

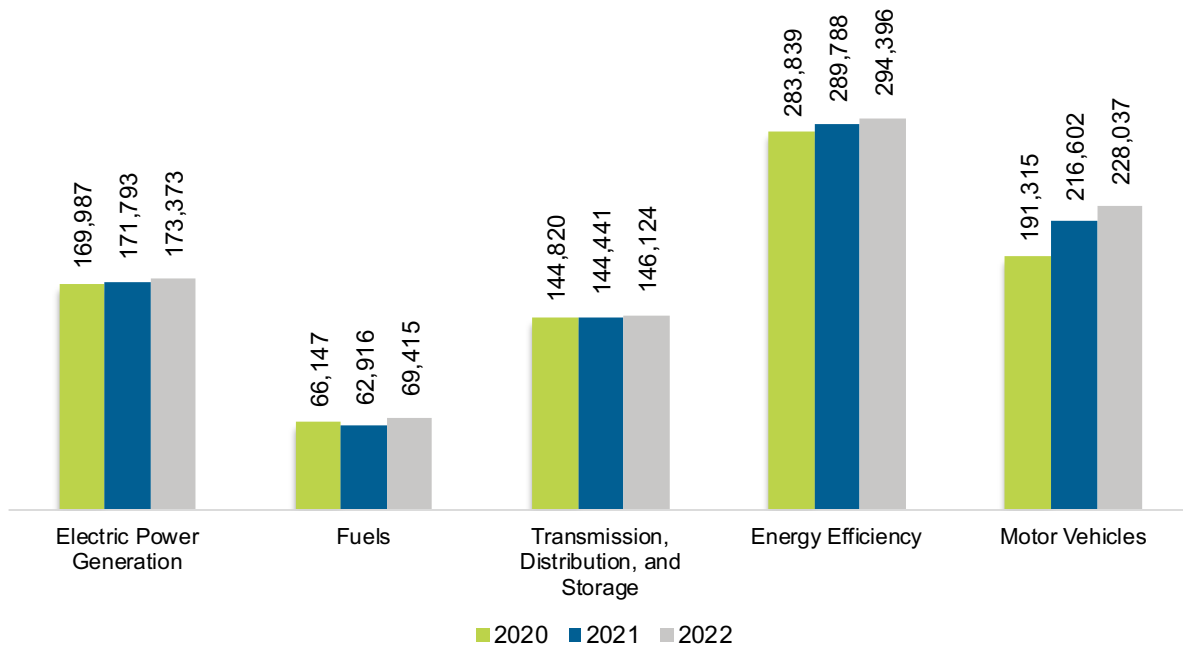
California

U.S. ENERGY AND EMPLOYMENT REPORT — 2023

Overview

California had 911,345 energy workers statewide in 2022, representing 11.2% of all U.S. energy jobs. Of these energy jobs, 173,373 were in electric power generation; 69,415 in fuels; 146,124 in transmission, distribution, and storage; 294,396 in energy efficiency; and 228,037 in motor vehicles. From 2021 to 2022, energy jobs in the state increased 25,806 jobs, or 2.9% (Figure CA-1). The energy sector in California represented 5.0% of total state employment.

