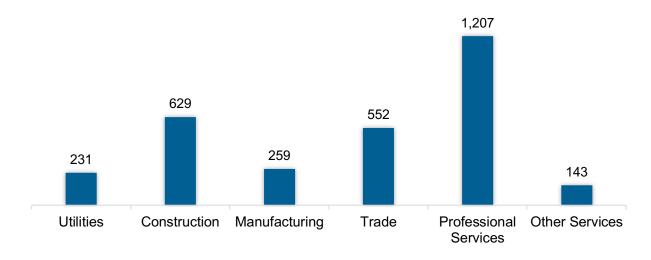
As shown in RI-2, the electric power generation sector employed 3,020 workers in Rhode Island, 0.3% of the national electricity total, and added 182 jobs over the past year (6.4%).

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



Professional and business services is the largest industry sector in the electric power generation sector, with 40.0% of jobs. Construction is the second largest with 20.8% (Figure RI-3).

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



#### **FUELS**

Coal

The Fuel sector employed 904 workers in Rhode Island, 0.1% of the national total in fuels. The sector gained 14 jobs and increased 1.6% in the past year (Figure RI-4).

419 228 125 83 9

Natural Gas Corn Ethanol Other Ethanol

/ Non-woody

**Biomass** 

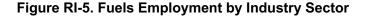
Woody

**Biomass** 

Other Fuels

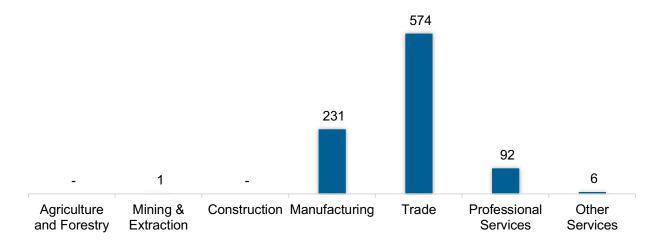
Figure RI-4. Fuels Employment by Detailed Technology Application

Wholesale trade jobs represented 63.5% of fuel jobs in Rhode Island (Figure RI-5).



Oil & Other

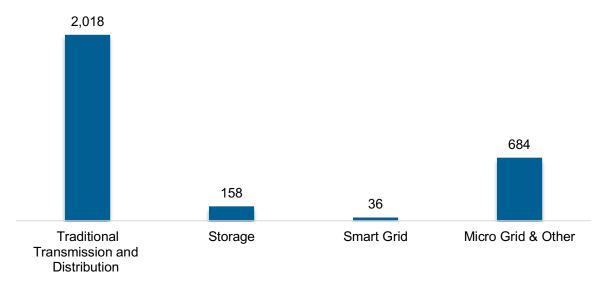
Petroleum



#### TRANSMISSION, DISTRIBUTION AND STORAGE

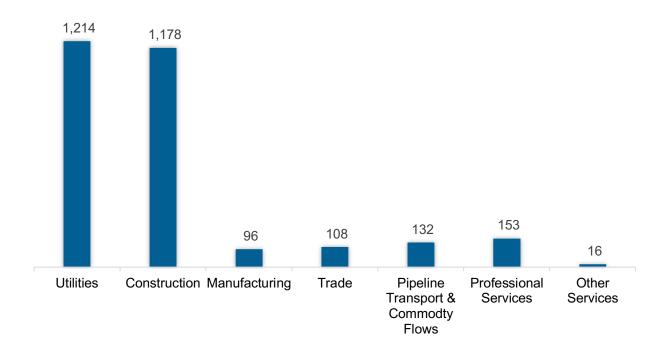
The transmission, distribution, and storage (TDS) sector employed 2,896 workers in Rhode Island, 0.2% of the national TDS total (RI-6). The sector gained 47 jobs and increased 1.6% in the past year.

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



Utilities is the largest proportion of TDS jobs in Rhode Island, accounting for 41.9% of the sector's jobs statewide (Figure RI-7).

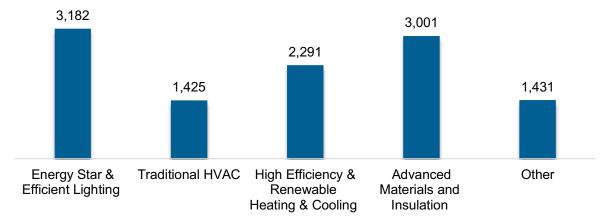
Figure RI-7. Transmission, Distribution and Storage Employment by Industry Sector



#### **ENERGY EFFICIENCY**

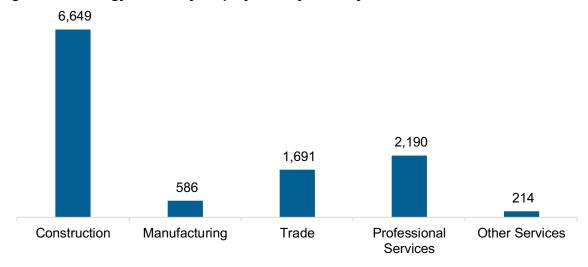
The energy efficiency (EE) sector employed 11,330 workers in Rhode Island, 0.5% of the national EE total. The EE sector added 339 jobs and increased 3.1% in the past year (Figure RI-8).

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



Energy efficiency employment is primarily found in the construction industry (Figure RI-9).

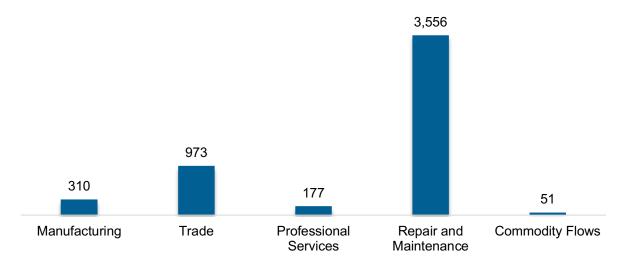
Figure RI-9. Energy Efficiency Employment by Industry Sector



#### MOTOR VEHICLES AND COMPONENT PARTS

The motor vehicles and component sector employed 5,068 workers in Rhode Island, 0.2% of the national total for the sector. Motor vehicles and component parts lost 84 jobs and decreased 1.6% in the past year. 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 2023, there were 16,950 jobs in clean energy in Rhode Island if traditional transmission and distribution is included and 14,933 jobs if it is not.<sup>40</sup> These increased under either definition, growing 2.9% with traditional transmission and distribution and 3.1% without.

6

<sup>&</sup>lt;sup>40</sup> 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.

## **Workforce Characteristics**

## **EMPLOYER GROWTH**

Employers in Rhode Island are more 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	7.3	6.6
Electric Power Transmission, Distribution, and Storage	7.3	6.7
Energy Efficiency	8.0	8.0
Fuels	6.5	5.1
Motor Vehicles	6.2	4.5

#### HIRING DIFFICULTY

Employers in Rhode Island reported 51.5% 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	12.8	38.7	11.3	37.2	51.5

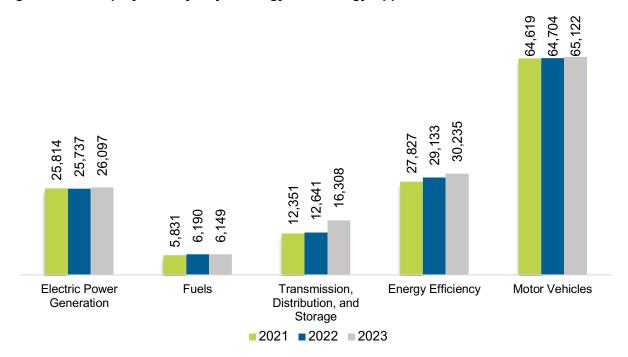
# **South Carolina**

## **ENERGY AND EMPLOYMENT — 2024**

#### **OVERVIEW**

South Carolina had 143,911 energy workers statewide in 2023, representing 1.7% of all U.S. energy jobs. Of these energy jobs, 26,097 are in electric power generation; 6,149 in fuels; 16,308 in transmission, distribution, and storage; 30,235 in energy efficiency; and 65,122 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 5,506 jobs, or 4% (Figure SC-1). The energy sector in South Carolina represents 6.7% of total state employment.

Figure SC-1. Employment by Major Energy Technology Application



# **Breakdown by Technology Applications**

#### **ELECTRIC POWER GENERATION**

As shown in SC-2, the electric power generation sector employed 26,097 workers in South Carolina, 2.8% of the national electricity total, and added 360 jobs over the past year (1.4%).

4,112
4,402
3,134
2,367
2,648

1,801
53

Treditional Hydrophedricity

Natural Coss
Cond Electricity

Natural Coss
Cond Elect

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

Utilities is the largest industry sector in the electric power generation sector, with 27.4% of jobs. Construction is the second largest with 23.7% (Figure SC-3).

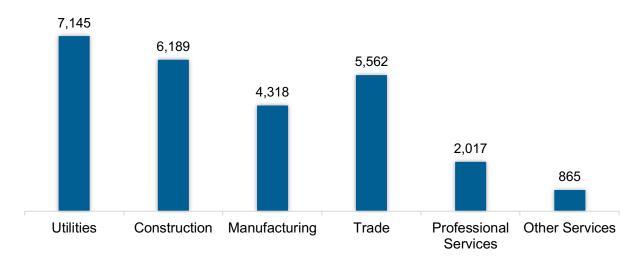


Figure SC-3. Electric Power Generation Employment by Industry Sector

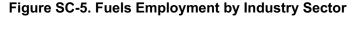
#### **FUELS**

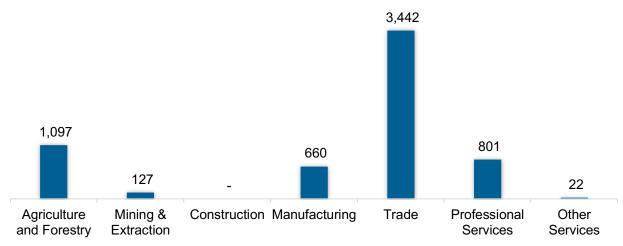
The Fuel sector employed 6,149 workers in South Carolina, 0.6% of the national total in fuels. The sector lost 42 jobs and decreased 0.7% in the past year (Figure SC-4).

2,309 1,210 1,112 644 447 374 52 Coal Oil & Other Natural Gas Corn Ethanol Other Ethanol Other Fuels Woody Petroleum / Non-woody **Biomass Biomass** 

Figure SC-4. Fuels Employment by Detailed Technology Application

Wholesale trade jobs represented 56.0% of fuel jobs in South Carolina (Figure SC-5).





### TRANSMISSION, DISTRIBUTION AND STORAGE

The transmission, distribution, and storage (TDS) sector employed 16,308 workers in South Carolina, 1.1% of the national TDS total (SC-6). The sector gained 3,667 jobs and increased 29.0% in the past year.

12,607

1,038

2,161

1,038

Traditional Storage Smart Grid Micro Grid & Other Transmission and Distribution

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

Construction is the largest proportion of TDS jobs in South Carolina, accounting for 46.1% of the sector's jobs statewide (Figure SC-7).

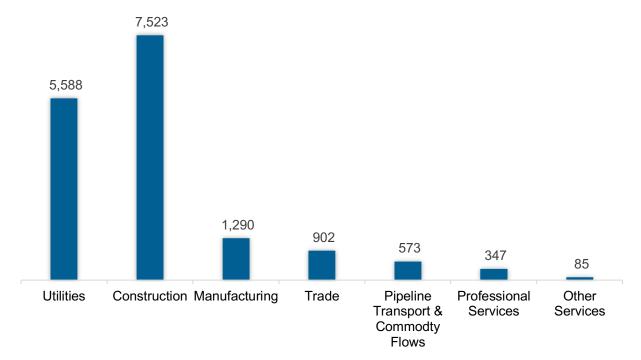
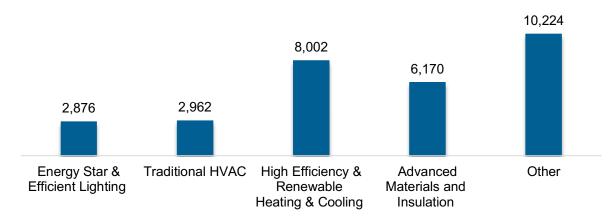


Figure SC-7. Transmission, Distribution and Storage Employment by Industry Sector

### **ENERGY EFFICIENCY**

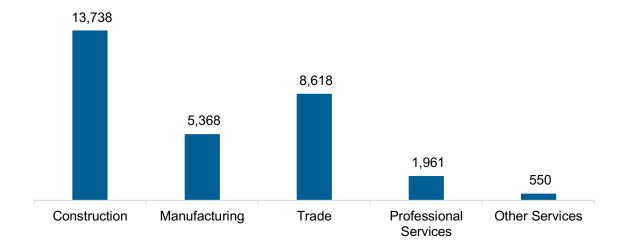
The energy efficiency (EE) sector employed 30,235 workers in South Carolina, 1.3% of the national EE total. The EE sector added 1,102 jobs and increased 3.8% in the past year (Figure SC-8).

