Alabama

ENERGY AND EMPLOYMENT — 2020

Overview

Alabama has an average concentration of energy employment, with 52,366 Traditional Energy workers statewide (representing 1.5 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 10,334 are in Electric Power Generation, 11,486 are in Fuels, and 30,546 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Alabama is 2.6 percent of total state employment (compared to 2.3 percent of national employment). Alabama has an additional 31,546 jobs in Energy Efficiency (1.3 percent of all U.S. Energy Efficiency jobs) and 65,462 jobs in Motor Vehicles (2.6 percent of all U.S. Motor Vehicle jobs).

Figure AL-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 0.3 percent since the 2019 report, increasing by 142 jobs over the period. Energy Efficiency jobs added 725 jobs (2.4 percent) and motor vehicles lost 1,150 jobs (-1.7 percent).
Breakdown by Technology Applications

**ELECTRIC POWER GENERATION**

Electric Power Generation employs 10,334 workers in Alabama, 1.2 percent of the national total and adding 391 jobs over the past year (3.9 percent). Traditional fossil fuel generation makes up the largest segment of employment related to Electric Power Generation, with 3,730 jobs (down -0.7 percent), followed by wind at 1,283 jobs (up 4.6 percent).

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

Utilities are the largest industry sector in Electric Power Generation, with 57.0 percent of jobs. Professional and business services are next with 19.9 percent.

*Figure AL-3.*
*Electric Power Generation by Industry Sector*
FUELS

Fuels employs 11,486 workers in Alabama, 1.0 percent of the national total, up 4.1 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

**Figure AL-4.**
**Fuels Employment by Detailed Technology Application**

Mining and extraction jobs represent 35.9 percent of Fuels jobs in Alabama.

**Figure AL-5.**
**Fuels Employment by Industry Sector**
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 30,546 workers in Alabama, 2.2 percent of the national total, down 2.2 percent or 697 jobs since the 2018 report.

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

Construction is responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Alabama, with 40.4 percent of such jobs statewide.

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

The 31,546 Energy Efficiency jobs in Alabama represent 1.3 percent of all U.S. Energy Efficiency jobs, adding 725 jobs (2.4 percent) since last year. The largest number of these employees work in advanced materials and insulation firms, followed by traditional HVAC.

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

Energy Efficiency employment is primarily found in the construction industry.

Figure AL-9.
Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 65,462 jobs in Alabama, down 1,150 jobs over the past year (-1.7 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is manufacturing.

Figure AL-10.
Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

Employers in Alabama are similarly optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (3.2 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 1,645 jobs in Energy Efficiency (5.2 percent) and Motor Vehicles employers expect to add 1,716 jobs (2.6 percent) over the next year.

Table AL-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>9.8</td>
<td>4.8</td>
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<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>0.8</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>5.2</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>3.7</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>2.6</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 40.0 percent of energy-related employers in Alabama hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Electric Power Generation.

Table AL-2
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>22.5</td>
<td>68.2</td>
<td>9.3</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>25.0</td>
<td>64.7</td>
<td>10.3</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>39.1</td>
<td>47.7</td>
<td>13.2</td>
</tr>
<tr>
<td>Fuels</td>
<td>24.2</td>
<td>43.2</td>
<td>32.6</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>29.1</td>
<td>48.1</td>
<td>22.8</td>
</tr>
</tbody>
</table>

Employers in Alabama gave the following as the top three reasons for their reported difficulty:

1. Competition/ small applicant pool
2. Cannot provide competitive wages
3. Lack of experience, training, or technical skills

Employers reported the following as the three most difficult occupations to hire for:

1. Technician or mechanical support — $21.99 median hourly wage
2. Installation workers — $24.35 median hourly wage
3. Operations or business development — $41.08 median hourly wage
Alaska

ENERGY AND EMPLOYMENT — 2020

Overview

Alaska has a high concentration of energy employment, with 21,673 Traditional Energy workers statewide (representing 0.6 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 1,450 are in Electric Power Generation, 14,052 are in Fuels, and 6,172 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Alaska is 6.4 percent of total state employment (compared to 2.3 percent of national employment). Alaska has an additional 4,701 jobs in Energy Efficiency (0.2 percent of all U.S. Energy Efficiency jobs) and 2,303 jobs in Motor Vehicles (0.1 percent of all U.S. Motor Vehicle jobs).

Figure AK-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs declined by 0.4 percent since the 2019 report, decreasing by 83 jobs over the period. Energy Efficiency jobs added 85 jobs (1.8 percent) and motor vehicles lost 87 jobs (-3.6 percent).
Breakdown by Technology Applications

ELECTRIC POWER GENERATION

Electric Power Generation employs 1,450 workers in Alaska, 0.2 percent of the national total and adding 1 job over the past year (0.1 percent). Traditional fossil fuel generation makes up the largest segment of employment related to Electric Power Generation, with 636 jobs (down -2.1 percent), followed by traditional hydroelectric generation at 439 jobs (down -0.4 percent).

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

Utilities are the largest industry sector in Electric Power Generation, with 45.6 percent of jobs. Construction is next with 31.4 percent.

Figure AK-3.
Electric Power Generation by Industry Sector
**FUELS**

Fuels employs 14,052 workers in Alaska, 1.2 percent of the national total, up 0.4 percent over the past year. Petroleum and other fossil fuels make up the largest segment of employment related to Fuels.

*Figure AK-4.*  
**Fuels Employment by Detailed Technology Application**

- **Coal**: 148 jobs
- **Oil & Other Petroleum**: 8,760 jobs
- **Natural Gas**: 5,021 jobs
- **Mining & Extraction**: 3 jobs
- **Other Ethanol / Non-woody Biomass**: 5 jobs
- **Wood Biomass**: 61 jobs
- **Other Fuels**: 55 jobs

Mining and extraction jobs represent 68.8 percent of Fuels jobs in Alaska.

*Figure AK-5.*  
**Fuels Employment by Industry Sector**

- **Agriculture and Forestry**: 171 jobs
- **Mining & Extraction**: 9,662 jobs
- **Construction**: 1,789 jobs
- **Manufacturing**: 1,374 jobs
- **Trade**: 1,049 jobs
- **Professional Services**: 7 jobs
- **Other Services**: -
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 6,172 workers in Alaska, 0.4 percent of the national total, down 2.2 percent or 138 jobs since the 2018 report.

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

Construction is responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Alaska, with 36.5 percent of such jobs statewide.

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

The 4,701 Energy Efficiency jobs in Alaska represent 0.2 percent of all U.S. Energy Efficiency jobs, adding 85 jobs (1.8 percent) since last year. The largest number of these employees work in high efficiency HVAC and renewable heating and cooling firms, followed by advanced materials and insulation.

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

Energy Efficiency employment is primarily found in the construction industry.

Figure AK-9. 
Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 2,303 jobs in Alaska, down 87 jobs over the past year (-3.6 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure AK-10.
Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

Employers in Alaska are similarly optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (3.3 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 188 jobs in Energy Efficiency (4.0 percent) and Motor Vehicles employers expect to add 80 jobs (3.5 percent) over the next year.

Table AK-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
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<tr>
<td>Electric Power Generation</td>
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<td>4.8</td>
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<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
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<td>Energy Efficiency</td>
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<td>3.0</td>
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<tr>
<td>Fuels</td>
<td>3.4</td>
<td>1.7</td>
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<tr>
<td>Motor Vehicles</td>
<td>3.5</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 69.2 percent of energy-related employers in Alaska hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Electric Power Transmission, Distribution, and Storage.

Table AK-2
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>25.6</td>
<td>58.7</td>
<td>15.7</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>20.6</td>
<td>68.7</td>
<td>10.7</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>37.1</td>
<td>49.7</td>
<td>13.2</td>
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<tr>
<td>Fuels</td>
<td>27.1</td>
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<td>22.2</td>
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<tr>
<td>Motor Vehicles</td>
<td>41.2</td>
<td>46.3</td>
<td>12.4</td>
</tr>
</tbody>
</table>

Employers in Alaska gave the following as the top three reasons for their reported difficulty:

1. Lack of experience, training, or technical skills
2. Insufficient non-technical skills (work ethic, dependability, critical thinking)
3. Competition/ small applicant pool

Employers reported the following as the three most difficult occupations to hire for:

1. Engineers/scientists — $45.54 median hourly wage
2. Technician or mechanical support — $24.32 median hourly wage
3. Electrician/construction workers — $28.59 median hourly wage
Arizona

ENERGY AND EMPLOYMENT — 2020

Overview

Arizona has a low concentration of energy employment, with 46,951 Traditional Energy workers statewide (representing 1.4 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 24,080 are in Electric Power Generation, 2,095 are in Fuels, and 20,776 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Arizona is 1.7 percent of total state employment (compared to 2.3 percent of national employment). Arizona has an additional 44,782 jobs in Energy Efficiency (1.9 percent of all U.S. Energy Efficiency jobs) and 31,949 jobs in Motor Vehicles (1.2 percent of all U.S. Motor Vehicle jobs).

Figure AZ-1.

Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 0.8 percent since the 2019 report, increasing by 354 jobs over the period. Energy Efficiency jobs added 1,364 jobs (3.1 percent) and motor vehicles added 723 jobs (2.3 percent).
Breakdown by Technology Applications

ELECTRIC POWER GENERATION

Electric Power Generation employs 24,080 workers in Arizona, 2.7 percent of the national total and adding 225 jobs over the past year (0.9 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 9,779 jobs (up 5.6 percent), followed by traditional fossil fuel generation at 9,326 jobs (down -5.6 percent).

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

Construction is the largest industry sector in Electric Power Generation, with 35.5 percent of jobs. Professional and business services are next with 23.8 percent.

Figure AZ-3.
Electric Power Generation by Industry Sector
**FUELS**

Fuels employs 2,095 workers in Arizona, 0.2 percent of the national total, up 13.6 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

**Figure AZ-4.**
**Fuels Employment by Detailed Technology Application**

Professional and business services jobs represent 52.6 percent of Fuels jobs in Arizona.

**Figure AZ-5.**
**Fuels Employment by Industry Sector**
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 20,776 workers in Arizona, 1.5 percent of the national total, down 0.6 percent or 121 jobs since the 2018 report.

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

Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Arizona, with 48.2 percent of such jobs statewide.

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

The 44,782 Energy Efficiency jobs in Arizona represent 1.9 percent of all U.S. Energy Efficiency jobs, adding 1,364 jobs (3.1 percent) since last year. The largest number of these employees work in (high efficiency HVAC and renewable heating and cooling firms, followed by traditional HVAC.

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

Energy Efficiency employment is primarily found in the construction industry.

Figure AZ-9.
Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 31,949 jobs in Arizona, up 723 jobs over the past year (2.3 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure AZ-10.
Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

Employers in Arizona are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (5.2 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 1,972 jobs in Energy Efficiency (4.4 percent) and Motor Vehicles employers expect to add 1,317 jobs (4.1 percent) over the next year.

Table AZ-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
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<tbody>
<tr>
<td>Electric Power Generation</td>
<td>6.6</td>
<td>4.8</td>
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<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>3.3</td>
<td>3.5</td>
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<tr>
<td>Energy Efficiency</td>
<td>4.4</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>7.8</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>4.1</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 40.3 percent of energy-related employers in Arizona hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Motor Vehicles.

Table AZ-2
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>18.7</td>
<td>68.0</td>
<td>13.2</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>18.9</td>
<td>65.7</td>
<td>15.3</td>
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<tr>
<td>Energy Efficiency</td>
<td>29.0</td>
<td>46.2</td>
<td>24.8</td>
</tr>
<tr>
<td>Fuels</td>
<td>31.1</td>
<td>45.2</td>
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<tr>
<td>Motor Vehicles</td>
<td>29.1</td>
<td>61.7</td>
<td>9.2</td>
</tr>
</tbody>
</table>

Employers in Arizona gave the following as the top three reasons for their reported difficulty:

1. Lack of experience, training, or technical skills
2. Competition/small applicant pool
3. Economy/structural problem

Employers reported the following as the three most difficult occupations to hire for:

1. Sales, marketing, or customer service — $32.48 median hourly wage
2. Management (directors, supervisors, vice presidents) — $39.89 median hourly wage
3. Technician or mechanical support — $21.82 median hourly wage
Arkansas
ENERGY AND EMPLOYMENT — 2020

Overview

Arkansas has an average concentration of energy employment, with 27,805 Traditional Energy workers statewide (representing 0.8 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 3,884 are in Electric Power Generation, 8,558 are in Fuels, and 15,362 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Arkansas is 2.3 percent of total state employment (compared to 2.3 percent of national employment). Arkansas has an additional 15,492 jobs in Energy Efficiency (0.7 percent of all U.S. Energy Efficiency jobs) and 20,893 jobs in Motor Vehicles (0.8 percent of all U.S. Motor Vehicle jobs).

Figure AR-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 1.2 percent since the 2019 report, increasing by 331 jobs over the period. Energy Efficiency jobs added 344 jobs (2.3 percent) and motor vehicles added 734 jobs (3.6 percent).
Breakdown by Technology Applications

**ELECTRIC POWER GENERATION**

Electric Power Generation employs 3,884 workers in Arkansas, 0.4 percent of the national total and adding 274 jobs over the past year (7.6 percent). Traditional fossil fuel generation makes up the largest segment of employment related to Electric Power Generation, with 1,007 jobs (up 27.7 percent), followed by wind at 888 jobs (up 1.3 percent).

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

Utilities are the largest industry sector in Electric Power Generation, with 58.2 percent of jobs. Construction is next with 16.1 percent.

**Figure AR-3.**
**Electric Power Generation by Industry Sector**
FUELS

Fuels employs 8,558 workers in Arkansas, 0.7 percent of the national total, up 0.8 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure AR-4.
Fuels Employment by Detailed Technology Application

Professional and business services jobs represent 27.2 percent of Fuels jobs in Arkansas.

Figure AR-5.
Fuels Employment by Industry Sector
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 15,362 workers in Arkansas, 1.1 percent of the national total, down 0.1 percent or 8 jobs since the 2018 report.

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

Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Arkansas, with 43.5 percent of such jobs statewide.

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

The 15,492 Energy Efficiency jobs in Arkansas represent 0.7 percent of all U.S. Energy Efficiency jobs, adding 344 jobs (2.3 percent) since last year. The largest number of these employees work in (other energy efficiency products and services firms, followed by traditional HVAC.

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

Energy Efficiency employment is primarily found in the construction industry.

**Figure AR-9.**
Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 20,893 jobs in Arkansas, up 734 jobs over the past year (3.6 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is manufacturing.

Figure AR-10.
Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

Employers in Arkansas are less optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (2.7 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 888 jobs in Energy Efficiency (5.7 percent) and Motor Vehicles employers expect to add 677 jobs (3.2 percent) over the next year.

Table AR-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>4.5</td>
<td>4.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>1.8</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>5.7</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>3.6</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>3.2</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 63.6 percent of energy-related employers in Arkansas hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Electric Power Transmission, Distribution, and Storage.

Table AR-2
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
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</thead>
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<tr>
<td>Electric Power Generation</td>
<td>23.7</td>
<td>68.1</td>
<td>8.2</td>
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<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>24.1</td>
<td>69.0</td>
<td>6.9</td>
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<tr>
<td>Energy Efficiency</td>
<td>42.1</td>
<td>36.8</td>
<td>21.1</td>
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<tr>
<td>Fuels</td>
<td>32.2</td>
<td>43.2</td>
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<tr>
<td>Motor Vehicles</td>
<td>42.3</td>
<td>47.4</td>
<td>10.2</td>
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</tbody>
</table>

Employers in Arkansas gave the following as the top three reasons for their reported difficulty:

1. Insufficient non-technical skills (work ethic, dependability, critical thinking)
2. Lack of experience, training, or technical skills
3. Competition/ small applicant pool

Employers reported the following as the three most difficult occupations to hire for:

1. Technician or mechanical support — $21.58 median hourly wage
2. Installation workers — $20.77 median hourly wage
3. Electrician/construction workers — $22.82 median hourly wage
California has an average concentration of energy employment, with 411,811 Traditional Energy workers statewide (representing 12.0 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 182,559 are in Electric Power Generation, 77,049 are in Fuels, and 152,204 are in Transmission, Distribution, and Storage. The Traditional Energy sector in California is 2.3 percent of total state employment (compared to 2.3 percent of national employment). California has an additional 323,529 jobs in Energy Efficiency (13.6 percent of all U.S. Energy Efficiency jobs) and 221,077 jobs in Motor Vehicles (8.6 percent of all U.S. Motor Vehicle jobs).

Figure CA-1. Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 0.3 percent since the 2019 report, increasing by 1,212 jobs over the period. Energy Efficiency jobs added 4,988 jobs (1.6 percent) and motor vehicles added 3,490 jobs (1.6 percent).
Breakdown by Technology Applications

ELECTRIC POWER GENERATION

Electric Power Generation employs 182,559 workers in California, 20.5 percent of the national total and losing 859 jobs over the past year (-0.5 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 124,817 jobs (down -1.3 percent), followed by traditional fossil fuel generation at 22,890 jobs (down -0.0 percent).

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

Construction is the largest industry sector in Electric Power Generation, with 39.3 percent of jobs. Professional and business services are next with 18.7 percent.
**FUELS**

Fuels employs 77,049 workers in California, 6.7 percent of the national total, up 2.8 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

**Figure CA-4.**

Fuels Employment by Detailed Technology Application

Professional and business services jobs represent 34.9 percent of Fuels jobs in California.
Figure CA-5.
Fuels Employment by Industry Sector
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 152,204 workers in California, 11.0 percent of the national total, down 0.0 percent or 4 jobs since the 2018 report.

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

Construction is responsible for the largest percentage of Transmission, Distribution, and Storage jobs in California, with 32.4 percent of such jobs statewide.

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

The 323,529 Energy Efficiency jobs in California represent 13.6 percent of all U.S. Energy Efficiency jobs, adding 4,988 jobs (1.6 percent) since last year. The largest number of these employees work in (traditional HVAC firms, followed by ENERGY STAR and efficient lighting.

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

<table>
<thead>
<tr>
<th>Category</th>
<th>Employment Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy Star &amp; Efficient Lighting</td>
<td>73,016</td>
</tr>
<tr>
<td>Traditional HVAC</td>
<td>124,384</td>
</tr>
<tr>
<td>High Efficiency &amp; Renewable Heating &amp; Cooling</td>
<td>64,703</td>
</tr>
<tr>
<td>Advanced Materials and Insulation</td>
<td>21,714</td>
</tr>
<tr>
<td>Other</td>
<td>39,712</td>
</tr>
</tbody>
</table>

Energy Efficiency employment is primarily found in the construction industry.

**Figure CA-9.**
Energy Efficiency Employment by Industry Sector

<table>
<thead>
<tr>
<th>Industry Sector</th>
<th>Employment Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>168,144</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>33,184</td>
</tr>
<tr>
<td>Trade</td>
<td>30,105</td>
</tr>
<tr>
<td>Professional Services</td>
<td>86,096</td>
</tr>
<tr>
<td>Other Services</td>
<td>6,000</td>
</tr>
</tbody>
</table>
MOTOR VEHICLES

Motor Vehicle employment accounts for 221,077 jobs in California, up 3,490 jobs over the past year (1.6 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure CA-10.
Motor Vehicle Employment by Industry Sector

![Motor Vehicle Employment by Industry Sector](image)

Workforce Characteristics

EMPLOYER GROWTH

Employers in California are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (5.3 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 15,150 jobs in Energy Efficiency (4.7 percent) and Motor Vehicles employers expect to add 8,179 jobs (3.7 percent) over the next year.

Table CA-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>7.8</td>
<td>4.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>3.1</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>4.7</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>3.5</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>3.7</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 36.2 percent of energy-related employers in California hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Motor Vehicles.

Table CA-2
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>22.8</td>
<td>65.3</td>
<td>11.9</td>
</tr>
<tr>
<td>Electric Power Transmission,</td>
<td>20.6</td>
<td>66.7</td>
<td>12.7</td>
</tr>
<tr>
<td>Distribution, and Storage</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>37.1</td>
<td>47.7</td>
<td>15.2</td>
</tr>
<tr>
<td>Fuels</td>
<td>27.1</td>
<td>48.7</td>
<td>24.2</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>41.4</td>
<td>46.0</td>
<td>12.6</td>
</tr>
</tbody>
</table>

Employers in California gave the following as the top three reasons for their reported difficulty:

1. Lack of experience, training, or technical skills
2. Competition/ small applicant pool
3. Difficulty finding industry-specific knowledge, skills, and interest

Employers reported the following as the three most difficult occupations to hire for:

1. Management (directors, supervisors, vice presidents) — $48.93 median hourly wage
2. Sales, marketing, or customer service — $35.35 median hourly wage
3. Installation workers — $27.91 median hourly wage
Overview

Colorado has a high concentration of energy employment, with 92,586 Traditional Energy workers statewide (representing 2.7 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 25,397 are in Electric Power Generation, 38,708 are in Fuels, and 28,480 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Colorado is 3.3 percent of total state employment (compared to 2.3 percent of national employment). Colorado has an additional 36,092 jobs in Energy Efficiency (1.5 percent of all U.S. Energy Efficiency jobs) and 32,321 jobs in Motor Vehicles (1.3 percent of all U.S. Motor Vehicle jobs).

Figure CO-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 0.7 percent since the 2019 report, increasing by 680 jobs over the period. Energy Efficiency jobs added 1,750 jobs (5.1 percent) and motor vehicles added 235 jobs (0.7 percent).
Breakdown by Technology Applications

**ELECTRIC POWER GENERATION**

Electric Power Generation employs 25,397 workers in Colorado, 2.9 percent of the national total and adding 507 jobs over the past year (2.0 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 8,355 jobs (up 7.5 percent), followed by wind at 7,509 jobs (up 2.6 percent).

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

Professional and business services are the largest industry sector in Electric Power Generation, with 61.8 percent of jobs. Construction is next with 20.5 percent.

**Figure CO-3.**
Electric Power Generation by Industry Sector
FUELS

Fuels employs 38,708 workers in Colorado, 3.4 percent of the national total, up 1.5 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure CO-4. Fuels Employment by Detailed Technology Application

Mining and extraction jobs represent 67.0 percent of Fuels jobs in Colorado.

Figure CO-5. Fuels Employment by Industry Sector
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 28,480 workers in Colorado, 2.1 percent of the national total, down 1.4 percent or 412 jobs since the 2018 report.

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

Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Colorado, with 27.3 percent of such jobs statewide.

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

The 36,092 Energy Efficiency jobs in Colorado represent 1.5 percent of all U.S. Energy Efficiency jobs, adding 1,750 jobs (5.1 percent) since last year. The largest number of these employees work in (ENERGY STAR and efficient lighting firms, followed by traditional HVAC.

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. Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 32,321 jobs in Colorado, up 235 jobs over the past year (0.7 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure CO-10.
Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

Employers in Colorado are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (6.5 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 1,487 jobs in Energy Efficiency (4.1 percent) and Motor Vehicles employers expect to add 1,309 jobs (4.0 percent) over the next year.

Table CO-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>6.7</td>
<td>4.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>4.8</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>4.1</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>7.6</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>4.0</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 45.2 percent of energy-related employers in Colorado hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Motor Vehicles.

Table CO-2
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>15.4</td>
<td>70.9</td>
<td>13.7</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>20.6</td>
<td>67.4</td>
<td>12.0</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>30.7</td>
<td>47.9</td>
<td>21.4</td>
</tr>
<tr>
<td>Fuels</td>
<td>32.7</td>
<td>46.9</td>
<td>20.4</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>32.3</td>
<td>57.4</td>
<td>10.2</td>
</tr>
</tbody>
</table>

Employers in Colorado gave the following as the top three reasons for their reported difficulty:

1. Lack of experience, training, or technical skills
2. Competition/ small applicant pool
3. Difficulty finding industry-specific knowledge, skills, and interest

Employers reported the following as the three most difficult occupations to hire for:

1. Engineers/scientists — $39.49 median hourly wage
2. Sales, marketing, or customer service — $32.48 median hourly wage
3. Technician or mechanical support — $21.82 median hourly wage
Connecticut

ENERGY AND EMPLOYMENT — 2020

Overview

Connecticut has a low concentration of energy employment, with 21,517 Traditional Energy workers statewide (representing 0.6 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 6,275 are in Electric Power Generation, 4,494 are in Fuels, and 10,747 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Connecticut is 1.3 percent of total state employment (compared to 2.3 percent of national employment). Connecticut has an additional 36,000 jobs in Energy Efficiency (1.5 percent of all U.S. Energy Efficiency jobs) and 18,632 jobs in Motor Vehicles (0.7 percent of all U.S. Motor Vehicle jobs).

Figure CT-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 2.9 percent since the 2019 report, increasing by 604 jobs over the period. Energy Efficiency jobs added 403 jobs (1.1 percent) and motor vehicles lost 598 jobs (-3.1 percent).
Breakdown by Technology Applications

**ELECTRIC POWER GENERATION**

Electric Power Generation employs 6,275 workers in Connecticut, 0.7 percent of the national total and adding 355 jobs over the past year (6.0 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 2,839 jobs (up 4.7 percent), followed by traditional fossil fuel generation at 1,274 jobs (up 4.6 percent).

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

Utilities are the largest industry sector in Electric Power Generation, with 38.3 percent of jobs. Professional and business services are next with 24.8 percent.

