

Solar electricity

Fit a solar PV system, generate your own electricity and sell back to the grid!



How it works

Electricity is produced from sunlight through a process called solar photovoltaics. Each solar PV panel contains cells made of two or more thin layers of semi-conducting material, most commonly silicon. When a cell is exposed to light, electrical charges are generated and this is then fed into your home's electricity supply. Electricity is still produced even if the sky is cloudy. This is because PV cells don't just rely on direct sunlight, but also diffuse solar radiation. The amount of electricity generated is proportional to the intensity of light energy which falls into the PV absorber area.

Professional fully guaranteed service from start to finish

Sun Save install PV systems of all sizes and whether for domestic or commercial use we pride ourselves on offering great value, service and quality of product. We are members of various trade bodies offering you assurance you are dealing with a trusted and ethical company. Why not call today to talk to one of our installers who will be happy to discuss the suitability of your home and offer either a guide or free no-obligation quotation.

'New government feed in tariffs' pay you back 41.3 pence* per kWh for all the energy you produce!

*relates to retrofit installations.

Why solar energy?

- ✓ Save on your ever increasing energy bills!
- ✓ Government backed grants and payments for installing solar energy!
- ✓ Tax free return on your investment!
- ✓ Financial packages, making solar energy affordable!
- ✓ Reduce your reliance on utility companies!
- ✓ Future proof your costs!



Why Sun Save?

Sun Save is committed to providing the means and ability to make a difference with sustainable energy. Our products have been developed to deliver outstanding performance, extremely low maintenance and an impressively short pay-back period.



Renewable energy that won't cost the earth!

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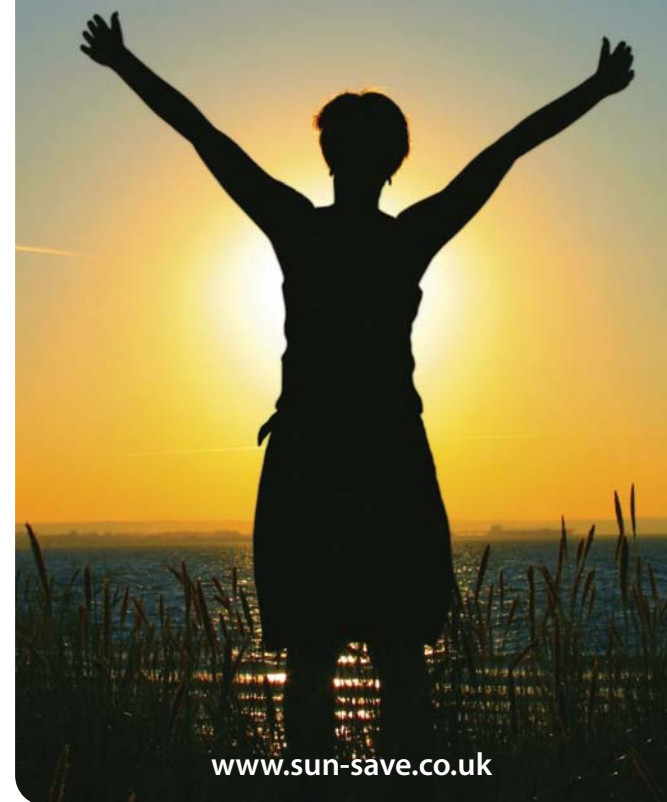
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E&OE. The wood used to make this paper comes from sustainably managed commercial forests.

Harnessing 'free' energy

Solar PV electricity and solar water heating that won't cost the earth!



Renewable energy that won't cost the earth!

Solar water heating

Reduce your energy bills – generate around 70% of your hot water for free!



How it works

Solar panels need a clear view of the sun. Generally south to south east/west facing is best although we have a number of options with east/west facing panels. Panels can be mounted on a roof, the ground or pergola.

Our panels consist of an array of evacuated tubes which collect energy 360°. These are accepted as being the most effective type of solar panels for this country. The tubes have a special coating that traps the sun's radiation and concentrates the energy, generating heat at the centre of the tube. The tube contains a special fluid which will not freeze and heats to very high temperatures.

The solar system is a closed system, that is to say the heat from the fluid is transferred from the solar panel directly to a coil in your hot water tank or through an in-line heat exchanger for your pool. This is the most effective way of maximising solar gain – unlike systems that circulate domestic water directly through the panel, which at worst will not collect energy in freezing conditions and at best have a cooling effect on water on overcast days.

A clever control unit then works automatically in harmony with your existing heated water system to ensure you get the best from solar. The control unit can work together with your domestic hot water, under floor heating and swimming pool heating to prioritise and balance your needs.

Solar water heating Frequently asked questions

What is solar water heating?

Using 'free energy' from the sun, heated water can be generated for your home, swimming pool or spa. Solar energy is collected by a solar collector panel, which is connected to your existing heating system for generating heated water.

Why solar?

We believe solar water heating offers the best alternative in renewable energy with real payback opportunities. By choosing our panels you will be making a long and lasting investment which will save you money for many years to come.

What about the UK weather?

