

SOLAR PV PANELS

The sun produces renewable light energy which can be turned into electricity using solar photovoltaic panels.

What are they and how do they work?

Solar PV panels change light into electricity by using layers of a silicon-like material encased in glass (a solar cell). An inverter changes the direct current into an alternating current so that it can be used. The electricity created by the solar panels will run appliances that are on in your home. If the panels create more electricity than you are using, the extra will be exported to the electricity grid. However if you use more electricity than the panels are generating, you will have to supplement your free electricity with electricity from the grid that you have to pay for.

It is important to advise your energy supplier that you have solar panels and check with them that your electricity meter works properly with the panels. If not, you may be under or over charged for your electricity.

How much electricity will they produce?

This depends on which way the panels face, how sunny the location is and whether there is any shading (e.g. from trees). More electricity will be produced in summer compared to winter. Generally a PV system provides half of the average household's electricity needs.

How can I make the most of the panels?

Buying energy efficient appliances will ensure you use less electricity and therefore rely less on the electricity grid. Appliances which have moving parts or which produce heat use more electricity than those producing light or sound. So use power hungry appliances when the sun is shining and the electricity is free (you can use a timer to help you



do this if you are out during the day). It also makes sense to stagger the use of power hungry appliances to avoid supplementing your free electricity with electricity from the grid that you have to pay for.

What is the feed in tariff?

It is a payment to encourage investment in renewable technology like PV systems. The owner of the system (Freebridge) receives a small payment for each unit of electricity that is generated by the panels and that is exported back to the electricity grid. As a tenant you will benefit from the free electricity the panels produce.

Tips for lower energy bills

Happy paying your gas and electricity supplier more money than you need to?

Thought not. Here are 15 ways to cut your bills...



1) Keep the oven door shut as much as possible; every time you open it, nearly a quarter of the heat escapes.

2) Give your clothes a day in the sun; and give your tumble drier a break. Clothes dried in the fresh air feel great, and there are drying days in winter, too.

3) Food in the oven cooks faster when the air inside flows freely, so don't put foil on the racks.

4) Don't leave your phone on charge all night. It only needs three hours – and try not to leave the TV and other kit on stand-by.

5) Be a friend to your freezer. Defrost it regularly to help it run more efficiently.

6) Catch 'em young. Encourage your children to switch off electric toys and lights that they're not using. They'll soon get the hang of saving energy.

7) Dodge the draught! Fit draught-excluders to your front door, letter box and key hole, and draw your curtains at dusk to keep the heat in.

8) When boiling water, only fill the kettle with as much as you'll actually use (but make sure you cover the metal element at the base).

9) Buying a new TV, washing machine or dishwasher? Look out for the Energy Saving Trust 'recommended' logo, and remember: the bigger the TV, the more energy it'll use.

10) Dimmer is smarter. Use your dimmer switches to reduce the amount of energy used to light your room.

11) Wait until you have a full load before putting on a wash. Two half-loads use more energy (and water) than one full load.

12) Sleep tight. Make sure all the lights are turned off when you go to bed, or use a low-wattage night light if you do need to leave one on.

13) Turn your heating down by 1 degree. You'll hardly notice the change in temperature, but it'll make a big difference to your heating bill.

14) Put your fridge in a good spot. Somewhere the air can circulate behind it, but not next to a cooker or radiator.

15) New computer? Remember a laptop typically uses around 85% less energy than a new desktop PC.

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