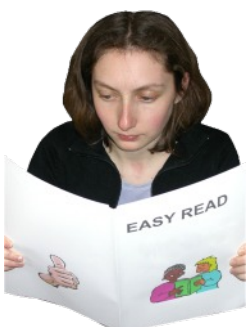




centre for
sustainable
energy



Getting the best from your solar panels



EasyRead version

About solar power



Solar panels use energy from the sun to make electricity for your home.



If the panels make more electricity than you use, the electricity will go into the electricity network for other people to use. This is called the **electricity grid**.



You can be paid money for the extra electricity your panels make, but it is only a small amount.



So it is best to use the electricity to run appliances while the sun is shining.



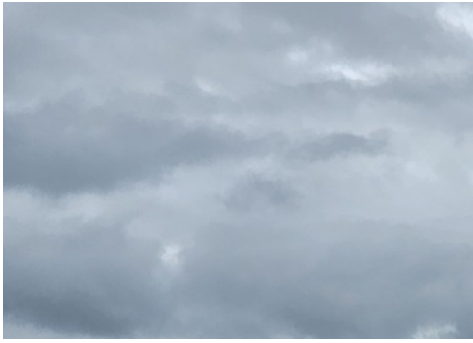
You can also store the electricity in batteries to use later, or use it to heat your hot water. There is more information below about batteries and heating hot water.



Most homes can have enough solar panels to make 3,000 watts of electricity at one time, under ideal conditions.



The amount of electricity they make can change. Solar panels make electricity when the sun shines on them, so if there is less sun the panels make less electricity.



For example:

- If clouds cover the sun, there will not be as much electricity as on a sunny day.



- We have less sunlight in winter so there is less energy from the sun in winter.

About your electricity use



Things in your home that use electricity are called **appliances**.

Appliances need different amounts of electricity to work. The amount of electricity they need is measured in watts.



For example:

- An LED light bulb uses 5 watts.



- A laptop uses 50 watts.



- A fridge uses 100 watts.



- A microwave uses 750 watts.



- A washing machine uses 2,500 watts.



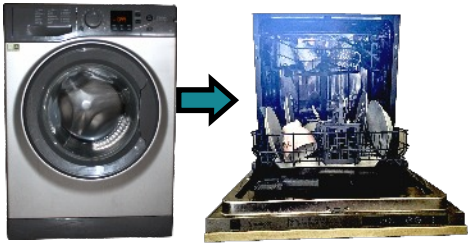
If you use all these appliances at the same time you will use more electricity than your panels are making. The extra electricity they need will come from your energy supplier and you have to pay for it.



So it is best to run appliances that use the most electricity when your panels are making the most electricity. This is likely to be on sunny days.



To avoid using more electricity than your solar panels are making, it is best to use one appliance at a time.



For example, you could run your washing machine and then your dishwasher. Not both at the same time.

What's in a solar panel system?



There are panels on your roof.

You will have an **inverter** and a **meter**.



The **inverter** takes electricity from the panels and changes it so it can be used in the home.



The **meter** measures how much electricity your panels are making.



Your system will be joined up to the country's electricity grid.



Solar energy monitors

If you want to know how much electricity your appliances are using you will need to buy a solar energy monitor to display this information.

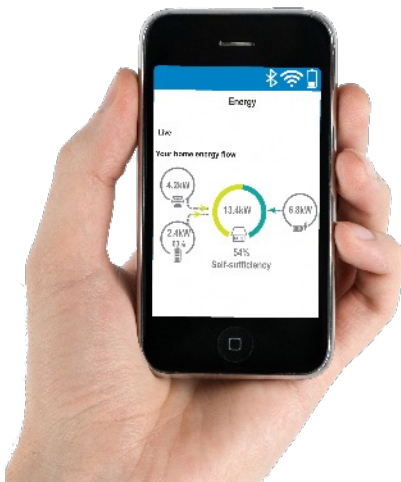


The monitor costs between £100 and £400.

Smart appliances and energy managers



A smart appliance is one that you can turn on or off when you are away from home. They use Wi-Fi.



A smart energy manager can tell you when your panels are making a lot of electricity.



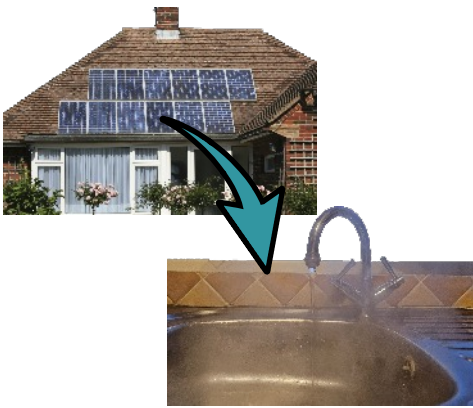
This can be helpful. Here is an example:

- You are away from home and know that the sun is shining brightly, making lots of electricity.
- You could turn on your smart washing machine using Wi-Fi or the smart manager. The washing machine will use the electricity made by the solar panels.





Once an appliance like your washing machine turns on, it will go through its whole cycle.



Solar diverters

When your panels are making more electricity than you are using, a solar diverter can use the electricity to heat your hot water.



A diverter can make all the hot water you need in summer.



You can have a diverter added to your old system.



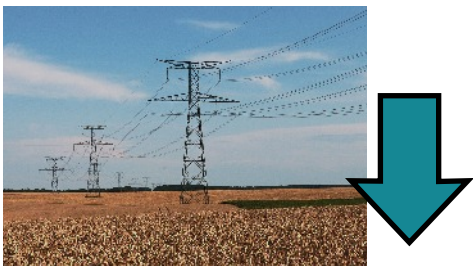
Batteries

A battery can store the electricity your panels have made but you have not used.



Batteries are expensive. One day the cost will come down.

Some people are not sure about batteries.



- Batteries are good for the environment because they help people use less electricity from power stations.



- But the way batteries are made is bad for the environment.

Getting paid for the electricity you make



People who had solar panels before 1 April 2019 might receive feed-in tariff (FiT) payments.

This means you will be paid for all the electricity you make.



You are paid even if you use your solar electricity in your home. So your energy supplier will pay you for the electricity your solar panels make and you can also use the electricity to run your appliances.



People had to apply to receive a feed-in tariff. You cannot apply anymore. But you can apply for a Smart Export Guarantee (SEG).



The Smart Export Guarantee only pays you money for the electricity that your panels make that you do not use. Talk to your electricity supplier about receiving the Smart Export Guarantee.

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