Figure CA-1. Employment by Major Energy Technology Application

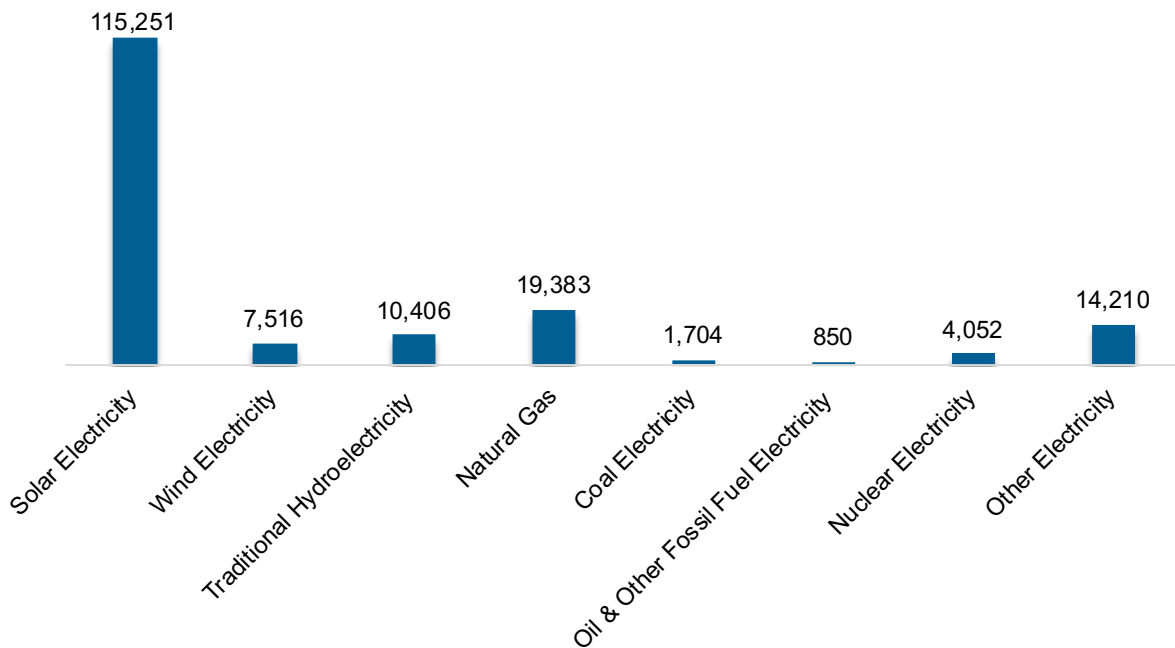


Breakdown by Technology Applications

Electric Power Generation

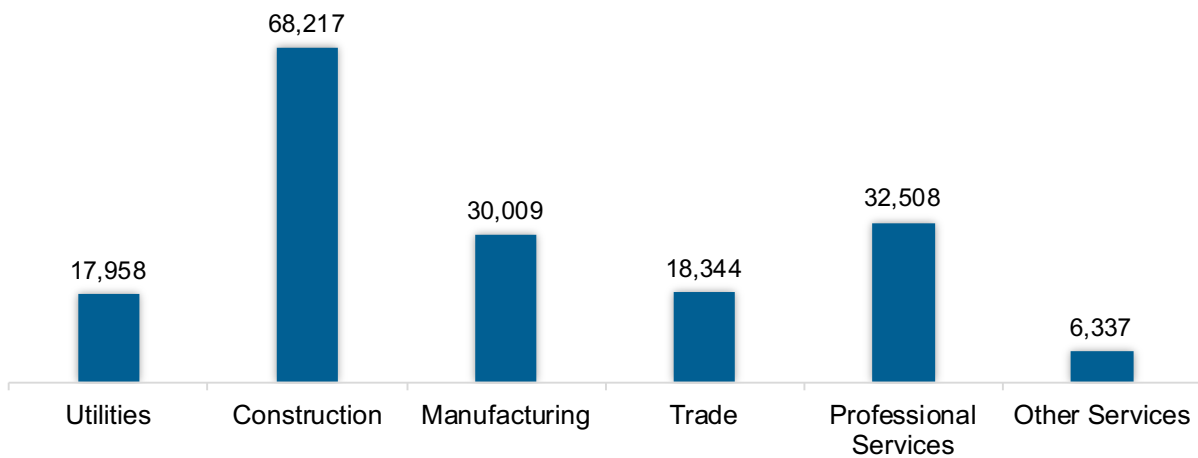
As shown in Figure CA-2, the electric power generation sector employed 173,373 workers in California, 19.6% of the national electricity total, and added 1,580 jobs from 2021 to 2022 (0.9%).

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



Construction was the largest industry sector in the electric power generation sector, with 39.3% of jobs. Professional and business services was second largest with 18.8% (Figure CA-3).