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



Energy efficiency employment is 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 65,122 workers in South Carolina, 2.4% of the national total for the sector. Motor vehicles and component parts added 418 jobs and increased 0.6% in the past year. Manufacturing is the largest proportion of motor vehicle jobs (Figure SC-10).

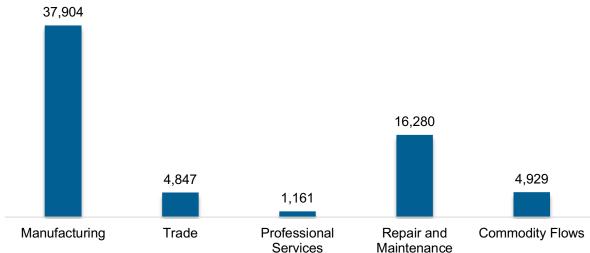


Figure SC-10. Motor Vehicle Employment by Industry Sector

### **CLEAN ENERGY JOBS**

In 2023, there were 70,147 jobs in clean energy in South Carolina if traditional transmission and distribution is included and 57,539 jobs if it is not.<sup>41</sup> These increased under either definition, growing 7.3% with traditional transmission and distribution and 2.4% without.

<sup>&</sup>lt;sup>41</sup> 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.

## **Workforce Characteristics**

## **EMPLOYER GROWTH**

Employers in South Carolina are similarly optimistic to 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	6.6	6.6
Electric Power Transmission, Distribution, and Storage	6.7	6.7
Energy Efficiency	7.3	8.0
Fuels	5.9	5.1
Motor Vehicles	5.6	4.5

### HIRING DIFFICULTY

Employers in South Carolina reported 45.4% 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	24.3	21.0	6.9	47.7	45.4

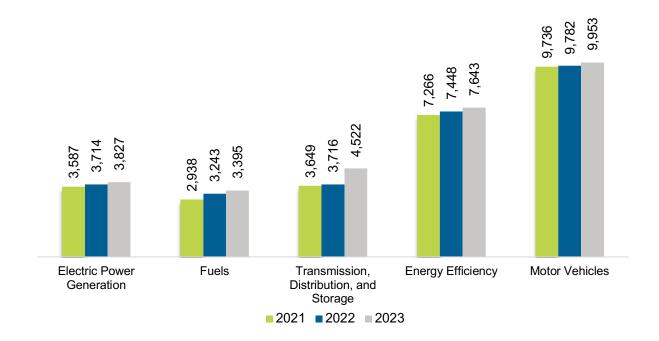
# **South Dakota**

## **ENERGY AND EMPLOYMENT — 2024**

### **OVERVIEW**

South Dakota had 29,339 energy workers statewide in 2023, representing 0.4% of all U.S. energy jobs. Of these energy jobs, 3,827 are in electric power generation; 3,395 in fuels; 4,522 in transmission, distribution, and storage; 7,643 in energy efficiency; and 9,953 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 1,437 jobs, or 5.1% (Figure SD-1). The energy sector in South Dakota represents 6.6% of total state employment.

Figure SD-1. Employment by Major Energy Technology Application



# **Breakdown by Technology Applications**

### **ELECTRIC POWER GENERATION**

As shown in SD-2, the electric power generation sector employed 3,827 workers in South Dakota, 0.4% of the national electricity total, and added 113 jobs over the past year (3.0%).

723

58

218

855

Traditional Hutroelectricity

Fraditional Hutroelectricity

Advised Electricity

Fraditional Hutroelectricity

Advised Fractile Research Francisch Code Electricity

Fraditional Hutroelectricity

Fr

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

Construction is the largest industry sector in the electric power generation sector, with 59.8% of jobs. Wholesale trade is the second largest with 10.5% (Figure SD-3).

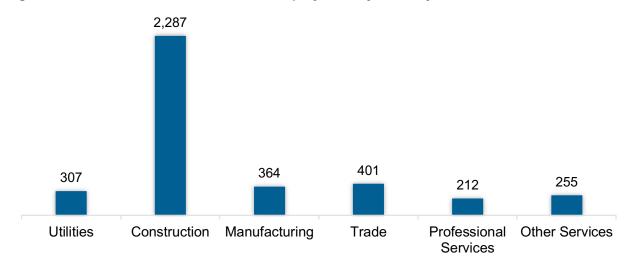


Figure SD-3. Electric Power Generation Employment by Industry Sector

### **FUELS**

5

Coal

The Fuel sector employed 3,395 workers in South Dakota, 0.3% of the national total in fuels. The sector gained 152 jobs and increased 4.7% in the past year (Figure SD-4).

1,688

Natural Gas Corn Ethanol Other Ethanol

/ Non-woody

**Biomass** 

Woody

**Biomass** 

Other Fuels

Figure SD-4. Fuels Employment by Detailed Technology Application

Wholesale trade jobs represented 54.2% of fuel jobs in South Dakota (Figure SD-5).

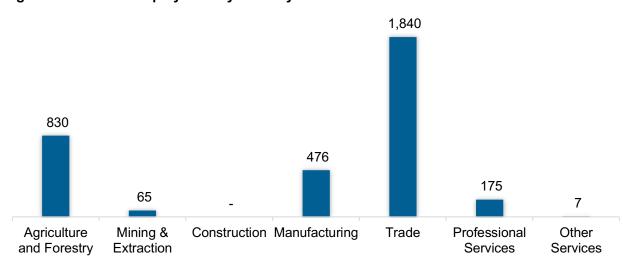


Figure SD-5. Fuels Employment by Industry Sector

Oil & Other

Petroleum

Traditional

Transmission and Distribution

### TRANSMISSION, DISTRIBUTION AND STORAGE

The transmission, distribution, and storage (TDS) sector employed 4,522 workers in South Dakota, 0.3% of the national TDS total (SD-6). The sector gained 807 jobs and increased 21.7% in the past year.

3,447

61

Smart Grid

Micro Grid & Other

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

Construction is the largest proportion of TDS jobs in South Dakota, accounting for 38.5% of the sector's jobs statewide (Figure SD-7).

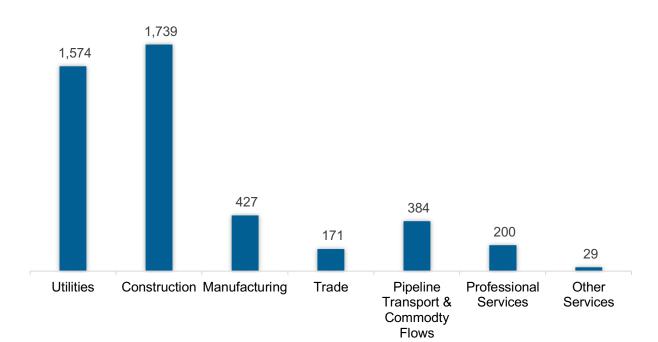


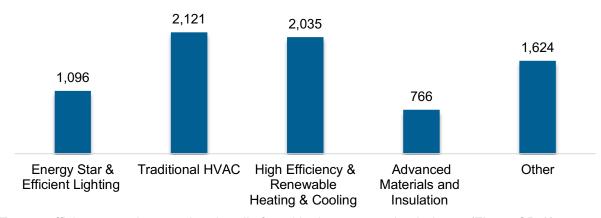
Figure SD-7. Transmission, Distribution and Storage Employment by Industry Sector

Storage

### **ENERGY EFFICIENCY**

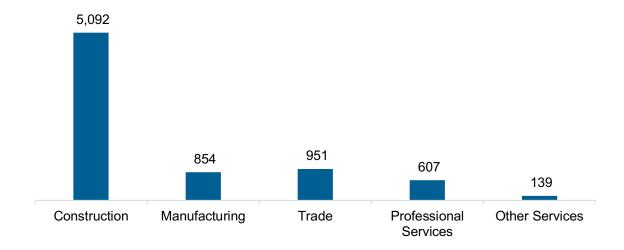
The energy efficiency (EE) sector employed 7,643 workers in South Dakota, 0.3% of the national EE total. The EE sector added 195 jobs and increased 2.6% in the past year (Figure SD-8).

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



Energy efficiency employment is 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 9,953 workers in South Dakota, 0.4% of the national total for the sector. Motor vehicles and component parts added 170 jobs and increased 1.7% in the past year. Manufacturing is the largest proportion of motor vehicle jobs (Figure SD-10).

3,720

1,891

Manufacturing Trade Professional Services Repair and Maintenance Commodity Flows

Figure SD-10. Motor Vehicle Employment by Industry Sector

### **CLEAN ENERGY JOBS**

In 2023, there were 17,014 jobs in clean energy in South Dakota if traditional transmission and distribution is included and 13,567 jobs if it is not.<sup>42</sup> These increased under either definition, growing 8.4% with traditional transmission and distribution and 3.6% without.

6

<sup>&</sup>lt;sup>42</sup> 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.

# **Workforce Characteristics**

## **EMPLOYER GROWTH**

Employers in South Dakota are less 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	4.2	6.6
Electric Power Transmission, Distribution, and Storage	4.3	6.7
Energy Efficiency	4.9	8.0
Fuels	3.5	5.1
Motor Vehicles	3.2	4.5

### HIRING DIFFICULTY

Employers in South Dakota reported 36.4% 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	15.2	21.2	12.9	50.7	36.4

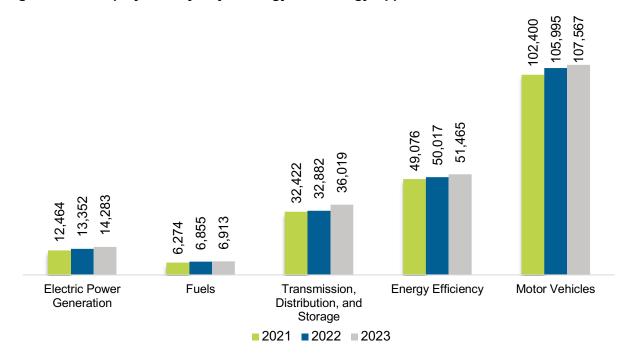
## **Tennessee**

## **ENERGY AND EMPLOYMENT — 2024**

### **OVERVIEW**

Tennessee had 216,246 energy workers statewide in 2023, representing 2.6% of all U.S. energy jobs. Of these energy jobs, 14,283 are in electric power generation; 6,913 in fuels; 36,019 in transmission, distribution, and storage; 51,465 in energy efficiency; and 107,567 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 7,144 jobs, or 3.4% (Figure TN-1). The energy sector in Tennessee represents 7.1% of total state employment.

Figure TN-1. Employment by Major Energy Technology Application



# **Breakdown by Technology Applications**

### **ELECTRIC POWER GENERATION**

As shown in TN-2, the electric power generation sector employed 14,283 workers in Tennessee, 1.6% of the national electricity total, and added 931 jobs over the past year (7.0%).

5,446

5,631

770

761

490

74

94

Cod Electricial Matural Coss Cod Electricial Matural Cod Electric

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

Utilities is the largest industry sector in the electric power generation sector, with 42.9% of jobs. Professional and business services is the second largest with 22.1% (Figure TN-3).

