



Spotlight on Environmental Careers: Solar Panel Technician

Explore solar panel technicians and other green technical careers that support green infrastructure.

A solar panel technician, also known as a solar panel installer or solar photovoltaic technician, is someone who assembles, installs, and maintains solar panels. Prospective technicians should have an interest and ability working with electrical systems, comfortability using hand tools, good attention to detail, and an interest in renewable energy. They should also be comfortable and prefer working outdoors in various weather conditions and working with their hands and hand tools. Since many solar panels are installed on residential rooftops, they should also be comfortable working at various heights.



Solar panels on slanted roof.

As for education needed to become a solar panel technician, a high school diploma or GED is generally needed. A certification, training, or 2-year degree can help boost the hireability, compared to an applicant with no training. Trade schools and many community colleges offer these options. Relevant classes include:

- Introduction to renewable energy
- Solar electric design and installation
- Basics of PV site analysis
- PV system fundamentals
- Tools and techniques for operations and maintenance
- Appropriate technology for the developing world



Design & Installation Certificate. [Source](#).

A solar technician installs solar panels for homes and businesses that are moving away from greenhouse gasses and moving toward green and renewable energy. This is done by creating a detailed configuration of the panels based on the site restrictions and needs of the consumer. Pieces are then measured, cut to size, and assembled. Panels and their support structures are installed based on building standards and codes. The structure then gets connected to the grid, activated, and tested.



Solar technician installing panels. [Source](#).



Techs must ultimately know how solar panels work, how the technology works, how to maintain and upkeep panels, and how to help customers get the most out of their new installation. Installers generally work in teams to get the job done and can also work closely with electricians to ensure the panels are correctly hooked up to the grid.

Activity: Learn More About Renewable Energy

Conduct some research to help you answer the questions below.

- What are other renewable energy sources?
- What are 3 other green energy jobs? Write a job description for each.
- Which is most interesting to you? Why?
- If you were hiring someone for that position, what would your interview questions be? What would you be looking for in an employee?

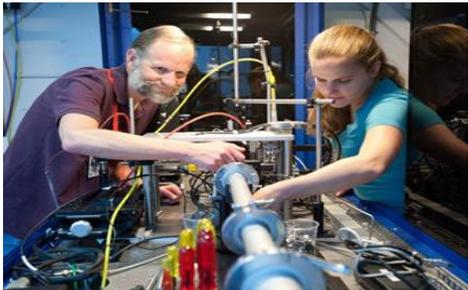
Other related careers include...



Wind energy technicians who inspect and repair wind turbines, another form of renewable energy on the rise. Technicians climb the wind turbine towers to perform maintenance, as well as test electrical, mechanical, and hydraulic components. [Photo source](#).



Software developers are needed throughout the renewable energy industry. Developers create and maintain software that essential for renewable energy to operate. [Photo source](#).



Clean car engineers work to produce new or improve the efficiency and quality of electric vehicles and their parts. [Photo source](#).



Green roof maintenance technicians maintain various green roofs by weeding, mulching, trimming, fertilizing, and propagating plants on the roofs. [Photo source](#).

All these green careers are essential occupations to help battle climate change.



New Jersey Department of Education
New Jersey Student Learning Standards - [Computer Science and Design Thinking](#)
Standards in Action Climate Change

At the core of computer science and design thinking education, is the goal to prepare students with the essential knowledge and skills to make their local and global communities a better place to live. Learning experiences that enable students to apply content knowledge and employ computational thinking skills prepare students for the work of tomorrow by proposing solutions concerning the balancing of societal, environmental, and economic needs for a **sustainable future**. Further, leveraging topics such as **computational sustainability and clean technology (Cleantech), technologies that either reduce or optimize the use of natural resources while reducing the negative effect that technology has on the planet and its ecosystems, is essential for developing a populace with the knowledge and skills necessary to mitigate the effects of climate change.**

For more information about technical careers related to environmental science or ideas on how to infuse this information into your curriculum, contact Kate Reilly, Manager of Education at Duke Farms at kreilly@dukefarms.org.