



You could save money and help keep the environment clean by generating your own electricity.

Solar Photovoltaic (PV) panels allow you to generate your own electricity using energy from the sun. They don't need direct sunlight only daylight, so they also work on cloudy days. By generating your own electricity you could save on your energy bills. Plus with the Government's Net Metering scheme, you could be refunded for every kilowatt hour (kWh) you generate



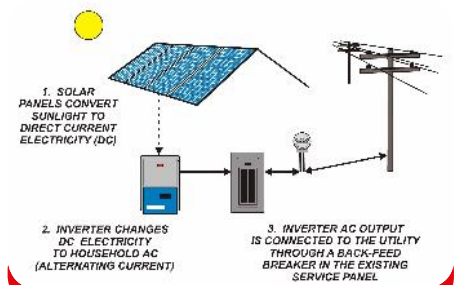
The Benefits Of Solar Electricity

- Cut your electricity bills. Sunlight is free, so once you've paid for the initial installation, your electricity costs will be reduced.
- Get paid for the electricity you generate. The government's Net Metering scheme pays you back for the electricity you generate.
- Cut your carbon footprint. Solar electricity is green renewable energy and does not release any harmful carbon dioxide or other pollutants. A typical home solar PV system could save over a tonne and a half of carbon dioxide per year – that's more than 30 tonnes over its lifetime.
- Quick and easy installation and we handle your Net metering application.
- 10 year manufacturer's panel performance warranty.

Types of Solar PV System

1. Grid-Tie (Battery Free)

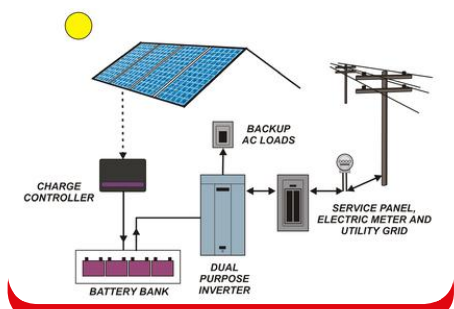
The simplest and most cost effective PV design for most sites is the "Grid-Tie" (sometimes referred to as intertied or utility-interactive) system. This system does not provide backup power during a power outage (even if the sun is shining) but for sites with reliable grid power, this is usually the logical system choice.



2. Grid-Tie with Battery Backup (Grid Interactive)

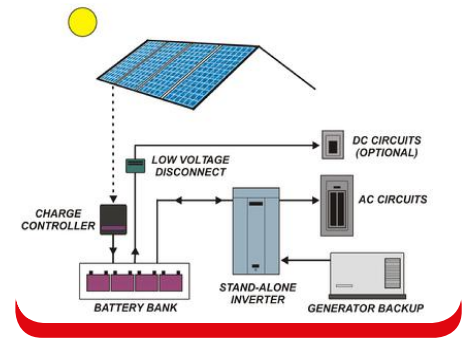
The Grid-Tie With Battery Backup system can also push excess electricity produced to the electric utility grid but has the added feature of batteries in order to power some selected backup loads when the grid is down. With this benefit comes increased complexity, cost and maintenance requirements.

This type of system may be used to assist the mains or a generator, supplying base load.



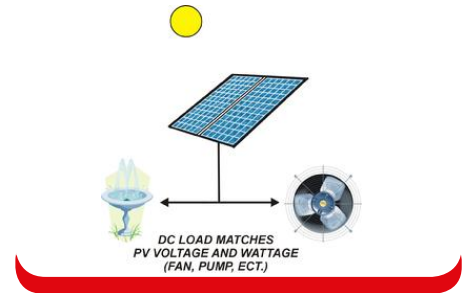
3. Stand-Alone

The Off-Grid or Stand-Alone PV System incorporates large amounts of battery storage to provide power for a certain number of days (and nights) in a row when sun is not available. The array of solar panels must be large enough to power all energy needs at the site and recharge the batteries at the same time. Most Off-Grid systems benefit from the installation of more than one renewable energy generator and may include Wind and/or Hydro power. A Diesel generator is often employed for emergency backup power.



4. PV Direct

PV Direct systems are usually very simple systems where the photovoltaic panel is connected directly to a motor or pump which matches the voltage and amperage output of the panel. When the sun shines and the PV panel produces electricity, the device runs.. when the sun is not available, the device stops. This system is often used for livestock where a well-pump lifts water out of the ground to a watering trough in remote locations. Other applications include solar powered attic fans, irrigation systems and small day-time garden waterfalls or fountains.



Analysis and Design

Our full turnkey service starts with a site assessment and economic evaluation: this estimates the return you could expect. We'll then outline the installation process and how we'll work with you. Next, we design your solar photovoltaic system, choosing the PV technology and framing system that will maximise your energy production and cost savings.



Installation

Using performance-guaranteed solar technologies from the world's leading suppliers, we handle the entire installation process - from logistics and construction, to connections with the utility and the feed-in tariff process. We then complete the testing and commissioning of the system to make sure everything's operating at its maximum potential.

Maintenance

Solar PV needs little maintenance - you'll just need to keep the panels relatively clean and make sure trees don't begin to overshadow them. Panels that are tilted at 15° or more have the additional benefit of being cleaned by rainfall to ensure optimal performance. Debris is more likely to accumulate if you have ground mounted panels.

Solar PV Inverters

All the electricity produced by the solar panels is produced as direct current (DC), which compares to the electricity that is distributed through the grid and we use in our homes, which is alternating current (AC). For this reason most solar photovoltaic systems are now connected up with some type of inverter, which changes the DC to AC, allowing the individual to sell the electricity back to the grid (in grid tie systems) or to be used easily in the homes.

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