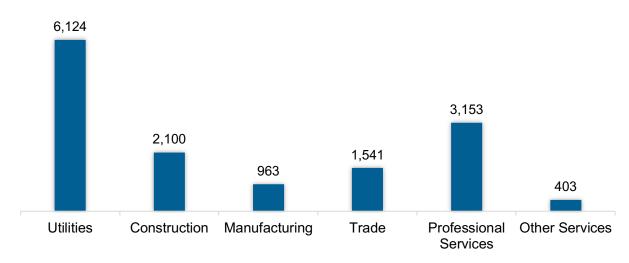


Figure TN-3. Electric Power Generation Employment by Industry Sector

### **FUELS**

The Fuel sector employed 6,913 workers in Tennessee, 0.7% of the national total in fuels. The sector gained 57 jobs and increased 0.8% in the past year (Figure TN-4).

3,655 984 675 672 615 186 127 Oil & Other Natural Gas Corn Ethanol Other Ethanol Other Fuels Coal Woody Petroleum / Non-woody **Biomass Biomass** 

Figure TN-4. Fuels Employment by Detailed Technology Application

Professional and business services jobs represented 52.5% of fuel jobs in Tennessee (Figure TN-5).



Figure TN-5. Fuels Employment by Industry Sector

### TRANSMISSION, DISTRIBUTION AND STORAGE

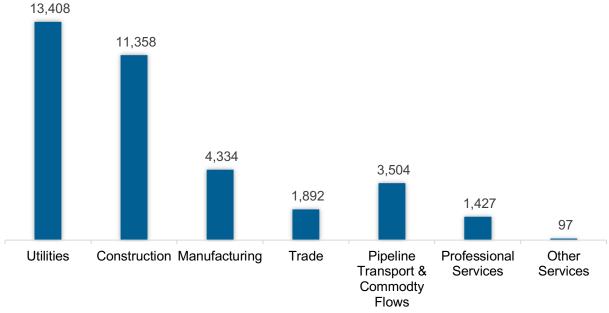
The transmission, distribution, and storage (TDS) sector employed 36,019 workers in Tennessee, 2.5% of the national TDS total (TN-6). The sector gained 3,136 jobs and increased 9.5% in the past year.

Traditional Storage Smart Grid Micro Grid & Other Transmission and Distribution

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

Utilities is the largest proportion of TDS jobs in Tennessee, accounting for 37.2% of the sector's jobs statewide (Figure TN-7).

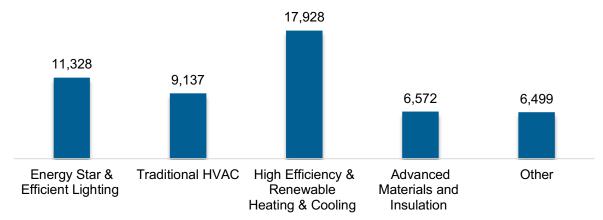
Figure TN-7. Transmission, Distribution and Storage Employment by Industry Sector



### **ENERGY EFFICIENCY**

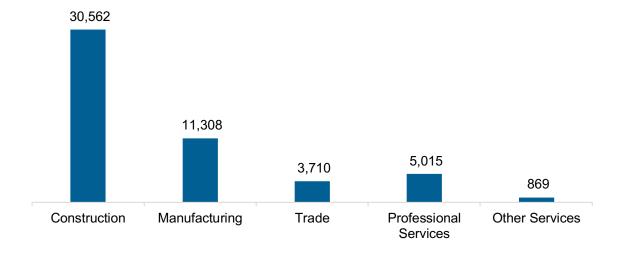
The energy efficiency (EE) sector employed 51,465 workers in Tennessee, 2.2% of the national EE total. The EE sector added 1,447 jobs and increased 2.9% in the past year (Figure TN-8).

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



Energy efficiency employment is primarily found in the construction industry (Figure TN-9).

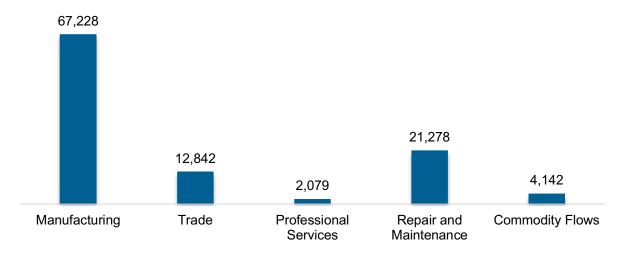
Figure TN-9. Energy Efficiency Employment by Industry Sector



### MOTOR VEHICLES AND COMPONENT PARTS

The motor vehicles and component sector employed 107,567 workers in Tennessee, 4% of the national total for the sector. Motor vehicles and component parts added 1,572 jobs and increased 1.5% in the past year. 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 2023, there were 106,203 jobs in clean energy in Tennessee if traditional transmission and distribution is included and 84,126 jobs if it is not.<sup>43</sup> These increased under either definition, growing 6.3% with traditional transmission and distribution and 4.3% without.

6

<sup>&</sup>lt;sup>43</sup> 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.

# **Workforce Characteristics**

## **EMPLOYER GROWTH**

Employers in Tennessee are similarly optimistic to 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	6.6	6.6
Electric Power Transmission, Distribution, and Storage	6.6	6.7
Energy Efficiency	7.3	8.0
Fuels	5.8	5.1
Motor Vehicles	5.5	4.5

### HIRING DIFFICULTY

Employers in Tennessee reported 41.4% 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	17.9	23.5	8.8	49.8	41.4

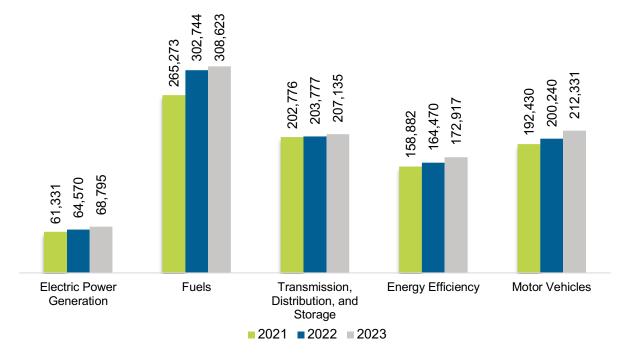
# **Texas**

## **ENERGY AND EMPLOYMENT — 2024**

### **OVERVIEW**

Texas had 969,801 energy workers statewide in 2023, representing 11.6% of all U.S. energy jobs. Of these energy jobs, 68,795 are in electric power generation; 308,623 in fuels; 207,135 in transmission, distribution, and storage; 172,917 in energy efficiency; and 212,331 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 33,999 jobs, or 3.6% (Figure TX-1). The energy sector in Texas represents 7.7% of total state employment.

Figure TX-1. Employment by Major Energy Technology Application



# **Breakdown by Technology Applications**

### **ELECTRIC POWER GENERATION**

As shown in TX-2, the electric power generation sector employed 68,795 workers in Texas, 7.5% of the national electricity total, and added 4,225 jobs over the past year (6.5%).

27,381

16,684

9,126

2,460

4,201

657

3,116

5,169

657

Traditional Hydrodectricity

Traditional H

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

Construction is the largest industry sector in the electric power generation sector, with 29.8% of jobs. Utilities is the second largest with 25.5% (Figure TX-3).

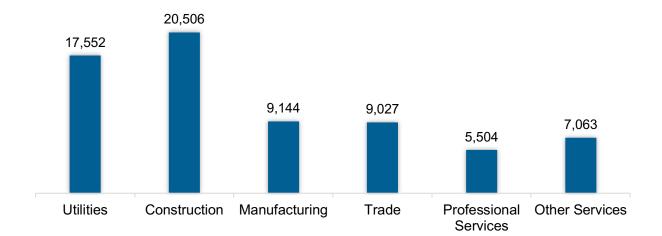


Figure TX-3. Electric Power Generation Employment by Industry Sector

### **FUELS**

The Fuel sector employed 308,623 workers in Texas, 29.4% of the national total in fuels. The sector gained 5,878 jobs and increased 1.9% in the past year (Figure TX-4).

185,624 102,225 2,453 2,728 1,419 845 Coal Oil & Other Natural Gas Corn Ethanol Other Ethanol Woody Other Fuels

/ Non-woody

**Biomass** 

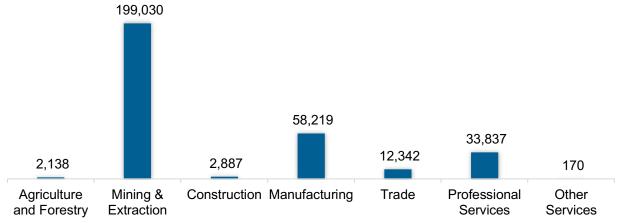
**Biomass** 

Figure TX-4. Fuels Employment by Detailed Technology Application

Mining and extraction jobs represented 64.5% of fuel jobs in Texas (Figure TX-5).



Petroleum



Distribution

### TRANSMISSION, DISTRIBUTION AND STORAGE

The transmission, distribution, and storage (TDS) sector employed 207,135 workers in Texas, 14.5% of the national TDS total (TX-6). The sector gained 3,359 jobs and increased 1.6% in the past year.

148,039

8,966

1,873

Traditional Storage Smart Grid Micro Grid & Other Transmission and

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

Construction is the largest proportion of TDS jobs in Texas, accounting for 42.9% of the sector's jobs statewide (Figure TX-7).

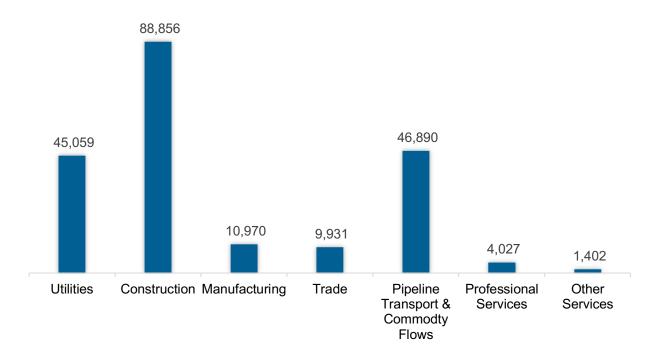
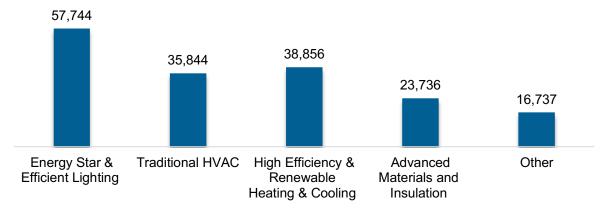


Figure TX-7. Transmission, Distribution and Storage Employment by Industry Sector

### **ENERGY EFFICIENCY**

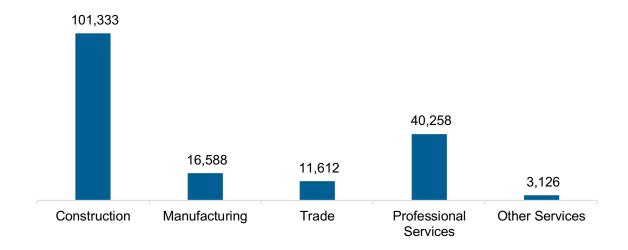
The energy efficiency (EE) sector employed 172,917 workers in Texas, 7.6% of the national EE total. The EE sector added 8,447 jobs and increased 5.1% in the past year (Figure TX-8).

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



Energy efficiency employment is primarily found in the construction industry (Figure TX-9).

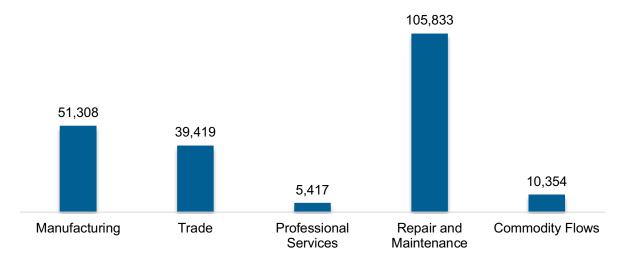
Figure TX-9. Energy Efficiency Employment by Industry Sector



### MOTOR VEHICLES AND COMPONENT PARTS

The motor vehicles and component sector employed 212,331 workers in Texas, 8% of the national total for the sector. Motor vehicles and component parts added 12,090 jobs and increased 6% in the past year. 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 2023, there were 409,973 jobs in clean energy in Texas if traditional transmission and distribution is included and 261,934 jobs if it is not.<sup>44</sup> These increased under either definition, growing 4.1% with traditional transmission and distribution and 6% without.