<table>
<thead>
<tr>
<th>Technology Application</th>
<th>Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nuclear Generation</td>
<td>1,256</td>
</tr>
<tr>
<td>Other Generation</td>
<td>638</td>
</tr>
<tr>
<td>Coal Generation</td>
<td>74</td>
</tr>
<tr>
<td>Oil &amp; Other Fossil Fuel Generation</td>
<td>212</td>
</tr>
<tr>
<td>Natural Gas Generation</td>
<td>82</td>
</tr>
<tr>
<td>Traditional Hydroelectric Generation</td>
<td>186</td>
</tr>
<tr>
<td>Wind Electric Generation</td>
<td>2,234</td>
</tr>
<tr>
<td>Majority of time solar</td>
<td></td>
</tr>
<tr>
<td>Less than 50% solar</td>
<td>605</td>
</tr>
<tr>
<td>Solar Electric Generation</td>
<td>2,839</td>
</tr>
</tbody>
</table>
FUELS

Fuels employs 4,494 workers in Connecticut, 0.4 percent of the national total, up 6.6 percent over the past year. Petroleum and other fossil fuels make up the largest segment of employment related to Fuels.

Wholesale trade jobs represent 59.8 percent of Fuels jobs in Connecticut.
Figure CT-5.
Fuels Employment by Industry Sector

- Agriculture and Forestry: 59
- Mining & Extraction: 5
- Construction: -
- Manufacturing: 1,258
- Trade: 2,690
- Professional Services: 462
- Other Services: 21
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 10,747 workers in Connecticut, 0.8 percent of the national total, down 0.3 percent or 28 jobs since the 2018 report.

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

Construction is responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Connecticut, with 41.1 percent of such jobs statewide.

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

The 36,000 Energy Efficiency jobs in Connecticut represent 1.5 percent of all U.S. Energy Efficiency jobs, adding 403 jobs (1.1 percent) since last year. The largest number of these employees work in high efficiency HVAC and renewable heating and cooling firms, followed by traditional HVAC.

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

Energy Efficiency employment is primarily found in the construction industry.

Figure CT-9. Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 18,632 jobs in Connecticut, down 598 jobs over the past year (-3.1 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure CT-10.
Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

Employers in Connecticut are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (4.0 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 1,841 jobs in Energy Efficiency (5.1 percent) and Motor Vehicles employers expect to add 538 jobs (2.9 percent) over the next year.

Table CT-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>6.4</td>
<td>4.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>1.9</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>5.1</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>5.6</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>2.9</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 50.0 percent of energy-related employers in Connecticut hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Electric Power Transmission, Distribution, and Storage.

Table CT-2
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>25.8</td>
<td>59.1</td>
<td>15.1</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>25.4</td>
<td>61.2</td>
<td>13.4</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>38.2</td>
<td>43.6</td>
<td>18.2</td>
</tr>
<tr>
<td>Fuels</td>
<td>30.8</td>
<td>39.9</td>
<td>29.3</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>47.3</td>
<td>37.4</td>
<td>15.2</td>
</tr>
</tbody>
</table>

Employers in Connecticut gave the following as the top three reasons for their reported difficulty:

1. Lack of experience, training, or technical skills
2. Difficulty finding industry-specific knowledge, skills, and interest
3. Insufficient qualifications (certifications or education)

Employers reported the following as the three most difficult occupations to hire for:

1. Management (directors, supervisors, vice presidents) — $48.41 median hourly wage
2. Engineers/scientists — $41.07 median hourly wage
3. Technician or mechanical support — $23.84 median hourly wage
District of Columbia

ENERGY AND EMPLOYMENT — 2020

Overview

District of Columbia has a low concentration of energy employment, with 5,769 Traditional Energy workers statewide (representing 0.2 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 2,365 are in Electric Power Generation, 1,003 are in Fuels, and 2,401 are in Transmission, Distribution, and Storage. The Traditional Energy sector in District of Columbia is 0.7 percent of total state employment (compared to 2.3 percent of national employment). District of Columbia has an additional 12,982 jobs in Energy Efficiency (0.5 percent of all U.S. Energy Efficiency jobs) and 1,835 jobs in Motor Vehicles (0.1 percent of all U.S. Motor Vehicle jobs).

Figure DC-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 6.7 percent since the 2019 report, increasing by 363 jobs over the period. Energy Efficiency jobs added 175 jobs (1.4 percent) and motor vehicles lost 669 jobs (-26.7 percent).
Breakdown by Technology Applications

ELECTRIC POWER GENERATION

Electric Power Generation employs 2,365 workers in District of Columbia, 0.3 percent of the national total and adding 112 jobs over the past year (5.0 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 1,437 jobs (down -1.2 percent), followed by traditional fossil fuel generation at 324 jobs (up 6.2 percent).

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

Professional and business services are the largest industry sector in Electric Power Generation, with 58.6 percent of jobs. Other services next with 23.5 percent.

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

Fuels employs 1,003 workers in District of Columbia, 0.1 percent of the national total, up 18.7 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure DC-4.
Fuels Employment by Detailed Technology Application

![Bar chart showing Fuels employment by detailed technology application.]

Professional and business services jobs represent 85.9 percent of Fuels jobs in District of Columbia.

Figure DC-5.
Fuels Employment by Industry Sector

![Bar chart showing Fuels employment by industry sector.]

DC — 3
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 2,401 workers in District of Columbia, 0.2 percent of the national total, up 4.0 percent or 92 jobs since the 2018 report.

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

Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in District of Columbia, with 39.8 percent of such jobs statewide.

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

The 12,982 Energy Efficiency jobs in District of Columbia represent 0.5 percent of all U.S. Energy Efficiency jobs, adding 175 jobs (1.4 percent) since last year. The largest number of these employees work in (high efficiency HVAC and renewable heating and cooling firms, followed by other energy efficiency products and services.

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.
Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 1,835 jobs in District of Columbia, down 669 jobs over the past year (-26.7 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is professional and business services.

Figure DC-10. Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

Employers in District of Columbia are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (3.7 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 469 jobs in Energy Efficiency (3.6 percent) and Motor Vehicles employers expect to add 161 jobs (8.8 percent) over the next year.

Table DC-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>4.2</td>
<td>4.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>3.1</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>3.6</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>4.2</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>8.8</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 38.2 percent of energy-related employers in District of Columbia hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Electric Power Generation.

Table DC-2
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>26.5</td>
<td>65.0</td>
<td>8.5</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>28.2</td>
<td>62.4</td>
<td>9.4</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>39.4</td>
<td>45.5</td>
<td>15.2</td>
</tr>
<tr>
<td>Fuels</td>
<td>30.8</td>
<td>39.9</td>
<td>29.3</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>34.2</td>
<td>54.0</td>
<td>11.8</td>
</tr>
</tbody>
</table>

Employers in District of Columbia gave the following as the top three reasons for their reported difficulty:

1. Lack of experience, training, or technical skills
2. Competition/ small applicant pool
3. Difficulty finding industry-specific knowledge, skills, and interest

Employers reported the following as the three most difficult occupations to hire for:

1. Management (directors, supervisors, vice presidents) — $37.13 median hourly wage
2. Engineers/scientists — $35.46 median hourly wage
3. Sales, marketing, or customer service — $31.16 median hourly wage
Delaware

ENERGY AND EMPLOYMENT — 2020

Overview

Delaware has a low concentration of energy employment, with 6,785 Traditional Energy workers statewide (representing 0.2 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 1,237 are in Electric Power Generation, 2,544 are in Fuels, and 3,004 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Delaware is 1.5 percent of total state employment (compared to 2.3 percent of national employment). Delaware has an additional 12,543 jobs in Energy Efficiency (0.5 percent of all U.S. Energy Efficiency jobs) and 3,649 jobs in Motor Vehicles (0.1 percent of all U.S. Motor Vehicle jobs).

Figure DE-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 6.3 percent since the 2019 report, increasing by 401 jobs over the period. Energy Efficiency jobs added 29 jobs (0.2 percent) and motor vehicles added 24 jobs (0.7 percent).
Breakdown by Technology Applications

ELECTRIC POWER GENERATION

Electric Power Generation employs 1,237 workers in Delaware, 0.1 percent of the national total and adding 111 jobs over the past year (9.8 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 626 jobs (up 7.4 percent), followed by traditional fossil fuel generation at 378 jobs (up 8.0 percent).

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

Utilities are the largest industry sector in Electric Power Generation, with 42.8 percent of jobs. Construction is next with 37.4 percent.

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

Fuels employs 2,544 workers in Delaware, 0.2 percent of the national total, up 1.3 percent over the past year. Other fuels makes up the largest segment of employment related to Fuels.

Figure DE-4.
Fuels Employment by Detailed Technology Application

![Graph showing Fuels Employment by Detailed Technology Application]

Manufacturing jobs represent 44.8 percent of Fuels jobs in Delaware.

Figure DE-5.
Fuels Employment by Industry Sector

![Graph showing Fuels Employment by Industry Sector]
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 3,004 workers in Delaware, 0.2 percent of the national total, up 9.3 percent or 256 jobs since the 2018 report.

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

Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Delaware, with 58.2 percent of such jobs statewide.

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

The 12,543 Energy Efficiency jobs in Delaware represent 0.5 percent of all U.S. Energy Efficiency jobs, adding 29 jobs (0.2 percent) since last year. The largest number of these employees work in traditional HVAC firms, followed by high efficiency HVAC and renewable heating and cooling.

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

Energy Efficiency employment is primarily found in the construction industry.

**Figure DE-9.**
Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 3,649 jobs in Delaware, up 24 jobs over the past year (0.7 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure DE-10.
Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

Employers in Delaware are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (3.7 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 363 jobs in Energy Efficiency (2.9 percent) and Motor Vehicles employers expect to add 289 jobs (7.9 percent) over the next year.

Table DE-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>3.7</td>
<td>4.8</td>
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<tr>
<td>Electric Power Transmission,</td>
<td>3.5</td>
<td>3.5</td>
</tr>
<tr>
<td>Distribution, and Storage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>2.9</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>4.0</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>7.9</td>
<td>3.1</td>
</tr>
</tbody>
</table>
Hiring Difficulty

Over the last year, 50.0 percent of energy-related employers in Delaware hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Electric Power Generation.

Table DE-2
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>25.4</td>
<td>66.1</td>
<td>8.5</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>28.2</td>
<td>62.4</td>
<td>9.4</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>39.4</td>
<td>45.5</td>
<td>15.2</td>
</tr>
<tr>
<td>Fuels</td>
<td>30.8</td>
<td>39.9</td>
<td>29.3</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>34.2</td>
<td>54.0</td>
<td>11.8</td>
</tr>
</tbody>
</table>

Employers in Delaware gave the following as the top three reasons for their reported difficulty:

1. Competition/ small applicant pool
2. Insufficient non-technical skills (work ethic, dependability, critical thinking)
3. Lack of experience, training, or technical skills

Employers reported the following as the three most difficult occupations to hire for:

1. Electrician/construction workers — $22.79 median hourly wage
2. Sales, marketing, or customer service — $31.16 median hourly wage
3. Installation workers — $20.65 median hourly wage
Florida

ENERGY AND EMPLOYMENT — 2020

Overview

Florida has a low concentration of energy employment, with 124,954 Traditional Energy workers statewide (representing 3.7 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 54,283 are in Electric Power Generation, 18,802 are in Fuels, and 51,869 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Florida is 1.4 percent of total state employment (compared to 2.3 percent of national employment). Florida has an additional 123,560 jobs in Energy Efficiency (5.2 percent of all U.S. Energy Efficiency jobs) and 93,548 jobs in Motor Vehicles (3.7 percent of all U.S. Motor Vehicle jobs).

Figure FL-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 2.9 percent since the 2019 report, increasing by 3,480 jobs over the period. Energy Efficiency jobs added 5,148 jobs (4.3 percent) and motor vehicles added 1,081 jobs (1.2 percent).
Breakdown by Technology Applications

ELECTRIC POWER GENERATION

Electric Power Generation employs 54,283 workers in Florida, 6.1 percent of the national total and adding 1,993 jobs over the past year (3.8 percent). Traditional fossil fuel generation makes up the largest segment of employment related to Electric Power Generation, with 19,468 jobs (down -1.0 percent), followed by solar at 12,317 jobs (up 17.0 percent).

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

Construction is the largest industry sector in Electric Power Generation, with 51.8 percent of jobs. Utilities are next with 23.0 percent.

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

Fuels employs 18,802 workers in Florida, 1.6 percent of the national total, up 6.0 percent over the past year. Natural gas makes up the largest segment of employment related to Fuels.

Figure FL-4.
Fuels Employment by Detailed Technology Application

Wholesale trade jobs represent 53.8 percent of Fuels jobs in Florida.

Figure FL-5.
Fuels Employment by Industry Sector
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 51,869 workers in Florida, 3.7 percent of the national total, up 0.8 percent or 420 jobs since the 2018 report.

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

![Transmission, Distribution and Storage Employment by Detailed Technology](image)

Construction is responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Florida, with 55.5 percent of such jobs statewide.

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

![Transmission, Distribution and Storage Employment by Industry Sector](image)
ENERGY EFFICIENCY

The 123,560 Energy Efficiency jobs in Florida represent 5.2 percent of all U.S. Energy Efficiency jobs, adding 5,148 jobs (4.3 percent) since last year. The largest number of these employees work in (ENERGY STAR and efficient lighting firms, followed by advanced materials and insulation.

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

Energy Efficiency employment is primarily found in the construction industry.

Figure FL-9.
Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 93,548 jobs in Florida, up 1,081 jobs over the past year (1.2 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure FL-10.
Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

Employers in Florida are similarly optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (3.2 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 4,630 jobs in Energy Efficiency (3.7 percent) and Motor Vehicles employers expect to add 8,569 jobs (9.2 percent) over the next year.

Table FL-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
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<td>Electric Power Generation</td>
<td>3.2</td>
<td>4.8</td>
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<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>2.9</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>3.7</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>4.0</td>
<td>1.7</td>
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<tr>
<td>Motor Vehicles</td>
<td>9.2</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 38.0 percent of energy-related employers in Florida hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Electric Power Generation.

Table FL-2
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>31.8</td>
<td>59.7</td>
<td>8.5</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>35.4</td>
<td>56.1</td>
<td>8.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>45.5</td>
<td>40.9</td>
<td>13.6</td>
</tr>
<tr>
<td>Fuels</td>
<td>37.7</td>
<td>35.9</td>
<td>26.4</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>44.2</td>
<td>44.0</td>
<td>11.8</td>
</tr>
</tbody>
</table>

Employers in Florida gave the following as the top three reasons for their reported difficulty:

1. Lack of experience, training, or technical skills
2. Insufficient non-technical skills (work ethic, dependability, critical thinking)
3. Competition/ small applicant pool

Employers reported the following as the three most difficult occupations to hire for:

1. Installation workers — $20.65 median hourly wage
2. Technician or mechanical support — $20.28 median hourly wage
3. Sales, marketing, or customer service — $31.16 median hourly wage
Georgia

ENERGY AND EMPLOYMENT — 2020

Overview

Georgia has a low concentration of energy employment, with 64,774 Traditional Energy workers statewide (representing 1.9 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 15,690 are in Electric Power Generation, 10,076 are in Fuels, and 39,008 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Georgia is 1.4 percent of total state employment (compared to 2.3 percent of national employment). Georgia has an additional 62,924 jobs in Energy Efficiency (2.6 percent of all U.S. Energy Efficiency jobs) and 78,489 jobs in Motor Vehicles (3.1 percent of all U.S. Motor Vehicle jobs).

Figure GA-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 5.2 percent since the 2019 report, increasing by 3,222 jobs over the period. Energy Efficiency jobs added 1,731 jobs (2.8 percent) and motor vehicles added 2,396 jobs (3.1 percent).
Breakdown by Technology Applications

ELECTRIC POWER GENERATION

Electric Power Generation employs 15,690 workers in Georgia, 1.8 percent of the national total and adding 2,130 jobs over the past year (15.7 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 6,569 jobs (up 32.8 percent), followed by traditional fossil fuel generation at 3,064 jobs (up 4.4 percent).

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

Construction is the largest industry sector in Electric Power Generation, with 36.0 percent of jobs. Utilities are next with 26.4 percent.

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

Fuels employs 10,076 workers in Georgia, 0.9 percent of the national total, up 6.0 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

**Figure GA-4.**
Fuels Employment by Detailed Technology Application

Wholesale trade jobs represent 48.7 percent of Fuels jobs in Georgia.

**Figure GA-5.**
Fuels Employment by Industry Sector
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 39,008 workers in Georgia, 2.8 percent of the national total, up 1.4 percent or 520 jobs since the 2018 report.

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

Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Georgia, with 46.4 percent of such jobs statewide.

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

The 62,924 Energy Efficiency jobs in Georgia represent 2.6 percent of all U.S. Energy Efficiency jobs, adding 1,731 jobs (2.8 percent) since last year. The largest number of these employees work in high efficiency HVAC and renewable heating and cooling firms, followed by traditional HVAC.

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

Energy Efficiency employment is primarily found in the construction industry.

**Figure GA-9.**  
Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 78,489 jobs in Georgia, up 2,396 jobs over the past year (3.1 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure GA-10.
Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

Employers in Georgia are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (3.7 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 1,821 jobs in Energy Efficiency (2.9 percent) and Motor Vehicles employers expect to add 7,626 jobs (9.7 percent) over the next year.

Table GA-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>3.7</td>
<td>4.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>3.5</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>2.9</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>4.0</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>9.7</td>
<td>3.1</td>
</tr>
</tbody>
</table>
Hiring Difficulty

Over the last year, 41.0 percent of energy-related employers in Georgia hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Electric Power Transmission, Distribution, and Storage.

Table GA-2
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>28.4</td>
<td>62.1</td>
<td>9.5</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>25.4</td>
<td>66.1</td>
<td>8.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>35.5</td>
<td>50.9</td>
<td>13.6</td>
</tr>
<tr>
<td>Fuels</td>
<td>27.7</td>
<td>45.9</td>
<td>26.4</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>44.2</td>
<td>44.0</td>
<td>11.8</td>
</tr>
</tbody>
</table>

Employers in Georgia gave the following as the top three reasons for their reported difficulty:

1. Lack of experience, training, or technical skills
2. Insufficient non-technical skills (work ethic, dependability, critical thinking)
3. Competition/ small applicant pool

Employers reported the following as the three most difficult occupations to hire for:

1. Sales, marketing, or customer service — $31.16 median hourly wage
2. Technician or mechanical support — $20.28 median hourly wage
3. Installation workers — $20.65 median hourly wage
Hawaii

ENERGY AND EMPLOYMENT — 2020

Overview

Hawaii has an average concentration of energy employment, with 15,512 Traditional Energy workers statewide (representing 0.5 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 6,639 are in Electric Power Generation, 4,339 are in Fuels, and 4,534 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Hawaii is 2.4 percent of total state employment (compared to 2.3 percent of national employment). Hawaii has an additional 6,083 jobs in Energy Efficiency (0.3 percent of all U.S. Energy Efficiency jobs) and 4,054 jobs in Motor Vehicles (0.2 percent of all U.S. Motor Vehicle jobs).

Figure HI-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 2.3 percent since the 2019 report, increasing by 346 jobs over the period. Energy Efficiency jobs added 233 jobs (4.0 percent) and motor vehicles lost 102 jobs (-2.5 percent).
Breakdown by Technology Applications

ELECTRIC POWER GENERATION

Electric Power Generation employs 6,639 workers in Hawaii, 0.7 percent of the national total and adding 119 jobs over the past year (1.8 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 4,311 jobs (up 4.2 percent), followed by traditional fossil fuel generation at 1,858 jobs (down -4.7 percent).

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

Construction is the largest industry sector in Electric Power Generation, with 65.9 percent of jobs. Professional and business services are next with 23.3 percent.
FUELS

Fuels employs 4,339 workers in Hawaii, 0.4 percent of the national total, down -0.1 percent over the past year. Other ethanol/non-Woody biomass, including biodiesel makes up the largest segment of employment related to Fuels.

Agriculture jobs represent 43.2 percent of Fuels jobs in Hawaii.
Figure HI-5.
Fuels Employment by Industry Sector

- Agriculture and Forestry: 1,876
- Mining & Extraction: 10
- Construction: 963
- Manufacturing: 499
- Trade: 988
- Professional Services: 4
- Other Services: -
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 4,534 workers in Hawaii, 0.3 percent of the national total, up 5.3 percent or 230 jobs since the 2018 report.

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

Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Hawaii, with 33.4 percent of such jobs statewide.

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

The 6,083 Energy Efficiency jobs in Hawaii represent 0.3 percent of all U.S. Energy Efficiency jobs, adding 233 jobs (4.0 percent) since last year. The largest number of these employees work in (high efficiency HVAC and renewable heating and cooling firms, followed by ENERGY STAR and efficient lighting.

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

Energy Efficiency employment is primarily found in the construction industry.

**Figure HI-9.**
*Energy Efficiency Employment by Industry Sector*

<table>
<thead>
<tr>
<th>Industry Sector</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>4,894</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>15</td>
</tr>
<tr>
<td>Trade</td>
<td>233</td>
</tr>
<tr>
<td>Professional Services</td>
<td>826</td>
</tr>
<tr>
<td>Other Services</td>
<td>114</td>
</tr>
</tbody>
</table>
MOTOR VEHICLES

Motor Vehicle employment accounts for 4,054 jobs in Hawaii, down 102 jobs over the past year (-2.5 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure HI-10.
Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

Employers in Hawaii are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (5.5 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 274 jobs in Energy Efficiency (4.5 percent) and Motor Vehicles employers expect to add 141 jobs (3.5 percent) over the next year.

Table HI-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>7.9</td>
<td>4.8</td>
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<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>3.9</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>4.5</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>3.4</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>3.5</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 25.9 percent of energy-related employers in Hawaii hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Electric Power Transmission, Distribution, and Storage.

Table HI-2
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
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<tbody>
<tr>
<td>Electric Power Generation</td>
<td>23.1</td>
<td>63.7</td>
<td>13.2</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>20.6</td>
<td>68.7</td>
<td>10.7</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>37.1</td>
<td>49.7</td>
<td>13.2</td>
</tr>
<tr>
<td>Fuels</td>
<td>27.1</td>
<td>50.7</td>
<td>22.2</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>41.2</td>
<td>46.3</td>
<td>12.4</td>
</tr>
</tbody>
</table>

Employers in Hawaii gave the following as the top three reasons for their reported difficulty:

1. Competition/ small applicant pool
2. Lack of experience, training, or technical skills
3. Difficulty finding industry-specific knowledge, skills, and interest

Employers reported the following as the three most difficult occupations to hire for:

1. Sales, marketing, or customer service — $35.35 median hourly wage
2. Electrician/construction workers — $28.59 median hourly wage
3. Installation workers — $27.91 median hourly wage
Idaho

ENERGY AND EMPLOYMENT — 2020

Overview

Idaho has a low concentration of energy employment, with 13,298 Traditional Energy workers statewide (representing 0.4 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 2,081 are in Electric Power Generation, 2,386 are in Fuels, and 8,831 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Idaho is 1.7 percent of total state employment (compared to 2.3 percent of national employment). Idaho has an additional 9,035 jobs in Energy Efficiency (0.4 percent of all U.S. Energy Efficiency jobs) and 10,700 jobs in Motor Vehicles (0.4 percent of all U.S. Motor Vehicle jobs).

Figure ID-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 1.0 percent since the 2019 report, increasing by 132 jobs over the period. Energy Efficiency jobs added 288 jobs (3.3 percent) and motor vehicles added 605 jobs (6.0 percent).
Breakdown by Technology Applications

ELECTRIC POWER GENERATION

Electric Power Generation employs 2,081 workers in Idaho, 0.2 percent of the national total and adding 92 jobs over the past year (4.6 percent). Wind makes up the largest segment of employment related to Electric Power Generation, with 891 jobs (up 1.4 percent), followed by solar at 744 jobs (down -0.4 percent).

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

Construction is the largest industry sector in Electric Power Generation, with 27.6 percent of jobs. Professional and business services are next with 24.1 percent).
FUELS

Fuels employs 2,386 workers in Idaho, 0.2 percent of the national total, up 3.3 percent over the past year. Natural gas makes up the largest segment of employment related to Fuels.

Professional and business services jobs represent 42.5 percent of Fuels jobs in Idaho.
Figure ID-5.
Fuels Employment by Industry Sector
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 8,831 workers in Idaho, 0.6 percent of the national total, down 0.4 percent or 35 jobs since the 2018 report.

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

Construction is responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Idaho, with 30.3 percent of such jobs statewide.

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

The 9,035 Energy Efficiency jobs in Idaho represent 0.4 percent of all U.S. Energy Efficiency jobs, adding 288 jobs (3.3 percent) since last year. The largest number of these employees work in high efficiency HVAC and renewable heating and cooling firms, followed by traditional HVAC.

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

Energy Efficiency employment is primarily found in the construction industry.

Figure ID-9. Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 10,700 jobs in Idaho, up 605 jobs over the past year (6.0 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure ID-10.
Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

Employers in Idaho are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (4.9 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 399 jobs in Energy Efficiency (4.4 percent) and Motor Vehicles employers expect to add 441 jobs (4.1 percent) over the next year.

Table ID-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
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<td>Fuels</td>
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<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>4.1</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 18.2 percent of energy-related employers in Idaho hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Motor Vehicles.

