# 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).





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





#### **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 makes up the largest segment of employment related to Fuels.

Figure AK-4. Fuels Employment by Detailed Technology Application



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



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

# 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.



# **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.

Technology	State Projected Growth Next 12 Months (percent)	U.S. Projected Growth Next 12 Months (percent)
Electric Power Generation	8.5	4.8
Electric Power Transmission, Distribution, and Storage	1.9	3.5
Energy Efficiency	4.0	3.0
Fuels	3.4	1.7
Motor Vehicles	3.5	3.1

# 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.

Technology	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)
Electric Power Generation	25.6	58.7	15.7
Electric Power Transmission, Distribution, and Storage	20.6	68.7	10.7
Energy Efficiency	37.1	49.7	13.2
Fuels	27.1	50.7	22.2
Motor Vehicles	41.2	46.3	12.4

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