



Solar Photovoltaic System

26 solar photovoltaic (PV) panels have been installed on the roof of the Visitor Centre to produce electricity to provide power to the centre. The system will reduce the amount of fossil fuels used, resulting in a reduction of carbon emissions.

Electricity that is not used by the Visitor Centre is exported to the National Grid.

The panels are visible on the roof from the side of the building overlooking the lake.

The display panel on the wall of the Visitor Centre shows the:

- **Instantaneous Power** – the energy being generated at that point in time;
- **Total Energy Generated** – the total amount of energy generated by the system since it was installed;
- **Total CO₂ Saving** – the total tonnes of carbon dioxide that has been saved as a result of the energy the system has generated.



How it Works

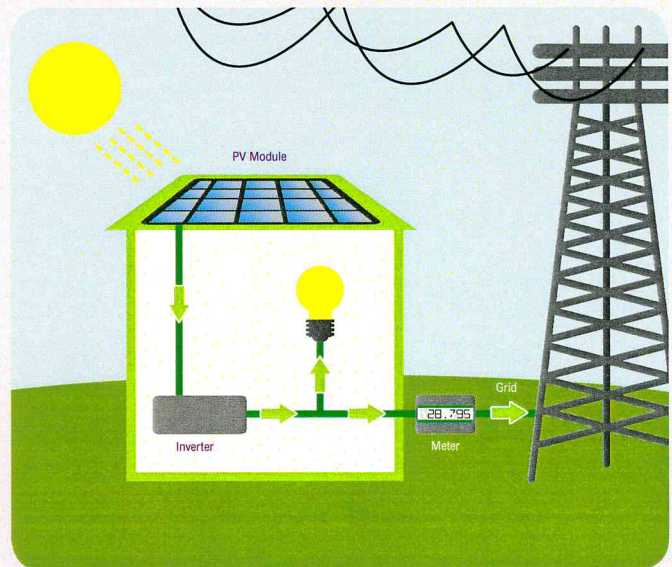
Solar photovoltaic (PV) systems capture the sun's energy using photovoltaic cells. These cells don't need direct sunlight to work – they can still generate some electricity on a cloudy day. The cells convert the sunlight into electricity, which can be used to run household appliances and lighting.

Size

The power of a PV cell is measured in kilowatts peak (kWp). This is the rate at which it generates energy at peak performance in full direct sunlight during the summer. The system that was installed is a 6.11 kWp rated system.

Savings

The system is estimated to generate approximately 4,888 kWh of electricity a year. This will save approximately 2.78 tonnes of CO₂ per year.



For Your Home

If you are considering installing a solar photovoltaic system on your home you will need a large area of unshaded, southerly facing roof.

A typical home solar PV system (3 kWp) can generate over 2,500 kilowatt hours of electricity a year – which is around three quarters of a typical household's electricity needs. It will also save over a tonne of carbon dioxide every year which is more than 30 tonnes over its lifetime.

For more information, please email: sustainability.team@bedford.gov.uk