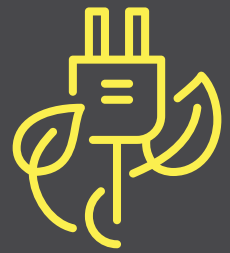




Energy, Construction, and Utilities



2026

Far North Career & Training Pathways Profile

Five-Year Outlook

3% sector growth

3,000+ annual job openings

8.4% of the Far North's jobs



POWERED BY



Introduction

Jobs in the Energy, Construction, and Utilities sector are a good fit for students interested in engineering, electrical power generation, and the skilled trades, such as plumbing, carpentry, or electrical work associated with residential and commercial construction.

These jobs often require familiarity with specific tools or machines, as well as building and safety regulations. Depending on a student's career choice, licensing, certification, or apprenticeships may be required.

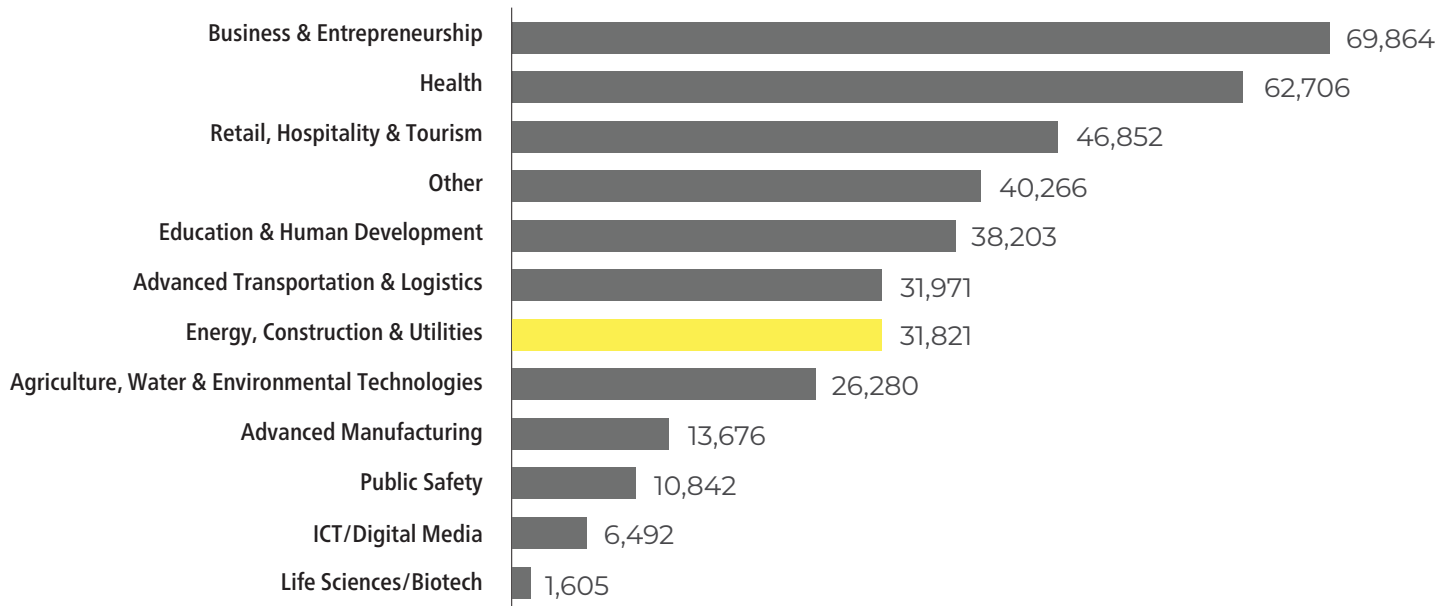
The demand for jobs in this sector is expected to be boosted by California's Zero Net Energy goals, which require the construction of all new homes to incorporate a combination of renewable energy and energy efficiency measures, including automated systems for lighting and climate control, and the Digital 299 Project, which involves installing fiber optic cable along State Route 299 to bring 5G and faster internet to the Far North subregion.

