CLEAN ENERGY INSTITUTE
UNIVERSITY of WASHINGTON

Clean Energy Careers

The nation is moving rapidly towards a renewable energy economy. This is creating many new jobs and career possibilities. We are in the process of reinventing how we generate, store, and distribute energy. This means developing new technology, processes, and services. These changes mean that some jobs in old industries are disappearing but there is the potential for many new jobs in emerging industries. One recent study, for instance, suggests that there could be up to 20 million jobs in renewable energy by 2030, with the highest job creation in the biofuel sector (up to 12 million) followed by solar (6.3 million) and wind (2.1 million).

Below are listed some of the careers that you might look for in the next 10 years.

Position	What they do	How to prepare
Generation		
Solar cell research scientist	Develop new solar cell technology	PhD chemistry, physics, engineering
Production technician	High tech manufacturing, robotics	BA or MS, nanotechnology
Solar estimator	Determines size and components for installing solar	BS or AA, math, engineering
Solar Installer	Places solar panels on building roofs	High school or AA
Wind power mechanic	Installs and maintains wind turbines	High school or AA
Storage		
Materials scientist	Develops new materials for storing electricity	PhD materials science, chemistry
Battery Engineer	Designs battery that uses new materials	Bachelor's degree in electrical or mechanical engineering
Storage systems installer	Specifies and Installs large scale batteries	BS or AA, math, engineering
Electric Vehicle Engineer	Designs components and systems for electric cars	BA automotive engineering
Distribution		
Smart Grid designer	Develops ways to manage and integrate new energy sources	PhD or MS in mathematics, engineering, software
Smart demand installer	Installs web enabled controls for devices that use power	AA, electrician
IOT Designer	Design smart devices that work with the grid to conserve and manage devices	BA- Ph.D., software
Materials scientist – new power conductors	Researches and designs super conductors for long distance power transfer	PhD physics, materials science
Utility Planner	Plans the grid and sets prices that encourage conservation and efficiency	BA or MS electrical engineering

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