Contrary to popular belief we receive more than enough exposure to sunlight in this country to benefit from solar panels. Developments in solar technology have meant that solar panels harness the power of the sun, not only in direct sunlight, but also with diffused radiation emitted on cloudy or overcast days. Our panels consist of evacuated 'tubes' which can collect energy 360° and can turn this 'light' into heating water with remarkable efficiency. Even when outside temperatures are below freezing, they will still collect the sun's energy and provide a great source of free hot water!

Hot water heating

Sunny



100%

Cloudy



60%

Hazy



30%

Overcast



10%

Solar panels could add nearly 9% to a property's value* plus pass on great savings!

*Source from The Guardian, "evidence suggests solar panels can add nearly 9% to property's value".

What savings can be made?

With rising prices of oil, gas, electricity and other fuels, free solar energy will save money now and well into the future. Solar collectors will harvest this free energy automatically and reduce your energy bills providing around 70% of your hot water for free. As a rough guide the average UK home owner spends 40% of their heating bill on hot water, the other 60% being space heating so if you take 40% of your annual gas bill then 70% of that amount, is what you could save. Also bear in mind that in the long term energy prices will continue to rise so in the future you stand to make even greater savings!

NEW from April 2011 Government feed in tariffs payable!*

Save on your ever increasing energy bills, generating around 70% of your hot water free!



How much will a system cost?

Because we are sole UK distributors importing our solar panels direct from the manufacturer we can offer outstanding prices! 'Size matters' – A properly sized system is very important with the amount of panels based upon a number of factors. Each system is designed individually and the price will depend on many aspects, such as size of cylinder, number of occupants in a home, number of bath or shower rooms, positioning of collectors and associated pipe runs. We use extremely powerful collectors which can be sized and adapted to suit your requirements. Sun Save also offers an array of financial packages to suit you needs.

What payback could I expect?

As well as contributing to the environment the cost of financial payback is dependent on a number of factors. Although payback is one way of looking at the cost of your system it is perhaps more accurate to look at the return on your investment. Typically the financial savings of a solar water heating system will be equivalent to a **tax free return** on investment of between 8% and 12% which far exceeds the return of indexed linked saving plans plus will grow year on year. Increasing evidence is showing that solar water heating installed in your home will increase its value. The Guardian quoted "evidence suggests solar power can add nearly 9% to a property value".

*Government published white paper on proposed feed in tariff from April 2011.

Solar electricity Frequently asked questions

Microgeneration Scheme* Energy/Feed in meter

The PV system is connected into your electricity supply at the main distribution board. An energy meter is also provided to show how much energy the PV system has generated and is also used by your utilities supplier to calculate what they will owe you for the electricity your PV system has produced.

What are feed-in tariffs?

Feed-in tariffs are financial support measures introduced by the government to increase the uptake of small-scale renewable generation and help deliver the UK's 2020 renewable energy targets. Systems are known as Generators. The tariff provides renewable generators with 25 year guaranteed support payments per kWh for electricity generation.

What are the benefits of feed-in tariffs?

The feed-in tariff provides three key benefits for anyone installing microgeneration. These benefits include guaranteed premium payment for all electricity produced, guaranteed price for any electricity exported onto the electricity network and onsite usage of generated electricity.



Solar will help with new government targets on energy saving classification of your house.

How much will I receive for solar panels?

The table below provides details of the tariff levels that you can expect to receive.

System size	Tariff (p/kWh generated)
4kW	41.3p
4-10kW systems and for new build	36.1p

For further information call 01273 424976

How long will the tariffs last?

The tariff levels set out below apply to systems installed before 31st February 2012. Systems installed after this date until 31st March 2013 will attract lower tariff rates which are reduced by around 8.5%. With generators continuing to receive the same guaranteed tariff rate for 25 years from installation the government has provided a worthwhile early incentive.

How much money will I save?

The amount of money you save will be dependent on the amount of electricity that you generate and how you use this electricity in the home. The feed-in tariff is a "government paid tariff" which means that you will be paid the FIT rate (p/kWh) for the total amount of electricity generated and sent to the grid whether any of the electricity is used by you or not. Together with this pay back from the government you can use the electricity as well to make savings on your normal use and sell back the difference to the utility company. The table below shows some example savings that you could make by installing solar PV panels.

Installed system size		1kWp	2kWp	3kWp	4kWp
Annual Generation (kWh/a)	A	910	1,801	2,667	3,412
Electricity you pay per kWh (p/kWh)*	B	364	720	1067	1365
	C	546	1081	1600	2047

		1kWp	2kWp	3kWp	4kWp
Feed-in tariff scenario (FIT)					
Electricity you pay per kWh (p/kWh)		13	13	13	13
Feed in Tariff – pence per kWh			41.3	41.3	41.3
(FIT) Selling back price – pence	F	3		3	3

		1kWp	2kWp	3kWp	4kWp
TOTAL SAVINGS & INCOME					
Electricity you have used (savings)	B x D	£47.32	£93.60	£140.51	£181.45
(FIT) 'Selling back' (utility company savings)	C x F	£16.38	£32.43	£48.00	£61.65
FIT Income	A x E	£375.83	£743.81	£1,101.47	£1,405.64
TOTAL INCOME PER ANNUM:		£439.53	£869.84	£1,288.18	£1,648.02

Due to current government consultation please call us for the latest news on FIT tariff payments.