6

<sup>&</sup>lt;sup>44</sup> 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.

# **Workforce Characteristics**

## **EMPLOYER GROWTH**

Employers in Texas are similarly optimistic to 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	6.6	6.6
Electric Power Transmission, Distribution, and Storage	6.7	6.7
Energy Efficiency	7.3	8.0
Fuels	5.9	5.1
Motor Vehicles	5.6	4.5

### HIRING DIFFICULTY

Employers in Texas reported 45.4% 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	18.5	27.0	11.6	43.0	45.4

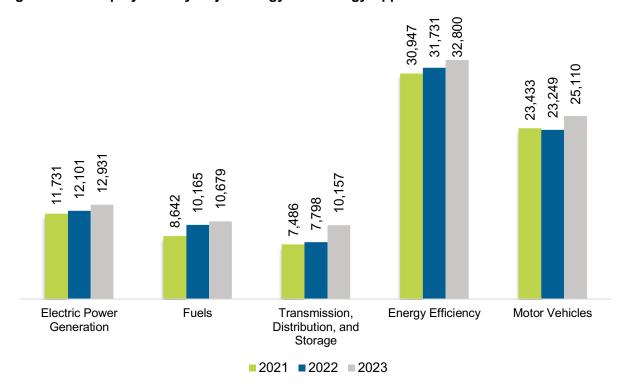
# Utah

## **ENERGY AND EMPLOYMENT — 2024**

### **OVERVIEW**

Utah had 91,676 energy workers statewide in 2023, representing 1.1% of all U.S. energy jobs. Of these energy jobs, 12,931 are in electric power generation; 10,679 in fuels; 10,157 in transmission, distribution, and storage; 32,800 in energy efficiency; and 25,110 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 6,631 jobs, or 7.8% (Figure UT-1). The energy sector in Utah represents 6% of total state employment.

Figure UT-1. Employment by Major Energy Technology Application

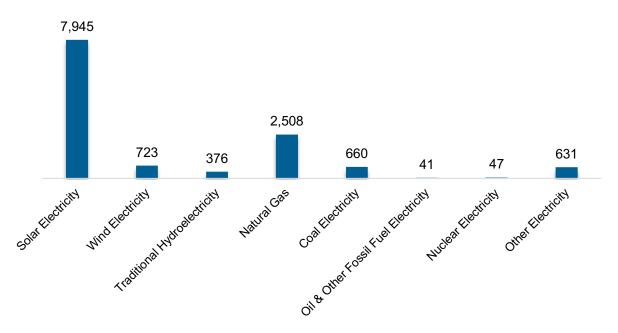


# **Breakdown by Technology Applications**

### **ELECTRIC POWER GENERATION**

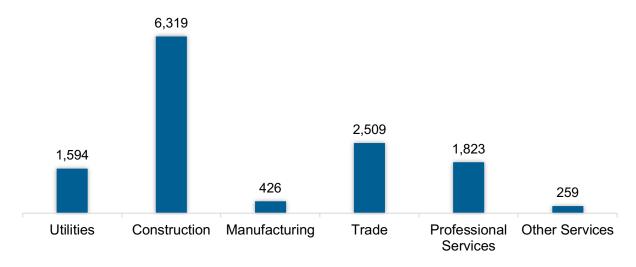
As shown in UT-2, the electric power generation sector employed 12,931 workers in Utah, 1.4% of the national electricity total, and added 830 jobs over the past year (6.9%).

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



Construction is the largest industry sector in the electric power generation sector, with 48.9% of jobs. Wholesale trade is the second largest with 19.4% (Figure UT-3).

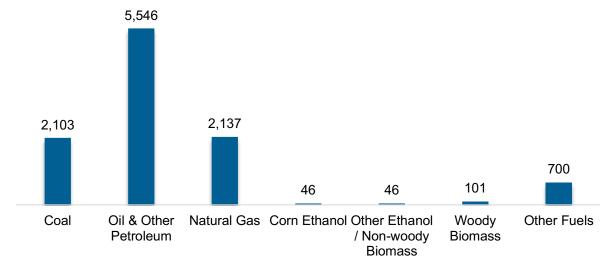
Figure UT-3. Electric Power Generation Employment by Industry Sector



### **FUELS**

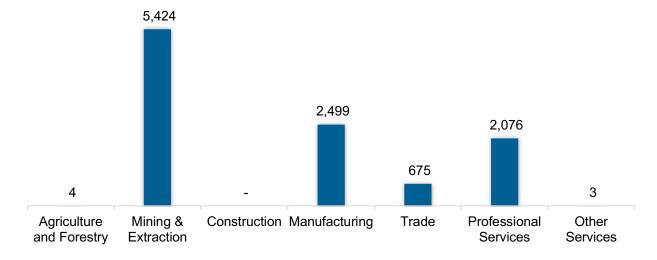
The Fuel sector employed 10,679 workers in Utah, 1.0% of the national total in fuels. The sector gained 513 jobs and increased 5.1% in the past year (Figure UT-4).

Figure UT-4. Fuels Employment by Detailed Technology Application



Mining and extraction jobs represented 50.8% of fuel jobs in Utah (Figure UT-5).

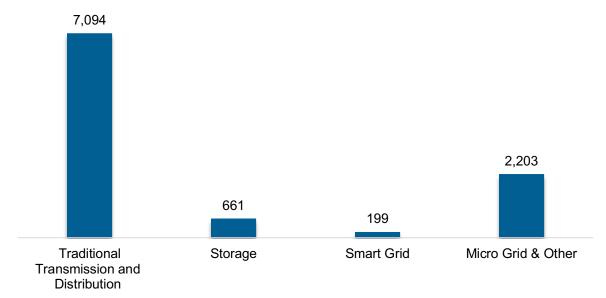
Figure UT-5. Fuels Employment by Industry Sector



### TRANSMISSION, DISTRIBUTION AND STORAGE

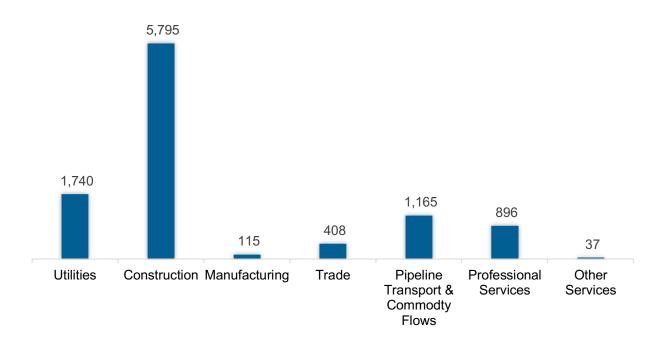
The transmission, distribution, and storage (TDS) sector employed 10,157 workers in Utah, 0.7% of the national TDS total (UT-6). The sector gained 2,358 jobs and increased 30.2% in the past year.

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



Construction is the largest proportion of TDS jobs in Utah, accounting for 57.1% of the sector's jobs statewide (Figure UT-7).

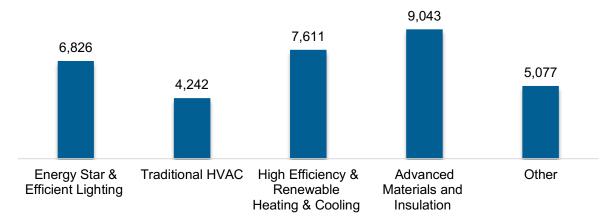
Figure UT-7. Transmission, Distribution and Storage Employment by Industry Sector



### **ENERGY EFFICIENCY**

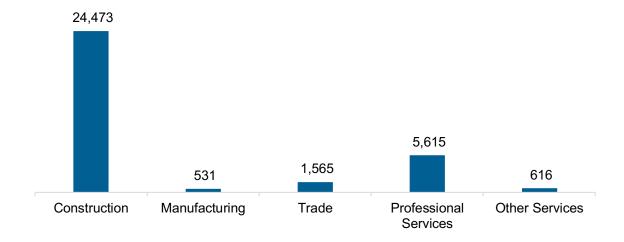
The energy efficiency (EE) sector employed 32,800 workers in Utah, 1.4% of the national EE total. The EE sector added 1,069 jobs and increased 3.4% in the past year (Figure UT-8).

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



Energy efficiency employment is primarily found in the construction industry (Figure UT-9).

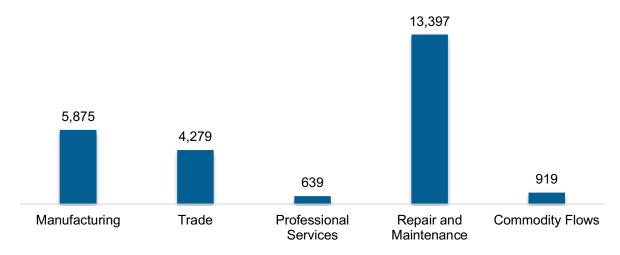
Figure UT-9. Energy Efficiency Employment by Industry Sector



### MOTOR VEHICLES AND COMPONENT PARTS

The motor vehicles and component sector employed 25,110 workers in Utah, 0.9% of the national total for the sector. Motor vehicles and component parts added 1,861 jobs and increased 8% in the past year. 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 2023, there were 52,987 jobs in clean energy in Utah if traditional transmission and distribution is included and 45,893 jobs if it is not.<sup>45</sup> These increased under either definition, growing 9% with traditional transmission and distribution and 5% without.

6

<sup>&</sup>lt;sup>45</sup> 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.

# **Workforce Characteristics**

## **EMPLOYER GROWTH**

Employers in Utah are less 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	5.2	6.6
Electric Power Transmission, Distribution, and Storage	5.2	6.7
Energy Efficiency	5.9	8.0
Fuels	4.4	5.1
Motor Vehicles	4.1	4.5

### HIRING DIFFICULTY

Employers in Utah reported 39.3% 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	18.4	20.9	9.1	51.6	39.3

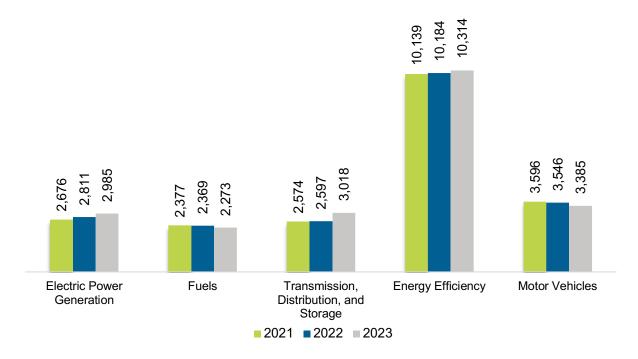
# **Vermont**

## **ENERGY AND EMPLOYMENT — 2024**

### **OVERVIEW**

Vermont had 21,976 energy workers statewide in 2023, representing 0.3% of all U.S. energy jobs. Of these energy jobs, 2,985 are in electric power generation; 2,273 in fuels; 3,018 in transmission, distribution, and storage; 10,314 in energy efficiency; and 3,385 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 468 jobs, or 2.2% (Figure VT-1). The energy sector in Vermont represents 7% of total state employment.

Figure VT-1. Employment by Major Energy Technology Application



# **Breakdown by Technology Applications**

### **ELECTRIC POWER GENERATION**

As shown in VT-2, the electric power generation sector employed 2,985 workers in Vermont, 0.3% of the national electricity total, and added 174 jobs over the past year (6.2%).

363
126
251
19
15
172
205
19
15
Traditional Hidrogeophicity

Natural Case
Codd Electricity

N

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

Construction is the largest industry sector in the electric power generation sector, with 26.2% of jobs. Professional and business services is the second largest with 21.1% (Figure VT-3).

