

# Generate your own electricity

## Harness 'free' energy with solar panels from Sun Save

### Why generate your own energy?

Tapping into a free, natural energy resource makes perfect sense in our current climate of dwindling oil reserves, rising fuel costs and global warming. Solar technology generates silent, pollution-free power and has become the most common source of renewable energy in the world.

### 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.



Thanks to the Government backed 'Feed in Tariff' you can now produce your OWN electricity... sell back to the grid what you don't use... and earn a **TAX FREE INCOME...** inflation proof for 25 YEARS

### A fully guaranteed and professional installation

We can install any size of system, from small domestic systems up to the large commercial arrays producing electricity from 1kW-5mW. Solar electricity is the same as your regular mains supply, but because it's generated from sun light, it's clean, silent and from an inexhaustible supply. A PV system has no moving components and is virtually maintenance free.

#### Solar PV panels

These are usually mounted on the roof of the building. They can be integrated (replacing the tiles) or non-integrated and installed on almost any type of roof (e.g. tiled or metal, sloping or flat), or ground mounted.

#### Solar PV system

Consists of the solar modules, an inverter, switches and fuses, and a display unit. PV modules convert light into DC electricity. An inverter changes the DC electricity into AC electricity allowing us to use it commercially and in our homes.

\*relates to retrofit installations.

Call **01273 424976**  
or visit our website [www.sun-save.co.uk](http://www.sun-save.co.uk)



**sunsave**  
*Renewable energy that won't cost the earth!*

## Frequently asked questions

Feed-in tariffs (FITs) are new measures introduced by the government to support the uptake of microgeneration technologies in the UK. To help you understand what FITs are and how you could benefit from their introduction we have put together a set of frequently asked questions that explain everything.

### 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.

### 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 (retrofit)	41.3p
4kW (new build)	36.1p
4-10kW	36.1p

### How long will the tariffs last?

The tariff levels set out above apply to systems installed before April 2012. Systems installed after this will be subjected to new lower tariff rate: around 8.5% less. Whether installed before or after April 2012, systems will continue to receive the same tariff rate for the 25 year period as they did upon installation.

### 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 'premium tariff' which means that generators will be paid the FIT rate (p/kWh) for their total generation but will be able to 'sell' any electricity they export back to the grid. The table provides examples of the savings that you could make by installing solar PV panels.

Installed system size		1kWp	2kWp	3kWp	4kWp
<b>Annual Generation (kWh/a)</b>	A	910	1,801	2,667	3,412
<b>Electricity you have used (kWh)*</b>	B	364	720	1067	1365
<b>Electricity not used (kWh)*</b> <small>For this equation it is assumed 60% is used and 40% is not used and sold back to the utility company.</small>	C	546	1081	1600	2047
<b>Feed-in tariff scenario (FIT)</b>					
<b>Electricity Price you pay – pence per kWh</b> <small>This is the average price you currently pay the utility company per kWh in pence.</small>	D	13	13	13	13
<b>Feed in Tariff – pence per kWh</b> <small>This is the government 'buy back' per kWh of total generated irrespective of actual use or kWh sold back to the Utility company.</small>	E	41.3	41.3	41.3	41.3
<b>(FIT) Selling back price – pence</b> <small>This is the price per kWh (pence) the utility company will also pay you against your actual use.</small>	F	3	3	3	3
<b>TOTAL SAVINGS &amp; INCOME</b>					
<b>Electricity you have used (savings)</b>	B x D	£47.32	£93.60	£138.71	£177.45
<b>(FIT) 'Selling back' (utility company savings)</b>	C x F	£16.38	£32.43	£48.00	£61.41
<b>FIT Income</b>	A x E	£375.83	£743.81	£1,101.47	£1,409.16
<b>TOTAL INCOME PER ANNUM:</b>		<b>£439.53</b>	<b>£869.84</b>	<b>£1,288.18</b>	<b>£1,648.02</b>

Example used is for a retrofit installation – new build tariff is 36.1 pence per kWh

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We can offer a full turn-key installation service on all systems we sell. We adhere to the Solar Trade Association guidelines giving you the peace of mind that your installation will be properly quoted, professionally executed and fully guaranteed.