New Jersey

ENERGY AND EMPLOYMENT — 2019

Overview

New Jersey has a low concentration of energy employment, with 64,118 Traditional Energy workers statewide (representing 1.9 percent of all U.S. Traditional Energy jobs). Of these Traditional Energy workers, 21,845 are in Electric Power Generation, 17,527 are in Fuels, and 24,747 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 36,206 jobs in Energy Efficiency (1.6 percent of all U.S. Energy Efficiency jobs) and 42,787 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 5.9 percent since the 2018 report, increasing by 3,585 jobs over the period. Energy Efficiency jobs added 2,391 jobs (7.1 percent) and motor vehicles added 997 jobs (2.4 percent).
Breakdown by Technology Applications

Electric Power Generation

Electric Power Generation employs 21,845 workers in New Jersey, 2.5 percent of the national total and adding 637 jobs over the past year (3.0 percent). Solar makes up the largest segment of employment related to Electric Power Generation, with 9,287 jobs (up 5.3 percent), followed by traditional fossil fuel generation at 3,433 jobs (down 0.3 percent).

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

Manufacturing is the largest industry sector in Electric Power Generation, with 24.2 percent of jobs. Construction is next with 24.0 percent.

Figure NJ-3.
Fuels

Fuels employs 17,527 workers in New Jersey, 1.6 percent of the national total, up 14.5 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 24,747 workers in New Jersey, 1.8 percent of the national total, up 3.0 percent or 726 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 40.5 percent of such jobs statewide.

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

The 36,206 Energy Efficiency jobs in New Jersey represent 1.6 percent of all U.S. Energy Efficiency jobs, adding 2,391 jobs (7.1 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 42,787 jobs in New Jersey, up 997 jobs over the past year (2.4 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 (3.6 percent versus 4.1 percent nationally). Energy Efficiency employers expect to add 429 jobs in Energy Efficiency (1.2 percent) and Motor Vehicles employers expect to add 847 jobs (2.0 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>
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<tbody>
<tr>
<td>Electric Power Generation</td>
<td>8.1</td>
<td>7.1</td>
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<tr>
<td>Electric Power Transmission,</td>
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<td>3.2</td>
</tr>
<tr>
<td>Distribution and Storage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>1.2</td>
<td>7.8</td>
</tr>
<tr>
<td>Fuels</td>
<td>3.1</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, 42.3 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 (%)</th>
<th>Somewhat Difficult (%)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>State</td>
<td>National</td>
</tr>
<tr>
<td>Electric Power Generation</td>
<td>21.2</td>
<td>20.7</td>
</tr>
<tr>
<td>Electric Power Transmission, Distribution and Storage</td>
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<td>21.9</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>41.7</td>
<td>21.3</td>
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<tr>
<td>Fuels</td>
<td>--</td>
<td>37.9</td>
</tr>
<tr>
<td>Motor Vehicles</td>
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<td>30.0</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. 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 mechnical support – $25.77 median hourly wage
2. Management (directors, supervisors, vice presidents) – $47.35 median hourly wage
3. Electrician/construction laborers – $25.36 median hourly wage