Table ID-2
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>15.6</td>
<td>72.4</td>
<td>12.0</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>17.3</td>
<td>69.3</td>
<td>13.3</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>28.6</td>
<td>47.6</td>
<td>23.8</td>
</tr>
<tr>
<td>Fuels</td>
<td>30.8</td>
<td>46.5</td>
<td>22.6</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>32.3</td>
<td>57.4</td>
<td>10.2</td>
</tr>
</tbody>
</table>

Employers in Idaho gave the following as the top three reasons for their reported difficulty:

1. Difficulty finding industry-specific knowledge, skills, and interest
2. Competition/ small applicant pool
3. Lack of experience, training, or technical skills

Employers reported the following as the three most difficult occupations to hire for:

1. Finance positions or accountants — $27.32 median hourly wage
2. Operations or business development — $40.78 median hourly wage
3. Technician or mechanical support — $21.82 median hourly wage
Illinois

ENERGY AND EMPLOYMENT — 2020

Overview

Illinois has a low concentration of energy employment, with 114,071 Traditional Energy workers statewide (representing 3.3 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 31,018 are in Electric Power Generation, 33,080 are in Fuels, and 49,973 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Illinois is 1.9 percent of total state employment (compared to 2.3 percent of national employment). Illinois has an additional 91,024 jobs in Energy Efficiency (3.8 percent of all U.S. Energy Efficiency jobs) and 104,976 jobs in Motor Vehicles (4.1 percent of all U.S. Motor Vehicle jobs).

Figure IL-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 0.3 percent since the 2019 report, increasing by 341 jobs over the period. Energy Efficiency jobs added 1,555 jobs (1.7 percent) and motor vehicles added 945 jobs (0.9 percent).
Breakdown by Technology Applications

ELECTRIC POWER GENERATION

Electric Power Generation employs 31,018 workers in Illinois, 3.5 percent of the national total and adding 631 jobs over the past year (2.1 percent). Wind makes up the largest segment of employment related to Electric Power Generation, with 8,763 jobs (up 0.7 percent), followed by traditional fossil fuel generation at 7,376 jobs (down -2.9 percent).

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

Construction is the largest industry sector in Electric Power Generation, with 31.8 percent of jobs. Utilities are next with 25.5 percent.

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

Fuels employs 33,080 workers in Illinois, 2.9 percent of the national total, up 1.0 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

**Figure IL-4.**
Fuels Employment by Detailed Technology Application

Manufacturing jobs represent 30.0 percent of Fuels jobs in Illinois.

**Figure IL-5.**
Fuels Employment by Industry Sector
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 49,973 workers in Illinois, 3.6 percent of the national total, down 1.2 percent or 604 jobs since the 2018 report.

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

Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Illinois, with 35.9 percent of such jobs statewide.

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

The 91,024 Energy Efficiency jobs in Illinois represent 3.8 percent of all U.S. Energy Efficiency jobs, adding 1,555 jobs (1.7 percent) since last year. The largest number of these employees work in (traditional HVAC firms, followed by high efficiency HVAC and renewable heating and cooling.

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

Energy Efficiency employment is primarily found in the construction industry.

Figure IL-9. 
Energy Efficiency Employment by Industry Sector
**MOTOR VEHICLES**

Motor Vehicle employment accounts for 104,976 jobs in Illinois, up 945 jobs over the past year (0.9 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

*Figure IL-10. Motor Vehicle Employment by Industry Sector*

![Motor Vehicle Employment by Industry Sector](image)

**Workforce Characteristics**

**EMPLOYER GROWTH**

Employers in Illinois are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (3.7 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 3,621 jobs in Energy Efficiency (4.0 percent) and Motor Vehicles employers expect to add 3,018 jobs (2.9 percent) over the next year.

*Table IL-1 Projected Growth by Major Technology Application.*

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>5.7</td>
<td>4.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>2.6</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>4.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>3.4</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>2.9</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 39.3 percent of energy-related employers in Illinois hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Motor Vehicles.

Table IL-2
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>12.5</td>
<td>52.8</td>
<td>34.7</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>21.3</td>
<td>47.8</td>
<td>30.9</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>61.4</td>
<td>28.9</td>
<td>9.6</td>
</tr>
<tr>
<td>Fuels</td>
<td>36.9</td>
<td>35.0</td>
<td>28.1</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>32.7</td>
<td>58.1</td>
<td>9.2</td>
</tr>
</tbody>
</table>

Employers in Illinois gave the following as the top three reasons for their reported difficulty:

1. Lack of experience, training, or technical skills
2. Competition/small applicant pool
3. Insufficient non-technical skills (work ethic, dependability, critical thinking)

Employers reported the following as the three most difficult occupations to hire for:

1. Technician or mechanical support — $21.25 median hourly wage
2. Management (directors, supervisors, vice presidents) — $43.21 median hourly wage
3. Sales, marketing, or customer service — $32.37 median hourly wage
Indiana

ENERGY AND EMPLOYMENT — 2020

Overview

Indiana has a low concentration of energy employment, with 59,041 Traditional Energy workers statewide (representing 1.7 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 17,536 are in Electric Power Generation, 14,119 are in Fuels, and 27,386 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Indiana is 1.9 percent of total state employment (compared to 2.3 percent of national employment). Indiana has an additional 55,663 jobs in Energy Efficiency (2.3 percent of all U.S. Energy Efficiency jobs) and 170,793 jobs in Motor Vehicles (6.7 percent of all U.S. Motor Vehicle jobs).

Figure IN-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 0.3 percent since the 2019 report, increasing by 179 jobs over the period. Energy Efficiency jobs added 573 jobs (1.0 percent) and motor vehicles lost 46 jobs (-0.0 percent).
Breakdown by Technology Applications

ELECTRIC POWER GENERATION

Electric Power Generation employs 17,536 workers in Indiana, 2.0 percent of the national total and losing 37 jobs over the past year (-0.2 percent). Wind makes up the largest segment of employment related to Electric Power Generation, with 6,449 jobs (down -0.9 percent), followed by traditional fossil fuel generation at 6,447 jobs (down -5.0 percent).

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

Construction is the largest industry sector in Electric Power Generation, with 41.9 percent of jobs. Manufacturing is next with 21.8 percent.

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

Fuels employs 14,119 workers in Indiana, 1.2 percent of the national total, up 2.5 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

**Figure IN-4.**
**Fuels Employment by Detailed Technology Application**

Manufacturing jobs represent 38.4 percent of Fuels jobs in Indiana.

**Figure IN-5.**
**Fuels Employment by Industry Sector**
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 27,386 workers in Indiana, 2.0 percent of the national total, down 0.5 percent or 124 jobs since the 2018 report.

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

Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Indiana, with 36.4 percent of such jobs statewide.

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

The 55,663 Energy Efficiency jobs in Indiana represent 2.3 percent of all U.S. Energy Efficiency jobs, adding 573 jobs (1.0 percent) since last year. The largest number of these employees work in high efficiency HVAC and renewable heating and cooling firms, followed by traditional HVAC.

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

Energy Efficiency employment is primarily found in the construction industry.

Figure IN-9.
Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 170,793 jobs in Indiana, down 46 jobs over the past year (-0.0 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is manufacturing.

Figure IN-10.
Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

 Employers in Indiana are similarly optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (3.2 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 1,959 jobs in Energy Efficiency (3.5 percent) and Motor Vehicles employers expect to add 4,766 jobs (2.8 percent) over the next year.

Table IN-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>5.5</td>
<td>4.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>1.5</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>3.5</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>3.4</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>2.8</td>
<td>3.1</td>
</tr>
</tbody>
</table>
Hiring Difficulty

Over the last year, 51.7 percent of energy-related employers in Indiana hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Motor Vehicles.

Table IN-2
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>12.7</td>
<td>55.0</td>
<td>32.4</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>11.3</td>
<td>57.8</td>
<td>30.9</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>51.4</td>
<td>38.9</td>
<td>9.6</td>
</tr>
<tr>
<td>Fuels</td>
<td>26.9</td>
<td>45.0</td>
<td>28.1</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>32.7</td>
<td>58.1</td>
<td>9.2</td>
</tr>
</tbody>
</table>

Employers in Indiana gave the following as the top three reasons for their reported difficulty:

1. Lack of experience, training, or technical skills
2. Competition/ small applicant pool
3. Difficulty finding industry-specific knowledge, skills, and interest

Employers reported the following as the three most difficult occupations to hire for:

1. Installation workers — $20.51 median hourly wage
2. Technician or mechanical support — $21.25 median hourly wage
3. Sales, marketing, or customer service — $32.37 median hourly wage
Iowa

ENERGY AND EMPLOYMENT — 2020

Overview

Iowa has an average concentration of energy employment, with 33,979 Traditional Energy workers statewide (representing 1.0 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 9,331 are in Electric Power Generation, 11,148 are in Fuels, and 13,500 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Iowa is 2.1 percent of total state employment (compared to 2.3 percent of national employment). Iowa has an additional 21,165 jobs in Energy Efficiency (0.9 percent of all U.S. Energy Efficiency jobs) and 31,745 jobs in Motor Vehicles (1.2 percent of all U.S. Motor Vehicle jobs).

Figure IA-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs declined by 0.2 percent since the 2019 report, decreasing by 68 jobs over the period. Energy Efficiency jobs added 578 jobs (2.8 percent) and motor vehicles added 83 jobs (0.3 percent).
Breakdown by Technology Applications

ELECTRIC POWER GENERATION

Electric Power Generation employs 9,331 workers in Iowa, 1.0 percent of the national total and losing 9 jobs over the past year (-0.1 percent). Wind makes up the largest segment of employment related to Electric Power Generation, with 3,909 jobs (down -0.6 percent), followed by traditional fossil fuel generation at 2,219 jobs (down -5.6 percent).

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

Construction is the largest industry sector in Electric Power Generation, with 53.2 percent of jobs. Utilities are next with 23.5 percent.

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

Fuels employs 11,148 workers in Iowa, 1.0 percent of the national total, up 0.8 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure IA-4.
Fuels Employment by Detailed Technology Application

Wholesale trade jobs represent 49.1 percent of Fuels jobs in Iowa.

Figure IA-5.
Fuels Employment by Industry Sector
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 13,500 workers in Iowa, 1.0 percent of the national total, down 1.1 percent or 147 jobs since the 2018 report.

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

Construction is responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Iowa, with 37.5 percent of such jobs statewide.

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

The 21,165 Energy Efficiency jobs in Iowa represent 0.9 percent of all U.S. Energy Efficiency jobs, adding 578 jobs (2.8 percent) since last year. The largest number of these employees work in high efficiency HVAC and renewable heating and cooling firms, followed by ENERGY STAR and efficient lighting.

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

<table>
<thead>
<tr>
<th>Technology Application</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy Star &amp; Efficient Lighting</td>
<td>7,424</td>
</tr>
<tr>
<td>Traditional HVAC</td>
<td>1,955</td>
</tr>
<tr>
<td>High Efficiency &amp; Renewable Heating &amp; Cooling</td>
<td>7,584</td>
</tr>
<tr>
<td>Advanced Materials and Insulation</td>
<td>1,963</td>
</tr>
<tr>
<td>Other</td>
<td>2,239</td>
</tr>
</tbody>
</table>

Energy Efficiency employment is primarily found in the construction industry.

**Figure IA-9.**
Energy Efficiency Employment by Industry Sector

<table>
<thead>
<tr>
<th>Industry Sector</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>13,349</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>3,689</td>
</tr>
<tr>
<td>Trade</td>
<td>2,076</td>
</tr>
<tr>
<td>Professional Services</td>
<td>1,669</td>
</tr>
<tr>
<td>Other Services</td>
<td>382</td>
</tr>
</tbody>
</table>
**MOTOR VEHICLES**

Motor Vehicle employment accounts for 31,745 jobs in Iowa, up 83 jobs over the past year (0.3 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is manufacturing.

**Figure IA-10.**
*Motor Vehicle Employment by Industry Sector*

**Workforce Characteristics**

**EMPLOYER GROWTH**

Employers in Iowa are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (3.8 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 674 jobs in Energy Efficiency (3.2 percent) and Motor Vehicles employers expect to add 1,245 jobs (3.9 percent) over the next year.

**Table IA-1**
*Projected Growth by Major Technology Application.*

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>6.4</td>
<td>4.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>1.0</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>3.2</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>4.9</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>3.9</td>
<td>3.1</td>
</tr>
</tbody>
</table>
Hiring Difficulty

Over the last year, 60.0 percent of energy-related employers in Iowa hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Electric Power Generation.

Table IA-2

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>38.5</td>
<td>50.6</td>
<td>11.0</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>35.1</td>
<td>48.9</td>
<td>16.0</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>29.0</td>
<td>50.0</td>
<td>21.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>25.7</td>
<td>40.9</td>
<td>33.4</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>51.7</td>
<td>37.3</td>
<td>11.0</td>
</tr>
</tbody>
</table>

Employers in Iowa gave the following as the top three reasons for their reported difficulty:

1. Insufficient non-technical skills (work ethic, dependability, critical thinking)
2. Lack of experience, training, or technical skills
3. Competition/ small applicant pool

Employers reported the following as the three most difficult occupations to hire for:

1. Technician or mechanical support — $21.52 median hourly wage
2. Sales, marketing, or customer service — $33.71 median hourly wage
3. Installation workers — $25.92 median hourly wage
Kansas
ENERGY AND EMPLOYMENT — 2020

Overview

Kansas has a high concentration of energy employment, with 48,696 Traditional Energy workers statewide (representing 1.4 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 16,203 are in Electric Power Generation, 14,908 are in Fuels, and 17,585 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Kansas is 3.5 percent of total state employment (compared to 2.3 percent of national employment). Kansas has an additional 17,848 jobs in Energy Efficiency (0.8 percent of all U.S. Energy Efficiency jobs) and 19,591 jobs in Motor Vehicles (0.8 percent of all U.S. Motor Vehicle jobs).

**Figure KS-1. Employment by Major Energy Technology Application**

Overall, Traditional Energy jobs declined by 1.2 percent since the 2019 report, decreasing by 583 jobs over the period. Energy Efficiency jobs added 561 jobs (3.2 percent) and motor vehicles lost 275 jobs (-1.4 percent).
Breakdown by Technology Applications

ELECTRIC POWER GENERATION

Electric Power Generation employs 16,203 workers in Kansas, 1.8 percent of the national total and losing 501 jobs over the past year (-3.0 percent). Traditional fossil fuel generation makes up the largest segment of employment related to Electric Power Generation, with 9,254 jobs (down -5.2 percent), followed by wind at 2,112 jobs (up 1.2 percent).

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

Professional and business services are the largest industry sector in Electric Power Generation, with 59.0 percent of jobs. Construction is next with 23.0 percent.
**FUELS**

Fuels employs 14,908 workers in Kansas, 1.3 percent of the national total, up 0.9 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

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

**Figure KS-4.**
*Fuels Employment by Detailed Technology Application*

Mining and extraction jobs represent 35.6 percent of Fuels jobs in Kansas.
Figure KS-5.
Fuels Employment by Industry Sector

<table>
<thead>
<tr>
<th>Industry Sector</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture and Forestry</td>
<td>623</td>
</tr>
<tr>
<td>Mining &amp; Extraction</td>
<td>5,302</td>
</tr>
<tr>
<td>Construction</td>
<td>-</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>4,551</td>
</tr>
<tr>
<td>Trade</td>
<td>2,770</td>
</tr>
<tr>
<td>Professional Services</td>
<td>1,649</td>
</tr>
<tr>
<td>Other Services</td>
<td>13</td>
</tr>
</tbody>
</table>
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 17,585 workers in Kansas, 1.3 percent of the national total, down 1.2 percent or 209 jobs since the 2018 report.

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

Professional and business services are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Kansas, with 46.7 percent of such jobs statewide.

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

The 17,848 Energy Efficiency jobs in Kansas represent 0.8 percent of all U.S. Energy Efficiency jobs, adding 561 jobs (3.2 percent) since last year. The largest number of these employees work in (other energy efficiency products and services firms, followed by ENERGY STAR and efficient lighting.

**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.**
Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 19,591 jobs in Kansas, down 275 jobs over the past year (-1.4 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure KS-10.
Motor Vehicle Employment by Industry Sector

![Motor Vehicle Employment by Industry Sector](image)

Workforce Characteristics

EMPLOYER GROWTH

Employers in Kansas are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (3.8 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 621 jobs in Energy Efficiency (3.5 percent) and Motor Vehicles employers expect to add 777 jobs (4.0 percent) over the next year.

Table KS-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
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<th>U.S. Projected Growth Next 12 Months (percent)</th>
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<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>1.0</td>
<td>3.5</td>
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<td>4.9</td>
<td>1.7</td>
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<tr>
<td>Motor Vehicles</td>
<td>4.0</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 53.3 percent of energy-related employers in Kansas hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Electric Power Transmission, Distribution, and Storage.

Table KS-2
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>39.0</td>
<td>48.8</td>
<td>12.2</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>35.1</td>
<td>53.9</td>
<td>11.0</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>29.0</td>
<td>55.0</td>
<td>16.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>25.7</td>
<td>45.9</td>
<td>28.4</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>46.3</td>
<td>41.4</td>
<td>12.2</td>
</tr>
</tbody>
</table>

Employers in Kansas gave the following as the top three reasons for their reported difficulty:

1. Competition/ small applicant pool
2. Insufficient non-technical skills (work ethic, dependability, critical thinking)
3. Lack of experience, training, or technical skills

Employers reported the following as the three most difficult occupations to hire for:

1. Electrician/construction workers — $25.82 median hourly wage
2. Technician or mechanical support — $21.52 median hourly wage
3. Engineers/scientists — $37.61 median hourly wage
Overview

Kentucky has an average concentration of energy employment, with 42,797 Traditional Energy workers statewide (representing 1.3 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 5,043 are in Electric Power Generation, 15,817 are in Fuels, and 21,937 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Kentucky is 2.2 percent of total state employment (compared to 2.3 percent of national employment). Kentucky has an additional 26,221 jobs in Energy Efficiency (1.1 percent of all U.S. Energy Efficiency jobs) and 83,060 jobs in Motor Vehicles (3.2 percent of all U.S. Motor Vehicle jobs).

Figure KY-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs declined by 1.9 percent since the 2019 report, decreasing by 807 jobs over the period. Energy Efficiency jobs added 691 jobs (2.7 percent) and motor vehicles lost 1,939 jobs (-2.3 percent).
Breakdown by Technology Applications

ELECTRIC POWER GENERATION

Electric Power Generation employs 5,043 workers in Kentucky, 0.6 percent of the national total and losing 43 jobs over the past year (-0.8 percent). Traditional fossil fuel generation makes up the largest segment of employment related to Electric Power Generation, with 2,509 jobs (down -6.4 percent), followed by solar at 1,745 jobs (down -1.4 percent).

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

Professional and business services are the largest industry sector in Electric Power Generation, with 28.2 percent of jobs. Manufacturing is next with 25.5 percent.
FUELS

Fuels employs 15,817 workers in Kentucky, 1.4 percent of the national total, down -2.1 percent over the past year. Coal makes up the largest segment of employment related to Fuels.

Mining and extraction jobs represent 50.6 percent of Fuels jobs in Kentucky.
Figure KY-5.
Fuels Employment by Industry Sector

- Agriculture and Forestry: 1,001
- Mining & Extraction: 8,005
- Construction: 3,481
- Manufacturing: 2,441
- Trade: 868
- Professional Services: 22
- Other Services: 22
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 21,937 workers in Kentucky, 1.6 percent of the national total, down 1.9 percent or 417 jobs since the 2018 report.

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

Pipeline transport and commodity flows are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Kentucky, with 30.0 percent of such jobs statewide.

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

The 26,221 Energy Efficiency jobs in Kentucky represent 1.1 percent of all U.S. Energy Efficiency jobs, adding 691 jobs (2.7 percent) since last year. The largest number of these employees work in (high efficiency HVAC and renewable heating and cooling firms, followed by traditional HVAC.

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

Energy Efficiency employment is primarily found in the construction industry.

Figure KY-9.  
Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 83,060 jobs in Kentucky, down 1,939 jobs over the past year (-2.3 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is manufacturing.

Figure KY-10.
Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

Employers in Kentucky are less optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (2.7 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 618 jobs in Energy Efficiency (2.4 percent) and Motor Vehicles employers expect to add 2,177 jobs (2.6 percent) over the next year.

Table KY-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>7.8</td>
<td>4.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>0.8</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>2.4</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>3.7</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>2.6</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 21.4 percent of energy-related employers in Kentucky hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Electric Power Generation.

Table KY-2
**Hiring Difficulty by Major Technology Application.**

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>32.5</td>
<td>58.2</td>
<td>9.3</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>25.0</td>
<td>64.7</td>
<td>10.3</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>39.1</td>
<td>47.7</td>
<td>13.2</td>
</tr>
<tr>
<td>Fuels</td>
<td>24.2</td>
<td>43.2</td>
<td>32.6</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>29.1</td>
<td>58.1</td>
<td>12.8</td>
</tr>
</tbody>
</table>

Employers in Kentucky gave the following as the top three reasons for their reported difficulty:

1. Economy/structural problem
2. Lack of experience, training, or technical skills
3. Difficulty finding industry-specific knowledge, skills, and interest

Employers reported the following as the three most difficult occupations to hire for:

1. Technician or mechanical support — $21.99 median hourly wage
2. Sales, marketing, or customer service — $32.38 median hourly wage
3. Management (directors, supervisors, vice presidents) — $39.94 median hourly wage
Overview

Louisiana has a high concentration of energy employment, with 128,762 Traditional Energy workers statewide (representing 3.8 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 8,997 are in Electric Power Generation, 79,110 are in Fuels, and 40,656 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Louisiana is 6.7 percent of total state employment (compared to 2.3 percent of national employment). Louisiana has an additional 23,261 jobs in Energy Efficiency (1.0 percent of all U.S. Energy Efficiency jobs) and 18,073 jobs in Motor Vehicles (0.7 percent of all U.S. Motor Vehicle jobs).

Figure LA-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 0.4 percent since the 2019 report, increasing by 465 jobs over the period. Energy Efficiency jobs added 1,110 jobs (5.0 percent) and motor vehicles lost 373 jobs (-2.0 percent).
Breakdown by Technology Applications

**ELECTRIC POWER GENERATION**

Electric Power Generation employs 8,997 workers in Louisiana, 1.0 percent of the national total and adding 600 jobs over the past year (7.1 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 3,750 jobs (up 9.5 percent), followed by traditional fossil fuel generation at 3,077 jobs (up 2.2 percent).

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

Utilities are the largest industry sector in Electric Power Generation, with 58.1 percent of jobs. Construction is next with 24.9 percent.

**Figure LA-3.**
**Electric Power Generation by Industry Sector**
FUELS

Fuels employs 79,110 workers in Louisiana, 6.9 percent of the national total, up 0.1 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure LA-4.
Fuels Employment by Detailed Technology Application

Mining and extraction jobs represent 42.6 percent of Fuels jobs in Louisiana.

Figure LA-5.
Fuels Employment by Industry Sector
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 40,656 workers in Louisiana, 2.9 percent of the national total, down 0.5 percent or 210 jobs since the 2018 report.

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

<table>
<thead>
<tr>
<th>Traditional Transmission and Distribution</th>
<th>Storage</th>
<th>Smart Grid</th>
<th>Micro Grid &amp; Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>32,110</td>
<td>859</td>
<td>214</td>
<td>7,473</td>
</tr>
</tbody>
</table>

Construction is responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Louisiana, with 59.3 percent of such jobs statewide.

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

<table>
<thead>
<tr>
<th>Utilities</th>
<th>Construction</th>
<th>Manufacturing</th>
<th>Trade</th>
<th>Pipeline Transport &amp; Commodity...</th>
<th>Professional Services</th>
<th>Other Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,129</td>
<td>24,109</td>
<td>957</td>
<td>1,780</td>
<td>8,474</td>
<td>122</td>
<td>85</td>
</tr>
</tbody>
</table>
ENERGY EFFICIENCY

The 23,261 Energy Efficiency jobs in Louisiana represent 1.0 percent of all U.S. Energy Efficiency jobs, adding 1,110 jobs (5.0 percent) since last year. The largest number of these employees work in (traditional HVAC firms, followed by ENERGY STAR and efficient lighting.

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

Energy Efficiency employment is primarily found in the construction industry.

Figure LA-9.  
Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 18,073 jobs in Louisiana, down 373 jobs over the past year (-2.0 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure LA-10.
Motor Vehicle Employment by Industry Sector

Workforce Characteristics

Employer Growth

Employers in Louisiana are less optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (2.3 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 1,140 jobs in Energy Efficiency (4.9 percent) and Motor Vehicles employers expect to add 905 jobs (5.0 percent) over the next year.

Table LA-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>2.4</td>
<td>4.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>0.0</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>4.9</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>3.5</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>5.0</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 57.9 percent of energy-related employers in Louisiana hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Electric Power Generation.

