



CLEAN ENERGY

INDUSTRY OVERVIEW

Clean Energy is the research and application of environmentally friendly energy solutions. The majority of employers and jobs in San Diego County are in Energy Efficiency (e.g., efficient building) and Renewable Energy (e.g., solar power). A significant number of jobs in this sector have been repurposed from the building and trades industry, where new technologies are applied to traditional construction jobs. For example, roofers are now solar photovoltaic (PV) installers.

Sub-sectors or fields:

- Renewable Energy
- Energy Efficiency
- Alternative Transportation
- Greenhouse Gas Emission Accounting

FAST FACTS



9,985
Businesses



137,399
People employed



9,555
5-year job growth



7.0%
5-year job growth rate



\$65,891
Average annual salary

Source: EMSI. February 2016. Non-QCEW, QCEW, self-employed and extended proprietor employment data.

Top Five Occupations by Educational Attainment and Median Hourly Wages

HIGH SCHOOL DIPLOMA

- Solar Photovoltaic Installers **\$18.11**
- Plumbers and Pipefitters **\$24.44**
- Sales Representatives **\$25.02**
- Construction Equipment Operators **\$27.23**
- Electricians **\$27.68**

ASSOCIATE DEGREE

- Electrical and Electronics Drafters **\$27.05**
- Architectural and Civil Drafters **\$27.10**
- Civil Engineering Technicians **\$27.71**
- Electrical Technicians **\$30.41**
- Other Engineering Technicians **\$30.57**

BACHELOR'S DEGREE OR ABOVE

- Sales Reps of Scientific Products **\$31.92**
- Construction Managers **\$32.63**
- Business Operations Specialists **\$35.28**
- Civil Engineers **\$41.40**
- Technical Writers **\$42.22**

KNOWLEDGE



- Building & Construction
- Engineering and Technology
- Mechanical Methods
- Sales and Marketing
- Design
- Customer Service
- Administration & Management

SKILLS



- Critical Thinking
- Troubleshooting
- Quality Control
- Time Management
- Persuasion
- Installation
- Operation & Control

ABILITIES



- Flexibility
- Oral and Written Communication
- Dexterity
- Reasoning
- Control Precision
- Problem-Solving

Learn more about Knowledge, Skills and Abilities at [ONETonline.org/search](https://www.onetonline.org/search)



Sample of Local Employers

COMPANY NAME	DESCRIPTION	NUMBER OF EMPLOYEES
Renovate America Est. 2008	Assists homeowners in applying for PACE financing to make energy efficiency improvements to their homes	501 - 1,000
CP Group Est. 1954	Manufactures advanced recycling equipment and systems and waste management systems with multiple locations	201 - 500
EDF Renewable Energy Est. 1987	Produces renewable energy for utilities, commercial and industrial, and corporate entities	1,001 - 5,000
San Diego Gas & Electric Est. 1905	Regulates public utility and incentivizes customers to have energy efficient homes	5,001 - 10,000
Solar Turbines Est. 1927	Manufacturers industrial gas turbines able to operate on a wide variety of fuels, including renewable fuels	5,001 - 10,000
General Atomics Est. 1955	Specializes in nuclear technologies, which provide energy while emitting little to no greenhouse gasses	5,001 - 10,000

Source: LinkedIn May 2017.



How do I start my career in Clean Energy?

- **Get involved in projects** — Cleantech San Diego (cleantechsandiego.org)
- **Learn about certification programs** — San Diego Continuing Education (sdce.edu)
- **Explore certification programs** — Clean Tech Institute (cleantechinstitute.org/Training)
- **Plan for a career in Clean Energy** — Department of Energy (energy.gov/eere/education/clean-energy-jobs-and-career-planning)
- **Enroll in a paid apprenticeship program** — California Division of Apprenticeship Standards (dir.ca.gov/databases/das/aigstart.asp)
- **Volunteer and install solar panels for low-income families** — GRID Alternatives (gridalternatives.org/volunteer)

Learn more at workforce.org/mycareer