In the energy subsector, several ambitious projects have been launched in the Far North:

- The Tribal Energy Resilience and Sovereignty (TERAS) project, a solar microgrid through Yurok and Hoopa tribal lands that is meant to bring reliable electricity to regions prone to power outages.
- The Humboldt Wind Energy Area, managed by the Bureau of Ocean Energy Management, which seeks to use offshore wind to power homes with clean energy.
- The Humboldt Sawmill Company's 28-megawatt cogeneration power plant in Scotia.



2024 Sector Employment



Note: The Far North subregion encompasses 15 counties (Butte, Colusa, Del Norte, Glenn, Humboldt, Lake, Lassen, Mendocino, Modoc, Plumas, Shasta, Sierra, Siskiyou, Tehama, and Trinity) and seven community colleges (Butte, Feather River, Lassen, Mendocino, Redwoods, Shasta, and Siskiyou). The North Far North region spans 22 counties and 15 community colleges, stretching from the Greater Sacramento area, north to California's border with Oregon, and east to Nevada.

Sector Highlights

31,821
Jobs in 2024

32,642
Projected Jobs in 2029

3%
Projected Job Growth,
2024-2029

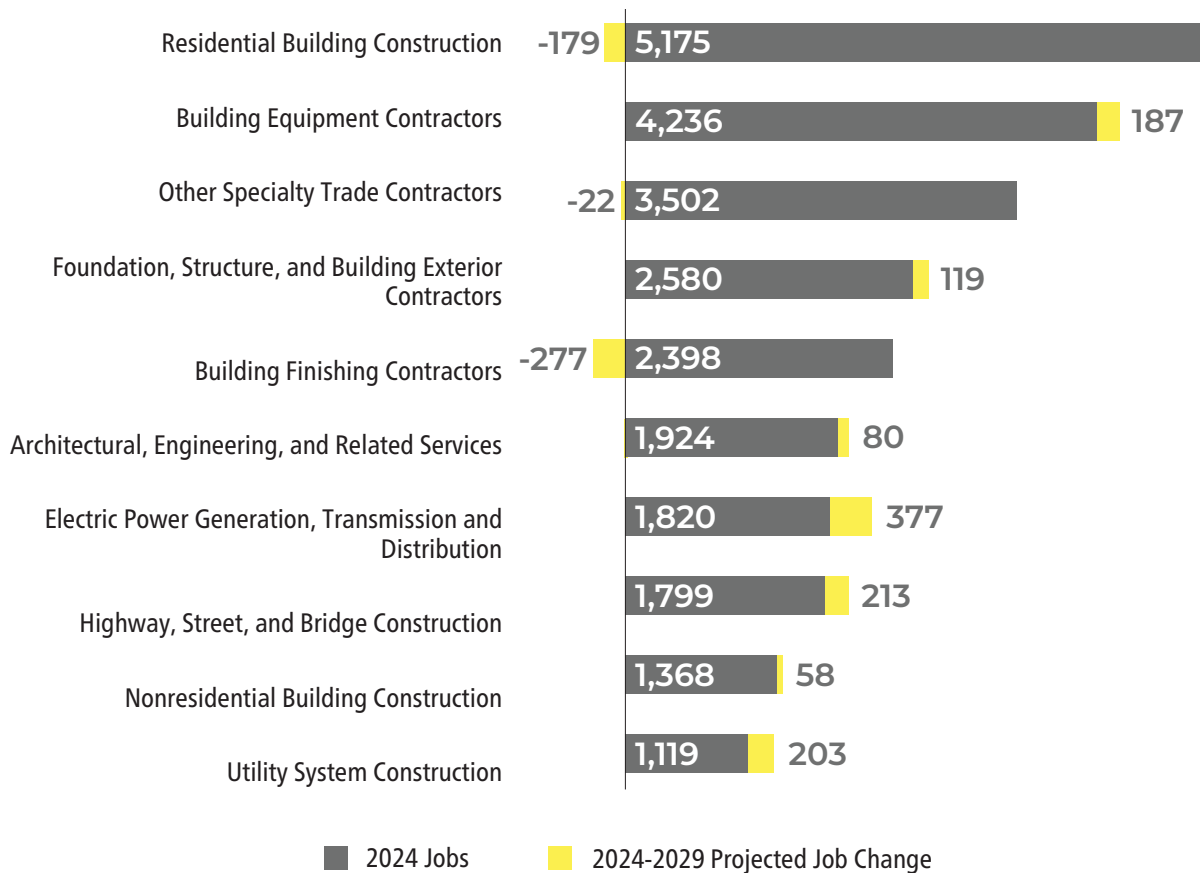
820
New Jobs by 2029

8,927
Businesses

8.4%
% of Far North
Employment, 2024



Employment by Subsector



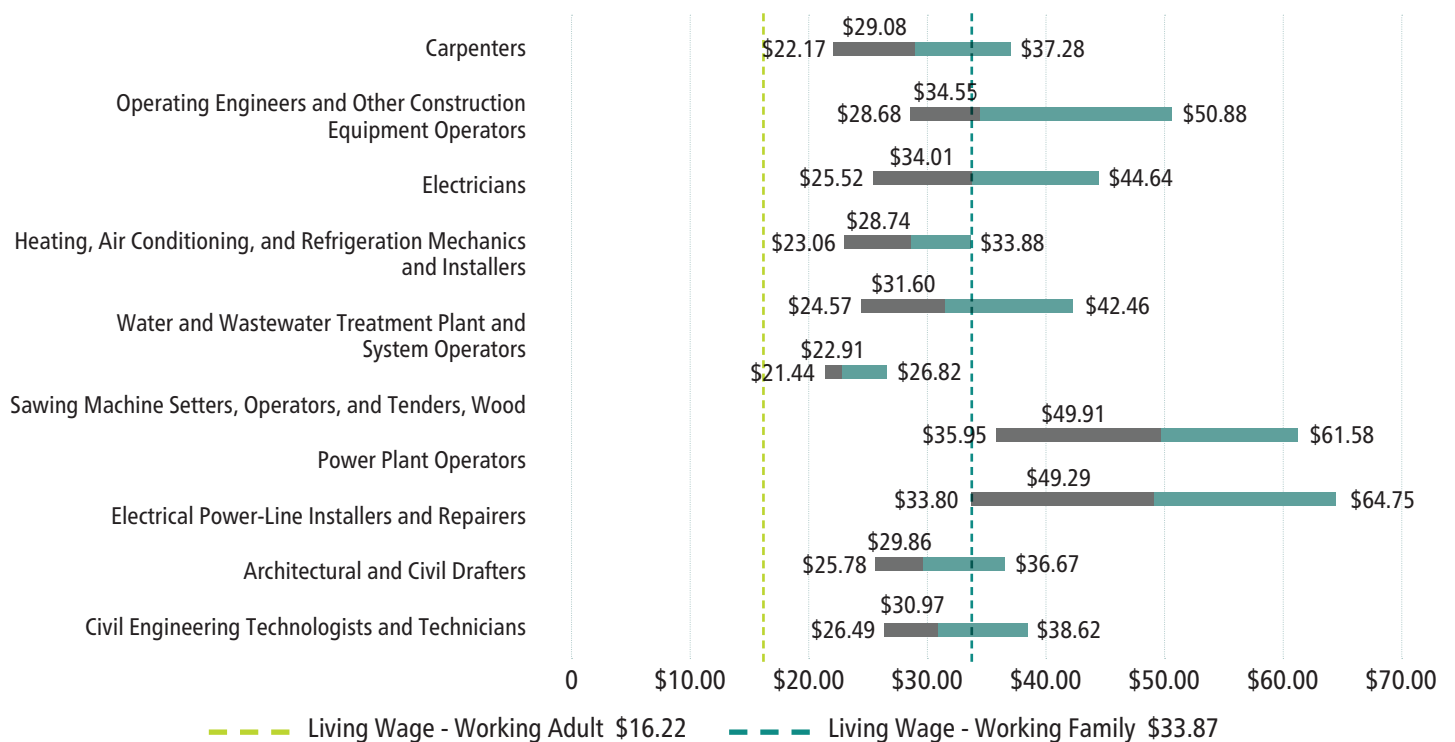
Note: The Energy, Construction, and Utilities sector includes 76 distinct 6-digit NAICS codes. Contact the NFN COE for a complete listing of NAICS codes by sector.

