

The idea of running your home completely free of energy business is an attractive one. Many homeowners have selected to go this route, seeking the self-reliance, sustainability, and expense savings that an off-grid planetary system can supply. Obviously, you might be required to go off-grid to due to the remote place of your property. Going off-grid means that 100% of your electricity will be derived through the collection of solar energy and any back up resources.

Off Grid Solar: How does it work?

Off-grid Solar Systems-- typically referred to as Stand-alone power systems (SAPS)-- work by creating electrical energy from photovoltaic panels and using it to charge a solar battery by means of a charger controller. That electricity is then converted using an inverter so that it can power your home or business appliances. By storing the electrical power in a solar battery, it is possible to run your house exclusively from solar power, even at night or during times when there is less than optimal sun direct exposure.

Parts of an Off Grid Solar System

For an off-grid solar power system to work successfully in the average house, you will need a couple of tools. Depending on the size and the scale of your solar power system set-up, your specific requirements are most likely to be different from other off grid system owners, however there are some primary pieces you will definitely require to get up and running.

Solar Panels

As the name recommends, solar panels are an obvious very first component. The accurate size and production capabilities of your specific photovoltaic panel selection will depend upon the quantity of readily available sunshine in your region, the usable space of your roof, and your energy consumption requirements.

Solar Batteries

A solar battery will likewise [solar batteries](#) be necessary, to allow your house to continue to follow the sun decreases. Throughout the day, your solar storage device will charge as your panels produce excess electricity. Rather than simply losing out on all of that available solar energy, a battery allows you to keep it for use at a later time. Depending upon your energy needs, you might have a single battery, or even a battery bank.

Solar Inverters

In order to convert the direct present (DC) gathered by your solar panel selection into the alternating current (Air Conditioning) needed to run the majority of your common household devices and electronics, your solar energy system will also require a solar inverter-- sometimes described as a solar converter or a PV inverter. For the purposes of an off-grid system, you will likely use a stand-alone inverter, though there are a couple of options when it pertains to set-up.

Solar Charge Controller

The solar charge controller or battery charger is crucial to the health of your battery. The controller controls the voltage and present that your solar battery gets, to prevent overcharging and damage.

Alternative energy source



It may deserve thinking about an alternative source of energy as back up for your system. This can be especially useful throughout the depths of winter season when solar production is at its lowest. Lots of owners who utilize off-grid systems combine them with a generator that can power some of their homes' electrical power requirements.

Going off grid: is it right for you?

If you have the alternative of going off grid, it deserves thinking about the advantages and disadvantages rather than staying connected to the grid. Naturally, you may not have the option and need to utilize a off-grid system in order to power your home. If you wish to see what size system and battery bank you would need to take your house off the grid, you can use our purpose developed off grid calculator.

Ecological Impact

There's no doubt that solar power is much cleaner and eco-friendly than utilizing nonrenewable fuel source power. Going green is one of the primary draws for a grid-free lifestyle, and utilizing a renewable resource like solar energy is a best way to decrease your carbon footprint. However, your excess, clean, solar created energy is not utilized by anyone else. It goes to waste. If you are connected to the grid, this green energy can be exported back into the grid and after that used by somebody else.

Energy Independence

Another huge advantage of going off grid is that you accomplish 100% independence from electrical power merchants. You will not pay anything for your electricity expenses, and you are 100% insured versus increasing energy prices. Your system likewise secures you from grid-tied power failures or blackouts.

The flipside is, you are truly on your own. If your power system is knocked offline by devices failure or harsh weather condition, the energy business isn't concerning your help. That indicates it's up to you to make sure your equipment meets your needs (inspecting the capacity for storage along with our output, to ensure your solar energy system can meet your demands), and to keep that devices in working order.

How can I get one?

That's where we can assist! We can provide totally free quotes and have professional off-grid installers go over and advise systems for your residential or commercial property. Costs will vary, depending on your individual needs, however we'll assist you get the quotes you require to determine what sort of off grid solar energy system you can develop to fit your budget plan and requirements.