Overview

Maryland has a low concentration of energy employment, with 31,571 Traditional Energy workers statewide (representing 0.9 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 13,254 are in Electric Power Generation, 2,861 are in Fuels, and 15,455 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 70,530 jobs in Energy Efficiency (3.0 percent of all U.S. Energy Efficiency jobs) and 28,980 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 3.2 percent since the 2018 report, increasing by 981 jobs over the period. Energy Efficiency jobs added 1,549 jobs (2.2 percent) and motor vehicles added 1,371 jobs (5.0 percent).
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 13,254 workers in Maryland, 1.5 percent of the national total and losing 123 jobs over the past year (-0.9 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 6,463 jobs (down 6.1 percent), followed by traditional fossil fuel generation at 4,083 jobs (down 0.8 percent).

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

Construction is the largest industry sector in Electric Power Generation, with 41.6 percent of jobs. Utilities are next with 27.1 percent.

Figure MD-3.
Fuels

Fuels employs 2,861 workers in Maryland, 0.3 percent of the national total, up 16.3 percent over the past year. Petroleum and other fossil fuels makes up the largest segment of employment related to Fuels.

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

Professional and business services jobs represent 36.9 percent of Fuels jobs in Maryland.

**Figure MD-5.**
Fuels Employment by Industry Sector
Transmission, Distribution and Storage

Transmission, Distribution, and Storage employs 15,455 workers in Maryland, 1.1 percent of the national total, up 4.8 percent or 703 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 49.1 percent of such jobs statewide.

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

The 70,530 Energy Efficiency jobs in Maryland represent 3.0 percent of all U.S. Energy Efficiency jobs, adding 1,549 jobs (2.2 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 MD-8.
Energy Efficiency Employment by Detailed Technology Application

Energy Efficiency employment is primarily found in the construction industry.

Figure MD-9.
Energy Efficiency Employment by Industry Sector
Motor Vehicles

Motor Vehicle employment accounts for 28,980 jobs in Maryland, up 1,371 jobs over the past year (5.0 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 less optimistic to their peers across the country in regards to their job growth over the next year in Traditional Energy (2.8 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 5,511 jobs in Energy Efficiency (7.8 percent) and Motor Vehicles employers expect to add 574 jobs (2.0 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>4.8</td>
<td>7.1</td>
</tr>
<tr>
<td>Electric Power Transmission,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distribution and Storage</td>
<td>1.7</td>
<td>3.2</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>7.8</td>
<td>7.8</td>
</tr>
<tr>
<td>Fuels</td>
<td>--</td>
<td>3.0</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>2.0</td>
<td>2.2</td>
</tr>
</tbody>
</table>
Hiring Difficulty

Over the last year, 47.8 percent of energy-related employers in Maryland hired new employees. These employers reported the greatest overall difficulty in hiring workers for jobs in Motor Vehicles.

Table MD-2
Hiring Difficulty by Major Technology Application

<table>
<thead>
<tr>
<th>Technology</th>
<th>Very Difficult (%)</th>
<th>Somewhat Difficult (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>State</td>
<td>National</td>
</tr>
<tr>
<td>Electric Power Generation</td>
<td>39.1</td>
<td>20.7</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution and Storage</td>
<td>33.3</td>
<td>21.9</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>33.3</td>
<td>21.3</td>
</tr>
<tr>
<td>Fuels</td>
<td>--</td>
<td>37.9</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>75.0</td>
<td>30.0</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. 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) – $37.80 median hourly wage
2. Technician or mechanical support – $18.01 median hourly wage
3. Electrician/construction laborers – $17.43 median hourly wage