Top Occupations

Occupation	2024 Jobs	2024-2029 Projected Change	2024-2029 Average Annual Openings	Typical Entry-Level Education
Carpenters	2,946	-4%	237	High school diploma or equivalent
Operating Engineers and Other Construction Equipment Operators	1,768	7%	178	High school diploma or equivalent
Electricians	1,351	7%	148	High school diploma or equivalent
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	735	4%	72	Postsecondary nondegree award
Water and Wastewater Treatment Plant and System Operators	593	2%	57	High school diploma or equivalent
Sawing Machine Setters, Operators, and Tenders, Wood	484	-2%	54	High school diploma or equivalent
Power Plant Operators	367	15%	48	High school diploma or equivalent
Electrical Power-Line Installers and Repairers	346	17%	41	High school diploma or equivalent
Architectural and Civil Drafters	188	5%	18	Associate degree
Civil Engineering Technologists and Technicians	190	3%	18	Associate degree

Note: Jobs for the above occupations may not solely exist in this sector and may be found in other sectors that require related services. Projected change includes new job growth and replacements. Occupations with significant annual openings, active training programs in the subregion, wages at or close to the living wage, and training beyond a high school diploma but short of a bachelor's degree were prioritized for inclusion in the top middle-skill occupations.

Hourly Wages for Top Occupations



Note: The hourly wage ranges include the 25th percentile (entry-level), median, and 75th percentile (experienced) hourly earnings for workers employed in these occupations across the Far North subregion where the living wage in 2024 for a single working adult was \$16.22 and for a working family (defined as an adult and one infant) was \$33.87.



Job Posting Trends

Job posting trends examine all occupations assigned to the Energy, Construction, and Utilities sector, regardless of skill or education level in the Far North subregion.

Unique Online Job Postings

2,818

(5% of Region's Postings)

Median Advertised Hourly Salary

\$30.40

(Regional Average \$29.05)

Median Posting Duration

32 days

(Regional Average 23 Days)

Posting Intensity

2:1

(Regional Average 2:1)

Note: Job postings count the number of online job postings advertised in the 15-county Far North subregion between November 1, 2024 and October 31, 2025. COE has identified 111 occupations aligned with the Energy, Construction, and Utilities sector, and those SOC codes were used to generate the list of aligned job postings. Contact the NFN COE for a complete listing of SOC codes by sector. Postings are limited to in-state employers and exclude staffing companies. Posting Intensity is the ratio of total job postings to unique (de-duplicated) job postings. Job posting results are weighted toward occupations with the most postings, influencing the frequency of results for employers, job titles, skills, work experience, and education.



Top Employers

Employers with the Most Postings

- | | |
|------------------------------|-----------------------|
| 1. Sierra Pacific Industries | 6. Stantec |
| 2. State of California | 7. Stover Engineering |
| 3. PG&E | 8. Astound Broadband |
| 4. DaBella | 9. Calpine |
| 5. GHD | 10. Walmart |

Most In-Demand Skills

Specialized Skills

- Construction
- Carpentry
- Plumbing
- Power Tool Operation
- Project Management