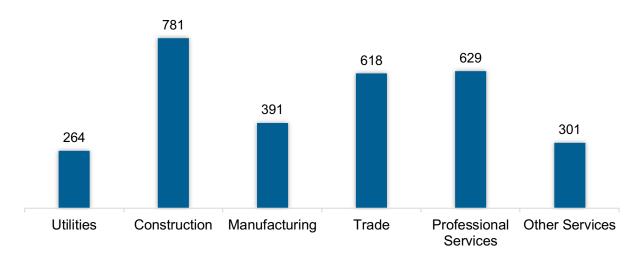
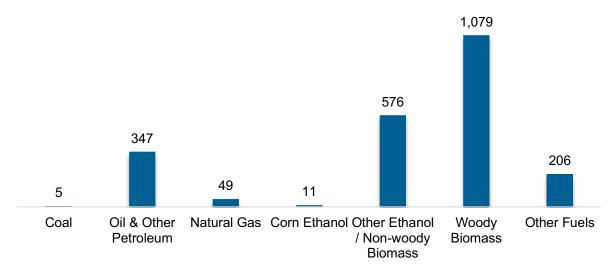


Figure VT-3. Electric Power Generation Employment by Industry Sector

### **FUELS**

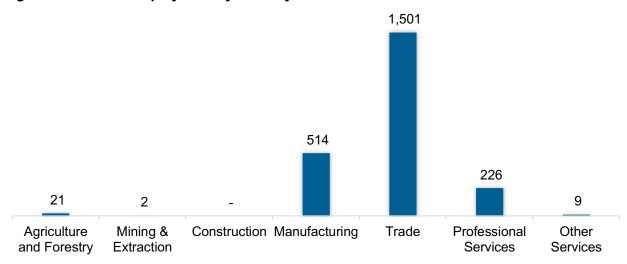
The Fuel sector employed 2,273 workers in Vermont, 0.2% of the national total in fuels. The sector lost 96 jobs and decreased 4.1% in the past year (Figure VT-4).

Figure VT-4. Fuels Employment by Detailed Technology Application



Wholesale trade jobs represented 66.0% of fuel jobs in Vermont (Figure VT-5).

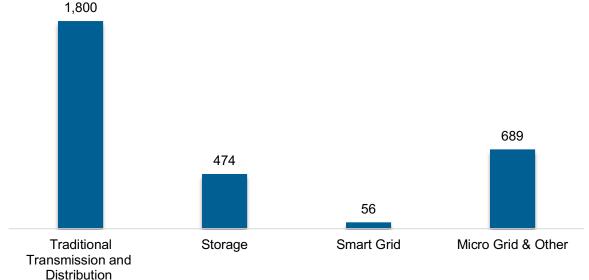
Figure VT-5. Fuels Employment by Industry Sector



### TRANSMISSION, DISTRIBUTION AND STORAGE

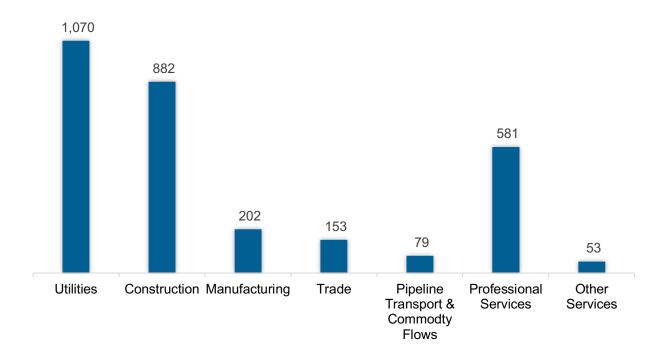
The transmission, distribution, and storage (TDS) sector employed 3,018 workers in Vermont, 0.2% of the national TDS total (VT-6). The sector gained 421 jobs and increased 16.2% in the past year.

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



Utilities is the largest proportion of TDS jobs in Vermont, accounting for 35.5% of the sector's jobs statewide (Figure VT-7).

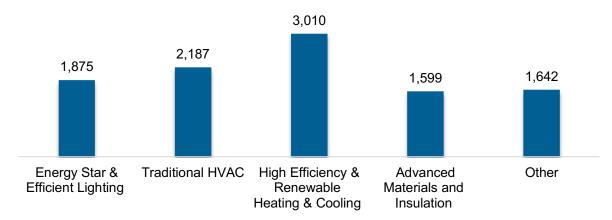
Figure VT-7. Transmission, Distribution and Storage Employment by Industry Sector



#### **ENERGY EFFICIENCY**

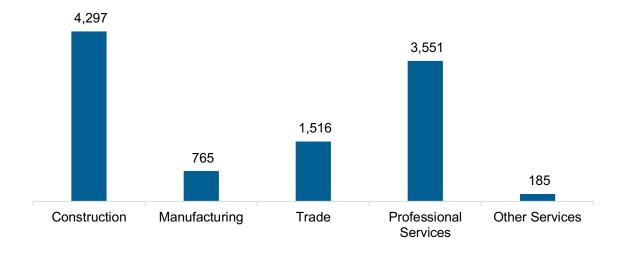
The energy efficiency (EE) sector employed 10,314 workers in Vermont, 0.5% of the national EE total. The EE sector added 130 jobs and increased 1.3% in the past year (Figure VT-8).

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



Energy efficiency employment is primarily found in the construction industry (Figure VT-9).

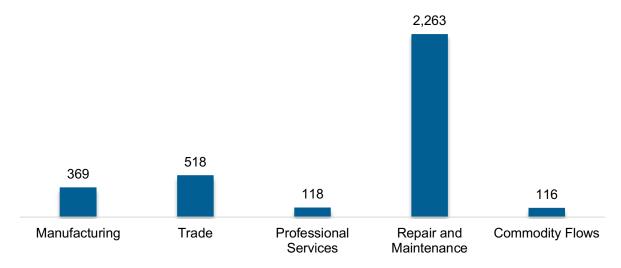
Figure VT-9. Energy Efficiency Employment by Industry Sector



#### MOTOR VEHICLES AND COMPONENT PARTS

The motor vehicles and component sector employed 3,385 workers in Vermont, 0.1% of the national total for the sector. Motor vehicles and component parts lost 162 jobs and decreased 4.6% in the past year. 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 2023, there were 18,051 jobs in clean energy in Vermont if traditional transmission and distribution is included and 16,251 jobs if it is not.<sup>46</sup> These increased under either definition, growing 3% with traditional transmission and distribution and 0.7% without.

6

<sup>&</sup>lt;sup>46</sup> 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.

## **Workforce Characteristics**

#### **EMPLOYER GROWTH**

Employers in Vermont are less 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	4.5	6.6
Electric Power Transmission, Distribution, and Storage	4.6	6.7
Energy Efficiency	5.2	8.0
Fuels	3.8	5.1
Motor Vehicles	3.5	4.5

#### HIRING DIFFICULTY

Employers in Vermont reported 43.6% 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	17.6	26.0	8.2	48.3	43.6

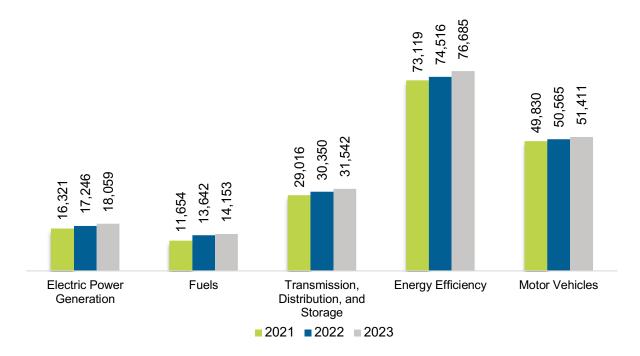
# Virginia

#### **ENERGY AND EMPLOYMENT — 2024**

#### **OVERVIEW**

Virginia had 191,851 energy workers statewide in 2023, representing 2.3% of all U.S. energy jobs. Of these energy jobs, 18,059 are in electric power generation; 14,153 in fuels; 31,542 in transmission, distribution, and storage; 76,685 in energy efficiency; and 51,411 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 5,532 jobs, or 3% (Figure VA-1). The energy sector in Virginia represents 4.8% of total state employment.

Figure VA-1. Employment by Major Energy Technology Application

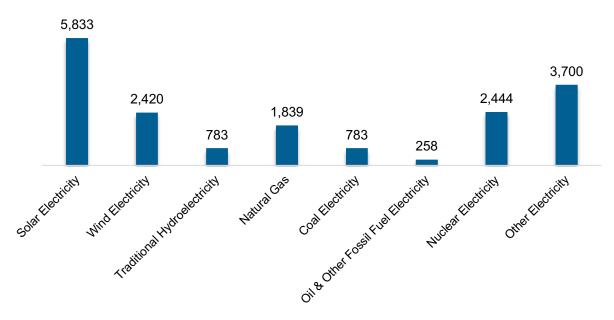


## **Breakdown by Technology Applications**

#### **ELECTRIC POWER GENERATION**

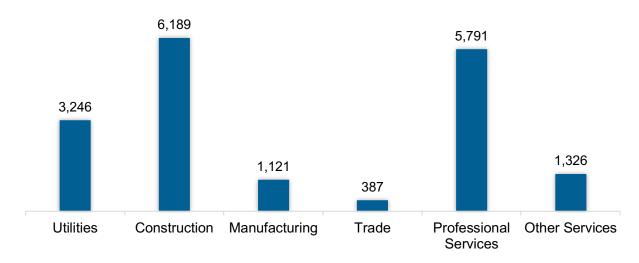
As shown in VA-2, the electric power generation sector employed 18,059 workers in Virginia, 2.0% of the national electricity total, and added 813 jobs over the past year (4.7%).

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



Construction is the largest industry sector in the electric power generation sector, with 34.3% of jobs. Professional and business services is the second largest with 32.1% (Figure VA-3).

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



#### **FUELS**

The Fuel sector employed 14,153 workers in Virginia, 1.3% of the national total in fuels. The sector gained 512 jobs and increased 3.8% in the past year (Figure VA-4).

3,418

2,072

1,407

1,392

Coal Oil & Other Natural Gas Corn Ethanol Other Ethanol Woody Other Fuels

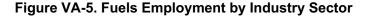
/ Non-woody

**Biomass** 

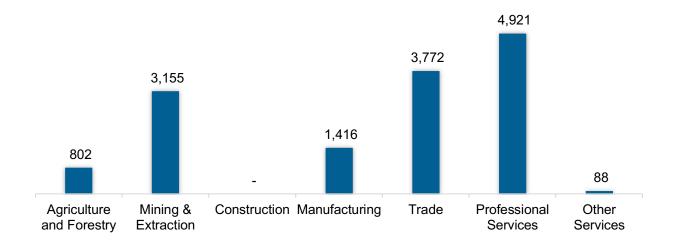
**Biomass** 

Figure VA-4. Fuels Employment by Detailed Technology Application

Professional and business services jobs represented 52.5% of fuel jobs in Virginia (Figure VA-5).



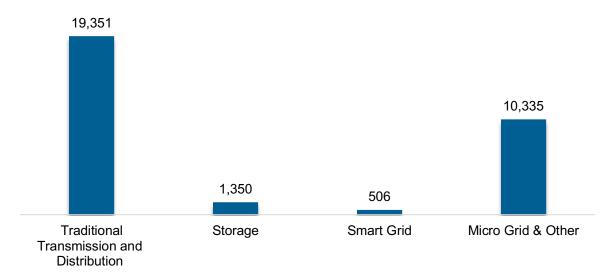
Petroleum



#### TRANSMISSION, DISTRIBUTION AND STORAGE

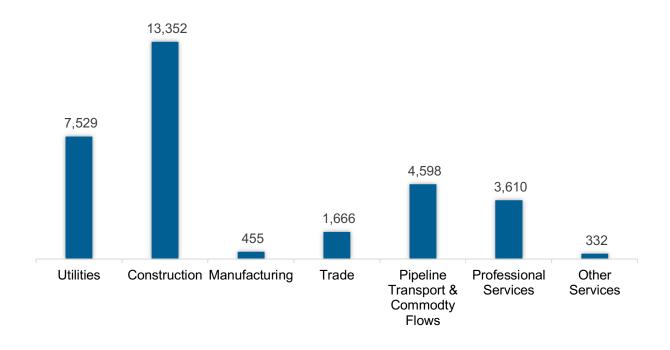
The transmission, distribution, and storage (TDS) sector employed 31,542 workers in Virginia, 2.2% of the national TDS total (VA-6). The sector gained 1,192 jobs and increased 3.9% in the past year.

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



Construction is the largest proportion of TDS jobs in Virginia, accounting for 42.3% of the sector's jobs statewide (Figure VA-7).