Table LA-2
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>28.4</td>
<td>65.4</td>
<td>6.2</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>21.7</td>
<td>72.1</td>
<td>6.2</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>37.9</td>
<td>43.2</td>
<td>18.9</td>
</tr>
<tr>
<td>Fuels</td>
<td>28.9</td>
<td>48.9</td>
<td>22.2</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>42.3</td>
<td>47.4</td>
<td>10.2</td>
</tr>
</tbody>
</table>

Employers in Louisiana gave the following as the top three reasons for their reported difficulty:

1. Lack of experience, training, or technical skills
2. Competition/ small applicant pool
3. Insufficient qualifications (certifications or education)

Employers reported the following as the three most difficult occupations to hire for:

1. Electrician/construction workers — $22.82 median hourly wage
2. Sales, marketing, or customer service — $33.88 median hourly wage
3. Technician or mechanical support — $21.58 median hourly wage
Maine

ENERGY AND EMPLOYMENT — 2020

Overview

Maine has a low concentration of energy employment, with 8,946 Traditional Energy workers statewide (representing 0.3 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 2,928 are in Electric Power Generation, 3,230 are in Fuels, and 2,789 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Maine is 1.4 percent of total state employment (compared to 2.3 percent of national employment). Maine has an additional 8,879 jobs in Energy Efficiency (0.4 percent of all U.S. Energy Efficiency jobs) and 7,563 jobs in Motor Vehicles (0.3 percent of all U.S. Motor Vehicle jobs).

Figure ME-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 3.5 percent since the 2019 report, increasing by 303 jobs over the period. Energy Efficiency jobs added 232 jobs (2.7 percent) and motor vehicles added 258 jobs (3.5 percent).
Breakdown by Technology Applications

ELECTRIC POWER GENERATION

Electric Power Generation employs 2,928 workers in Maine, 0.3 percent of the national total and adding 141 jobs over the past year (5.1 percent). Wind makes up the largest segment of employment related to Electric Power Generation, with 1,267 jobs (down -0.2 percent), followed by solar at 798 jobs (up 5.3 percent).

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

Professional and business services are the largest industry sector in Electric Power Generation, with 25.6 percent of jobs. Construction is next with 25.2 percent.

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

Fuels employs 3,230 workers in Maine, 0.3 percent of the national total, up 2.8 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure ME-4.
Fuels Employment by Detailed Technology Application

Wholesale trade jobs represent 47.0 percent of Fuels jobs in Maine.

Figure ME-5.
Fuels Employment by Industry Sector
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 2,789 workers in Maine, 0.2 percent of the national total, up 2.7 percent or 72 jobs since the 2018 report.

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

Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Maine, with 46.0 percent of such jobs statewide.

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

The 8,879 Energy Efficiency jobs in Maine represent 0.4 percent of all U.S. Energy Efficiency jobs, adding 232 jobs (2.7 percent) since last year. The largest number of these employees work in (high efficiency HVAC and renewable heating and cooling firms, followed by other energy efficiency products and services.

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

Energy Efficiency employment is primarily found in the construction industry.

Figure ME-9.
Energy Efficiency Employment by Industry Sector
**MOTOR VEHICLES**

Motor Vehicle employment accounts for 7,563 jobs in Maine, up 258 jobs over the past year (3.5 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

*Figure ME-10.*

**Motor Vehicle Employment by Industry Sector**

<table>
<thead>
<tr>
<th>Industry Sector</th>
<th>Maine Jobs</th>
<th>Nationwide Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>1,034</td>
<td>233</td>
</tr>
<tr>
<td>Trade</td>
<td>1,623</td>
<td>4,403</td>
</tr>
<tr>
<td>Professional Services</td>
<td>233</td>
<td>269</td>
</tr>
<tr>
<td>Repair and Maintenance</td>
<td>4,403</td>
<td></td>
</tr>
<tr>
<td>Commodity Flows</td>
<td>269</td>
<td></td>
</tr>
</tbody>
</table>

**Workforce Characteristics**

**EMPLOYER GROWTH**

Employers in Maine are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (5.6 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 419 jobs in Energy Efficiency (4.7 percent) and Motor Vehicles employers expect to add 255 jobs (3.4 percent) over the next year.

*Table ME-1*

**Projected Growth by Major Technology Application.**

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>7.4</td>
<td>4.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>1.9</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>4.7</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>7.3</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>3.4</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 37.5 percent of energy-related employers in Maine hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Energy Efficiency.

Table ME-2
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>22.8</td>
<td>62.6</td>
<td>14.6</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>25.4</td>
<td>61.2</td>
<td>13.4</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>38.2</td>
<td>43.6</td>
<td>18.2</td>
</tr>
<tr>
<td>Fuels</td>
<td>30.8</td>
<td>39.9</td>
<td>29.3</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>52.6</td>
<td>33.7</td>
<td>13.7</td>
</tr>
</tbody>
</table>

Employers in Maine gave the following as the top three reasons for their reported difficulty:

1. Lack of experience, training, or technical skills
2. Competition/ small applicant pool
3. Insufficient qualifications (certifications or education)

Employers reported the following as the three most difficult occupations to hire for:

1. Technician or mechanical support — $23.84 median hourly wage
2. Electrician/construction workers — $29.02 median hourly wage
3. Management (directors, supervisors, vice presidents) — $48.41 median hourly wage
Maryland
ENERGY AND EMPLOYMENT — 2020

Overview

Maryland has a low concentration of energy employment, with 32,473 Traditional Energy workers statewide (representing 0.9 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 13,598 are in Electric Power Generation, 3,060 are in Fuels, and 15,815 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Maryland is 1.2 percent of total state employment (compared to 2.3 percent of national employment). Maryland has an additional 71,337 jobs in Energy Efficiency (3.0 percent of all U.S. Energy Efficiency jobs) and 28,328 jobs in Motor Vehicles (1.1 percent of all U.S. Motor Vehicle jobs).

Figure MD-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 2.9 percent since the 2019 report, increasing by 902 jobs over the period. Energy Efficiency jobs added 808 jobs (1.1 percent) and motor vehicles lost 651 jobs (-2.2 percent).
Breakdown by Technology Applications

ELECTRIC POWER GENERATION

Electric Power Generation employs 13,598 workers in Maryland, 1.5 percent of the national total and adding 344 jobs over the past year (2.6 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 6,631 jobs (up 2.6 percent), followed by traditional fossil fuel generation at 3,946 jobs (down -3.3 percent).

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

Construction is the largest industry sector in Electric Power Generation, with 44.5 percent of jobs. Utilities are next with 21.8 percent.

Figure MD-3.
Electric Power Generation by Industry Sector
**FUELS**

Fuels employs 3,060 workers in Maryland, 0.3 percent of the national total, up 6.9 percent over the past year. Petroleum and other fossil fuels make up the largest segment of employment related to Fuels.

**Figure MD-4.**
**Fuels Employment by Detailed Technology Application**

Professional and business services jobs represent 37.9 percent of Fuels jobs in Maryland.

**Figure MD-5.**
**Fuels Employment by Industry Sector**
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 15,815 workers in Maryland, 1.1 percent of the national total, up 2.3 percent or 360 jobs since the 2018 report.

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

Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Maryland, with 47.4 percent of such jobs statewide.

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

The 71,337 Energy Efficiency jobs in Maryland represent 3.0 percent of all U.S. Energy Efficiency jobs, adding 808 jobs (1.1 percent) since last year. The largest number of these employees work in (traditional HVAC firms, followed by high efficiency HVAC and renewable heating and cooling.

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

![Bar chart showing employment by technology application]

Energy Efficiency employment is primarily found in the construction industry.

Figure MD-9.
Energy Efficiency Employment by Industry Sector

![Bar chart showing employment by industry sector]
MOTOR VEHICLES

Motor Vehicle employment accounts for 28,328 jobs in Maryland, down 651 jobs over the past year (-2.2 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure MD-10.
Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

Employers in Maryland are similarly optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (3.6 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 2,069 jobs in Energy Efficiency (2.9 percent) and Motor Vehicles employers expect to add 3,185 jobs (11.2 percent) over the next year.

Table MD-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>4.2</td>
<td>4.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>2.9</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>2.9</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>4.0</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>11.2</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 41.2 percent of energy-related employers in Maryland hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Electric Power Transmission, Distribution, and Storage.

Table MD-2
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>28.9</td>
<td>61.4</td>
<td>9.6</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>28.2</td>
<td>62.4</td>
<td>9.4</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>39.4</td>
<td>45.5</td>
<td>15.2</td>
</tr>
<tr>
<td>Fuels</td>
<td>30.8</td>
<td>39.9</td>
<td>29.3</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>38.1</td>
<td>48.9</td>
<td>13.1</td>
</tr>
</tbody>
</table>

Employers in Maryland gave the following as the top three reasons for their reported difficulty:

1. Lack of experience, training, or technical skills
2. Competition/ small applicant pool
3. Difficulty finding industry-specific knowledge, skills, and interest

Employers reported the following as the three most difficult occupations to hire for:

1. Management (directors, supervisors, vice presidents) — $37.13 median hourly wage
2. Engineers/scientists — $35.46 median hourly wage
3. Technician or mechanical support — $20.28 median hourly wage
Massachusetts
ENenergy AND EMPLOYMENT — 2020

Overview

Massachusetts has a low concentration of energy employment, with 70,147 Traditional Energy workers statewide (representing 2.0 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 37,115 are in Electric Power Generation, 11,692 are in Fuels, and 21,340 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Massachusetts is 1.9 percent of total state employment (compared to 2.3 percent of national employment). Massachusetts has an additional 88,231 jobs in Energy Efficiency (3.7 percent of all U.S. Energy Efficiency jobs) and 30,202 jobs in Motor Vehicles (1.2 percent of all U.S. Motor Vehicle jobs).

Figure MA-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 1.8 percent since the 2019 report, increasing by 1,269 jobs over the period. Energy Efficiency jobs added 1,758 jobs (2.0 percent) and motor vehicles lost 606 jobs (-2.0 percent).
Breakdown by Technology Applications

ELECTRIC POWER GENERATION

Electric Power Generation employs 37,115 workers in Massachusetts, 4.2 percent of the national total and adding 303 jobs over the past year (0.8 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 16,890 jobs (up 2.2 percent), followed by traditional fossil fuel generation at 6,659 jobs (down -1.2 percent).

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

Professional and business services are the largest industry sector in Electric Power Generation, with 36.3 percent of jobs. Construction is next with 16.9 percent.
FUELS

Fuels employs 11,692 workers in Massachusetts, 1.0 percent of the national total, up 2.2 percent over the past year. Other fuels makes up the largest segment of employment related to Fuels.

Wholesale trade jobs represent 59.9 percent of Fuels jobs in Massachusetts.
Figure MA-5.
Fuels Employment by Industry Sector

<table>
<thead>
<tr>
<th>Industry Sector</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture and Forestry</td>
<td>154</td>
</tr>
<tr>
<td>Mining &amp; Extraction</td>
<td>65</td>
</tr>
<tr>
<td>Construction</td>
<td>-</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>2,648</td>
</tr>
<tr>
<td>Trade</td>
<td>7,008</td>
</tr>
<tr>
<td>Professional Services</td>
<td>1,764</td>
</tr>
<tr>
<td>Other Services</td>
<td>52</td>
</tr>
</tbody>
</table>
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 21,340 workers in Massachusetts, 1.5 percent of the national total, up 3.5 percent or 714 jobs since the 2018 report.

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

Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Massachusetts, with 33.9 percent of such jobs statewide.

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

The 88,231 Energy Efficiency jobs in Massachusetts represent 3.7 percent of all U.S. Energy Efficiency jobs, adding 1,758 jobs (2.0 percent) since last year. The largest number of these employees work in (traditional HVAC firms, followed by high efficiency HVAC and renewable heating and cooling.

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

Energy Efficiency employment is primarily found in the construction industry.

Figure MA-9.  
Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 30,202 jobs in Massachusetts, down 606 jobs over the past year (-2.0 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure MA-10.
Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

Employers in Massachusetts are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (5.6 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 4,501 jobs in Energy Efficiency (5.1 percent) and Motor Vehicles employers expect to add 924 jobs (3.1 percent) over the next year.

Table MA-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>7.8</td>
<td>4.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>1.8</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>5.1</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>5.6</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>3.1</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 43.5 percent of energy-related employers in Massachusetts hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Electric Power Generation.

Table MA-2
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>27.6</td>
<td>60.9</td>
<td>11.5</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>26.2</td>
<td>58.4</td>
<td>15.4</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>37.7</td>
<td>42.6</td>
<td>19.7</td>
</tr>
<tr>
<td>Fuels</td>
<td>31.1</td>
<td>39.2</td>
<td>29.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>49.3</td>
<td>33.7</td>
<td>17.0</td>
</tr>
</tbody>
</table>

Employers in Massachusetts gave the following as the top three reasons for their reported difficulty:

1. Lack of experience, training, or technical skills
2. Competition/ small applicant pool
3. Difficulty finding industry-specific knowledge, skills, and interest

Employers reported the following as the three most difficult occupations to hire for:

1. Management (directors, supervisors, vice presidents) — $48.41 median hourly wage
2. Sales, marketing, or customer service — $37.81 median hourly wage
3. Electrician/construction workers — $29.02 median hourly wage
Michigan
ENERGY AND EMPLOYMENT — 2020

Overview

Michigan has a low concentration of energy employment, with 84,764 Traditional Energy workers statewide (representing 2.5 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 28,114 are in Electric Power Generation, 18,784 are in Fuels, and 37,867 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Michigan is 1.9 percent of total state employment (compared to 2.3 percent of national employment). Michigan has an additional 85,323 jobs in Energy Efficiency (3.6 percent of all U.S. Energy Efficiency jobs) and 249,328 jobs in Motor Vehicles (9.8 percent of all U.S. Motor Vehicle jobs).

Figure Mi-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 0.3 percent since the 2019 report, increasing by 236 jobs over the period. Energy Efficiency jobs added 262 jobs (0.3 percent) and motor vehicles lost 991 jobs (-0.4 percent).
Breakdown by Technology Applications

ELECTRIC POWER GENERATION

Electric Power Generation employs 28,114 workers in Michigan, 3.2 percent of the national total and losing 264 jobs over the past year (-0.9 percent). Traditional fossil fuel generation makes up the largest segment of employment related to Electric Power Generation, with 7,135 jobs (down -3.5 percent), followed by traditional hydroelectric generation at 5,991 jobs (down -2.9 percent).

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

Utilities are the largest industry sector in Electric Power Generation, with 27.4 percent of jobs. Construction is next with 25.1 percent.

Figure MI-3.
Electric Power Generation by Industry Sector

---

Utilities | Construction | Manufacturing | Trade | Professional Services | Other Services
---|---|---|---|---|---
7,702 | 7,049 | 6,867 | 435 | 5,788 | 272
FUELS

Fuels employs 18,784 workers in Michigan, 1.6 percent of the national total, up 1.4 percent over the past year. Other fuels makes up the largest segment of employment related to Fuels.

Figure MI-4.
Fuels Employment by Detailed Technology Application

Manufacturing jobs represent 39.3 percent of Fuels jobs in Michigan.

Figure MI-5.
Fuels Employment by Industry Sector
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 37,867 workers in Michigan, 2.7 percent of the national total, up 0.6 percent or 244 jobs since the 2018 report.

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

Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Michigan, with 32.9 percent of such jobs statewide.

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

The 85,323 Energy Efficiency jobs in Michigan represent 3.6 percent of all U.S. Energy Efficiency jobs, adding 262 jobs (0.3 percent) since last year. The largest number of these employees work in advanced materials and insulation firms, followed by ENERGY STAR and efficient lighting.

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

Energy Efficiency employment is primarily found in the manufacturing industry.

Figure MI-9. Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 249,328 jobs in Michigan, down 991 jobs over the past year (-0.4 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is manufacturing.

Figure MI-10.
Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

Employers in Michigan are similarly optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (3.3 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 3,377 jobs in Energy Efficiency (4.0 percent) and Motor Vehicles employers expect to add 5,533 jobs (2.2 percent) over the next year.

Table MI-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>5.1</td>
<td>4.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>1.9</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>4.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>3.4</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>2.2</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 27.1 percent of energy-related employers in Michigan hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Energy Efficiency.

Table MI-2
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>11.3</td>
<td>52.8</td>
<td>35.9</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>11.3</td>
<td>57.8</td>
<td>30.9</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>51.4</td>
<td>38.9</td>
<td>9.6</td>
</tr>
<tr>
<td>Fuels</td>
<td>26.9</td>
<td>45.0</td>
<td>28.1</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>36.3</td>
<td>53.4</td>
<td>10.2</td>
</tr>
</tbody>
</table>

Employers in Michigan gave the following as the top three reasons for their reported difficulty:

1. Difficulty finding industry-specific knowledge, skills, and interest
2. Competition/ small applicant pool
3. Insufficient non-technical skills (work ethic, dependability, critical thinking)

Employers reported the following as the three most difficult occupations to hire for:

1. Technician or mechanical support — $21.25 median hourly wage
2. Engineers/scientists — $37.16 median hourly wage
3. Management (directors, supervisors, vice presidents) — $43.21 median hourly wage
Minnesota
ENERGY AND EMPLOYMENT — 2020

Overview

Minnesota has a low concentration of energy employment, with 47,518 Traditional Energy workers statewide (representing 1.4 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 13,021 are in Electric Power Generation, 11,140 are in Fuels, and 23,357 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Minnesota is 1.6 percent of total state employment (compared to 2.3 percent of national employment). Minnesota has an additional 47,114 jobs in Energy Efficiency (2.0 percent of all U.S. Energy Efficiency jobs) and 33,674 jobs in Motor Vehicles (1.3 percent of all U.S. Motor Vehicle jobs).

Figure MN-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 0.9 percent since the 2019 report, increasing by 435 jobs over the period. Energy Efficiency jobs added 923 jobs (2.0 percent) and motor vehicles added 322 jobs (1.0 percent).
Breakdown by Technology Applications

ELECTRIC POWER GENERATION

Electric Power Generation employs 13,021 workers in Minnesota, 1.5 percent of the national total and adding 91 jobs over the past year (0.7 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 4,927 jobs (up 0.2 percent), followed by traditional fossil fuel generation at 2,254 jobs (down -2.5 percent).

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

Construction is the largest industry sector in Electric Power Generation, with 48.4 percent of jobs. Utilities are next with 32.9 percent.

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

Fuels employs 11,140 workers in Minnesota, 1.0 percent of the national total, up 3.1 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure MN-4.
Fuels Employment by Detailed Technology Application

Wholesale trade jobs represent 40.6 percent of Fuels jobs in Minnesota.

Figure MN-5.
Fuels Employment by Industry Sector
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 23,357 workers in Minnesota, 1.7 percent of the national total, up 0.1 percent or 14 jobs since the 2018 report.

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

Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Minnesota, with 39.5 percent of such jobs statewide.

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

The 47,114 Energy Efficiency jobs in Minnesota represent 2.0 percent of all U.S. Energy Efficiency jobs, adding 923 jobs (2.0 percent) since last year. The largest number of these employees work in high efficiency HVAC and renewable heating and cooling firms, followed by ENERGY STAR and efficient lighting.

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

Energy Efficiency employment is primarily found in the construction industry.

Figure MN-9.
Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 33,674 jobs in Minnesota, up 322 jobs over the past year (1.0 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure MN-10.
Motor Vehicle Employment by Industry Sector

![Motor Vehicle Employment by Industry Sector](image)

Workforce Characteristics

EMPLOYER GROWTH

Employers in Minnesota are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (3.8 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 1,645 jobs in Energy Efficiency (3.5 percent) and Motor Vehicles employers expect to add 1,429 jobs (4.2 percent) over the next year.

Table MN-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>7.4</td>
<td>4.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>1.3</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>3.5</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>4.9</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>4.2</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 48.5 percent of energy-related employers in Minnesota hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Electric Power Transmission, Distribution, and Storage.

Table MN-2
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>38.6</td>
<td>48.4</td>
<td>13.0</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>38.5</td>
<td>50.6</td>
<td>11.0</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>32.3</td>
<td>51.7</td>
<td>16.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>29.1</td>
<td>42.6</td>
<td>28.4</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>41.7</td>
<td>42.3</td>
<td>16.0</td>
</tr>
</tbody>
</table>

Employers in Minnesota gave the following as the top three reasons for their reported difficulty:

1. Lack of experience, training, or technical skills
2. Competition/ small applicant pool
3. Insufficient non-technical skills (work ethic, dependability, critical thinking)

Employers reported the following as the three most difficult occupations to hire for:

1. Electrician/construction workers — $25.82 median hourly wage
2. Technician or mechanical support — $21.52 median hourly wage
3. Management (directors, supervisors, vice presidents) — $41.47 median hourly wage
Mississippi

ENERGY AND EMPLOYMENT — 2020

Overview

Mississippi has an average concentration of energy employment, with 28,900 Traditional Energy workers statewide (representing 0.8 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 4,796 are in Electric Power Generation, 11,973 are in Fuels, and 12,130 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Mississippi is 2.5 percent of total state employment (compared to 2.3 percent of national employment). Mississippi has an additional 15,668 jobs in Energy Efficiency (0.7 percent of all U.S. Energy Efficiency jobs) and 25,413 jobs in Motor Vehicles (1.0 percent of all U.S. Motor Vehicle jobs).

Figure MS-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 0.7 percent since the 2019 report, increasing by 209 jobs over the period. Energy Efficiency jobs added 265 jobs (1.7 percent) and motor vehicles lost 49 jobs (-0.2 percent).
Breakdown by Technology Applications

ELECTRIC POWER GENERATION

Electric Power Generation employs 4,796 workers in Mississippi, 0.5 percent of the national total and adding 92 jobs over the past year (2.0 percent). Traditional fossil fuel generation makes up the largest segment of employment related to Electric Power Generation, with 2,544 jobs (down -1.3 percent), followed by solar at 1,209 jobs (up 3.8 percent).

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

Utilities are the largest industry sector in Electric Power Generation, with 64.8 percent of jobs. Construction is next with 14.8 percent.

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

Fuels employs 11,973 workers in Mississippi, 1.0 percent of the national total, up 0.0 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure MS-4.
Fuels Employment by Detailed Technology Application

Manufacturing jobs represent 35.0 percent of Fuels jobs in Mississippi.

Figure MS-5.
Fuels Employment by Industry Sector
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 12,130 workers in Mississippi, 0.9 percent of the national total, up 0.9 percent or 112 jobs since the 2018 report.

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

Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Mississippi, with 45.7 percent of such jobs statewide.

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

The 15,668 Energy Efficiency jobs in Mississippi represent 0.7 percent of all U.S. Energy Efficiency jobs, adding 265 jobs (1.7 percent) since last year. The largest number of these employees work in (other energy efficiency products and services firms, followed by traditional HVAC.

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

Energy Efficiency employment is primarily found in the construction industry.

Figure MS-9.  
Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 25,413 jobs in Mississippi, down 49 jobs over the past year (-0.2 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is manufacturing.

Figure MS-10. Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

Employers in Mississippi are similarly optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (3.1 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 593 jobs in Energy Efficiency (3.8 percent) and Motor Vehicles employers expect to add 666 jobs (2.6 percent) over the next year.

Table MS-1. Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>7.3</td>
<td>4.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>0.8</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>3.8</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>3.7</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>2.6</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 30.0 percent of energy-related employers in Mississippi hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Electric Power Generation.

Table MS-2
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>25.0</td>
<td>64.7</td>
<td>10.3</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>25.0</td>
<td>64.7</td>
<td>10.3</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>39.1</td>
<td>47.7</td>
<td>13.2</td>
</tr>
<tr>
<td>Fuels</td>
<td>24.2</td>
<td>43.2</td>
<td>32.6</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>29.1</td>
<td>58.1</td>
<td>12.8</td>
</tr>
</tbody>
</table>

Employers in Mississippi gave the following as the top three reasons for their reported difficulty:

1. Lack of experience, training, or technical skills
2. Competition/ small applicant pool
3. Insufficient non-technical skills (work ethic, dependability, critical thinking)

Employers reported the following as the three most difficult occupations to hire for:

1. Technician or mechanical support — $21.99 median hourly wage
2. Management (directors, supervisors, vice presidents) — $39.94 median hourly wage
3. Sales, marketing, or customer service — $32.38 median hourly wage
Missouri
ENERGY AND EMPLOYMENT — 2020

Overview

Missouri has a low concentration of energy employment, with 46,657 Traditional Energy workers statewide (representing 1.4 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 9,796 are in Electric Power Generation, 8,476 are in Fuels, and 28,386 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Missouri is 1.6 percent of total state employment (compared to 2.3 percent of national employment). Missouri has an additional 42,537 jobs in Energy Efficiency (1.8 percent of all U.S. Energy Efficiency jobs) and 72,427 jobs in Motor Vehicles (2.8 percent of all U.S. Motor Vehicle jobs).

**Figure MO-1.**
*Employment by Major Energy Technology Application*

<table>
<thead>
<tr>
<th>Technology</th>
<th>Employment 2018</th>
<th>Employment 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>9,827</td>
<td>9,796</td>
</tr>
<tr>
<td>Fuels</td>
<td>8,237</td>
<td>8,476</td>
</tr>
<tr>
<td>Transmission, Distribution, and Storage</td>
<td>28,679</td>
<td>28,386</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>41,845</td>
<td>42,537</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>71,137</td>
<td>72,427</td>
</tr>
</tbody>
</table>

Overall, Traditional Energy jobs declined by 0.2 percent since the 2019 report, decreasing by 86 jobs over the period. Energy Efficiency jobs added 692 jobs (1.7 percent) and motor vehicles added 1,289 jobs (1.8 percent).
Breakdown by Technology Applications

**ELECTRIC POWER GENERATION**

Electric Power Generation employs 9,796 workers in Missouri, 1.1 percent of the national total and losing 31 jobs over the past year (-0.3 percent). Traditional fossil fuel generation makes up the largest segment of employment related to Electric Power Generation, with 3,085 jobs (down -5.3 percent), followed by solar at 3,079 jobs (down -1.1 percent).