Soft Skills

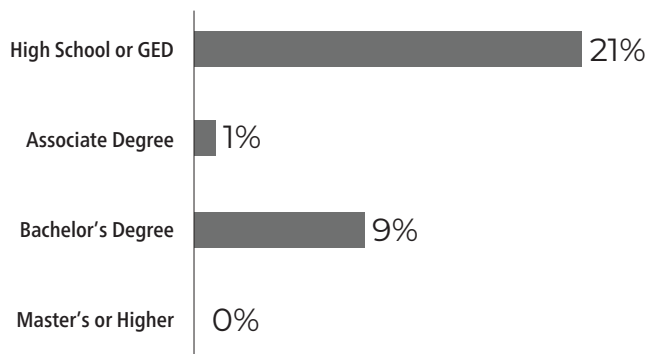
- Communication
- Operations
- Troubleshooting (Problem Solving)
- Management
- Lifting Ability

Software and Technical Skills

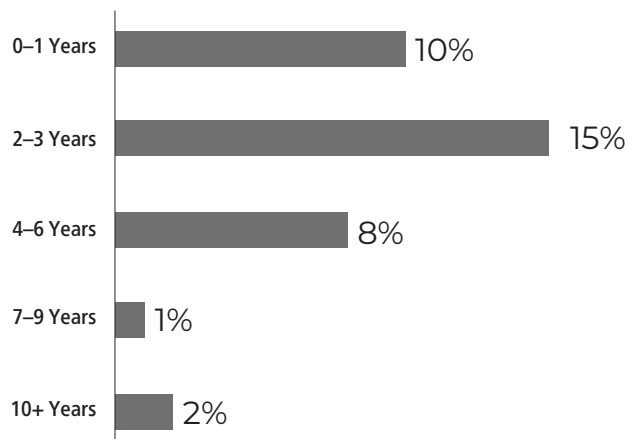
- Microsoft Office (Excel, Outlook, Word, PowerPoint, Access)
- AutoCAD
- Spreadsheets
- Project Management Software
- Geographic Information Systems

Education & Experience in Job Postings

Employer-Preferred Education



Employer-Preferred Work Experience



The percentages might not equal 100% because not all employers include education or work experience in their job postings.

COMMUNITY COLLEGE Training Programs



Butte	Feather River*	Lassen*	Mendocino	Redwoods	Shasta	Siskiyous*
Applied Construction			Fine Woodworking	Cabinetmaking & Millwork	Computer-Aided Drafting (CAD)	
Commercial HVACR			Introduction to the Construction Trades	Construction Technology	Industrial Technology	
Construction Management			Sustainable Construction and Energy Technology - Building Efficiency and Performance	Electrician Trainee	Water/Wastewater Treatment	
Drafting and CAD Technology			Sustainable Construction and Energy Technology - Renewable Energy	Residential Construction		

* This/these college(s) do not offer programs related to the sector.

Note: Due to discrepancies in the California Community Colleges Curriculum Inventory (COCI) and how Taxonomy of Programs (TOP) codes are categorized by sector, this list may not include all related or currently available training programs.



This publication was supported through Strong Workforce Program (SWP) funding from the North Far North Regional Consortium and the California Community Colleges Chancellor's Office Economic and Workforce Development Grant. SWP is an initiative designed to expand career education (CE) programs offered by the California Community Colleges to supply a skilled workforce to California's employers. The North Far North Regional Consortium (NFNRC) is charged with coordinating the planning and implementation of CE programs among community colleges within the 22-county North Far North region, which includes the North (Greater Sacramento) and Far North subregions. The NFNRC has 12 sectors, which are listed in the chart on page 1. This sector profile summarizes key data about current and projected workforce demand, hourly wages, job postings, and community college programs to support the goals of SWP.



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All representations included in this report have been produced from primary research and/or secondary review of publicly and/or privately available data and/or research reports. Efforts have been made to qualify and validate the accuracy of the data and the reported findings; however, the Centers of Excellence, COE host district, and the California Community Colleges Chancellor's Office are not responsible for applications or decisions made by recipient community colleges or their representatives based upon components or recommendations contained in this study.

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