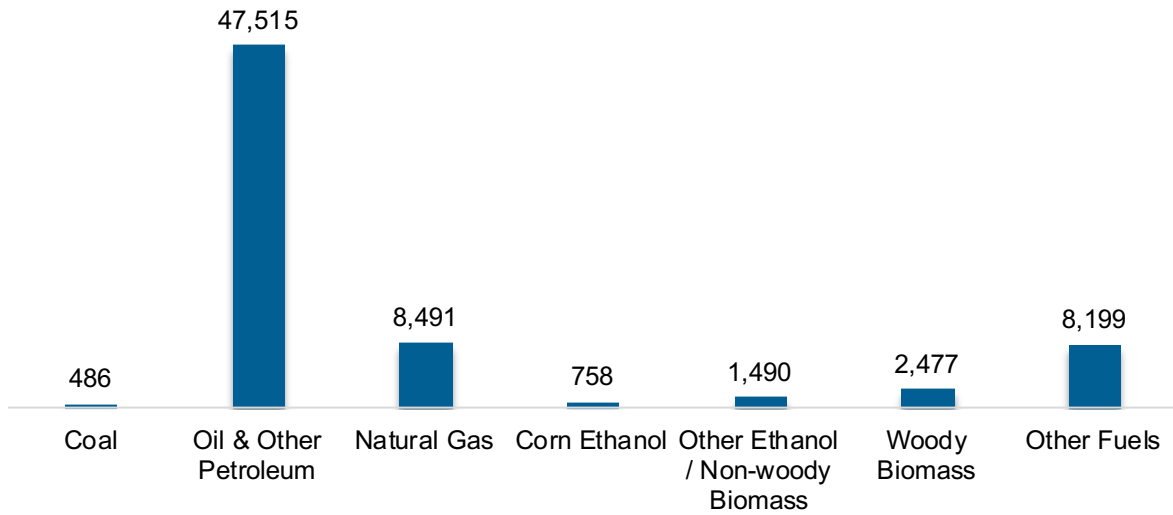
Figure CA-3. Electric Power Generation Employment by Industry Sector



Fuels

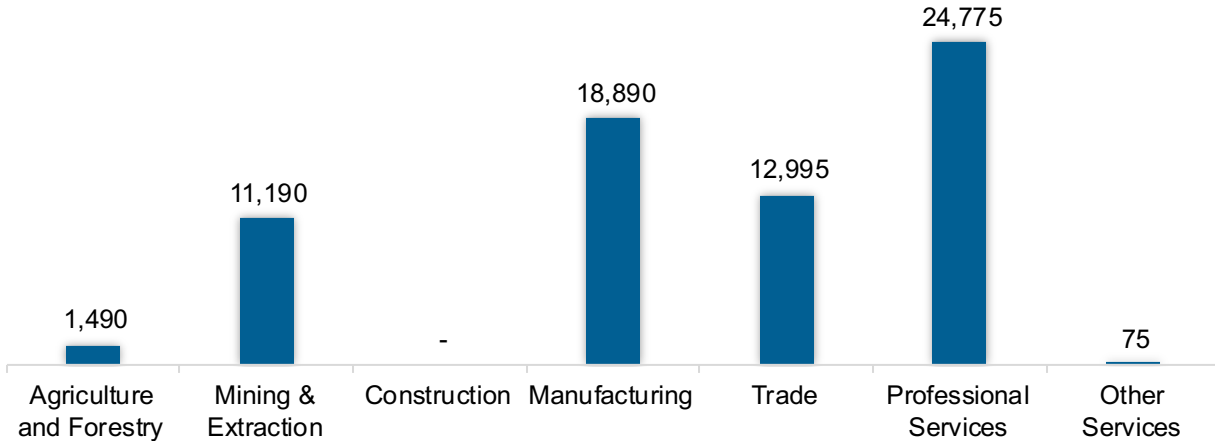
The Fuel sector employed 69,415 workers in California, 6.7% of the national total in fuels (Figure CA-4). The sector gained 6,500 jobs and increased 10.3% from 2021 to 2022.

Figure CA-4. Fuels Employment by Detailed Technology Application



Professional and business services jobs represented 35.7% of fuel jobs in California (Figure CA-5).

