

YOUR PV PANELS

How to get the most of the free electricity!

Use your appliances during the day, when the sun is shining.



Make sure the **higher** wattage appliances are used later in the day when the sun is at its strongest (for example between 11am - 4pm)

Make the most of timing devices on equipment if you are out during the day.

Don't run part loads as you still pay for water & detergent!



Use one big appliance at a time,

that way you don't use more electricity than panels are producing, otherwise you will get charged for it! So put the kettle on 1st, then when that's done use the toaster, then a bit later put the washing on.

To work out the amount of free electricity available when the sun is at its peak, you need to know what can be produced. A rough guide for the summer is:

Each panel produces 200Watts/hr (0.20 kW/hr) so if there are 16 panels that is $200W \times 16 =$

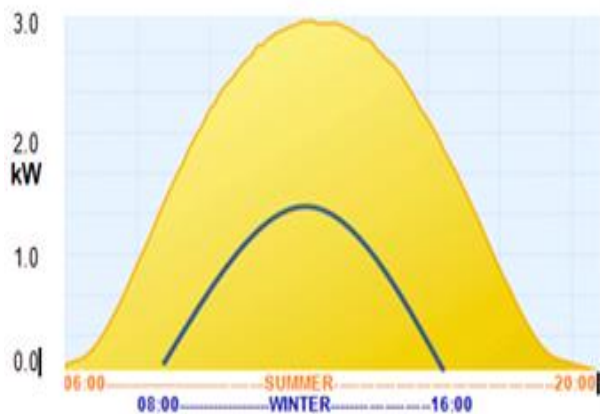
3200W/hr (3.2 kw/hr)



HOW SOLAR PANELS WORK

They convert the energy in sunlight into electricity, and this is effectively free electricity that can be used in your home. When the sun is **not shining**, or when **you are using more electricity** than the panels are producing, the extra will be imported from the national grid as it was before, and you will be charged by your electricity supplier at the normal rate.

Solar electricity is produced in a bell curve, the size of the bell getting bigger until it peaks around midday. The curve is also bigger during the longer daylight hours of summer.



During **WINTER** the low angle of the sun & shorter hours means that the sun is not as strong, so less electricity is produced.

During **SUMMER** the sun is higher in the sky, out for longer and at full strength. So noon on a bright sunny day in July, the panels could generate just over 3kW/hr, while on a cloudy day in October it might be closer to 100 Watt/hr.

How to make the most from the solar panels

Use low energy products over long periods and try to avoid using the higher energy appliances at the same time. Even on a cloudy or overcast day, **some** electricity will still be generated ☺

More information can be found on the Council's website www.scamb.gov.uk

Appliance	Energy use	
	KiloWatt/Hr	Watt/Hr
Dishwasher	2.20 kWh	2200W
DVD Player	0.01 kWh	10W
Fridge * (daily)	0.10 kWh *	100W*
Fridge Freezer *(daily)	0.88 kWh *	880W*
Hair Dryer	2.00 kWh	2000W
Immersion Heater	3.00 kWh	3000W
Iron	1.20 kWh	1200W
Kettle	3.00 kWh	3000W
Laptop	0.15 kWh	150W
LCD TV	0.12 kWh	120W
Low energy light bulb	0.015 kWh	15W
Microwave	0.75 kWh	750W
PC/Monitor/Modem	0.25 kWh	250W
Shower (electric)	9.00 kWh	9000W
Slow Cooker	0.20 kWh	200W
Toaster	1.60 kWh	1600W
Tumble Dryer	3.00 kWh	3000W
Vacuum Cleaner	1.60 kWh	1600W
Washing Machine*	3.50 kWh	3500W

You can check the panels are working by looking at the generation meter (found in the electricity meter cupboard) or if you haven't got one, call the Company who installed the panels and ask them to check.

Stagger the use of the larger, more energy consuming appliances (e.g. washing machine, tumble dryer etc) so you reduce the amount of electricity you need from the grid.

The table opposite shows the energy use of some appliances. Always check the Energy Use of the equipment to be more specific. The website www.sust-it.net lists appliances and the cost to run them.

*Depending on the age and performance of the machine