

The U.S. Solar Workforce

Powering the American Economy

President Biden's climate plan¹ calls for ambitious carbon emissions reductions with an emphasis on environmental justice and well-paying jobs. The solar industry strongly and unequivocally supports all of these endeavors.

The U.S. solar industry offers well-compensated jobs with room for growth. Since 2010, the number of solar jobs has grown from 93,000 to 230,000 – spanning sales and distribution, construction and development, manufacturing, and operations/maintenance. In 2020, the COVID-19 pandemic caused a loss of 20,000 workers.²

Over the next decade, as solar deployment continues to ramp up in response to consumer demand and climate goals, the industry anticipates creating hundreds of thousands of new careers that reflect the diversity of our country and setting an example for what a workforce, and its leadership, should look like. With the right policies in place, the solar industry is poised to drive the U.S. economy well into the future.



The Facts About Solar Jobs

The U.S. solar industry employs more than 231,000 workers across all 50 states² and is one of the fastest-growing employment sectors in the country. Between 2014 and 2019, solar employment increased 44%, five times faster than job growth in the overall U.S. economy.

- » Solar workers design, build, and maintain solar energy projects. They sell solar systems to residential and commercial customers, manage financing and approvals for large solar installations, manufacture equipment, and engage and support local communities.
- » Solar workers are passionate, innovative, and committed to building clean, renewable energy for America.
- » Solar jobs create long-term career growth opportunities. A 2017 survey of some of the nation's largest solar employers found that average employees typically see a 45% wage increase after less than one year of experience, and that rapid advancement and promotion to senior positions is commonplace among entry-level positions.³
- » Solar careers, which can be launched without a college degree, pay well and support hundreds of thousands of American families. Wages for solar workers are similar to, or higher than, wages for U.S. workers in similar occupations, including those in other energy industries.
- » As of 2020, 10.3% of solar workers nationwide are unionized⁴, well above the national private sector rate of 6.3%. In solar construction and development, the rate has risen to nearly 12%, comparable with similar construction and building trades.
- » Solar installers receive more health insurance and retirement benefits than the overall construction industry.⁵
- » The solar industry is comprised of large utility-scale developers as well as local mom and pop solar businesses. More than 75% of the 10,000 solar establishments in the U.S. employ fewer than 50 workers.

¹The Biden Plan for a Clean Energy Revolution and Environmental Justice, available at <https://joebiden.com/climate-plan/>

²National Solar Jobs Census 2020, available at <https://www.seia.org/research-resources/national-solar-jobs-census-2020>

³The Solar Foundation, 2017 Solar Training and Hiring Insights, available at <https://americansolarworkforce.org/solar-workforce-development/>

⁴2020 National Solar Jobs Census, to be released April 2021

⁵Clean Jobs, Better Jobs: An examination of clean energy jobs and wages, available at: <https://e2.org/reports/clean-jobs-better-jobs/>