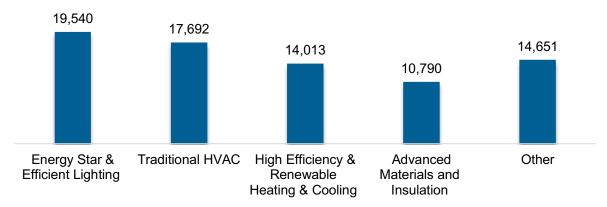
Figure VA-7. Transmission, Distribution and Storage Employment by Industry Sector



#### **ENERGY EFFICIENCY**

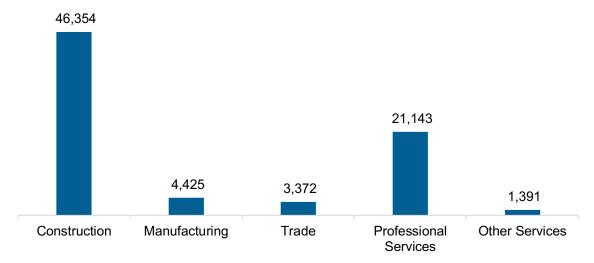
The energy efficiency (EE) sector employed 76,685 workers in Virginia, 3.3% of the national EE total. The EE sector added 2,169 jobs and increased 2.9% in the past year (Figure VA-8).

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



Energy efficiency employment is primarily found in the construction industry (Figure VA-9).

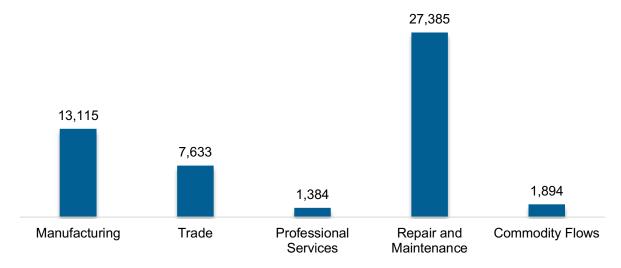
Figure VA-9. Energy Efficiency Employment by Industry Sector



#### MOTOR VEHICLES AND COMPONENT PARTS

The motor vehicles and component sector employed 51,411 workers in Virginia, 1.9% of the national total for the sector. Motor vehicles and component parts added 846 jobs and increased 1.7% in the past year. 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 2023, there were 119,551 jobs in clean energy in Virginia if traditional transmission and distribution is included and 100,200 jobs if it is not.<sup>47</sup> These increased under either definition, growing 5.8% with traditional transmission and distribution and 3.7% without.

6

<sup>&</sup>lt;sup>47</sup> 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.

## **Workforce Characteristics**

#### **EMPLOYER GROWTH**

Employers in Virginia are 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	8.1	6.6
Electric Power Transmission, Distribution, and Storage	8.1	6.7
Energy Efficiency	8.8	8.0
Fuels	7.3	5.1
Motor Vehicles	7.0	4.5

#### HIRING DIFFICULTY

Employers in Virginia reported 43.4% 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	20.2	23.2	9.2	47.4	43.4

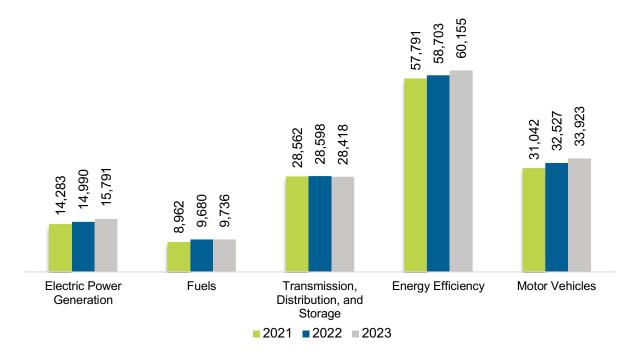
# Washington

#### **ENERGY AND EMPLOYMENT — 2024**

#### **OVERVIEW**

Washington had 148,022 energy workers statewide in 2023, representing 1.8% of all U.S. energy jobs. Of these energy jobs, 15,791 are in electric power generation; 9,736 in fuels; 28,418 in transmission, distribution, and storage; 60,155 in energy efficiency; and 33,923 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 3,524 jobs, or 2.4% (Figure WA-1). The energy sector in Washington represents 4.2% of total state employment.

Figure WA-1. Employment by Major Energy Technology Application



## **Breakdown by Technology Applications**

#### **ELECTRIC POWER GENERATION**

As shown in WA-2, the electric power generation sector employed 15,791 workers in Washington, 1.7% of the national electricity total, and added 801 jobs over the past year (5.3%).

3,521

2,613

2,358

695

267

101

566

Traditional Hydroelectricity

Vurnet Electricity

Traditional Hydroelectricity

Tradi

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

Construction is the largest industry sector in the electric power generation sector, with 36.7% of jobs. Professional and business services is the second largest with 22.7% (Figure WA-3).

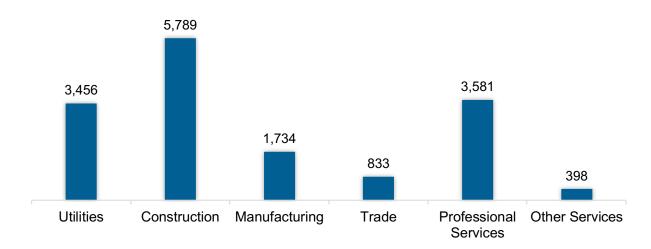
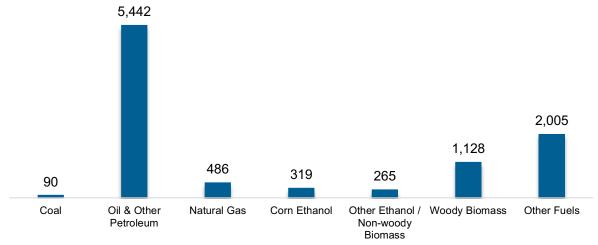


Figure WA-3. Electric Power Generation Employment by Industry Sector

#### **FUELS**

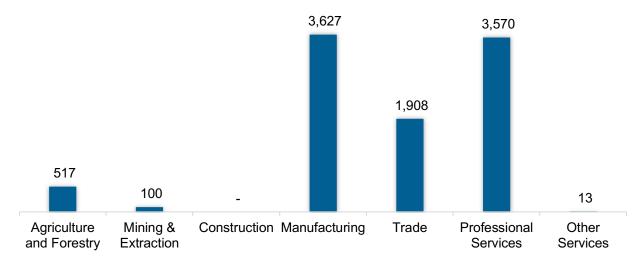
The Fuel sector employed 9,736 workers in Washington, 0.9% of the national total in fuels. The sector gained 56 jobs and increased 0.6% in the past year (Figure WA-4).

Figure WA-4. Fuels Employment by Detailed Technology Application



Manufacturing jobs represented 37.3% of fuel jobs in Washington (Figure WA-5).

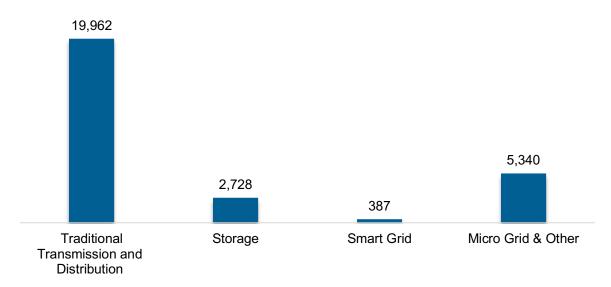
Figure WA-5. Fuels Employment by Industry Sector



#### TRANSMISSION, DISTRIBUTION AND STORAGE

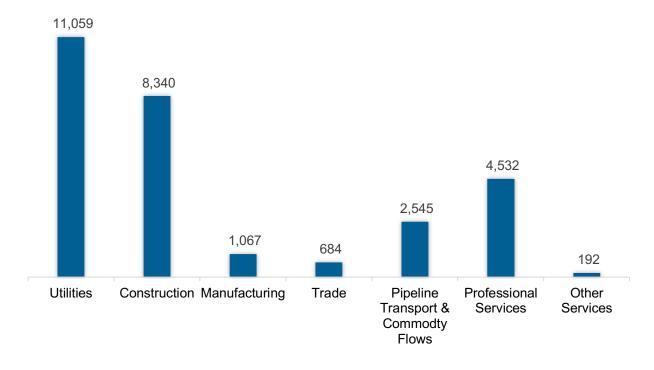
The transmission, distribution, and storage (TDS) sector employed 28,418 workers in Washington, 2.0% of the national TDS total (WA-6). The sector lost 181 jobs and decreased 0.6% in the past year.

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



Utilities is the largest proportion of TDS jobs in Washington, accounting for 38.9% of the sector's jobs statewide (Figure WA-7).

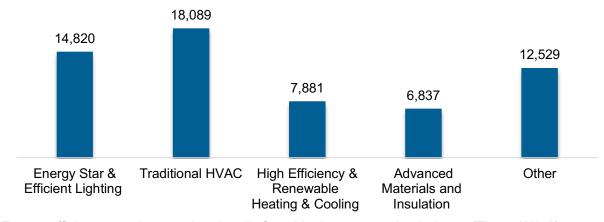
Figure WA-7. Transmission, Distribution and Storage Employment by Industry Sector



#### **ENERGY EFFICIENCY**

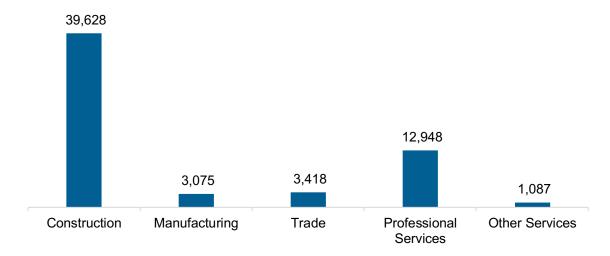
The energy efficiency (EE) sector employed 60,155 workers in Washington, 2.6% of the national EE total. The EE sector added 1,452 jobs and increased 2.5% in the past year (Figure WA-8).

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



Energy efficiency employment is primarily found in the construction industry (Figure WA-9).

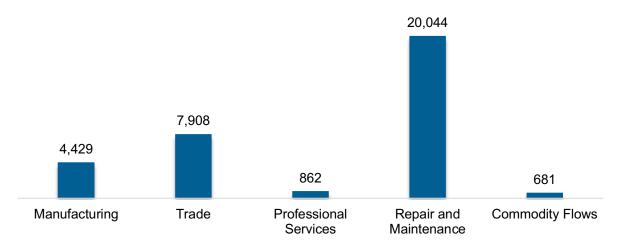
Figure WA-9. Energy Efficiency Employment by Industry Sector



#### MOTOR VEHICLES AND COMPONENT PARTS

The motor vehicles and component sector employed 33,923 workers in Washington, 1.3% of the national total for the sector. Motor vehicles and component parts added 1,396 jobs and increased 4.3% in the past year. 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 2023, there were 103,241 jobs in clean energy in Washington if traditional transmission and distribution is included and 83,279 jobs if it is not.<sup>48</sup> These increased under either definition, growing 2% with traditional transmission and distribution and 2.8% without.

6

<sup>&</sup>lt;sup>48</sup> 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.

## **Workforce Characteristics**

#### **EMPLOYER GROWTH**

Employers in Washington are more 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	6.5	6.6
Electric Power Transmission, Distribution, and Storage	6.6	6.7
Energy Efficiency	7.2	8.0
Fuels	5.7	5.1
Motor Vehicles	5.4	4.5

#### HIRING DIFFICULTY

Employers in Washington reported 42.0% 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	18.7	23.3	7.3	50.7	42.0

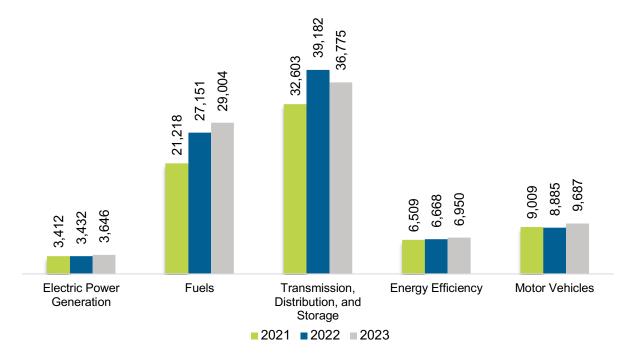
# **West Virginia**

#### **ENERGY AND EMPLOYMENT — 2024**

#### **OVERVIEW**

West Virginia had 86,062 energy workers statewide in 2023, representing 1% of all U.S. energy jobs. Of these energy jobs, 3,646 are in electric power generation; 29,004 in fuels; 36,775 in transmission, distribution, and storage; 6,950 in energy efficiency; and 9,687 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 744 jobs, or 0.9% (Figure WV-1). The energy sector in West Virginia represents 12.3% of total state employment.