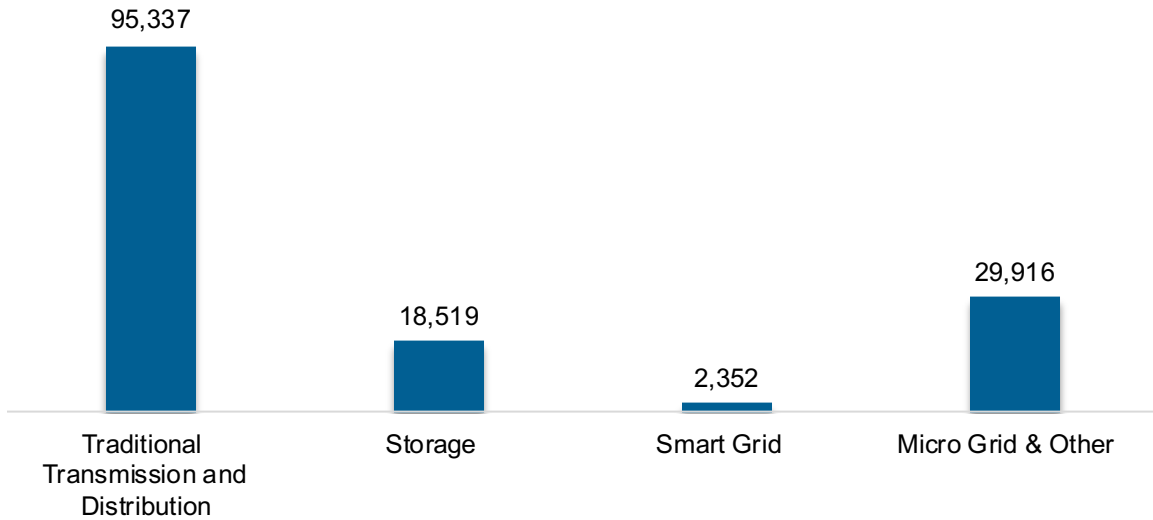
Figure CA-5. Fuels Employment by Industry Sector



Transmission, Distribution and Storage

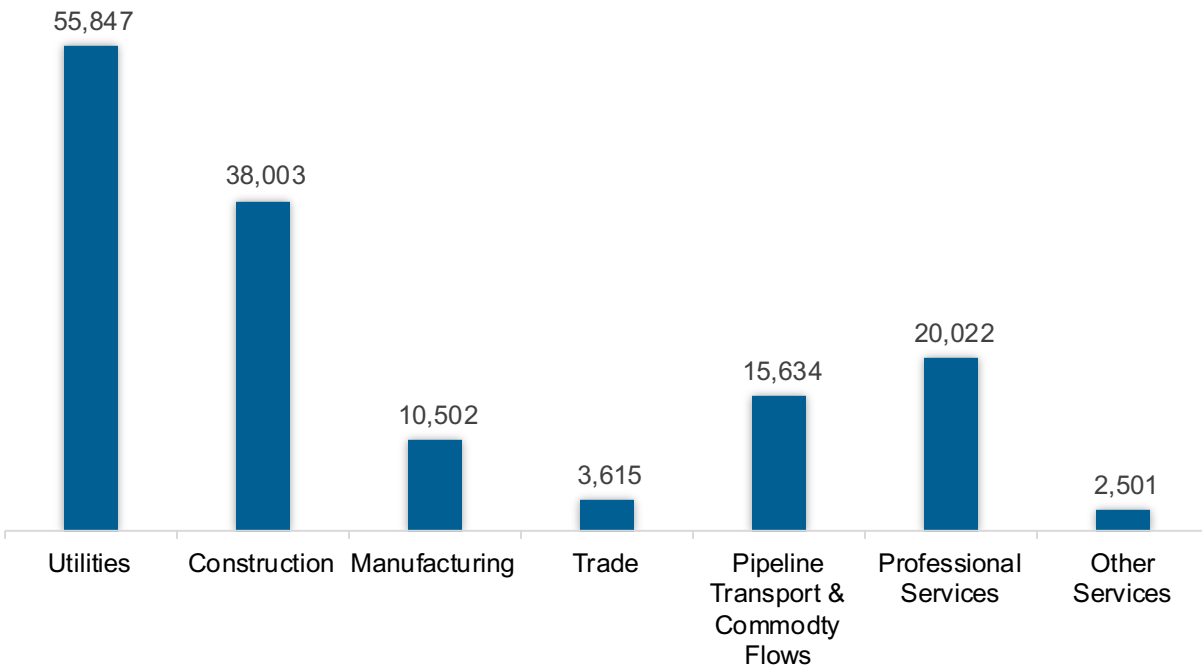
The transmission, distribution, and storage (TDS) sector employed 146,124 workers in California, 6.7% of the national TDS total (Figure CA-6). The sector gained 1,684 jobs and increased 1.2% from 2021 to 2022.