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

Construction is the largest industry sector in Electric Power Generation, with 51.0 percent of jobs. Utilities are next with 26.1 percent.

**Figure MO-3.**
**Electric Power Generation by Industry Sector**
FUELS

Fuels employs 8,476 workers in Missouri, 0.7 percent of the national total, up 2.9 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

**Figure MO-4.**
**Fuels Employment by Detailed Technology Application**

Wholesale trade jobs represent 44.0 percent of Fuels jobs in Missouri.

**Figure MO-5.**
**Fuels Employment by Industry Sector**
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 28,386 workers in Missouri, 2.1 percent of the national total, down 1.0 percent or 293 jobs since the 2018 report.

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

Construction is responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Missouri, with 42.3 percent of such jobs statewide.

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

The 42,537 Energy Efficiency jobs in Missouri represent 1.8 percent of all U.S. Energy Efficiency jobs, adding 692 jobs (1.7 percent) since last year. The largest number of these employees work in (traditional HVAC firms, followed by high efficiency HVAC and renewable heating and cooling.

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

Energy Efficiency employment is primarily found in the construction industry.

Figure MO-9.
Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 72,427 jobs in Missouri, up 1,289 jobs over the past year (1.8 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is manufacturing.

Figure MO-10.
Motor Vehicle Employment by Industry Sector

![Graph showing Motor Vehicle Employment by Industry Sector]

Workforce Characteristics

EMPLOYER GROWTH

Employers in Missouri are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (3.8 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 1,725 jobs in Energy Efficiency (4.1 percent) and Motor Vehicles employers expect to add 2,841 jobs (3.9 percent) over the next year.

Table MO-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>7.5</td>
<td>4.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>1.0</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>4.1</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>8.9</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>3.9</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 44.1 percent of energy-related employers in Missouri hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Motor Vehicles.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>41.1</td>
<td>46.9</td>
<td>12.0</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>35.1</td>
<td>43.9</td>
<td>21.0</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>29.0</td>
<td>45.0</td>
<td>26.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>25.7</td>
<td>35.9</td>
<td>38.4</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>51.7</td>
<td>37.3</td>
<td>11.0</td>
</tr>
</tbody>
</table>

Employers in Missouri gave the following as the top three reasons for their reported difficulty:

1. Lack of experience, training, or technical skills
2. Competition/ small applicant pool
3. Difficulty finding industry-specific knowledge, skills, and interest

Employers reported the following as the three most difficult occupations to hire for:

1. Installation workers — $25.92 median hourly wage
2. Sales, marketing, or customer service — $33.71 median hourly wage
3. Management (directors, supervisors, vice presidents) — $41.47 median hourly wage
Montana

ENERGY AND EMPLOYMENT — 2020

Overview

Montana has a high concentration of energy employment, with 15,530 Traditional Energy workers statewide (representing 0.5 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 1,376 are in Electric Power Generation, 5,506 are in Fuels, and 8,648 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Montana is 3.2 percent of total state employment (compared to 2.3 percent of national employment). Montana has an additional 8,838 jobs in Energy Efficiency (0.4 percent of all U.S. Energy Efficiency jobs) and 6,226 jobs in Motor Vehicles (0.2 percent of all U.S. Motor Vehicle jobs).

Figure MT-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs declined by 4.2 percent since the 2019 report, decreasing by 678 jobs over the period. Energy Efficiency jobs added 165 jobs (1.9 percent) and motor vehicles added 103 jobs (1.7 percent).
Breakdown by Technology Applications

ELECTRIC POWER GENERATION

Electric Power Generation employs 1,376 workers in Montana, 0.2 percent of the national total and adding 47 jobs over the past year (3.6 percent). Traditional fossil fuel generation makes up the largest segment of employment related to Electric Power Generation, with 480 jobs (down -6.2 percent), followed by traditional hydroelectric generation at 417 jobs (up 0.2 percent).

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

Utilities are the largest industry sector in Electric Power Generation, with 35.5 percent of jobs. Construction is next with 23.1 percent.

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

Fuels employs 5,506 workers in Montana, 0.5 percent of the national total, down -6.5 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

**Figure MT-4.**
Fuels Employment by Detailed Technology Application

Mining and extraction jobs represent 58.4 percent of Fuels jobs in Montana.

**Figure MT-5.**
Fuels Employment by Industry Sector
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 8,648 workers in Montana, 0.6 percent of the national total, down 3.8 percent or 340 jobs since the 2018 report.

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

Pipeline transport and commodity flows are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Montana, with 32.3 percent of such jobs statewide.

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

The 8,838 Energy Efficiency jobs in Montana represent 0.4 percent of all U.S. Energy Efficiency jobs, adding 165 jobs (1.9 percent) since last year. The largest number of these employees work in (traditional HVAC firms, followed by ENERGY STAR and efficient lighting.

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

Energy Efficiency employment is primarily found in the construction industry.

Figure MT-9.  
Energy Efficiency Employment by Industry Sector
**MOTOR VEHICLES**

Motor Vehicle employment accounts for 6,226 jobs in Montana, up 103 jobs over the past year (1.7 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

**Figure MT-10.**
*Motor Vehicle Employment by Industry Sector*

![Motor Vehicle Employment by Industry Sector](image)

**Workforce Characteristics**

**EMPLOYER GROWTH**

Employers in Montana are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (5.1 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 314 jobs in Energy Efficiency (3.6 percent) and Motor Vehicles employers expect to add 257 jobs (4.1 percent) over the next year.

**Table MT-1**
*Projected Growth by Major Technology Application.*

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>6.2</td>
<td>4.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>3.3</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>3.6</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>7.8</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>4.1</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 57.1 percent of energy-related employers in Montana hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Motor Vehicles.

Table MT-2

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>17.3</td>
<td>69.3</td>
<td>13.3</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>17.3</td>
<td>69.3</td>
<td>13.3</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>28.6</td>
<td>47.6</td>
<td>23.8</td>
</tr>
<tr>
<td>Fuels</td>
<td>30.8</td>
<td>46.5</td>
<td>22.6</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>32.3</td>
<td>57.4</td>
<td>10.2</td>
</tr>
</tbody>
</table>

Employers in Montana gave the following as the top three reasons for their reported difficulty:

1. Lack of experience, training, or technical skills
2. Location
3. Cannot pass employment screening

Employers reported the following as the three most difficult occupations to hire for:

1. Electrician/construction workers — $24.69 median hourly wage
2. Technician or mechanical support — $21.82 median hourly wage
3. Manufacturing or production positions — $21.24 median hourly wage
Nebraska

ENERGY AND EMPLOYMENT — 2020

Overview

Nebraska has an average concentration of energy employment, with 25,473 Traditional Energy workers statewide (representing 0.7 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 6,364 are in Electric Power Generation, 4,421 are in Fuels, and 14,688 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Nebraska is 2.6 percent of total state employment (compared to 2.3 percent of national employment). Nebraska has an additional 13,949 jobs in Energy Efficiency (0.6 percent of all U.S. Energy Efficiency jobs) and 17,844 jobs in Motor Vehicles (0.7 percent of all U.S. Motor Vehicle jobs).

Figure NE-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs declined by 1.9 percent since the 2019 report, decreasing by 492 jobs over the period. Energy Efficiency jobs added 416 jobs (3.1 percent) and motor vehicles lost 162 jobs (-0.9 percent).
Breakdown by Technology Applications

**ELECTRIC POWER GENERATION**

Electric Power Generation employs 6,364 workers in Nebraska, 0.7 percent of the national total and adding 14 jobs over the past year (0.2 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 1,893 jobs (up 2.0 percent), followed by traditional fossil fuel generation at 1,079 jobs (down -2.8 percent).

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

Construction is the largest industry sector in Electric Power Generation, with 63.8 percent of jobs. Utilities are next with 10.3 percent.

**Figure NE-3.**
**Electric Power Generation by Industry Sector**
**FUELS**

Fuels employs 4,421 workers in Nebraska, 0.4 percent of the national total, up 2.3 percent over the past year. Corn ethanol makes up the largest segment of employment related to Fuels.

**Figure NE-4.**
**Fuels Employment by Detailed Technology Application**

<table>
<thead>
<tr>
<th>Technology Application</th>
<th>Number of Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coal</td>
<td>117</td>
</tr>
<tr>
<td>Oil &amp; Other Petroleum</td>
<td>743</td>
</tr>
<tr>
<td>Natural Gas</td>
<td>902</td>
</tr>
<tr>
<td>Corn Ethanol / Non-woody Biomass</td>
<td>2,351</td>
</tr>
<tr>
<td>Other Ethanol</td>
<td>79</td>
</tr>
<tr>
<td>Woody Biomass</td>
<td>47</td>
</tr>
<tr>
<td>Other Fuels</td>
<td>181</td>
</tr>
</tbody>
</table>

Wholesale trade jobs represent 50.6 percent of Fuels jobs in Nebraska.

**Figure NE-5.**
**Fuels Employment by Industry Sector**

<table>
<thead>
<tr>
<th>Industry Sector</th>
<th>Number of Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture and Forestry</td>
<td>889</td>
</tr>
<tr>
<td>Mining &amp; Extraction</td>
<td>264</td>
</tr>
<tr>
<td>Construction</td>
<td>-</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>564</td>
</tr>
<tr>
<td>Trade</td>
<td>2,238</td>
</tr>
<tr>
<td>Professional Services</td>
<td>456</td>
</tr>
<tr>
<td>Other Services</td>
<td>9</td>
</tr>
</tbody>
</table>
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 14,688 workers in Nebraska, 1.1 percent of the national total, down 4.0 percent or 607 jobs since the 2018 report.

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

Construction is responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Nebraska, with 45.4 percent of such jobs statewide.

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

The 13,949 Energy Efficiency jobs in Nebraska represent 0.6 percent of all U.S. Energy Efficiency jobs, adding 416 jobs (3.1 percent) since last year. The largest number of these employees work in high efficiency HVAC and renewable heating and cooling firms, followed by traditional HVAC.

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

Energy Efficiency employment is primarily found in the construction industry.

Figure NE-9.
Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 17,844 jobs in Nebraska, down 162 jobs over the past year (-0.9 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure NE-10.
Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

Employers in Nebraska are similarly optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (3.0 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 444 jobs in Energy Efficiency (3.2 percent) and Motor Vehicles employers expect to add 707 jobs (4.0 percent) over the next year.

Table NE-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>5.9</td>
<td>4.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>1.0</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>3.2</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>5.3</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>4.0</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 70.0 percent of energy-related employers in Nebraska hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Electric Power Generation.

**Table NE-2**

**Hiring Difficulty by Major Technology Application.**

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>37.6</td>
<td>51.4</td>
<td>11.0</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>35.1</td>
<td>53.9</td>
<td>11.0</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>29.0</td>
<td>55.0</td>
<td>16.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>25.7</td>
<td>45.9</td>
<td>28.4</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>46.3</td>
<td>41.4</td>
<td>12.2</td>
</tr>
</tbody>
</table>

Employers in Nebraska gave the following as the top three reasons for their reported difficulty:

1. Lack of experience, training, or technical skills
2. Insufficient qualifications (certifications or education)
3. Insufficient non-technical skills (work ethic, dependability, critical thinking)

Employers reported the following as the three most difficult occupations to hire for:

1. Technician or mechanical support — $21.52 median hourly wage
2. Electrician/construction workers — $25.82 median hourly wage
3. IT/software or web developers — $38.76 median hourly wage
Nevada
ENERGY AND EMPLOYMENT — 2020

Overview

Nevada has an average concentration of energy employment, with 35,879 Traditional Energy workers statewide (representing 1.0 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 13,392 are in Electric Power Generation, 2,923 are in Fuels, and 19,564 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Nevada is 2.5 percent of total state employment (compared to 2.3 percent of national employment). Nevada has an additional 11,988 jobs in Energy Efficiency (0.5 percent of all U.S. Energy Efficiency jobs) and 13,183 jobs in Motor Vehicles (0.5 percent of all U.S. Motor Vehicle jobs).

Figure NV-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 1.8 percent since the 2019 report, increasing by 646 jobs over the period. Energy Efficiency jobs added 833 jobs (7.5 percent) and motor vehicles added 715 jobs (5.7 percent).
Breakdown by Technology Applications

ELECTRIC POWER GENERATION

Electric Power Generation employs 13,392 workers in Nevada, 1.5 percent of the national total and adding 443 jobs over the past year (3.4 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 10,101 jobs (up 3.3 percent), followed by traditional fossil fuel generation at 1,882 jobs (up 1.7 percent).

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

Construction is the largest industry sector in Electric Power Generation, with 56.0 percent of jobs. Utilities are next with 13.8 percent.

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

Fuels employs 2,923 workers in Nevada, 0.3 percent of the national total, up 0.9 percent over the past year. Natural gas makes up the largest segment of employment related to Fuels.

**Figure NV-4.**
**Fuels Employment by Detailed Technology Application**

![Bar chart showing employment by detailed technology application](chart)

Professional and business services jobs represent 70.6 percent of Fuels jobs in Nevada.

**Figure NV-5.**
**Fuels Employment by Industry Sector**

![Bar chart showing employment by industry sector](chart)
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 19,564 workers in Nevada, 1.4 percent of the national total, up 0.9 percent or 178 jobs since the 2018 report.

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

Construction is responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Nevada, with 56.3 percent of such jobs statewide.

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

The 11,988 Energy Efficiency jobs in Nevada represent 0.5 percent of all U.S. Energy Efficiency jobs, adding 833 jobs (7.5 percent) since last year. The largest number of these employees work in high efficiency HVAC and renewable heating and cooling firms, followed by ENERGY STAR and efficient lighting.

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

Energy Efficiency employment is primarily found in the construction industry.

Figure NV-9.
Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 13,183 jobs in Nevada, up 715 jobs over the past year (5.7 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure NV-10.  
Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

Employers in Nevada are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (5.6 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 347 jobs in Energy Efficiency (2.9 percent) and Motor Vehicles employers expect to add 544 jobs (4.1 percent) over the next year.

Table NV-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>8.2</td>
<td>4.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>3.3</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>2.9</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>8.9</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>4.1</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 23.8 percent of energy-related employers in Nevada hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Motor Vehicles.

Table NV-2
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>15.6</td>
<td>72.4</td>
<td>12.0</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>17.3</td>
<td>69.3</td>
<td>13.3</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>28.6</td>
<td>47.6</td>
<td>23.8</td>
</tr>
<tr>
<td>Fuels</td>
<td>30.8</td>
<td>46.5</td>
<td>22.6</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>32.3</td>
<td>57.4</td>
<td>10.2</td>
</tr>
</tbody>
</table>

Employers in Nevada gave the following as the top three reasons for their reported difficulty:

1. Lack of experience, training, or technical skills
2. Competition/ small applicant pool
3. Location

Employers reported the following as the three most difficult occupations to hire for:

1. Technician or mechanical support — $21.82 median hourly wage
2. Electrician/construction workers — $24.69 median hourly wage
3. Sales, marketing, or customer service — $32.48 median hourly wage
New Hampshire

ENERGY AND EMPLOYMENT — 2020

Overview

New Hampshire has a low concentration of energy employment, with 10,812 Traditional Energy workers statewide (representing 0.3 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 5,816 are in Electric Power Generation, 1,449 are in Fuels, and 3,547 are in Transmission, Distribution, and Storage. The Traditional Energy sector in New Hampshire is 1.6 percent of total state employment (compared to 2.3 percent of national employment). New Hampshire has an additional 11,913 jobs in Energy Efficiency (0.5 percent of all U.S. Energy Efficiency jobs) and 8,332 jobs in Motor Vehicles (0.3 percent of all U.S. Motor Vehicle jobs).

Figure NH-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 1.6 percent since the 2019 report, increasing by 169 jobs over the period. Energy Efficiency jobs added 180 jobs (1.5 percent) and motor vehicles added 55 jobs (0.7 percent).
Breakdown by Technology Applications

ELECTRIC POWER GENERATION

Electric Power Generation employs 5,816 workers in New Hampshire, 0.7 percent of the national total and adding 29 jobs over the past year (0.5 percent). Traditional fossil fuel generation makes up the largest segment of employment related to Electric Power Generation, with 1,623 jobs (down -2.1 percent), followed by solar at 1,490 jobs (up 3.4 percent).

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

Professional and business services are the largest industry sector in Electric Power Generation, with 34.7 percent of jobs. Manufacturing is next with 21.2 percent.
**Figure NH-3.**
*Electric Power Generation by Industry Sector*

<table>
<thead>
<tr>
<th>Industry Sector</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilities</td>
<td>978</td>
</tr>
<tr>
<td>Construction</td>
<td>1,162</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>1,232</td>
</tr>
<tr>
<td>Trade</td>
<td>326</td>
</tr>
<tr>
<td>Professional Services</td>
<td>2,019</td>
</tr>
<tr>
<td>Other Services</td>
<td>100</td>
</tr>
</tbody>
</table>

**FUELS**

Fuels employs 1,449 workers in New Hampshire, 0.1 percent of the national total, up 8.1 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

**Figure NH-4.**
*Fuels Employment by Detailed Technology Application*

<table>
<thead>
<tr>
<th>Fuel Type</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coal</td>
<td>86</td>
</tr>
<tr>
<td>Oil &amp; Other Petroleum</td>
<td>561</td>
</tr>
<tr>
<td>Natural Gas</td>
<td>55</td>
</tr>
<tr>
<td>Corn Ethanol</td>
<td>12</td>
</tr>
<tr>
<td>Other Ethanol / Non-woody Biomass</td>
<td>17</td>
</tr>
<tr>
<td>Woody Biomass</td>
<td>410</td>
</tr>
<tr>
<td>Other Fuels</td>
<td>308</td>
</tr>
</tbody>
</table>

Wholesale trade jobs represent 51.8 percent of Fuels jobs in New Hampshire.
Figure NH-5.
Fuels Employment by Industry Sector

<table>
<thead>
<tr>
<th>Industry Sector</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture and Forestry</td>
<td>141</td>
</tr>
<tr>
<td>Mining &amp; Extraction</td>
<td>23</td>
</tr>
<tr>
<td>Construction</td>
<td></td>
</tr>
<tr>
<td>Manufacturing</td>
<td>445</td>
</tr>
<tr>
<td>Trade</td>
<td>750</td>
</tr>
<tr>
<td>Professional Services</td>
<td>82</td>
</tr>
<tr>
<td>Other Services</td>
<td>8</td>
</tr>
</tbody>
</table>
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 3,547 workers in New Hampshire, 0.3 percent of the national total, up 0.9 percent or 32 jobs since the 2018 report.

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

Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in New Hampshire, with 36.6 percent of such jobs statewide.

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

The 11,913 Energy Efficiency jobs in New Hampshire represent 0.5 percent of all U.S. Energy Efficiency jobs, adding 186 jobs (1.5 percent) since last year. The largest number of these employees work in high efficiency HVAC and renewable heating and cooling firms, followed by ENERGY STAR and efficient lighting.

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

![Bar chart showing energy efficiency employment by technology application.]

Energy Efficiency employment is primarily found in the construction industry.

Figure NH-9.
Energy Efficiency Employment by Industry Sector

![Bar chart showing energy efficiency employment by industry sector.]

NH — 6
MOTOR VEHICLES

Motor Vehicle employment accounts for 8,332 jobs in New Hampshire, up 55 jobs over the past year (0.7 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure NH-10.
Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

Employers in New Hampshire are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (6.0 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 557 jobs in Energy Efficiency (4.7 percent) and Motor Vehicles employers expect to add 255 jobs (3.1 percent) over the next year.

Table NH-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>8.6</td>
<td>4.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>1.6</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>4.7</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>6.4</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>3.1</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 53.3 percent of energy-related employers in New Hampshire hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Electric Power Generation.

Table NH-2
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>26.2</td>
<td>61.7</td>
<td>12.1</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>25.4</td>
<td>61.2</td>
<td>13.4</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>38.2</td>
<td>43.6</td>
<td>18.2</td>
</tr>
<tr>
<td>Fuels</td>
<td>30.8</td>
<td>39.9</td>
<td>29.3</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>47.3</td>
<td>37.4</td>
<td>15.2</td>
</tr>
</tbody>
</table>

Employers in New Hampshire gave the following as the top three reasons for their reported difficulty:

1. Lack of experience, training, or technical skills
2. Competition/ small applicant pool
3. Difficulty finding industry-specific knowledge, skills, and interest

Employers reported the following as the three most difficult occupations to hire for:

1. Installation workers — $27.33 median hourly wage
2. Technician or mechanical support — $23.84 median hourly wage
3. Sales, marketing, or customer service — $37.81 median hourly wage
New Jersey
ENERGY AND EMPLOYMENT — 2020

Overview

New Jersey has a low concentration of energy employment, with 64,532 Traditional Energy workers statewide (representing 1.9 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 21,995 are in Electric Power Generation, 17,795 are in Fuels, and 24,742 are in Transmission, Distribution, and Storage. The Traditional Energy sector in New Jersey is 1.5 percent of total state employment (compared to 2.3 percent of national employment). New Jersey has an additional 37,982 jobs in Energy Efficiency (1.6 percent of all U.S. Energy Efficiency jobs) and 43,977 jobs in Motor Vehicles (1.7 percent of all U.S. Motor Vehicle jobs).

Figure NJ-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 0.6 percent since the 2019 report, increasing by 413 jobs over the period. Energy Efficiency jobs added 1,776 jobs (4.9 percent) and motor vehicles added 1,190 jobs (2.8 percent).
Breakdown by Technology Applications

ELECTRIC POWER GENERATION

Electric Power Generation employs 21,995 workers in New Jersey, 2.5 percent of the national total and adding 150 jobs over the past year (0.7 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 9,340 jobs (up 0.6 percent), followed by traditional fossil fuel generation at 3,389 jobs (down -1.3 percent).

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

Manufacturing is the largest industry sector in Electric Power Generation, with 23.2 percent of jobs. Construction is next with 22.9 percent.

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

Fuels employs 17,795 workers in New Jersey, 1.5 percent of the national total, up 1.5 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure NJ-4. Fuels Employment by Detailed Technology Application

Manufacturing jobs represent 37.9 percent of Fuels jobs in New Jersey.

Figure NJ-5. Fuels Employment by Industry Sector
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 24,742 workers in New Jersey, 1.8 percent of the national total, down 0.0 percent or 5 jobs since the 2018 report.

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

Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in New Jersey, with 44.7 percent of such jobs statewide.

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

The 37,982 Energy Efficiency jobs in New Jersey represent 1.6 percent of all U.S. Energy Efficiency jobs, adding 1,776 jobs (4.9 percent) since last year. The largest number of these employees work in (traditional HVAC firms, followed by ENERGY STAR and efficient lighting.

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

Energy Efficiency employment is primarily found in the construction industry.

Figure NJ-9. Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 43,977 jobs in New Jersey, up 1,190 jobs over the past year (2.8 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure NJ-10. Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

Employers in New Jersey are less optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (2.7 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 2,376 jobs in Energy Efficiency (6.3 percent) and Motor Vehicles employers expect to add 2,615 jobs (5.9 percent) over the next year.

Table NJ-1 Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>5.9</td>
<td>4.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>(0.6)</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>6.3</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>3.5</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>5.9</td>
<td>3.1</td>
</tr>
</tbody>
</table>
Hiring Difficulty

Over the last year, 31.3 percent of energy-related employers in New Jersey hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Energy Efficiency.

Table NJ-2
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>30.4</td>
<td>51.9</td>
<td>17.7</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>26.5</td>
<td>57.3</td>
<td>16.2</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>21.7</td>
<td>65.0</td>
<td>13.3</td>
</tr>
<tr>
<td>Fuels</td>
<td>27.7</td>
<td>39.9</td>
<td>32.4</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>37.3</td>
<td>47.4</td>
<td>15.2</td>
</tr>
</tbody>
</table>

Employers in New Jersey gave the following as the top three reasons for their reported difficulty:

1. Lack of experience, training, or technical skills
2. Competition/small applicant pool
3. Difficulty finding industry-specific knowledge, skills, and interest

Employers reported the following as the three most difficult occupations to hire for:

1. Management (directors, supervisors, vice presidents) — $51.21 median hourly wage
2. Engineers/scientists — $41.11 median hourly wage
3. Installation workers — $28.63 median hourly wage
New Mexico

ENERGY AND EMPLOYMENT — 2020

Overview

New Mexico has a high concentration of energy employment, with 44,112 Traditional Energy workers statewide (representing 1.3 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 5,321 are in Electric Power Generation, 25,123 are in Fuels, and 13,668 are in Transmission, Distribution, and Storage. The Traditional Energy sector in New Mexico is 5.3 percent of total state employment (compared to 2.3 percent of national employment). New Mexico has an additional 6,099 jobs in Energy Efficiency (0.3 percent of all U.S. Energy Efficiency jobs) and 7,882 jobs in Motor Vehicles (0.3 percent of all U.S. Motor Vehicle jobs).

