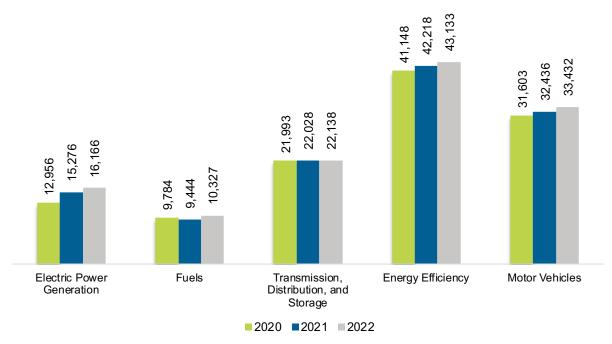
Minnesota

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

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

Figure MN-1. Employment by Major Energy Technology Application



Breakdown by Technology Applications

Electric Power Generation

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

5,120

2,759

982

908

1,198

83

1,714

1,714

1,714

Other Electricist

Traditional Hydro Bedricist

Resulted Code Electricist

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

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

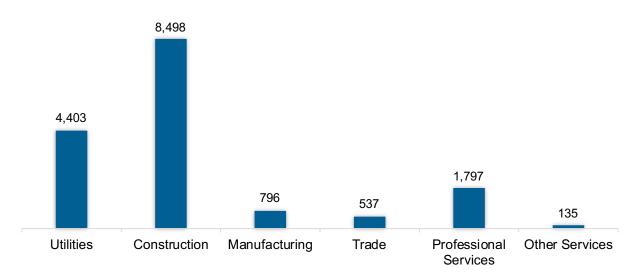


Figure MN-3. Electric Power Generation Employment by Industry Sector

Fuels

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

6,316 1,523 1,067 583 354 352 131 Natural Gas Corn Ethanol Other Ethanol Other Fuels Coal Oil & Other Woody Petroleum / Non-woody **Biomass Biomass**

Figure MN-4. Fuels Employment by Detailed Technology Application

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

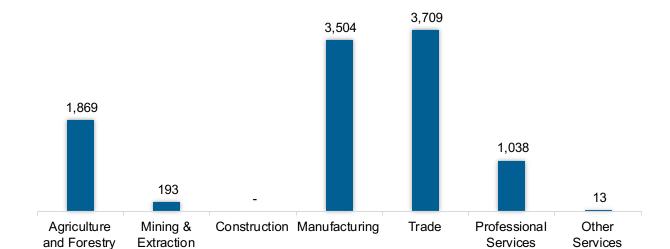


Figure MN-5. Fuels Employment by Industry Sector

Transmission, Distribution and Storage

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

17,073

2,091

2,714

Traditional Storage Smart Grid Micro Grid & Other Transmission and Distribution

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

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

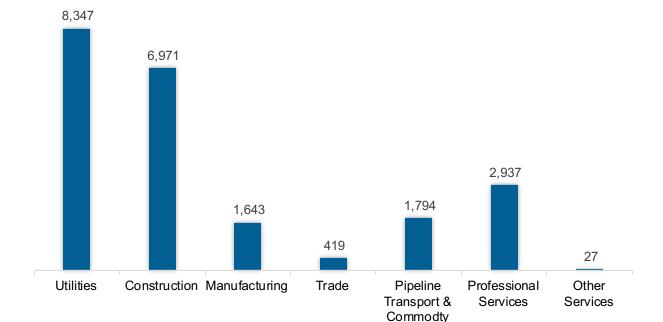


Figure MN-7. Transmission, Distribution and Storage Employment by Industry Sector

Energy Efficiency

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

Flows

Energy Star & Traditional HVAC Efficient Lighting

Energy Star & Renewable Heating & Cooling Insulation

The state of the

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

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

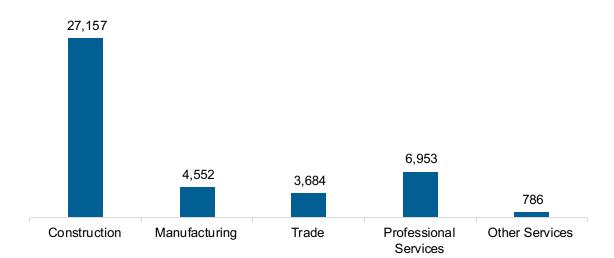


Figure MN-9. Energy Efficiency Employment by Industry Sector

Motor Vehicles and Component Parts

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

8,920
5,690
833
1,394

Manufacturing Trade Professional Repair and Maintenance Commodity Flows Services

Figure MN-10. Motor Vehicle Employment by Industry Sector

Clean Energy Jobs

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

Employer Perspectives

Expected Growth

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

Table MN-1 Expected Growth by Major Technology Application

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

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

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Hiring Difficulty

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

Table MN-2 Hiring Difficulty by Major Technology Application

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