

Renewable Energy

Renewable energy is one of the quintessential sustainable products. It's not partially sustainable. It's not somewhat sustainable. It's really fully sustainable.

It's gonna take wind energy, it's gonna take solar energy, it's gonna take wave energy, it's gonna take tidal.

There are jobs in energy locally. There are jobs in energy regionally. There are jobs in energy nationally, and there are jobs in energy internationally.

NARRATOR: Renewable energy sources are in abundance, and demand for them is growing, along with a long list of green occupations. Delivering power from renewable sources will require many workers with a wide range of skills.

We're at a changing point in the way energy's being made. There's smart ways to get energy from wind and solar that don't create pollution and there's smart ways to use energy. And I think that the career opportunities as we move through the next 10 to 20 years are going to be pretty robust.

Solar Power

Solar electric has the potential to make a huge difference in the world. If we took an area about half a size of Texas, we'd have more power than we needed to power the whole world.

We're currently at one of the first solar charging stations in existence on the West Coast. This system takes a standard solar module and creates a weatherized roof so that you don't have to have all of the other infrastructure that would normally go into creating a weatherized roof and then putting solar on top of it. One of the really beautiful things about green industries is it's kind of wide open. There're thousands of ideas for people to look into and develop careers and career paths out of.

If they want to be hands-on, turning the wrench and plugging the wires in, get yourself signed up for a general journeyman apprentice program. You don't have to have a college degree to start that program. That's a benefit to be able to just go right out of high school and into that and have a career path that's solid like that.

And then there's solar design. You would go to at least a four-year program to learn a lot of engineering skills and understanding building structure and how we place these photovoltaic arrays on buildings.

As an electrician the pay is very good. You can't export a journeyman electrician. That job can't go overseas, because it's the person that's turning the wrench here.

Wind

It's a young industry. It's exciting and every day is a surprise. It takes a two or three-man crew to work safely and they climb up and do a system check on the turbine.

I decided to enroll in the renewable energy technology program at our local community college. I looked at the curriculum, and they had some math and engineering, things that I was already very interested in. So I just decided that I would give it a try.

There's meteorological wind forecasting, there's a group of people downtown that trade the power, and an operations staff at the site who are responsible for the daily operation and evaluate how the turbines are performing.

It's a new industry. I think it's going to be around for a very long time. The growth rate is such that they can't hardly get people trained quickly enough for the amount of turbines that are going up.

So there's going to be huge growth continuing going forward and the need for many more technicians.

Wave Energy

There is so much energy in the ocean that we have a capability of replacing a lot of our fossil fuel usage with wave and tidal energy.

There's a lot of power in a small amount of the ocean. And so you can have relatively smaller devices that take up less space in the ocean that can still generate a tremendous amount of power. Another advantage is that the resource itself tends to be located relatively close to metropolitan areas.

So you've got this wide range of skills: machinists, you've got fitters, you've got welders, you've got material handlers, engineers, researchers, oceanographers.

You need someone that has a technical training but can also go out on the vessels to work on the devices and so has some marine training as well. So if you combine those two things, you're looking at a fairly skilled position that'll probably pay pretty well.

NARRATOR: From cutting edge renewable energy sources to the more established, each type of energy has jobs from development to construction to maintenance. All are green careers that will continue to be in demand for decades to come.