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



Utilities was the largest proportion of TDS jobs in California, accounting for 38.2% of the sector’s jobs statewide (Figure CA-7).

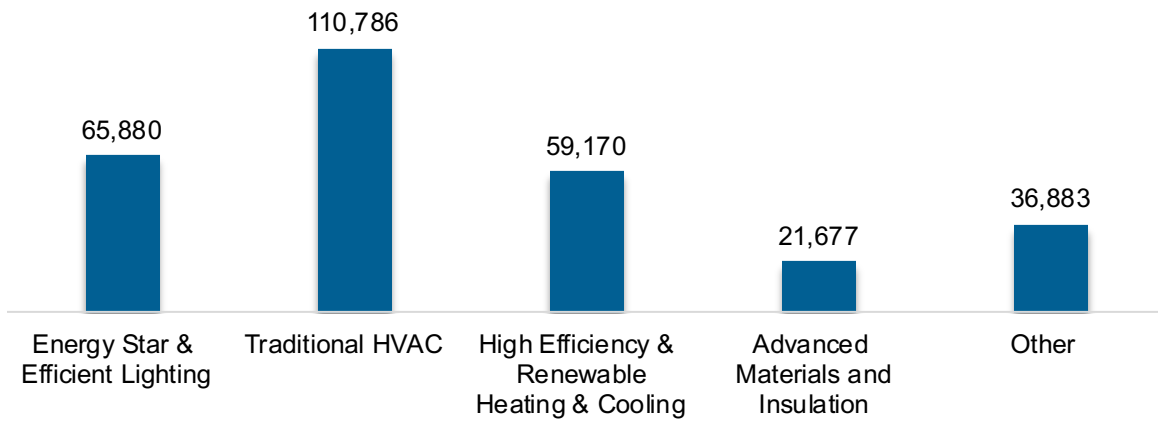
Figure CA-7. Transmission, Distribution and Storage Employment by Industry Sector



Energy Efficiency

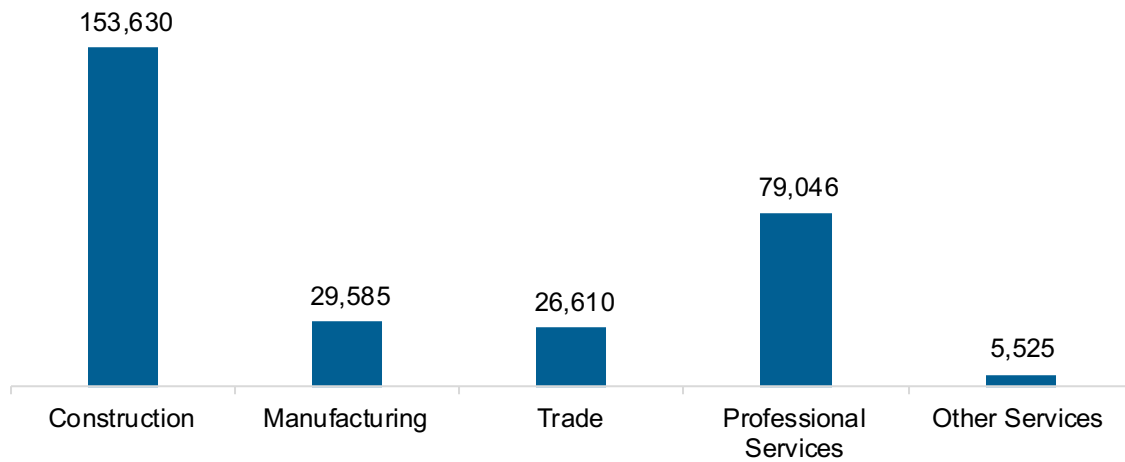
The energy efficiency (EE) sector employed 294,396 workers in California, 13.3% of the national EE total. The EE sector added 4,608 jobs and increased 1.6% from 2021 to 2022 (Figure CA-8).

