

Solar Power Guide

Carden Mill Brae, Cardenden

What are Solar Photovoltaic Roof Panels (Solar PV)?

Solar PV is a solar panel electricity system that captures the sun's energy and converts



sunlight into electricity to use free of charge within your home. A solar PV system is made up of a number of panels connected together with an inverter. The type of system we have fitted to your home is roof mounted. Solar PV can still generate some

electricity on cloudy days but does not generate any electricity at night. Not all roof surfaces are suitable for the installation of solar PV as not enough electricity is generated if the panels don't face in the right direction or angle. Shading of the panels by other buildings, clouds or trees will also reduce the efficiency of the system.

During daylight hours, you will benefit from being able to use all the energy that is generated by the solar PV system. However, only the available power generated by the system will be free - any energy you use over and above this will come from the grid and will be included in your electricity bill as normal. Depending on the size of the system on your roof, you could see benefits of up to £130-180 of free electricity each year.

Tips for Using Solar PVs -

Use electrical appliances during daylight hours when electricity is being generated by the panels to maximise the potential benefit. Charge laptops, phones and other battery-powered devices during the day. Washing machines, tumble driers, dishwashers, irons and vacuum cleaners are all high energy users so to reduce the risk of using more electricity than you are generating, use just one high energy-using appliance at a time.

Please remember that even with solar PV, the best way to save electricity is to use lighting and appliances less often and more efficiently. Turning unused devices off during generation periods will ensure as much of the electricity generated will go towards powering devices you are actually using. Try to avoid leaving devices on standby.

Get to know your Solar PV system -

Your home's solar panel system is integrated with your existing electricity supply. It will link seamlessly with your existing supplier and power generated by your panels will be used before any is taken from the grid hence our suggestion to use high power demand devices (such as washing machines, irons etc.) during periods of sunshine. Any excess solar power that you do not utilise will be exported to the grid.

As an example, if you use 2000 watts of power between 2pm and 3pm and your panels generated 400 watts across the same timeframe, the remaining 1600 watts you used will be provided by power drawn from the grid and you will be charged for the 1600 watts by your electricity provider. This is normally billed at a 'pence per kilowatt hour' rate (a kilowatt is 1000 watts per hour) so in this example you would be charged for 1.6 kilowatts for that hour. Currently electricity is costing c.27 pence per kilowatt hour

Within your meter cupboard will be a Solar Generation Meter clearly marked with a label saying 'Photovoltaic System'. The meter is a small white box with an LCD screen which measures the total power generated by the system. We may contact you intermittently to ask for the reading on the screen and will write to you when this is necessary.

Further Information -

Should you have any queries about your solar panel system please do not hesitate to contact us using solar@orevalleyha.org.uk or call our office on **01592 721 917** for assistance.