Figure NM-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 9.7 percent since the 2019 report, increasing by 3,915 jobs over the period. Energy Efficiency jobs added 462 jobs (8.2 percent) and motor vehicles added 65 jobs (0.8 percent).
Breakdown by Technology Applications

**ELECTRIC POWER GENERATION**

Electric Power Generation employs 5,321 workers in New Mexico, 0.6 percent of the national total and adding 14 jobs over the past year (0.3 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 3,374 jobs (down -1.4 percent), followed by wind at 1,092 jobs (up 0.6 percent).

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

Manufacturing is the largest industry sector in Electric Power Generation, with 28.0 percent of jobs. Construction is next with 25.8 percent.

**Figure NM-3.**
**Electric Power Generation by Industry Sector**
FUELS

Fuels employs 25,123 workers in New Mexico, 2.2 percent of the national total, up 11.5 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

**Figure NM-4.**
*Fuels Employment by Detailed Technology Application*

![Bar chart showing Fuels employment by detailed technology application.](chart1)

Mining and extraction jobs represent 87.0 percent of Fuels jobs in New Mexico.

**Figure NM-5.**
*Fuels Employment by Industry Sector*

![Bar chart showing Fuels employment by industry sector.](chart2)
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 13,668 workers in New Mexico, 1.0 percent of the national total, up 10.6 percent or 1,307 jobs since the 2018 report.

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

Construction is responsible for the largest percentage of Transmission, Distribution, and Storage jobs in New Mexico, with 44.0 percent of such jobs statewide.

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

The 6,099 Energy Efficiency jobs in New Mexico represent 0.3 percent of all U.S. Energy Efficiency jobs, adding 462 jobs (8.2 percent) since last year. The largest number of these employees work in (ENERGY STAR and efficient lighting firms, followed by high efficiency HVAC and renewable heating and cooling.

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

Energy Efficiency employment is primarily found in the construction industry.

Figure NM-9.
Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 7,882 jobs in New Mexico, up 65 jobs over the past year (0.8 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure NM-10. Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

Employers in New Mexico are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (6.9 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 293 jobs in Energy Efficiency (4.8 percent) and Motor Vehicles employers expect to add 325 jobs (4.1 percent) over the next year.

Table NM-1 Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>6.8</td>
<td>4.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>3.3</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>4.8</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>8.9</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>4.1</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 33.3 percent of energy-related employers in New Mexico hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Motor Vehicles.

**Table NM-2**

**Hiring Difficulty by Major Technology Application.**

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>18.1</td>
<td>69.9</td>
<td>12.0</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>17.3</td>
<td>69.3</td>
<td>13.3</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>28.6</td>
<td>47.6</td>
<td>23.8</td>
</tr>
<tr>
<td>Fuels</td>
<td>30.8</td>
<td>46.5</td>
<td>22.6</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>32.3</td>
<td>57.4</td>
<td>10.2</td>
</tr>
</tbody>
</table>

Employers in New Mexico gave the following as the top three reasons for their reported difficulty:

1. Lack of experience, training, or technical skills
2. Insufficient qualifications (certifications or education)
3. Cultural fit

Employers reported the following as the three most difficult occupations to hire for:

1. Electrician/construction workers — $24.69 median hourly wage
2. Sales, marketing, or customer service — $32.48 median hourly wage
3. Engineers/scientists — $39.49 median hourly wage
New York
ENERGY AND EMPLOYMENT — 2020

Overview

New York has a low concentration of energy employment, with 136,440 Traditional Energy workers statewide (representing 4.0 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 47,772 are in Electric Power Generation, 16,788 are in Fuels, and 71,879 are in Transmission, Distribution, and Storage. The Traditional Energy sector in New York is 1.4 percent of total state employment (compared to 2.3 percent of national employment). New York has an additional 126,739 jobs in Energy Efficiency (5.3 percent of all U.S. Energy Efficiency jobs) and 81,818 jobs in Motor Vehicles (3.2 percent of all U.S. Motor Vehicle jobs).

Figure NY-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 2.1 percent since the 2019 report, increasing by 2,852 jobs over the period. Energy Efficiency jobs added 3,447 jobs (2.8 percent) and motor vehicles lost 1,645 jobs (-2.0 percent).
Breakdown by Technology Applications

**ELECTRIC POWER GENERATION**

Electric Power Generation employs 47,772 workers in New York, 5.4 percent of the national total and adding 1,474 jobs over the past year (3.2 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 12,735 jobs (up 9.8 percent), followed by traditional fossil fuel generation at 7,302 jobs (up 3.3 percent).

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

Professional and business services are the largest industry sector in Electric Power Generation, with 25.8 percent of jobs. Construction is next with 23.1 percent.

Figure NY-3.
Electric Power Generation by Industry Sector
**FUELS**

Fuels employs 16,788 workers in New York, 1.5 percent of the national total, up 7.1 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

**Figure NY-4.**
**Fuels Employment by Detailed Technology Application**

Professional and business services jobs represent 33.4 percent of Fuels jobs in New York.

**Figure NY-5.**
**Fuels Employment by Industry Sector**
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 71,879 workers in New York, 5.2 percent of the national total, up 0.4 percent or 270 jobs since the 2018 report.

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

Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in New York, with 52.3 percent of such jobs statewide.

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

The 126,739 Energy Efficiency jobs in New York represent 5.3 percent of all U.S. Energy Efficiency jobs, adding 3,447 jobs (2.8 percent) since last year. The largest number of these employees work in (ENERGY STAR and efficient lighting firms, followed by high efficiency HVAC and renewable heating and cooling.

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.
Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 81,818 jobs in New York, down 1,645 jobs over the past year (-2.0 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure NY-10.
Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

Employers in New York are similarly optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (3.2 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 7,710 jobs in Energy Efficiency (6.1 percent) and Motor Vehicles employers expect to add 5,477 jobs (6.7 percent) over the next year.

Table NY-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>6.3</td>
<td>4.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>1.1</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>6.1</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>3.7</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>6.7</td>
<td>3.1</td>
</tr>
</tbody>
</table>
Hiring Difficulty

Over the last year, 37.3 percent of energy-related employers in New York hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Energy Efficiency.

Table NY-2
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>29.8</td>
<td>52.9</td>
<td>17.3</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>30.8</td>
<td>51.6</td>
<td>17.6</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>26.0</td>
<td>59.3</td>
<td>14.8</td>
</tr>
<tr>
<td>Fuels</td>
<td>32.0</td>
<td>34.2</td>
<td>33.8</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>38.6</td>
<td>42.7</td>
<td>18.7</td>
</tr>
</tbody>
</table>

Employers in New York gave the following as the top three reasons for their reported difficulty:

1. Lack of experience, training, or technical skills
2. Competition/ small applicant pool
3. Difficulty finding industry-specific knowledge, skills, and interest

Employers reported the following as the three most difficult occupations to hire for:

1. Management (directors, supervisors, vice presidents) — $51.21 median hourly wage
2. Technician or mechanical support — $23.03 median hourly wage
3. Engineers/scientists — $41.11 median hourly wage
North Carolina

ENERGY AND EMPLOYMENT — 2020

Overview

North Carolina has a low concentration of energy employment, with 55,928 Traditional Energy workers statewide (representing 1.6 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 20,120 are in Electric Power Generation, 8,895 are in Fuels, and 26,914 are in Transmission, Distribution, and Storage. The Traditional Energy sector in North Carolina is 1.2 percent of total state employment (compared to 2.3 percent of national employment). North Carolina has an additional 88,001 jobs in Energy Efficiency (3.7 percent of all U.S. Energy Efficiency jobs) and 73,037 jobs in Motor Vehicles (2.9 percent of all U.S. Motor Vehicle jobs).

Figure NC-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 3.2 percent since the 2019 report, increasing by 1,730 jobs over the period. Energy Efficiency jobs added 1,442 jobs (1.7 percent) and motor vehicles added 1,623 jobs (2.3 percent).
Breakdown by Technology Applications

ELECTRIC POWER GENERATION

Electric Power Generation employs 20,120 workers in North Carolina, 2.3 percent of the national total and adding 226 jobs over the past year (1.1 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 8,930 jobs (up 0.2 percent), followed by traditional fossil fuel generation at 5,241 jobs (down -2.3 percent).

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

Professional and business services are the largest industry sector in Electric Power Generation, with 28.8 percent of jobs. Construction is next with 27.8 percent.

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

Fuels employs 8,895 workers in North Carolina, 0.8 percent of the national total, up 6.6 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure NC-4.  
Fuels Employment by Detailed Technology Application

Wholesale trade jobs represent 46.0 percent of Fuels jobs in North Carolina.

Figure NC-5.  
Fuels Employment by Industry Sector
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 26,914 workers in North Carolina, 1.9 percent of the national total, up 3.7 percent or 952 jobs since the 2018 report.

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

Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in North Carolina, with 42.9 percent of such jobs statewide.

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

The 88,001 Energy Efficiency jobs in North Carolina represent 3.7 percent of all U.S. Energy Efficiency jobs, adding 1,442 jobs (1.7 percent) since last year. The largest number of these employees work in (ENERGY STAR and efficient lighting firms, followed by traditional HVAC.

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

Energy Efficiency employment is primarily found in the construction industry.

Figure NC-9.
Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 73,037 jobs in North Carolina, up 1,623 jobs over the past year (2.3 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure NC-10.
Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

Employers in North Carolina are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (4.0 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 3,469 jobs in Energy Efficiency (3.9 percent) and Motor Vehicles employers expect to add 5,778 jobs (7.9 percent) over the next year.

Table NC-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>5.1</td>
<td>4.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>3.2</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>3.9</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>4.0</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>7.9</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 45.5 percent of energy-related employers in North Carolina hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Electric Power Transmission, Distribution, and Storage.

Table NC-2
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>27.8</td>
<td>62.3</td>
<td>9.9</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>30.4</td>
<td>61.1</td>
<td>8.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>40.5</td>
<td>45.9</td>
<td>13.6</td>
</tr>
<tr>
<td>Fuels</td>
<td>32.7</td>
<td>40.9</td>
<td>26.4</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>34.2</td>
<td>54.0</td>
<td>11.8</td>
</tr>
</tbody>
</table>

Employers in North Carolina gave the following as the top three reasons for their reported difficulty:

1. Lack of experience, training, or technical skills
2. Difficulty finding industry-specific knowledge, skills, and interest
3. Insufficient non-technical skills (work ethic, dependability, critical thinking)

Employers reported the following as the three most difficult occupations to hire for:

1. Management (directors, supervisors, vice presidents) — $37.13 median hourly wage
2. Technician or mechanical support — $20.28 median hourly wage
3. Installation workers — $20.65 median hourly wage
Overview

North Dakota has a high concentration of energy employment, with 36,392 Traditional Energy workers statewide (representing 1.1 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 3,356 are in Electric Power Generation, 22,958 are in Fuels, and 10,078 are in Transmission, Distribution, and Storage. The Traditional Energy sector in North Dakota is 8.4 percent of total state employment (compared to 2.3 percent of national employment). North Dakota has an additional 5,581 jobs in Energy Efficiency (0.2 percent of all U.S. Energy Efficiency jobs) and 8,034 jobs in Motor Vehicles (0.3 percent of all U.S. Motor Vehicle jobs).

Figure ND-1. Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 2.7 percent since the 2019 report, increasing by 949 jobs over the period. Energy Efficiency jobs added 157 jobs (2.9 percent) and motor vehicles added 169 jobs (2.1 percent).
Breakdown by Technology Applications

**ELECTRIC POWER GENERATION**

Electric Power Generation employs 3,356 workers in North Dakota, 0.4 percent of the national total and losing 115 jobs over the past year (-3.3 percent). Wind makes up the largest segment of employment related to Electric Power Generation, with 1,764 jobs (down -0.7 percent), followed by traditional fossil fuel generation at 1,122 jobs (down -8.1 percent).

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

Construction is the largest industry sector in Electric Power Generation, with 60.7 percent of jobs. Utilities are next with 18.9 percent.

*Figure ND-3.*  
**Electric Power Generation by Industry Sector**
FUELS

Fuels employs 22,958 workers in North Dakota, 2.0 percent of the national total, up 4.2 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure ND-4.
Fuels Employment by Detailed Technology Application

Mining and extraction jobs represent 89.0 percent of Fuels jobs in North Dakota.

Figure ND-5.
Fuels Employment by Industry Sector
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 10,078 workers in North Dakota, 0.7 percent of the national total, up 1.3 percent or 128 jobs since the 2018 report.

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

Construction is responsible for the largest percentage of Transmission, Distribution, and Storage jobs in North Dakota, with 38.1 percent of such jobs statewide.

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

The 5,581 Energy Efficiency jobs in North Dakota represent 0.2 percent of all U.S. Energy Efficiency jobs, adding 157 jobs (2.9 percent) since last year. The largest number of these employees work in (high efficiency HVAC and renewable heating and cooling firms, followed by traditional HVAC.

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

Energy Efficiency employment is primarily found in the construction industry.

Figure ND-9.  
Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 8,034 jobs in North Dakota, up 169 jobs over the past year (2.1 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure ND-10.
Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

Employers in North Dakota are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (4.6 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 194 jobs in Energy Efficiency (3.5 percent) and Motor Vehicles employers expect to add 388 jobs (4.8 percent) over the next year.

Table ND-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>10.3</td>
<td>4.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>1.0</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>3.5</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>5.3</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>4.8</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 33.3 percent of energy-related employers in North Dakota hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Motor Vehicles.

Table ND-2
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>39.0</td>
<td>48.8</td>
<td>12.2</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>39.0</td>
<td>48.8</td>
<td>12.2</td>
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<tr>
<td>Energy Efficiency</td>
<td>32.2</td>
<td>50.0</td>
<td>17.8</td>
</tr>
<tr>
<td>Fuels</td>
<td>28.6</td>
<td>39.9</td>
<td>31.5</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>46.7</td>
<td>42.3</td>
<td>11.0</td>
</tr>
</tbody>
</table>

Employers in North Dakota gave the following as the top three reasons for their reported difficulty:

1. Lack of experience, training, or technical skills
2. Competition/ small applicant pool
3. Insufficient non-technical skills (work ethic, dependability, critical thinking)

Employers reported the following as the three most difficult occupations to hire for:

1. Technician or mechanical support — $21.52 median hourly wage
2. Sales, marketing, or customer service — $33.71 median hourly wage
3. Installation workers — $25.92 median hourly wage
Ohio

ENERGY AND EMPLOYMENT — 2020

Overview

Ohio has a low concentration of energy employment, with 97,983 Traditional Energy workers statewide (representing 2.9 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 28,519 are in Electric Power Generation, 25,747 are in Fuels, and 43,717 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Ohio is 1.8 percent of total state employment (compared to 2.3 percent of national employment). Ohio has an additional 83,165 jobs in Energy Efficiency (3.5 percent of all U.S. Energy Efficiency jobs) and 169,148 jobs in Motor Vehicles (6.6 percent of all U.S. Motor Vehicle jobs).

Figure OH-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs declined by 0.3 percent since the 2019 report, decreasing by 322 jobs over the period. Energy Efficiency jobs added 1,488 jobs (1.8 percent) and motor vehicles added 2,327 jobs (1.4 percent).
Breakdown by Technology Applications

ELECTRIC POWER GENERATION

Electric Power Generation employs 28,519 workers in Ohio, 3.2 percent of the national total and losing 504 jobs over the past year (-1.7 percent). Traditional fossil fuel generation makes up the largest segment of employment related to Electric Power Generation, with 15,612 jobs (down -8.8 percent), followed by solar at 8,710 jobs (up 7.4 percent).

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

Construction is the largest industry sector in Electric Power Generation, with 40.4 percent of jobs. Professional and business services are next with 19.5 percent.
FUELS

Fuels employs 25,747 workers in Ohio, 2.2 percent of the national total, up 1.5 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Mining and extraction jobs represent 33.0 percent of Fuels jobs in Ohio.
Figure OH-5. Fuels Employment by Industry Sector

- Agriculture and Forestry: 776
- Mining & Extraction: 8,501
- Construction: 446
- Manufacturing: 6,838
- Trade: 5,745
- Professional Services: 3,294
- Other Services: 147
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 43,717 workers in Ohio, 3.2 percent of the national total, down 0.5 percent or 200 jobs since the 2018 report.

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

Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Ohio, with 35.4 percent of such jobs statewide.

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

The 83,165 Energy Efficiency jobs in Ohio represent 3.5 percent of all U.S. Energy Efficiency jobs, adding 1,488 jobs (1.8 percent) since last year. The largest number of these employees work in advanced materials and insulation firms, followed by traditional HVAC.

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

Energy Efficiency employment is primarily found in the construction industry.

Figure OH-9. Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 169,148 jobs in Ohio, up 2,327 jobs over the past year (1.4 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is manufacturing.

Figure OH-10.
Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

Employers in Ohio are similarly optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (2.9 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 3,273 jobs in Energy Efficiency (3.9 percent) and Motor Vehicles employers expect to add 8,103 jobs (4.8 percent) over the next year.

Table OH-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>5.4</td>
<td>4.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>1.0</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>3.9</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>3.4</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>4.8</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 37.5 percent of energy-related employers in Ohio hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Energy Efficiency.

Table OH-2
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>13.3</td>
<td>51.8</td>
<td>34.9</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>21.3</td>
<td>47.8</td>
<td>30.9</td>
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<tr>
<td>Energy Efficiency</td>
<td>61.4</td>
<td>28.9</td>
<td>9.6</td>
</tr>
<tr>
<td>Fuels</td>
<td>36.9</td>
<td>35.0</td>
<td>28.1</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>36.3</td>
<td>53.4</td>
<td>10.2</td>
</tr>
</tbody>
</table>

Employers in Ohio gave the following as the top three reasons for their reported difficulty:

1. Lack of experience, training, or technical skills
2. Cannot provide competitive wages
3. Difficulty finding industry-specific knowledge, skills, and interest

Employers reported the following as the three most difficult occupations to hire for:

1. Technician or mechanical support — $21.25 median hourly wage
2. Management (directors, supervisors, vice presidents) — $43.21 median hourly wage
3. Electrician/construction workers — $23.25 median hourly wage
Oklahoma

ENERGY AND EMPLOYMENT — 2020

Overview

Oklahoma has a high concentration of energy employment, with 102,042 Traditional Energy workers statewide (representing 3.0 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 7,100 are in Electric Power Generation, 68,981 are in Fuels, and 25,961 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Oklahoma is 6.3 percent of total state employment (compared to 2.3 percent of national employment). Oklahoma has an additional 15,046 jobs in Energy Efficiency (0.6 percent of all U.S. Energy Efficiency jobs) and 21,298 jobs in Motor Vehicles (0.8 percent of all U.S. Motor Vehicle jobs).

Figure OK-1. Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 4.5 percent since the 2019 report, increasing by 4,426 jobs over the period. Energy Efficiency jobs added 674 jobs (4.7 percent) and motor vehicles added 365 jobs (1.7 percent).
Breakdown by Technology Applications

**ELECTRIC POWER GENERATION**

Electric Power Generation employs 7,100 workers in Oklahoma, 0.8 percent of the national total and adding 277 jobs over the past year (4.1 percent). Traditional fossil fuel generation makes up the largest segment of employment related to Electric Power Generation, with 3,481 jobs (up 3.2 percent), followed by wind at 1,923 jobs (up 1.1 percent).

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

Utilities are the largest industry sector in Electric Power Generation, with 57.5 percent of jobs. Construction is next with 21.4 percent.

*Figure OK-3. Electric Power Generation by Industry Sector*
FUELS

Fuels employs 68,981 workers in Oklahoma, 6.0 percent of the national total, up 1.3 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

**Figure OK-4.**
**Fuels Employment by Detailed Technology Application**

Mining and extraction jobs represent 72.7 percent of Fuels jobs in Oklahoma.

**Figure OK-5.**
**Fuels Employment by Industry Sector**
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 25,961 workers in Oklahoma, 1.9 percent of the national total, up 14.4 percent or 3,270 jobs since the 2018 report.

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

Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Oklahoma, with 40.0 percent of such jobs statewide.

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

The 15,046 Energy Efficiency jobs in Oklahoma represent 0.6 percent of all U.S. Energy Efficiency jobs, adding 674 jobs (4.7 percent) since last year. The largest number of these employees work in (high efficiency HVAC and renewable heating and cooling firms, followed by traditional HVAC.

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

Energy Efficiency employment is primarily found in the construction industry.

**Figure OK-9.**
Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 21,298 jobs in Oklahoma, up 365 jobs over the past year (1.7 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure OK-10.
Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

Employers in Oklahoma are similarly optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (3.2 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 737 jobs in Energy Efficiency (4.9 percent) and Motor Vehicles employers expect to add 712 jobs (3.3 percent) over the next year.

Table OK-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>3.4</td>
<td>4.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>2.1</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>4.9</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>3.5</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>3.3</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 35.3 percent of energy-related employers in Oklahoma hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Electric Power Transmission, Distribution, and Storage.

Table OK-2
HIRING DIFFICULTY BY MAJOR TECHNOLOGY APPLICATION.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>21.7</td>
<td>62.1</td>
<td>16.2</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>31.7</td>
<td>62.1</td>
<td>6.2</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>47.9</td>
<td>33.2</td>
<td>18.9</td>
</tr>
<tr>
<td>Fuels</td>
<td>38.9</td>
<td>38.9</td>
<td>22.2</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>38.1</td>
<td>52.7</td>
<td>9.2</td>
</tr>
</tbody>
</table>

Employers in Oklahoma gave the following as the top three reasons for their reported difficulty:

1. Difficulty finding industry-specific knowledge, skills, and interest
2. Insufficient qualifications (certifications or education)
3. Insufficient non-technical skills (work ethic, dependability, critical thinking)

Employers reported the following as the three most difficult occupations to hire for:

1. Technician or mechanical support — $21.58 median hourly wage
2. Sales, marketing, or customer service — $33.88 median hourly wage
3. Engineers/scientists — $41.32 median hourly wage
Oregon

ENERGY AND EMPLOYMENT — 2020

Overview

Oregon has a low concentration of energy employment, with 27,664 Traditional Energy workers statewide (representing 0.8 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 10,053 are in Electric Power Generation, 3,662 are in Fuels, and 13,948 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Oregon is 1.4 percent of total state employment (compared to 2.3 percent of national employment). Oregon has an additional 42,935 jobs in Energy Efficiency (1.8 percent of all U.S. Energy Efficiency jobs) and 26,129 jobs in Motor Vehicles (1.0 percent of all U.S. Motor Vehicle jobs).

Figure OR-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 3.1 percent since the 2019 report, increasing by 839 jobs over the period. Energy Efficiency jobs added 388 jobs (0.9 percent) and motor vehicles lost 306 jobs (-1.2 percent).
Breakdown by Technology Applications

ELECTRIC POWER GENERATION

Electric Power Generation employs 10,053 workers in Oregon, 1.1 percent of the national total and adding 295 jobs over the past year (3.0 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 5,759 jobs (up 0.6 percent), followed by traditional hydroelectric generation at 1,625 jobs (up 2.5 percent).

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

Utilities are the largest industry sector in Electric Power Generation, with 27.0 percent of jobs. Manufacturing is next with 26.2 percent.

**Figure OR-3.**
*Electric Power Generation by Industry Sector*
FUELS

Fuels employs 3,662 workers in Oregon, 0.3 percent of the national total, up 10.0 percent over the past year. Woody biomass makes up the largest segment of employment related to Fuels.

Figure OR-4.
Fuels Employment by Detailed Technology Application

Agriculture jobs represent 36.8 percent of Fuels jobs in Oregon.

Figure OR-5.
Fuels Employment by Industry Sector
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 13,948 workers in Oregon, 1.0 percent of the national total, up 1.5 percent or 211 jobs since the 2018 report.

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

Construction is responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Oregon, with 36.3 percent of such jobs statewide.

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

The 42,935 Energy Efficiency jobs in Oregon represent 1.8 percent of all U.S. Energy Efficiency jobs, adding 388 jobs (0.9 percent) since last year. The largest number of these employees work in (high efficiency HVAC and renewable heating and cooling firms, followed by traditional HVAC.

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

Energy Efficiency employment is primarily found in the construction industry.

Figure OR-9.
Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 26,129 jobs in Oregon, down 306 jobs over the past year (-1.2 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure OR-10.
Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

Employers in Oregon are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (4.5 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 1,835 jobs in Energy Efficiency (4.3 percent) and Motor Vehicles employers expect to add 922 jobs (3.5 percent) over the next year.

Table OR-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
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</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>8.6</td>
<td>4.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>1.9</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>4.3</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>3.4</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>3.5</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 33.3 percent of energy-related employers in Oregon hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Motor Vehicles.