Figure WV-1. Employment by Major Energy Technology Application

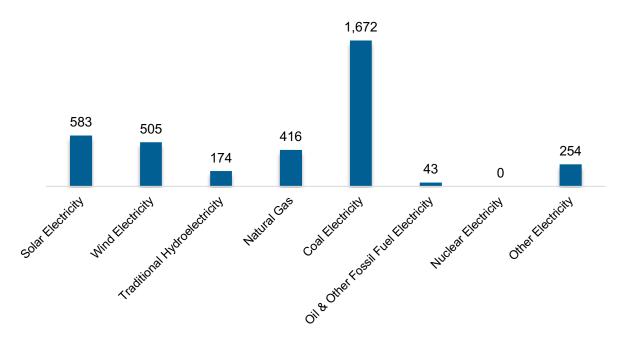


## **Breakdown by Technology Applications**

#### **ELECTRIC POWER GENERATION**

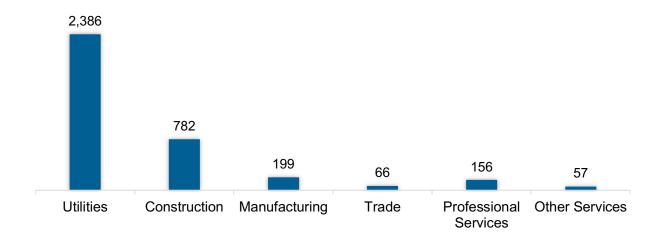
As shown in WV-2, the electric power generation sector employed 3,646 workers in West Virginia, 0.4% of the national electricity total, and added 214 jobs over the past year (6.2%).

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



Utilities is the largest industry sector in the electric power generation sector, with 65.4% of jobs. Construction is the second largest with 21.5% (Figure WV-3).

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



#### **FUELS**

The Fuel sector employed 29,004 workers in West Virginia, 2.8% of the national total in fuels. The sector gained 1,853 jobs and increased 6.8% in the past year (Figure WV-4).

18,755 4,056 4,958 28 19 246 942

Natural Gas Corn Ethanol Other Ethanol

/ Non-woody

**Biomass** 

Woody

**Biomass** 

Other Fuels

Figure WV-4. Fuels Employment by Detailed Technology Application

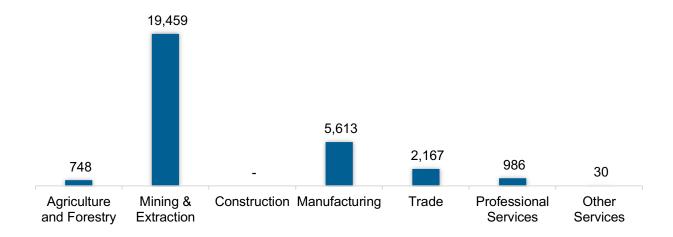
Mining and extraction jobs represented 67.1% of fuel jobs in West Virginia (Figure WV-5).

Figure WV-5. Fuels Employment by Industry Sector

Oil & Other

Petroleum

Coal



#### TRANSMISSION, DISTRIBUTION AND STORAGE

The transmission, distribution, and storage (TDS) sector employed 36,775 workers in West Virginia, 2.6% of the national TDS total (WV-6). The sector lost 2,407 jobs and decreased 6.1% in the past year.

31,840

4,340

498

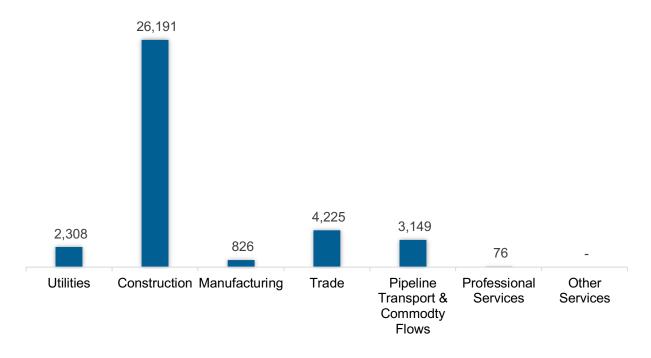
98

Traditional Storage Smart Grid Micro Grid & Other Transmission and Distribution

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

Construction is the largest proportion of TDS jobs in West Virginia, accounting for 71.2% of the sector's jobs statewide (Figure WV-7).

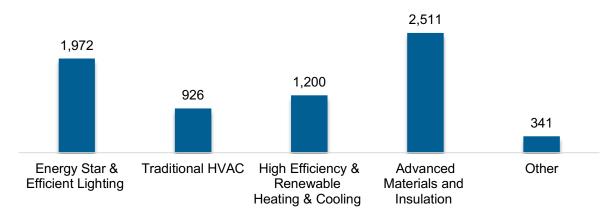
Figure WV-7. Transmission, Distribution and Storage Employment by Industry Sector



#### **ENERGY EFFICIENCY**

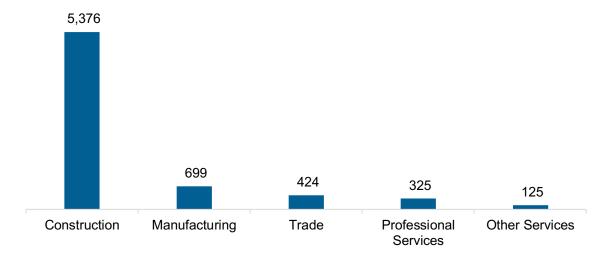
The energy efficiency (EE) sector employed 6,950 workers in West Virginia, 0.3% of the national EE total. The EE sector added 281 jobs and increased 4.2% in the past year (Figure WV-8).

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



Energy efficiency employment is 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 9,687 workers in West Virginia, 0.4% of the national total for the sector. Motor vehicles and component parts added 802 jobs and increased 9% in the past year. Manufacturing is the largest proportion of motor vehicle jobs (Figure WV-10).

4,279

1,062

Manufacturing Trade Professional Services Repair and Maintenance Commodity Flows

Figure WV-10. Motor Vehicle Employment by Industry Sector

#### **CLEAN ENERGY JOBS**

In 2023, there were 41,929 jobs in clean energy in West Virginia if traditional transmission and distribution is included and 10,089 jobs if it is not.<sup>49</sup> These experienced differing growth under either definition, declining 2.8% with traditional transmission and distribution and growing 5.4% without.

6

<sup>&</sup>lt;sup>49</sup> 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.

## **Workforce Characteristics**

#### **EMPLOYER GROWTH**

Employers in West Virginia are 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	5.6	6.6
Electric Power Transmission, Distribution, and Storage	5.7	6.7
Energy Efficiency	6.3	8.0
Fuels	4.9	5.1
Motor Vehicles	4.6	4.5

#### HIRING DIFFICULTY

Employers in West Virginia reported 54.3% 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	25.3	28.9	10.0	35.8	54.3

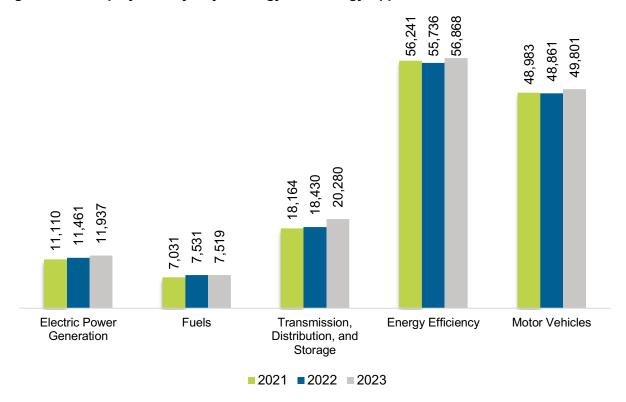
## Wisconsin

#### **ENERGY AND EMPLOYMENT — 2024**

#### **OVERVIEW**

Wisconsin had 146,405 energy workers statewide in 2023, representing 1.8% of all U.S. energy jobs. Of these energy jobs, 11,937 are in electric power generation; 7,519 in fuels; 20,280 in transmission, distribution, and storage; 56,868 in energy efficiency; and 49,801 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 4,387 jobs, or 3.1% (Figure WI-1). The energy sector in Wisconsin represents 5% of total state employment.

Figure WI-1. Employment by Major Energy Technology Application

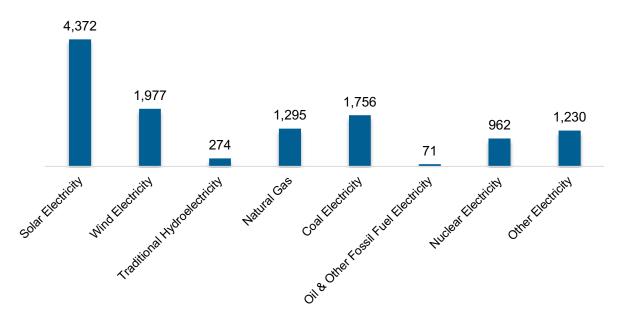


## **Breakdown by Technology Applications**

#### **ELECTRIC POWER GENERATION**

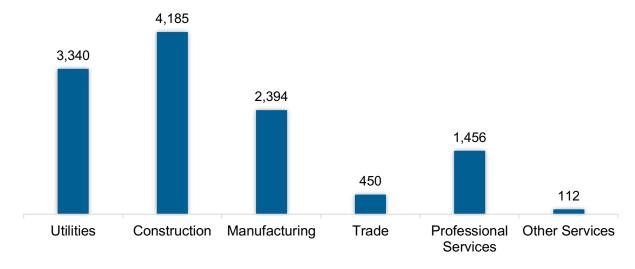
As shown in WI-2, the electric power generation sector employed 11,937 workers in Wisconsin, 1.3% of the national electricity total, and added 475 jobs over the past year (4.1%).

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



Construction is the largest industry sector in the electric power generation sector, with 35.1% of jobs. Utilities is the second largest with 28.0% (Figure WI-3).

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



#### **FUELS**

The Fuel sector employed 7,519 workers in Wisconsin, 0.7% of the national total in fuels. The sector lost 12 jobs and decreased 0.2% in the past year (Figure WI-4).

4,185 1,437 848 534 365 114 37 Oil & Other Natural Gas Corn Ethanol Other Ethanol Woody Other Fuels Coal / Non-woody Petroleum **Biomass Biomass** 

Figure WI-4. Fuels Employment by Detailed Technology Application

Manufacturing jobs represented 37.2% of fuel jobs in Wisconsin (Figure WI-5).

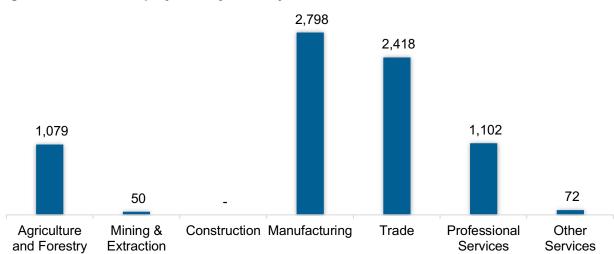


Figure WI-5. Fuels Employment by Industry Sector

#### TRANSMISSION, DISTRIBUTION AND STORAGE

The transmission, distribution, and storage (TDS) sector employed 20,280 workers in Wisconsin, 1.4% of the national TDS total (WI-6). The sector gained 1,851 jobs and increased 10.0% in the past year.