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



Energy efficiency employment was primarily found in the construction industry (Figure CA-9).

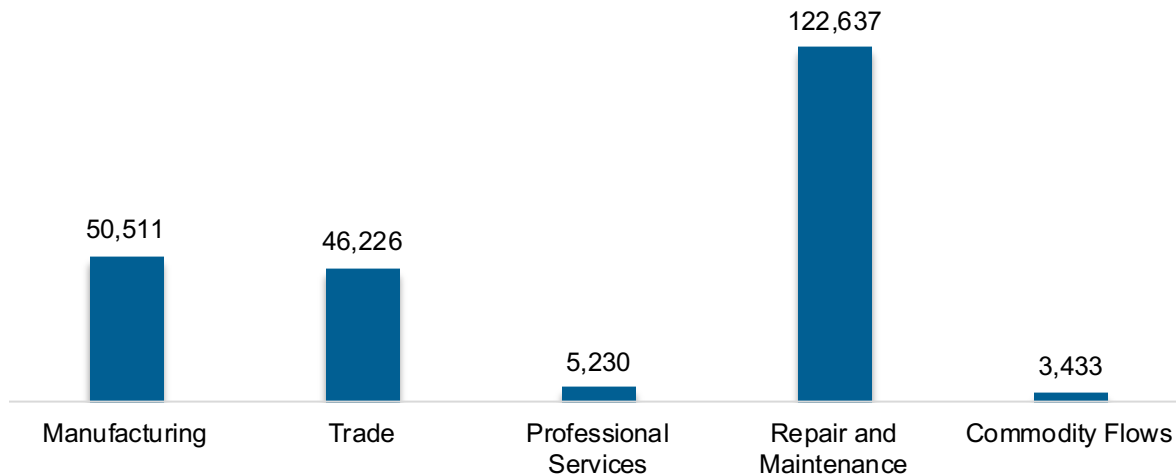
Figure CA-9. Energy Efficiency Employment by Industry Sector



Motor Vehicles and Component Parts

The motor vehicles and component sector employed 228,037 workers in California, 8.7% of the national total for the sector. Motor vehicles and component parts added 11,435 jobs and increased 5.3% from 2021 to 2022. Repair and maintenance is the largest proportion of motor vehicle jobs (Figure CA-10).

Figure CA-10. Motor Vehicle Employment by Industry Sector



Clean Energy Jobs

In 2022, there were 623,972 jobs in clean energy in California if traditional transmission and distribution is included and 527,696 jobs if it is not.⁵ These increased under either definition, growing 3.2% with traditional transmission and distribution and 3.6% without.

Employer Perspectives

Expected Growth

Employers in California were less optimistic than their peers across the country about energy sector job growth over the next year (Table CA-1).

Table CA-1 Expected Growth by Major Technology Application

Technology	State Expected Growth Next 12 Months (percent)	U.S. Expected Growth Next 12 Months (percent)
Electric Power Generation	4.1	6.0
Electric Power Transmission, Distribution, and Storage	3.0	3.9
Energy Efficiency	4.3	6.4
Fuels	1.9	1.6
Motor Vehicles	3.8	5.5

⁵ The definition of “clean energy” at the state level differs from the national definition due to data availability. For more information see Appendix A of the national U.S. Energy and Employment Report.

Hiring Difficulty

Employers in California reported 51% overall hiring difficulty (Table CA-2).

Table CA-2 Hiring Difficulty by Major Technology Application

Hiring Difficulty	Very Difficult (percent)	Somewhat Difficult (percent)	Not at All Difficult (percent)	Did not hire (percent)	Overall Hiring Difficulty
Overall	24	27	7	43	51