Table OR-2
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>22.3</td>
<td>65.4</td>
<td>12.3</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>20.6</td>
<td>58.7</td>
<td>20.7</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>37.1</td>
<td>39.7</td>
<td>23.2</td>
</tr>
<tr>
<td>Fuels</td>
<td>27.1</td>
<td>40.7</td>
<td>32.2</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>37.1</td>
<td>51.7</td>
<td>11.2</td>
</tr>
</tbody>
</table>

Employers in Oregon gave the following as the top three reasons for their reported difficulty:

1. Competition/smaller applicant pool
2. Lack of experience, training, or technical skills
3. Cannot provide competitive wages

Employers reported the following as the three most difficult occupations to hire for:

1. Engineers/scientists — $45.54 median hourly wage
2. Management (directors, supervisors, vice presidents) — $48.93 median hourly wage
3. Technician or mechanical support — $24.32 median hourly wage
Pennsylvania
ENERGY AND EMPLOYMENT — 2020

Overview

Pennsylvania has an average concentration of energy employment, with 117,458 Traditional Energy workers statewide (representing 3.4 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 20,308 are in Electric Power Generation, 53,122 are in Fuels, and 44,028 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Pennsylvania is 2.0 percent of total state employment (compared to 2.3 percent of national employment). Pennsylvania has an additional 71,443 jobs in Energy Efficiency (3.0 percent of all U.S. Energy Efficiency jobs) and 80,545 jobs in Motor Vehicles (3.2 percent of all U.S. Motor Vehicle jobs).

Figure PA-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 3.8 percent since the 2019 report, increasing by 4,290 jobs over the period. Energy Efficiency jobs added 2,623 jobs (3.8 percent) and motor vehicles added 1,282 jobs (1.6 percent).
Breakdown by Technology Applications

**ELECTRIC POWER GENERATION**

Electric Power Generation employs 20,308 workers in Pennsylvania, 2.3 percent of the national total and adding 975 jobs over the past year (5.0 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 5,173 jobs (up 6.7 percent), followed by traditional fossil fuel generation at 5,103 jobs (up 3.4 percent).

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

Utilities are the largest industry sector in Electric Power Generation, with 48.5 percent of jobs. Manufacturing is next with 20.9 percent.

**Figure PA-3.**
*Electric Power Generation by Industry Sector*
FUELS

Fuels employs 53,122 workers in Pennsylvania, 4.6 percent of the national total, down -2.0 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure PA-4.
Fuels Employment by Detailed Technology Application

Mining and extraction jobs represent 44.3 percent of Fuels jobs in Pennsylvania.

Figure PA-5.
Fuels Employment by Industry Sector
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 44,028 workers in Pennsylvania, 3.2 percent of the national total, up 11.0 percent or 4,373 jobs since the 2018 report.

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

Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Pennsylvania, with 39.7 percent of such jobs statewide.

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

ENERGY EFFICIENCY

The 71,443 Energy Efficiency jobs in Pennsylvania represent 3.0 percent of all U.S. Energy Efficiency jobs, adding 2,623 jobs (3.8 percent) since last year. The largest number of these employees work in traditional HVAC firms, followed by high efficiency HVAC and renewable heating and cooling.

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

Energy Efficiency employment is primarily found in the construction industry.

**Figure PA-9.**
**Energy Efficiency Employment by Industry Sector**
MOTOR VEHICLES

Motor Vehicle employment accounts for 80,545 jobs in Pennsylvania, up 1,282 jobs over the past year (1.6 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure PA-10. 
Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

Employers in Pennsylvania are similarly optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (3.4 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 4,452 jobs in Energy Efficiency (6.2 percent) and Motor Vehicles employers expect to add 5,589 jobs (6.9 percent) over the next year.

Table PA-1 
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>5.6</td>
<td>4.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>2.3</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>6.2</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>3.5</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>6.9</td>
<td>3.1</td>
</tr>
</tbody>
</table>
Hiring Difficulty

Over the last year, 51.3 percent of energy-related employers in Pennsylvania hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Energy Efficiency.

Table PA-2
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>28.8</td>
<td>52.7</td>
<td>18.5</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>26.5</td>
<td>57.3</td>
<td>16.2</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>21.7</td>
<td>65.0</td>
<td>13.3</td>
</tr>
<tr>
<td>Fuels</td>
<td>27.7</td>
<td>39.9</td>
<td>32.4</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>33.6</td>
<td>52.7</td>
<td>13.7</td>
</tr>
</tbody>
</table>

Employers in Pennsylvania gave the following as the top three reasons for their reported difficulty:

1. Lack of experience, training, or technical skills
2. Insufficient non-technical skills (work ethic, dependability, critical thinking)
3. Competition/ small applicant pool

Employers reported the following as the three most difficult occupations to hire for:

1. Sales, marketing, or customer service — $35.59 median hourly wage
2. Management (directors, supervisors, vice presidents) — $51.21 median hourly wage
3. Technician or mechanical support — $23.03 median hourly wage
Rhode Island
ENERGY AND EMPLOYMENT — 2020

Overview

Rhode Island has a low concentration of energy employment, with 5,685 Traditional Energy workers statewide (representing 0.2 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 2,495 are in Electric Power Generation, 1,079 are in Fuels, and 2,112 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Rhode Island is 1.1 percent of total state employment (compared to 2.3 percent of national employment). Rhode Island has an additional 13,028 jobs in Energy Efficiency (0.5 percent of all U.S. Energy Efficiency jobs) and 5,118 jobs in Motor Vehicles (0.2 percent of all U.S. Motor Vehicle jobs).

Figure RI-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 9.4 percent since the 2019 report, increasing by 487 jobs over the period. Energy Efficiency jobs added 255 jobs (2.0 percent) and motor vehicles added 181 jobs (3.7 percent).
Breakdown by Technology Applications

**ELECTRIC POWER GENERATION**

Electric Power Generation employs 2,495 workers in Rhode Island, 0.3 percent of the national total and adding 97 jobs over the past year (4.1 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 1,419 jobs (up 2.8 percent), followed by wind at 538 jobs (up 1.4 percent).

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

Professional and business services are the largest industry sector in Electric Power Generation, with 35.5 percent of jobs. Construction is next with 18.5 percent.

*Figure RI-3.*
**Electric Power Generation by Industry Sector**
FUELS

Fuels employs 1,079 workers in Rhode Island, 0.1 percent of the national total, up 6.9 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

**Figure RI-4.**
**Fuels Employment by Detailed Technology Application**

Wholesale trade jobs represent 64.6 percent of Fuels jobs in Rhode Island.

**Figure RI-5.**
**Fuels Employment by Industry Sector**
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 2,112 workers in Rhode Island, 0.2 percent of the national total, up 17.9 percent or 320 jobs since the 2018 report.

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

Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Rhode Island, with 47.4 percent of such jobs statewide.

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

The 13,028 Energy Efficiency jobs in Rhode Island represent 0.5 percent of all U.S. Energy Efficiency jobs, adding 255 jobs (2.0 percent) since last year. The largest number of these employees work in (ENERGY STAR and efficient lighting firms, followed by advanced materials and insulation.

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

<table>
<thead>
<tr>
<th>Technology Application</th>
<th>Number of Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy Star &amp; Efficient Lighting</td>
<td>3,763</td>
</tr>
<tr>
<td>Traditional HVAC</td>
<td>1,448</td>
</tr>
<tr>
<td>High Efficiency &amp; Renewable Heating &amp; Cooling</td>
<td>2,640</td>
</tr>
<tr>
<td>Advanced Materials and Insulation</td>
<td>3,526</td>
</tr>
<tr>
<td>Other</td>
<td>1,651</td>
</tr>
</tbody>
</table>

Energy Efficiency employment is primarily found in the construction industry.

**Figure RI-9.**
*Energy Efficiency Employment by Industry Sector*

<table>
<thead>
<tr>
<th>Industry Sector</th>
<th>Number of Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>7,622</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>691</td>
</tr>
<tr>
<td>Trade</td>
<td>2,007</td>
</tr>
<tr>
<td>Professional Services</td>
<td>2,466</td>
</tr>
<tr>
<td>Other Services</td>
<td>242</td>
</tr>
</tbody>
</table>
MOTOR VEHICLES

Motor Vehicle employment accounts for 5,118 jobs in Rhode Island, up 181 jobs over the past year (3.7 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure RI-10.
Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

Employers in Rhode Island are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (5.7 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 656 jobs in Energy Efficiency (5.0 percent) and Motor Vehicles employers expect to add 213 jobs (4.2 percent) over the next year.

Table RI-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>8.1</td>
<td>4.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>2.6</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>5.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>6.2</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>4.2</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 35.3 percent of energy-related employers in Rhode Island hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Electric Power Transmission, Distribution, and Storage.

Table RI-2
**Hiring Difficulty by Major Technology Application.**

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>22.8</td>
<td>65.1</td>
<td>12.1</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>22.8</td>
<td>65.1</td>
<td>12.1</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>34.4</td>
<td>49.3</td>
<td>16.4</td>
</tr>
<tr>
<td>Fuels</td>
<td>27.7</td>
<td>45.9</td>
<td>26.4</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>47.3</td>
<td>37.4</td>
<td>15.2</td>
</tr>
</tbody>
</table>

Employers in Rhode Island gave the following as the top three reasons for their reported difficulty:

1. Lack of experience, training, or technical skills
2. Competition/ small applicant pool
3. Insufficient non-technical skills (work ethic, dependability, critical thinking)

Employers reported the following as the three most difficult occupations to hire for:

1. Electrician/construction workers — $29.02 median hourly wage
2. Sales, marketing, or customer service — $37.81 median hourly wage
3. Technician or mechanical support — $23.84 median hourly wage
South Carolina

ENERGY AND EMPLOYMENT — 2020

Overview

South Carolina has an average concentration of energy employment, with 49,215 Traditional Energy workers statewide (representing 1.4 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 28,115 are in Electric Power Generation, 5,840 are in Fuels, and 15,260 are in Transmission, Distribution, and Storage. The Traditional Energy sector in South Carolina is 2.3 percent of total state employment (compared to 2.3 percent of national employment). South Carolina has an additional 30,794 jobs in Energy Efficiency (1.3 percent of all U.S. Energy Efficiency jobs) and 61,358 jobs in Motor Vehicles (2.4 percent of all U.S. Motor Vehicle jobs).

**Figure SC-1.**
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 0.3 percent since the 2019 report, increasing by 132 jobs over the period. Energy Efficiency jobs added 810 jobs (2.7 percent) and motor vehicles added 4,393 jobs (7.7 percent).
Breakdown by Technology Applications

**ELECTRIC POWER GENERATION**

Electric Power Generation employs 28,115 workers in South Carolina, 3.2 percent of the national total and losing 236 jobs over the past year (-0.8 percent). Traditional hydroelectric generation makes up the largest segment of employment related to Electric Power Generation, with 8,996 jobs (down -3.6 percent), followed by traditional fossil fuel generation at 6,198 jobs (down -5.4 percent).

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

Construction is the largest industry sector in Electric Power Generation, with 25.1 percent of jobs. Utilities are next with 23.1 percent.

**Figure SC-3.**
*Electric Power Generation by Industry Sector*
FUELS

Fuels employs 5,840 workers in South Carolina, 0.5 percent of the national total, up 4.3 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure SC-4.
Fuels Employment by Detailed Technology Application

Wholesale trade jobs represent 58.8 percent of Fuels jobs in South Carolina.

Figure SC-5.
Fuels Employment by Industry Sector
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 15,260 workers in South Carolina, 1.1 percent of the national total, up 0.8 percent or 126 jobs since the 2018 report.

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

Construction is responsible for the largest percentage of Transmission, Distribution, and Storage jobs in South Carolina, with 51.7 percent of such jobs statewide.

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

The 30,794 Energy Efficiency jobs in South Carolina represent 1.3 percent of all U.S. Energy Efficiency jobs, adding 810 jobs (2.7 percent) since last year. The largest number of these employees work in (other energy efficiency products and services firms, followed by high efficiency HVAC and renewable heating and cooling.

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

Energy Efficiency employment is primarily found in the construction industry.

Figure SC-9.
Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 61,358 jobs in South Carolina, up 4,393 jobs over the past year (7.7 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is manufacturing.

Figure SC-10.
Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

Employers in South Carolina are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (3.7 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 1,543 jobs in Energy Efficiency (5.0 percent) and Motor Vehicles employers expect to add 4,854 jobs (7.9 percent) over the next year.

Table SC-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>3.8</td>
<td>4.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>3.5</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>5.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>4.2</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>7.9</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 16.0 percent of energy-related employers in South Carolina hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Electric Power Generation.

Table SC-2
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>25.4</td>
<td>66.1</td>
<td>8.5</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>28.2</td>
<td>62.4</td>
<td>9.4</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>39.4</td>
<td>45.5</td>
<td>15.2</td>
</tr>
<tr>
<td>Fuels</td>
<td>30.8</td>
<td>39.9</td>
<td>29.3</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>38.1</td>
<td>48.9</td>
<td>13.1</td>
</tr>
</tbody>
</table>

Employers in South Carolina gave the following as the top three reasons for their reported difficulty:

1. Insufficient non-technical skills (work ethic, dependability, critical thinking)
2. Cannot provide competitive wages
3. Lack of experience, training, or technical skills

Employers reported the following as the three most difficult occupations to hire for:

1. Electrician/construction workers — $22.79 median hourly wage
2. Technician or mechanical support — $20.28 median hourly wage
3. Administrative support — $17.98 median hourly wage
South Dakota
ENERGY AND EMPLOYMENT — 2020

Overview

South Dakota has an average concentration of energy employment, with 9,745 Traditional Energy workers statewide (representing 0.3 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 3,007 are in Electric Power Generation, 3,077 are in Fuels, and 3,661 are in Transmission, Distribution, and Storage. The Traditional Energy sector in South Dakota is 2.2 percent of total state employment (compared to 2.3 percent of national employment). South Dakota has an additional 7,628 jobs in Energy Efficiency (0.3 percent of all U.S. Energy Efficiency jobs) and 9,362 jobs in Motor Vehicles (0.4 percent of all U.S. Motor Vehicle jobs).

Figure SD-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 2.6 percent since the 2019 report, increasing by 244 jobs over the period. Energy Efficiency jobs added 132 jobs (1.8 percent) and motor vehicles added 831 jobs (9.7 percent).
Breakdown by Technology Applications

ELECTRIC POWER GENERATION

Electric Power Generation employs 3,007 workers in South Dakota, 0.3 percent of the national total and adding 13 jobs over the past year (0.4 percent). Wind makes up the largest segment of employment related to Electric Power Generation, with 1,486 jobs (down -1.0 percent), followed by solar at 613 jobs (up 4.9 percent).

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

Construction is the largest industry sector in Electric Power Generation, with 60.6 percent of jobs. Wholesale trade is next with 10.6 percent.

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

Fuels employs 3,077 workers in South Dakota, 0.3 percent of the national total, up 8.5 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure SD-4.
Fuels Employment by Detailed Technology Application

Wholesale trade jobs represent 68.8 percent of Fuels jobs in South Dakota.

Figure SD-5.
Fuels Employment by Industry Sector
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 3,661 workers in South Dakota, 0.3 percent of the national total, down 0.3 percent or 11 jobs since the 2018 report.

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

Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in South Dakota, with 49.4 percent of such jobs statewide.

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

The 7,628 Energy Efficiency jobs in South Dakota represent 0.3 percent of all U.S. Energy Efficiency jobs, adding 132 jobs (1.8 percent) since last year. The largest number of these employees work in (traditional HVAC firms, followed by high efficiency HVAC and renewable heating and cooling.

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

Energy Efficiency employment is primarily found in the construction industry.

Figure SD-9.
Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 9,362 jobs in South Dakota, up 831 jobs over the past year (9.7 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is manufacturing.

Figure SD-10.
Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

Employers in South Dakota are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (3.8 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 243 jobs in Energy Efficiency (3.2 percent) and Motor Vehicles employers expect to add 371 jobs (4.0 percent) over the next year.

Table SD-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>6.0</td>
<td>4.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>1.0</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>3.2</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>4.9</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>4.0</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 66.7 percent of energy-related employers in South Dakota hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Electric Power Generation.

Table SD-2
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>35.1</td>
<td>53.9</td>
<td>11.0</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>35.1</td>
<td>43.9</td>
<td>21.0</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>29.0</td>
<td>45.0</td>
<td>26.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>25.7</td>
<td>35.9</td>
<td>38.4</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>46.3</td>
<td>41.4</td>
<td>12.2</td>
</tr>
</tbody>
</table>

Employers in South Dakota gave the following as the top three reasons for their reported difficulty:

1. Lack of experience, training, or technical skills
2. Economy/structural problem
3. Competition/ small applicant pool

Employers reported the following as the three most difficult occupations to hire for:

1. Technician or mechanical support — $21.52 median hourly wage
2. Electrician/construction workers — $25.82 median hourly wage
3. Sales, marketing, or customer service — $33.71 median hourly wage
Tennessee

ENERGY AND EMPLOYMENT — 2020

Overview

Tennessee has a low concentration of energy employment, with 54,953 Traditional Energy workers statewide (representing 1.6 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 12,143 are in Electric Power Generation, 7,749 are in Fuels, and 35,061 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Tennessee is 1.8 percent of total state employment (compared to 2.3 percent of national employment). Tennessee has an additional 53,916 jobs in Energy Efficiency (2.3 percent of all U.S. Energy Efficiency jobs) and 104,279 jobs in Motor Vehicles (4.1 percent of all U.S. Motor Vehicle jobs).

Figure TN-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs declined by 0.5 percent since the 2019 report, decreasing by 294 jobs over the period. Energy Efficiency jobs added 909 jobs (1.7 percent) and motor vehicles lost 312 jobs (-0.3 percent).
Breakdown by Technology Applications

ELECTRIC POWER GENERATION

Electric Power Generation employs 12,143 workers in Tennessee, 1.4 percent of the national total and adding 242 jobs over the past year (2.0 percent). Traditional hydroelectric generation makes up the largest segment of employment related to Electric Power Generation, with 5,268 jobs (up 1.5 percent), followed by solar at 4,927 jobs (down -2.4 percent).

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

Utilities are the largest industry sector in Electric Power Generation, with 50.8 percent of jobs. Professional and business services are next with 19.0 percent.

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

Fuels employs 7,749 workers in Tennessee, 0.7 percent of the national total, up 0.6 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure TN-4.
Fuels Employment by Detailed Technology Application

![Diagram showing employment by technology application]

Professional and business services jobs represent 35.1 percent of Fuels jobs in Tennessee.

Figure TN-5.
Fuels Employment by Industry Sector

![Diagram showing employment by industry sector]
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 35,061 workers in Tennessee, 2.5 percent of the national total, down 1.6 percent or 583 jobs since the 2018 report.

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

Construction is responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Tennessee, with 47.3 percent of such jobs statewide.

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

The 53,916 Energy Efficiency jobs in Tennessee represent 2.3 percent of all U.S. Energy Efficiency jobs, adding 909 jobs (1.7 percent) since last year. The largest number of these employees work in (high efficiency HVAC and renewable heating and cooling firms, followed by ENERGY STAR and efficient lighting.

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

Energy Efficiency employment is primarily found in the construction industry.

Figure TN-9.
Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 104,279 jobs in Tennessee, down 312 jobs over the past year (-0.3 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is manufacturing.

Figure TN-10.
Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

Employers in Tennessee are less optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (2.6 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 1,305 jobs in Energy Efficiency (2.4 percent) and Motor Vehicles employers expect to add 2,733 jobs (2.6 percent) over the next year.

Table TN-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>7.2</td>
<td>4.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>0.8</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>2.4</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>3.8</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>2.6</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 25.0 percent of energy-related employers in Tennessee hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Electric Power Generation.

**Table TN-2**
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>22.5</td>
<td>68.2</td>
<td>9.3</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>25.0</td>
<td>64.7</td>
<td>10.3</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>39.1</td>
<td>47.7</td>
<td>13.2</td>
</tr>
<tr>
<td>Fuels</td>
<td>24.2</td>
<td>43.2</td>
<td>32.6</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>29.1</td>
<td>58.1</td>
<td>12.8</td>
</tr>
</tbody>
</table>

Employers in Tennessee gave the following as the top three reasons for their reported difficulty:

1. Competition/ small applicant pool
2. Insufficient qualifications (certifications or education)
3. Cannot provide competitive wages

Employers reported the following as the three most difficult occupations to hire for:

1. Technician or mechanical support — $21.99 median hourly wage
2. Management (directors, supervisors, vice presidents) — $39.94 median hourly wage
3. Sales, marketing, or customer service — $32.38 median hourly wage
Texas
ENERGY AND EMPLOYMENT — 2020

Overview

Texas has a high concentration of energy employment, with 607,626 Traditional Energy workers statewide (representing 17.8 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 58,476 are in Electric Power Generation, 344,256 are in Fuels, and 204,894 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Texas is 4.8 percent of total state employment (compared to 2.3 percent of national employment). Texas has an additional 169,398 jobs in Energy Efficiency (7.1 percent of all U.S. Energy Efficiency jobs) and 182,783 jobs in Motor Vehicles (7.1 percent of all U.S. Motor Vehicle jobs).

Figure TX-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 1.5 percent since the 2019 report, increasing by 8,718 jobs over the period. Energy Efficiency jobs added 6,582 jobs (4.0 percent) and motor vehicles added 3,640 jobs (2.0 percent).
Breakdown by Technology Applications

ELECTRIC POWER GENERATION

Electric Power Generation employs 58,476 workers in Texas, 6.6 percent of the national total and adding 2,731 jobs over the past year (4.9 percent). Wind makes up the largest segment of employment related to Electric Power Generation, with 25,507 jobs (up 0.5 percent), followed by traditional fossil fuel generation at 13,666 jobs (up 7.5 percent).

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

Utilities are the largest industry sector in Electric Power Generation, with 36.7 percent of jobs. Construction is next with 25.3 percent.

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

Fuels employs 344,256 workers in Texas, 30.0 percent of the national total, up 1.7 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

**Figure TX-4.**
Fuels Employment by Detailed Technology Application

Mining and extraction jobs represent 69.5 percent of Fuels jobs in Texas.

**Figure TX-5.**
Fuels Employment by Industry Sector
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 204,894 workers in Texas, 14.8 percent of the national total, up 0.1 percent or 293 jobs since the 2018 report.

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

Construction is responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Texas, with 46.0 percent of such jobs statewide.

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

The 169,398 Energy Efficiency jobs in Texas represent 7.1 percent of all U.S. Energy Efficiency jobs, adding 6,582 jobs (4.0 percent) since last year. The largest number of these employees work in ENERGY STAR and efficient lighting firms, followed by high efficiency HVAC and renewable heating and cooling.

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

Energy Efficiency employment is primarily found in the construction industry.

Figure TX-9.
Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 182,783 jobs in Texas, up 3,640 jobs over the past year (2.0 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure TX-10.
**Motor Vehicle Employment by Industry Sector**

![Motor Vehicle Employment by Industry Sector](image)

Workforce Characteristics

EMPLOYER GROWTH

Employers in Texas are similarly optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (3.2 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 10,421 jobs in Energy Efficiency (6.2 percent) and Motor Vehicles employers expect to add 6,295 jobs (3.4 percent) over the next year.

Table TX-1
**Projected Growth by Major Technology Application.**

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>3.6</td>
<td>4.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>2.2</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>6.2</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>3.7</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>3.4</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 37.3 percent of energy-related employers in Texas hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Electric Power Generation.

Table TX-2
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>23.7</td>
<td>70.1</td>
<td>6.2</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>23.7</td>
<td>66.1</td>
<td>10.2</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>39.9</td>
<td>37.2</td>
<td>22.9</td>
</tr>
<tr>
<td>Fuels</td>
<td>30.9</td>
<td>42.9</td>
<td>26.2</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>48.1</td>
<td>42.7</td>
<td>9.2</td>
</tr>
</tbody>
</table>

Employers in Texas gave the following as the top three reasons for their reported difficulty:

1. Lack of experience, training, or technical skills
2. Difficulty finding industry-specific knowledge, skills, and interest
3. Competition/ small applicant pool

Employers reported the following as the three most difficult occupations to hire for:

1. Technician or mechanical support — $21.58 median hourly wage
2. Sales, marketing, or customer service — $33.88 median hourly wage
3. Electrician/construction workers — $22.82 median hourly wage
Utah

ENERGY AND EMPLOYMENT — 2020

Overview

Utah has an average concentration of energy employment, with 31,468 Traditional Energy workers statewide (representing 0.9 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 11,853 are in Electric Power Generation, 11,885 are in Fuels, and 7,730 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Utah is 2.1 percent of total state employment (compared to 2.3 percent of national employment). Utah has an additional 32,483 jobs in Energy Efficiency (1.4 percent of all U.S. Energy Efficiency jobs) and 23,266 jobs in Motor Vehicles (0.9 percent of all U.S. Motor Vehicle jobs).

Figure UT-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 4.7 percent since the 2019 report, increasing by 1,405 jobs over the period. Energy Efficiency jobs added 685 jobs (2.2 percent) and motor vehicles added 510 jobs (2.2 percent).
Breakdown by Technology Applications

ELECTRIC POWER GENERATION

Electric Power Generation employs 11,853 workers in Utah, 1.3 percent of the national total and adding 1,013 jobs over the past year (9.3 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 7,373 jobs (up 15.2 percent), followed by traditional fossil fuel generation at 3,304 jobs (down -3.0 percent).

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

Construction is the largest industry sector in Electric Power Generation, with 50.2 percent of jobs. Wholesale trade is next with 19.9 percent.

**Figure UT-3.**
Electric Power Generation by Industry Sector
FUELS

Fuels employs 11,885 workers in Utah, 1.0 percent of the national total, up 1.6 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure UT-4.
Fuels Employment by Detailed Technology Application

Mining and extraction jobs represent 45.6 percent of Fuels jobs in Utah.

Figure UT-5.
Fuels Employment by Industry Sector
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 7,730 workers in Utah, 0.6 percent of the national total, up 2.8 percent or 208 jobs since the 2018 report.