Policy & Workforce Development

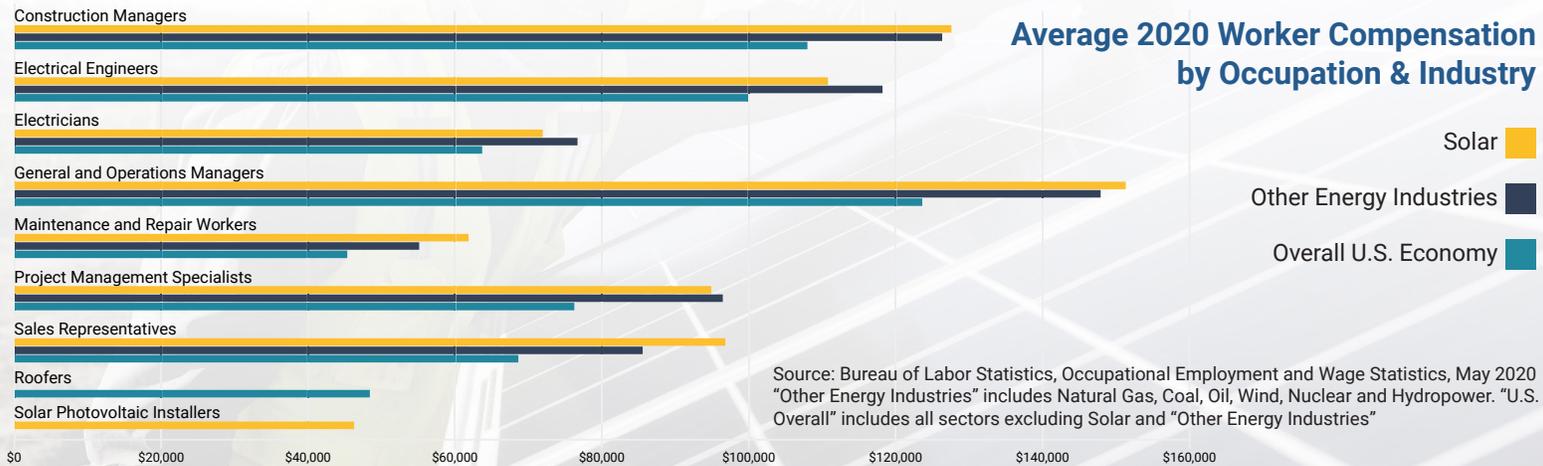
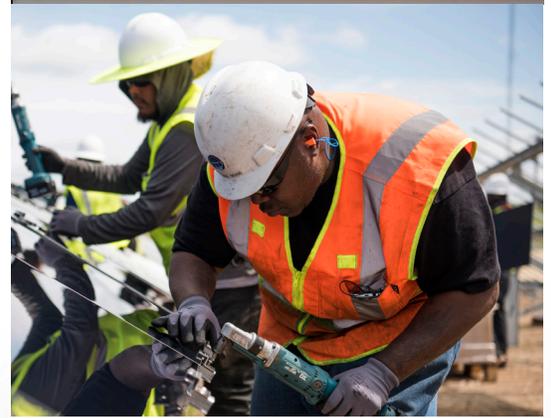
Due in part to the rapid growth of solar energy in America and the recent broader construction boom, there have been widespread shortages of qualified workers, including electricians (a field that requires multi-year training) and other skilled trades. The construction industry overall is facing similar challenges.

Public policy must play a role in harnessing the solar opportunity and building a lasting workforce for the clean energy economy. In order to achieve clean energy goals, significant investment in worker training through apprenticeships, unions, community colleges⁶ and the private sector is necessary. That investment will pay off many times over. Many solar jobs are in fields such as project management, sales, operations, and supply chain logistics, which differ significantly from construction trades and other crafts. These jobs offer competitive pay, benefits, and advancement opportunities equivalent to similar roles in other industries.

As the industry grows, it will foster more and more stable, local, long-term careers. When the pace of deployment is sufficient to keep local construction, operations and maintenance crews busy year-round, local workers will be able to make longer careers in the solar industry. Reaching that pace of installations will require a combination of federal policy support to increase solar deployment and flexibility to help the industry and workforce grow together.

The solar industry strongly supports creating job opportunities for all Americans, regardless of zip code. As we deploy more solar at a rapid pace – which is critically necessary to meet climate goals – the industry must continue to create well-paying family-supporting jobs.

Unions and organized labor, flexibility in job classification, prevailing wage policy, additional funding for training and workforce development, and other tools must all be considered as we build a strong solar workforce to power America.



⁶Training for solar energy carriers are included in curriculum at many community colleges nationwide. For example, the Interstate Renewable Energy Council has a list of exemplary community college training programs: <https://irecusa.org/workforce-development/workforce-strategies-solutions/best-practices-the-series/best-practices-5-exemplary-solar-education-training-programs/>.