14,531

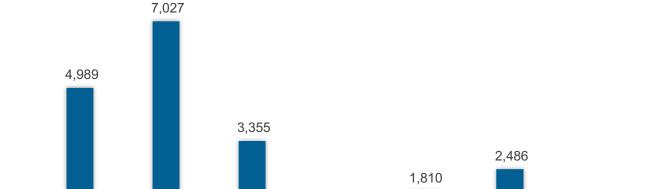
3,942

1,459

Traditional Storage Smart Grid Micro Grid & Other Transmission and Distribution

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

Construction is the largest proportion of TDS jobs in Wisconsin, accounting for 34.7% of the sector's jobs statewide (Figure WI-7).



514

Trade

Pipeline

Transport &

Commodty Flows Professional

Services

100

Other

Services

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

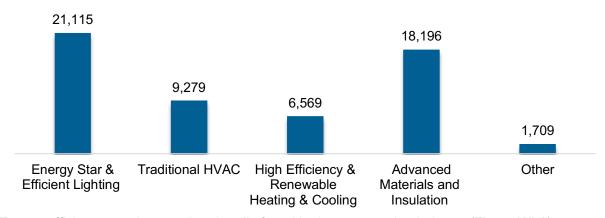
Construction Manufacturing

Utilities

#### **ENERGY EFFICIENCY**

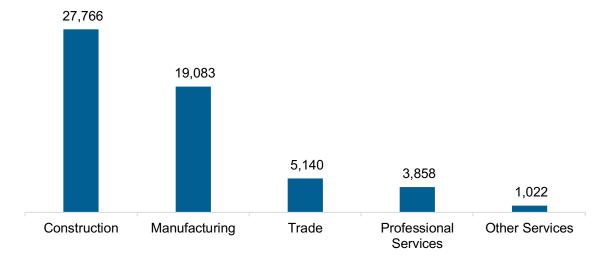
The energy efficiency (EE) sector employed 56,868 workers in Wisconsin, 2.5% of the national EE total. The EE sector added 1,132 jobs and increased 2.0% in the past year (Figure WI-8).

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



Energy efficiency employment is 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 49,801 workers in Wisconsin, 1.9% of the national total for the sector. Motor vehicles and component parts added 941 jobs and increased 1.9% in the past year. Manufacturing is the largest proportion of motor vehicle jobs (Figure WI-10).

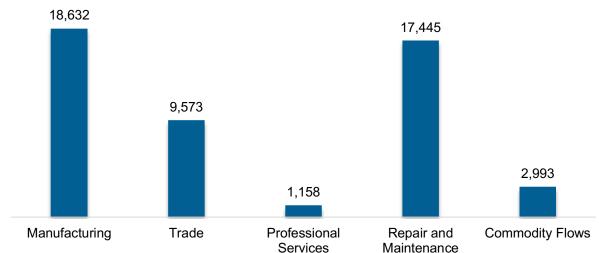


Figure WI-10. Motor Vehicle Employment by Industry Sector

#### **CLEAN ENERGY JOBS**

In 2023, there were 87,929 jobs in clean energy in Wisconsin if traditional transmission and distribution is included and 73,398 jobs if it is not.<sup>50</sup> These increased under either definition, growing 4.2% with traditional transmission and distribution and 2.6% without.

6

<sup>&</sup>lt;sup>50</sup> 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.

## **Workforce Characteristics**

#### **EMPLOYER GROWTH**

Employers in Wisconsin are less 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	5.4	6.6
Electric Power Transmission, Distribution, and Storage	5.5	6.7
Energy Efficiency	6.1	8.0
Fuels	4.6	5.1
Motor Vehicles	4.3	4.5

#### HIRING DIFFICULTY

Employers in Wisconsin reported 43.3% 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	20.2	23.1	8.8	47.9	43.3

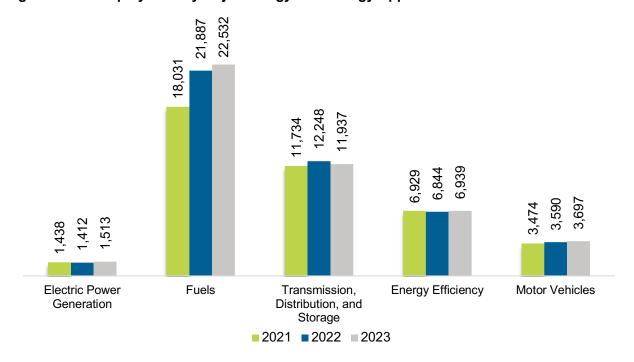
## **Wyoming**

#### **ENERGY AND EMPLOYMENT — 2024**

#### **OVERVIEW**

Wyoming had 46,618 energy workers statewide in 2023, representing 0.6% of all U.S. energy jobs. Of these energy jobs, 1,513 are in electric power generation; 22,532 in fuels; 11,937 in transmission, distribution, and storage; 6,939 in energy efficiency; and 3,697 in motor vehicles. From 2022 to 2023, energy jobs in the state increased 636 jobs, or 1.4% (Figure WY-1). The energy sector in Wyoming represents 16.2% of total state employment.

Figure WY-1. Employment by Major Energy Technology Application

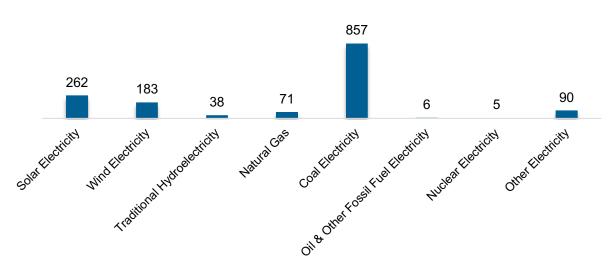


## **Breakdown by Technology Applications**

#### **ELECTRIC POWER GENERATION**

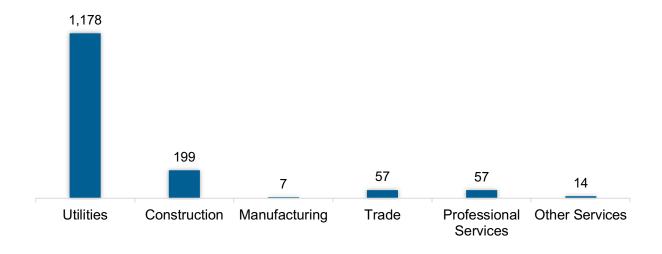
As shown in WY-2, the electric power generation sector employed 1,513 workers in Wyoming, 0.2% of the national electricity total, and added 101 jobs over the past year (7.1%).

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



Utilities is the largest industry sector in the electric power generation sector, with 77.9% of jobs. Construction is the second largest with 13.2% (Figure WY-3).

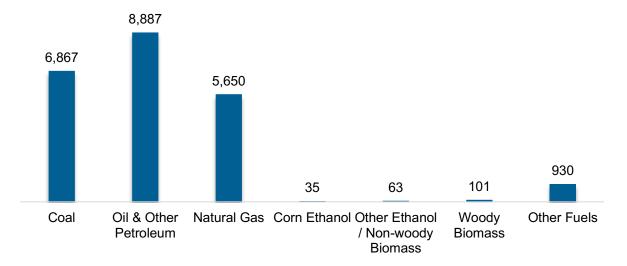
Figure WY-3. Electric Power Generation Employment by Industry Sector



#### **FUELS**

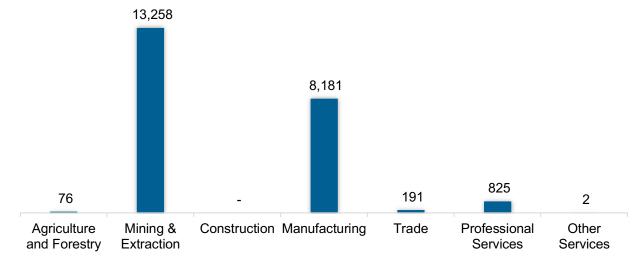
The Fuel sector employed 22,532 workers in Wyoming, 2.1% of the national total in fuels. The sector gained 646 jobs and increased 2.9% in the past year (Figure WY-4).

Figure WY-4. Fuels Employment by Detailed Technology Application



Mining and extraction jobs represented 58.8% of fuel jobs in Wyoming (Figure WY-5).

Figure WY-5. Fuels Employment by Industry Sector



#### TRANSMISSION, DISTRIBUTION AND STORAGE

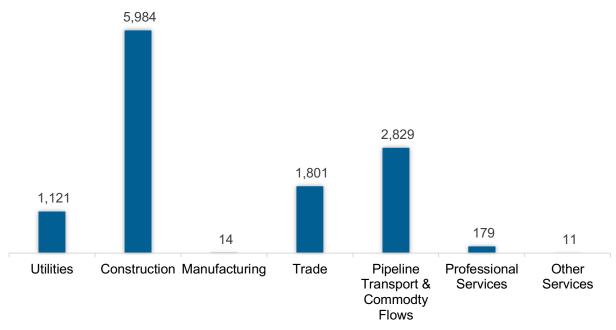
The transmission, distribution, and storage (TDS) sector employed 11,937 workers in Wyoming, 0.8% of the national TDS total (WY-6). The sector lost 310 jobs and decreased 2.5% in the past year.

Traditional Storage Smart Grid Micro Grid & Other Transmission and Distribution

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

Construction is the largest proportion of TDS jobs in Wyoming, accounting for 50.1% of the sector's jobs statewide (Figure WY-7).

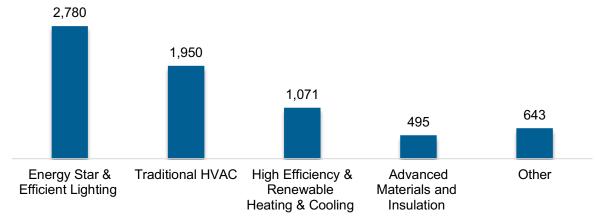
Figure WY-7. Transmission, Distribution and Storage Employment by Industry Sector



#### **ENERGY EFFICIENCY**

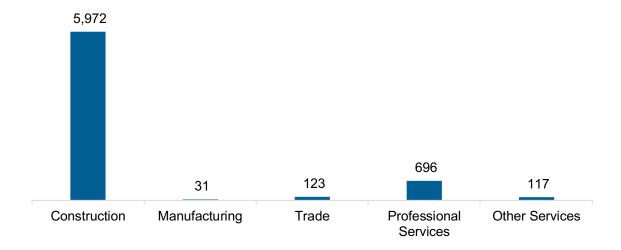
The energy efficiency (EE) sector employed 6,939 workers in Wyoming, 0.3% of the national EE total. The EE sector added 94 jobs and increased 1.4% in the past year (Figure WY-8).

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



Energy efficiency employment is primarily found in the construction industry (Figure WY-9).

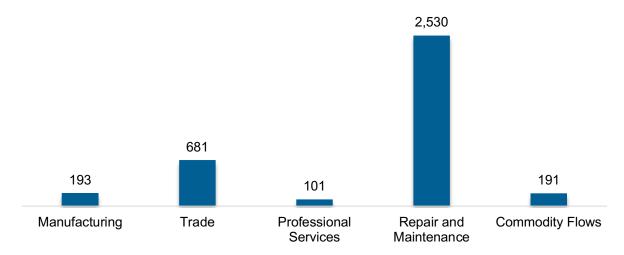
Figure WY-9. Energy Efficiency Employment by Industry Sector



#### MOTOR VEHICLES AND COMPONENT PARTS

The motor vehicles and component sector employed 3,697workers in Wyoming, 0.1% of the national total for the sector. Motor vehicles and component parts added 107 jobs and increased 3% in the past year. 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 2023, there were 16,052 jobs in clean energy in Wyoming if traditional transmission and distribution is included and 8,559 jobs if it is not.<sup>51</sup> These increased under either definition, growing 4.5% with traditional transmission and distribution and 3.1% without.

6

<sup>&</sup>lt;sup>51</sup> 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.

## **Workforce Characteristics**

#### **EMPLOYER GROWTH**

Employers in Wyoming are less 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	4.9	6.6
Electric Power Transmission, Distribution, and Storage	4.9	6.7
Energy Efficiency	5.5	8.0
Fuels	4.1	5.1
Motor Vehicles	3.8	4.5

#### HIRING DIFFICULTY

Employers in Wyoming reported 37.6% 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	17.0	20.6	14.1	48.3	37.6











# UNITED STATES ENERGY & EMPLOYMENT REPORT

2024 EMPLOYMENT BY STATE



For more information, visit energy.gov/useer

DOE/OP-0021 • August 2024