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

Construction is responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Utah, with 40.2 percent of such jobs statewide.

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

The 32,483 Energy Efficiency jobs in Utah represent 1.4 percent of all U.S. Energy Efficiency jobs, adding 685 jobs (2.2 percent) since last year. The largest number of these employees work in (advanced materials and insulation firms, followed by high efficiency HVAC and renewable heating and cooling.

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

Energy Efficiency employment is primarily found in the construction industry.

Figure UT-9.
Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 23,266 jobs in Utah, up 510 jobs over the past year (2.2 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure UT-10.  
Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

Employers in Utah are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (6.8 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 1,877 jobs in Energy Efficiency (5.8 percent) and Motor Vehicles employers expect to add 959 jobs (4.1 percent) over the next year.

Table UT-1  
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>7.1</td>
<td>4.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>3.3</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>5.8</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>8.9</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>4.1</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 46.4 percent of energy-related employers in Utah hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Motor Vehicles.

Table UT-2
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>16.8</td>
<td>68.6</td>
<td>14.5</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>17.3</td>
<td>69.3</td>
<td>13.3</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>28.6</td>
<td>47.6</td>
<td>23.8</td>
</tr>
<tr>
<td>Fuels</td>
<td>30.8</td>
<td>46.5</td>
<td>22.6</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>32.3</td>
<td>57.4</td>
<td>10.2</td>
</tr>
</tbody>
</table>

Employers in Utah gave the following as the top three reasons for their reported difficulty:

1. Lack of experience, training, or technical skills
2. Competition/ small applicant pool
3. Difficulty finding industry-specific knowledge, skills, and interest

Employers reported the following as the three most difficult occupations to hire for:

1. Electrician/construction workers — $24.69 median hourly wage
2. Sales, marketing, or customer service — $32.48 median hourly wage
3. Technician or mechanical support — $21.82 median hourly wage
Vermont

ENERGY AND EMPLOYMENT — 2020

Overview

Vermont has an average concentration of energy employment, with 7,950 Traditional Energy workers statewide (representing 0.2 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 2,821 are in Electric Power Generation, 2,554 are in Fuels, and 2,575 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Vermont is 2.5 percent of total state employment (compared to 2.3 percent of national employment). Vermont has an additional 11,032 jobs in Energy Efficiency (0.5 percent of all U.S. Energy Efficiency jobs) and 3,673 jobs in Motor Vehicles (0.1 percent of all U.S. Motor Vehicle jobs).

Figure VT-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 9.1 percent since the 2019 report, increasing by 665 jobs over the period. Energy Efficiency jobs remained flat, losing 3 jobs (0.0 percent) and motor vehicles lost 28 jobs (-0.8 percent).
Breakdown by Technology Applications

ELECTRIC POWER GENERATION

Electric Power Generation employs 2,821 workers in Vermont, 0.3 percent of the national total and adding 18 jobs over the past year (0.6 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 1,971 jobs (down -1.0 percent), followed by wind at 360 jobs (up 1.7 percent).

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

Construction is the largest industry sector in Electric Power Generation, with 25.5 percent of jobs. Professional and business services are next with 20.5 percent.
FUELS

Fuels employs 2,554 workers in Vermont, 0.2 percent of the national total, down -0.8 percent over the past year. Woody biomass makes up the largest segment of employment related to Fuels.

Wholesale trade jobs represent 52.4 percent of Fuels jobs in Vermont.
Figure VT-5.
Fuels Employment by Industry Sector

<table>
<thead>
<tr>
<th>Industry Sector</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture and Forestry</td>
<td>529</td>
</tr>
<tr>
<td>Mining &amp; Extraction</td>
<td>5</td>
</tr>
<tr>
<td>Construction</td>
<td>-</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>470</td>
</tr>
<tr>
<td>Trade</td>
<td>1,339</td>
</tr>
<tr>
<td>Professional Services</td>
<td>202</td>
</tr>
<tr>
<td>Other Services</td>
<td>8</td>
</tr>
</tbody>
</table>
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 2,575 workers in Vermont, 0.2 percent of the national total, up 34.9 percent or 667 jobs since the 2018 report.

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

Utilities are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Vermont, with 47.5 percent of such jobs statewide.

**Figure VT-7.**
*Transmission, Distribution and Storage Employment by Industry Sector*
ENERGY EFFICIENCY

The 11,032 Energy Efficiency jobs in Vermont represent 0.5 percent of all U.S. Energy Efficiency jobs, adding 3 jobs (0.0 percent) since last year. The largest number of these employees work in (high efficiency HVAC and renewable heating and cooling firms, followed by traditional HVAC.

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

Energy Efficiency employment is primarily found in the construction industry.

Figure VT-9.
Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 3,673 jobs in Vermont, down 28 jobs over the past year (-0.8 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure VT-10.
Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

Employers in Vermont are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (5.5 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 532 jobs in Energy Efficiency (4.8 percent) and Motor Vehicles employers expect to add 106 jobs (2.9 percent) over the next year.

Table VT-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>8.3</td>
<td>4.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>1.6</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>4.8</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>6.2</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>2.9</td>
<td>3.1</td>
</tr>
</tbody>
</table>
Hiring Difficulty

Over the last year, 42.0 percent of energy-related employers in Vermont hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Electric Power Generation.

Table VT-2
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>23.7</td>
<td>61.4</td>
<td>14.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>22.8</td>
<td>55.1</td>
<td>22.1</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>34.4</td>
<td>39.3</td>
<td>26.4</td>
</tr>
<tr>
<td>Fuels</td>
<td>27.7</td>
<td>35.9</td>
<td>36.4</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>47.3</td>
<td>37.4</td>
<td>15.2</td>
</tr>
</tbody>
</table>

Employers in Vermont gave the following as the top three reasons for their reported difficulty:

1. Lack of experience, training, or technical skills
2. Competition/ small applicant pool
3. Insufficient qualifications (certifications or education)

Employers reported the following as the three most difficult occupations to hire for:

1. Installation workers — $27.33 median hourly wage
2. Engineers/scientists — $41.07 median hourly wage
3. Technician or mechanical support — $23.84 median hourly wage
Virginia
ENERGY AND EMPLOYMENT — 2020

Overview

Virginia has a low concentration of energy employment, with 55,305 Traditional Energy workers statewide (representing 1.6 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 15,336 are in Electric Power Generation, 14,557 are in Fuels, and 25,412 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Virginia is 1.4 percent of total state employment (compared to 2.3 percent of national employment). Virginia has an additional 80,181 jobs in Energy Efficiency (3.4 percent of all U.S. Energy Efficiency jobs) and 52,648 jobs in Motor Vehicles (2.1 percent of all U.S. Motor Vehicle jobs).

Figure VA-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 2.9 percent since the 2019 report, increasing by 1,551 jobs over the period. Energy Efficiency jobs added 1,511 jobs (1.9 percent) and motor vehicles lost 1,207 jobs (~2.2 percent).
Breakdown by Technology Applications

**ELECTRIC POWER GENERATION**

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

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

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

**Figure VA-3.**
**Electric Power Generation by Industry Sector**
FUELS

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

Figure VA-4. Fuels Employment by Detailed Technology Application

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

Figure VA-5. Fuels Employment by Industry Sector
TRANSMISSION, DISTRIBUTION AND STORAGE

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

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

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

Figure VA-7.
Transmission, Distribution and Storage Employment by Industry Sector
ENERGY EFFICIENCY

The 80,181 Energy Efficiency jobs in Virginia represent 3.4 percent of all U.S. Energy Efficiency jobs, adding 1,511 jobs (1.9 percent) since last year. The largest number of these employees work in (ENERGY STAR and efficient lighting firms, followed by traditional HVAC.

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

Energy Efficiency employment is primarily found in the construction industry.

Figure VA-9.
Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 52,648 jobs in Virginia, down 1,207 jobs over the past year (-2.2 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure VA-10.
Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

Employers in Virginia are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (4.3 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 3,809 jobs in Energy Efficiency (4.8 percent) and Motor Vehicles employers expect to add 5,122 jobs (9.7 percent) over the next year.

Table VA-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>4.0</td>
<td>4.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>4.6</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>4.8</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>4.2</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>9.7</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

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

Table VA-2
Hiring Difficulty by Major Technology Application.

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

Employers in Virginia gave the following as the top three reasons for their reported difficulty:

1. Lack of experience, training, or technical skills
2. Competition/ small applicant pool
3. Insufficient non-technical skills (work ethic, dependability, critical thinking)

Employers reported the following as the three most difficult occupations to hire for:

1. Technician or mechanical support — $20.28 median hourly wage
2. Management (directors, supervisors, vice presidents) — $37.13 median hourly wage
3. Engineers/scientists — $35.46 median hourly wage
Washington
ENERGY AND EMPLOYMENT — 2020

Overview

Washington has a low concentration of energy employment, with 55,919 Traditional Energy workers statewide (representing 1.6 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 14,958 are in Electric Power Generation, 9,778 are in Fuels, and 31,183 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Washington is 1.6 percent of total state employment (compared to 2.3 percent of national employment). Washington has an additional 64,930 jobs in Energy Efficiency (2.7 percent of all U.S. Energy Efficiency jobs) and 34,342 jobs in Motor Vehicles (1.3 percent of all U.S. Motor Vehicle jobs).

Figure WA-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 0.1 percent since the 2019 report, increasing by 80 jobs over the period. Energy Efficiency jobs added 1,053 jobs (1.6 percent) and motor vehicles added 634 jobs (1.9 percent).
Breakdown by Technology Applications

ELECTRIC POWER GENERATION

Electric Power Generation employs 14,958 workers in Washington, 1.7 percent of the national total and adding 140 jobs over the past year (0.9 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 5,081 jobs (down -0.6 percent), followed by wind at 3,310 jobs (up 1.2 percent).

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

Construction is the largest industry sector in Electric Power Generation, with 38.4 percent of jobs. Professional and business services are next with 23.8 percent.

Figure WA-3. Electric Power Generation by Industry Sector
FUELS

Fuels employs 9,778 workers in Washington, 0.9 percent of the national total, up 4.5 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure WA-4.
Fuels Employment by Detailed Technology Application

Manufacturing jobs represent 36.7 percent of Fuels jobs in Washington.

Figure WA-5.
Fuels Employment by Industry Sector
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 31,183 workers in Washington, 2.3 percent of the national total, down 1.5 percent or 482 jobs since the 2018 report.

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

Construction is responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Washington, with 43.8 percent of such jobs statewide.

Figure WA-7.
Transmission, Distribution and Storage Employment by Industry Sector
ENERGY EFFICIENCY

The 64,930 Energy Efficiency jobs in Washington represent 2.7 percent of all U.S. Energy Efficiency jobs, adding 1,053 jobs (1.6 percent) since last year. The largest number of these employees work in (traditional HVAC firms, followed by ENERGY STAR and efficient lighting.

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

Energy Efficiency employment is primarily found in the construction industry.

Figure WA-9. Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 34,342 jobs in Washington, up 634 jobs over the past year (1.9 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure WA-10.
Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

Employers in Washington are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (3.9 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 2,839 jobs in Energy Efficiency (4.4 percent) and Motor Vehicles employers expect to add 1,525 jobs (4.4 percent) over the next year.

Table WA-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
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</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
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<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
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<td>3.5</td>
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<td>Energy Efficiency</td>
<td>4.4</td>
<td>3.0</td>
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<tr>
<td>Fuels</td>
<td>3.4</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>4.4</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 47.8 percent of energy-related employers in Washington hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Electric Power Generation.

Table WA-2  
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>22.9</td>
<td>66.4</td>
<td>10.7</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>20.6</td>
<td>58.7</td>
<td>20.7</td>
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<tr>
<td>Energy Efficiency</td>
<td>37.1</td>
<td>39.7</td>
<td>23.2</td>
</tr>
<tr>
<td>Fuels</td>
<td>27.1</td>
<td>40.7</td>
<td>32.2</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>47.1</td>
<td>41.7</td>
<td>11.2</td>
</tr>
</tbody>
</table>

Employers in Washington gave the following as the top three reasons for their reported difficulty:

1. Competition/ small applicant pool
2. Lack of experience, training, or technical skills
3. Insufficient qualifications (certifications or education)

Employers reported the following as the three most difficult occupations to hire for:

1. Electrician/construction workers — $28.59 median hourly wage
2. Sales, marketing, or customer service — $35.35 median hourly wage
3. Technician or mechanical support — $24.32 median hourly wage
West Virginia

ENERGY AND EMPLOYMENT — 2020

Overview

West Virginia has a high concentration of energy employment, with 49,540 Traditional Energy workers statewide (representing 1.4 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 3,707 are in Electric Power Generation, 27,343 are in Fuels, and 18,489 are in Transmission, Distribution, and Storage. The Traditional Energy sector in West Virginia is 7.1 percent of total state employment (compared to 2.3 percent of national employment). West Virginia has an additional 7,144 jobs in Energy Efficiency (0.3 percent of all U.S. Energy Efficiency jobs) and 8,968 jobs in Motor Vehicles (0.4 percent of all U.S. Motor Vehicle jobs).

Figure WV-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 16.8 percent since the 2019 report, increasing by 7,127 jobs over the period. Energy Efficiency jobs added 300 jobs (4.4 percent) and motor vehicles added 20 jobs (0.2 percent).
Breakdown by Technology Applications

ELECTRIC POWER GENERATION

Electric Power Generation employs 3,707 workers in West Virginia, 0.4 percent of the national total and losing 148 jobs over the past year (-3.8 percent). Traditional fossil fuel generation makes up the largest segment of employment related to Electric Power Generation, with 2,368 jobs (down -8.0 percent), followed by wind at 502 jobs (up 1.9 percent).

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

Construction is the largest industry sector in Electric Power Generation, with 39.3 percent of jobs. Utilities are next with 36.7 percent.

Figure WV-3.
Electric Power Generation by Industry Sector
FUELS

Fuels employs 27,343 workers in West Virginia, 2.4 percent of the national total, down -0.0 percent over the past year. Coal makes up the largest segment of employment related to Fuels.

Figure WV-4.
Fuels Employment by Detailed Technology Application

Mining and extraction jobs represent 75.7 percent of Fuels jobs in West Virginia.

Figure WV-5.
Fuels Employment by Industry Sector
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 18,489 workers in West Virginia, 1.3 percent of the national total, up 65.0 percent or 7,285 jobs since the 2018 report.

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

Pipeline transport and commodity flows are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in West Virginia, with 55.0 percent of such jobs statewide.

Figure WV-7.
Transmission, Distribution and Storage Employment by Industry Sector
ENERGY EFFICIENCY

The 7,144 Energy Efficiency jobs in West Virginia represent 0.3 percent of all U.S. Energy Efficiency jobs, adding 300 jobs (4.4 percent) since last year. The largest number of these employees work in (advanced materials and insulation firms, followed by ENERGY STAR and efficient lighting.

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

Energy Efficiency employment is primarily found in the construction industry.

Figure WV-9. Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 8,968 jobs in West Virginia, up 20 jobs over the past year (0.2 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is manufacturing.

Figure WV-10.
Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

Employers in West Virginia are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (4.3 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 207 jobs in Energy Efficiency (2.9 percent) and Motor Vehicles employers expect to add 803 jobs (8.9 percent) over the next year.

Table WV-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
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</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>3.9</td>
<td>4.8</td>
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<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>3.5</td>
<td>3.5</td>
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<td>Energy Efficiency</td>
<td>2.9</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>4.9</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>8.9</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 50.0 percent of energy-related employers in West Virginia hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Electric Power Generation.

Table WV-2
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>28.2</td>
<td>62.4</td>
<td>9.4</td>
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<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>28.2</td>
<td>62.4</td>
<td>9.4</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>39.4</td>
<td>45.5</td>
<td>15.2</td>
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<tr>
<td>Fuels</td>
<td>30.8</td>
<td>39.9</td>
<td>29.3</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>38.1</td>
<td>48.9</td>
<td>13.1</td>
</tr>
</tbody>
</table>

Employers in West Virginia gave the following as the top three reasons for their reported difficulty:

1. Insufficient qualifications (certifications or education)
2. Cannot pass employment screening
3. Lack of experience, training, or technical skills

Employers reported the following as the three most difficult occupations to hire for:

1. Technician or mechanical support — $20.28 median hourly wage
2. Installation workers — $20.65 median hourly wage
3. Electrician/construction workers — $22.79 median hourly wage
Wisconsin

ENERGY AND EMPLOYMENT — 2020

Overview

Wisconsin has a low concentration of energy employment, with 39,389 Traditional Energy workers statewide (representing 1.2 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 10,626 are in Electric Power Generation, 9,087 are in Fuels, and 19,677 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Wisconsin is 1.3 percent of total state employment (compared to 2.3 percent of national employment). Wisconsin has an additional 63,569 jobs in Energy Efficiency (2.7 percent of all U.S. Energy Efficiency jobs) and 49,942 jobs in Motor Vehicles (2.0 percent of all U.S. Motor Vehicle jobs).

Figure WI-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 0.5 percent since the 2019 report, increasing by 212 jobs over the period. Energy Efficiency jobs added 428 jobs (0.7 percent) and motor vehicles added 1,035 jobs (2.1 percent).
Breakdown by Technology Applications

ELECTRIC POWER GENERATION

Electric Power Generation employs 10,626 workers in Wisconsin, 1.2 percent of the national total and losing 10 jobs over the past year (-0.1 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 3,798 jobs (down -0.6 percent), followed by traditional fossil fuel generation at 3,342 jobs (down -4.9 percent).

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

Construction is the largest industry sector in Electric Power Generation, with 34.4 percent of jobs. Utilities are next with 29.3 percent.

Figure WI-3.
Electric Power Generation by Industry Sector
FUELS

Fuels employs 9,087 workers in Wisconsin, 0.8 percent of the national total, up 2.8 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

Figure WI-4.
Fuels Employment by Detailed Technology Application

Manufacturing jobs represent 39.0 percent of Fuels jobs in Wisconsin.

Figure WI-5.
Fuels Employment by Industry Sector
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 19,677 workers in Wisconsin, 1.4 percent of the national total, down 0.1 percent or 25 jobs since the 2018 report.

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

Construction is responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Wisconsin, with 32.1 percent of such jobs statewide.

**Figure WI-7.**
Transmission, Distribution and Storage Employment by Industry Sector
ENERGY EFFICIENCY

The 63,569 Energy Efficiency jobs in Wisconsin represent 2.7 percent of all U.S. Energy Efficiency jobs, adding 428 jobs (0.7 percent) since last year. The largest number of these employees work in (ENERGY STAR and efficient lighting firms, followed by advanced materials and insulation.

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

Energy Efficiency employment is primarily found in the construction industry.

Figure WI-9. Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 49,942 jobs in Wisconsin, up 1,035 jobs over the past year (2.1 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is manufacturing.

Figure WI-10.
Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

Employers in Wisconsin are similarly optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (3.0 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 2,021 jobs in Energy Efficiency (3.2 percent) and Motor Vehicles employers expect to add 1,273 jobs (2.5 percent) over the next year.

Table WI-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>5.4</td>
<td>4.8</td>
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<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>1.5</td>
<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>3.2</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuels</td>
<td>3.4</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>2.5</td>
<td>3.1</td>
</tr>
</tbody>
</table>
HIRING DIFFICULTY

Over the last year, 32.3 percent of energy-related employers in Wisconsin hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Motor Vehicles.

Table WI-2
Hiring Difficulty by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>11.3</td>
<td>54.5</td>
<td>34.3</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
<td>12.5</td>
<td>53.1</td>
<td>34.4</td>
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<tr>
<td>Energy Efficiency</td>
<td>57.1</td>
<td>32.1</td>
<td>10.7</td>
</tr>
<tr>
<td>Fuels</td>
<td>29.9</td>
<td>38.9</td>
<td>31.2</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>42.7</td>
<td>48.1</td>
<td>9.2</td>
</tr>
</tbody>
</table>

Employers in Wisconsin gave the following as the top three reasons for their reported difficulty:

1. Difficulty finding industry-specific knowledge, skills, and interest
2. Lack of experience, training, or technical skills
3. Competition/ small applicant pool

Employers reported the following as the three most difficult occupations to hire for:

1. Technician or mechanical support — $21.25 median hourly wage
2. Installation workers — $20.51 median hourly wage
3. Management (directors, supervisors, vice presidents) — $43.21 median hourly wage
Wyoming
ENERGY AND EMPLOYMENT — 2020

Overview

Wyoming has a high concentration of energy employment, with 33,272 Traditional Energy workers statewide (representing 1.0 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 1,526 are in Electric Power Generation, 22,191 are in Fuels, and 9,556 are in Transmission, Distribution, and Storage. The Traditional Energy sector in Wyoming is 11.6 percent of total state employment (compared to 2.3 percent of national employment). Wyoming has an additional 7,568 jobs in Energy Efficiency (0.3 percent of all U.S. Energy Efficiency jobs) and 3,215 jobs in Motor Vehicles (0.1 percent of all U.S. Motor Vehicle jobs).

Figure WY-1.
Employment by Major Energy Technology Application

Overall, Traditional Energy jobs grew by 0.3 percent since the 2019 report, increasing by 109 jobs over the period. Energy Efficiency jobs added 40 jobs (0.5 percent) and motor vehicles lost 18 jobs (-0.6 percent).
Breakdown by Technology Applications

**ELECTRIC POWER GENERATION**

Electric Power Generation employs 1,526 workers in Wyoming, 0.2 percent of the national total and losing 100 jobs over the past year (-6.2 percent). Traditional fossil fuel generation makes up the largest segment of employment related to Electric Power Generation, with 1,164 jobs (down -8.5 percent), followed by solar at 185 jobs (down -10.5 percent).

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

Utilities are the largest industry sector in Electric Power Generation, with 43.0 percent of jobs. Construction is next with 33.9 percent.

**Figure WY-3.**
**Electric Power Generation by Industry Sector**
**FUELS**

Fuels employs 22,191 workers in Wyoming, 1.9 percent of the national total, up 0.7 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

**Figure WY-4.**
**Fuels Employment by Detailed Technology Application**

Mining and extraction jobs represent 81.1 percent of Fuels jobs in Wyoming.

**Figure WY-5.**
**Fuels Employment by Industry Sector**
TRANSMISSION, DISTRIBUTION AND STORAGE

Transmission, Distribution, and Storage employs 9,556 workers in Wyoming, 0.7 percent of the national total, up 0.6 percent or 57 jobs since the 2018 report.

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

Pipeline transport and commodity flows are responsible for the largest percentage of Transmission, Distribution, and Storage jobs in Wyoming, with 37.1 percent of such jobs statewide.

**Figure WY-7.**
Transmission, Distribution and Storage Employment by Industry Sector
ENERGY EFFICIENCY

The 7,568 Energy Efficiency jobs in Wyoming represent 0.3 percent of all U.S. Energy Efficiency jobs, adding 40 jobs (0.5 percent) since last year. The largest number of these employees work in (ENERGY STAR and efficient lighting firms, followed by traditional HVAC.

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

Energy Efficiency employment is primarily found in the construction industry.

Figure WY-9.
Energy Efficiency Employment by Industry Sector
MOTOR VEHICLES

Motor Vehicle employment accounts for 3,215 jobs in Wyoming, down 18 jobs over the past year (-0.6 percent). The industry sector that accounts for the largest fraction of Motor Vehicle jobs is repair and maintenance.

Figure WY-10.
Motor Vehicle Employment by Industry Sector

Workforce Characteristics

EMPLOYER GROWTH

Employers in Wyoming are more optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (6.4 percent versus 3.2 percent nationally). Energy Efficiency employers expect to add 269 jobs in Energy Efficiency (3.6 percent) and Motor Vehicles employers expect to add 166 jobs (5.2 percent) over the next year.

Table WY-1
Projected Growth by Major Technology Application.

<table>
<thead>
<tr>
<th>Technology</th>
<th>State Projected Growth Next 12 Months (percent)</th>
<th>U.S. Projected Growth Next 12 Months (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Generation</td>
<td>6.3</td>
<td>4.8</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution, and Storage</td>
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<td>3.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>3.6</td>
<td>3.0</td>
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<tr>
<td>Fuels</td>
<td>7.8</td>
<td>1.7</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>5.2</td>
<td>3.1</td>
</tr>
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</table>
HIRING DIFFICULTY

Over the last year, 27.3 percent of energy-related employers in Wyoming hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Motor Vehicles.

Table WY-2

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (percent)</th>
<th>Somewhat Difficult (percent)</th>
<th>Not at All Difficult (percent)</th>
</tr>
</thead>
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<tr>
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<td>65.7</td>
<td>12.0</td>
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<td>13.3</td>
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<tr>
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<td>47.6</td>
<td>23.8</td>
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<tr>
<td>Fuels</td>
<td>30.8</td>
<td>46.5</td>
<td>22.6</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>32.3</td>
<td>57.4</td>
<td>10.2</td>
</tr>
</tbody>
</table>

Employers in Wyoming gave the following as the top three reasons for their reported difficulty:

1. Difficulty finding industry-specific knowledge, skills, and interest
2. Competition/small applicant pool
3. Location

Employers reported the following as the three most difficult occupations to hire for:

1. Electrician/construction workers — $24.69 median hourly wage
2. Technician or mechanical support — $21.82 median hourly wage
3. Installation workers — $22.18 median hourly wage