

What is the Feed-in Tariff?

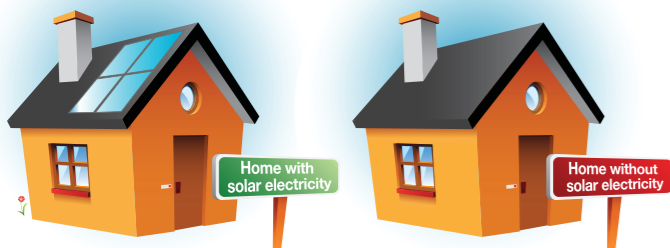
The Government's Feed-in Tariff, also known as the 'Clean Energy Cash back' scheme means that homeowners who install solar electric systems on their houses will be paid a substantial premium for all of the electricity they generate from their system. So installing solar NOW is a fantastic investment, as well as a hedge against rising electricity prices and a way to cut carbon.

KEY POINTS OF THE SCHEME

- The feed-in tariff for homeowners is set at 41.3p per unit generated from a solar electric system
- Home owners will also receive an additional payment of 3p for the units they export to the grid
- The payments are guaranteed by law for 25 years
- The payments will rise with inflation

WHAT THE FEED-IN TARIFF MEANS

Electricity use = 3300 kWh per year*



Average annual net benefit:
£730

Average annual income & savings:
£1048

Average annual electricity bill:
£318**

Carbon dioxide emissions avoided:
1200kg

Average annual electricity bill:
£460**

Carbon dioxide emissions:
1410kg

Annual income from Feed-in Tariff = £878

Annual savings on your bill from solar electricity† = £138

Annual income from exporting solar electricity† = £32

* DECC publication - Quarterly Energy Prices

** Energy Saving Trust (EST) - 13.95p per kWh

† EST - 50% export and avoided cost

Note: based on a 2.5kWp solar electric system producing 2125kWh per year

The benefits for businesses

The benefits to reward businesses, communities and homeowners who install solar electricity.

Good Return on Investment!

The Government has listened to what businesses said – and index linked the tariffs as well as improving the rates. We have modelled the numbers and perhaps one of the most significant developments as a result of these improvements is that we now believe there is sufficient return for investors to provide financing for solar developments.



The structure of the tariff is:

1. You are paid for every unit of electricity you generate, whether you use it or not. This is called the generation tariff and the exact amount you are paid varies according to the size of the system (see table A below). The generation tariff is index linked. Businesses will pay tax on this revenue.
2. If you consume the electricity generated, you avoid paying for grid electricity. Businesses therefore save money in line with the size and yield of the system. Most people believe that electricity will only become more expensive in the future, so the amount you save grows each year.
3. If you don't use all of the electricity generated, you receive a further tariff for the electricity you export back into the grid; the export tariff. This is the same for all generators and is set at 3p for a base price and is index linked. Alternatively, you can opt out of the export rate and find a buyer for your electricity on the open market.

Table A: Generation tariffs

Size of system	Type of install	Pence per unit generated
≤4kWp	New build	36.1
≤4kWp	Retrofit	41.3
>4-10kWp	New build or retrofit	36.1
>10-100kWp	New build or retrofit	31.4
>100-5,000kWp	New build or retrofit	29.3

WHAT THIS MEANS FOR OWNERS OF COMMERCIAL BUILDINGS...

Yields will improve and electricity bills will go down.

Building owners have several options regardless of whether they are an occupier or not.

They can buy the system themselves and collect a return by receiving the generation tariff and selling, exporting or consuming the electricity. Alternatively, it's also possible that the owner will be able to host a system owned by a third party and benefit from reduced electricity prices.

GET IN TOUCH NOW FOR A FREE QUOTATION 0800 954 6134



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Solar Photovoltaic



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What is Solar Photovoltaic?

Solar electricity systems capture the sun's energy using photovoltaic (PV) cells. The cells convert the sunlight into electricity, which can be used to run household appliances and lighting.

HOW DO PHOTOVOLTAIC (PV) CELLS WORK?

PV cells are panels you can attach to your roof or walls. Each cell is made from one or two layers of semiconducting material, usually silicon. When light shines on the cell it creates an electric field across the layers. The stronger the sunshine, the more electricity is produced. This electricity is then transferred to the house where it is plugged into the house's electrical supply, supporting or replacing external electricity.

PV cells come in a variety of shapes and colours, from grey "solar tiles" that look like roof tiles, to panels and transparent cells that you can use on conservatories and glass.

The strength of a PV cell is measured in kilowatt peak (kWp) – that's the amount of energy the cell generates in full sunlight.

THE BENEFITS OF SOLAR ELECTRICITY

Cut your carbon footprint: solar electricity is a green, renewable energy and doesn't release any harmful carbon dioxide or other pollutants. A typical home PV system could save around 1200 kg of carbon dioxide per year – that's around 30 tonnes over its lifetime.

Cut your electricity bills: sunlight is free, so once you've paid for the initial installation your electricity costs will be greatly reduced. A typical home PV system can produce around 40% of the electricity a household uses in a year.

Sell electricity back to the Grid: if your system is producing more electricity than you need, or when you can't use it, someone else can use it – and you could make a bit of money. See the Feed-in Tariff page for more information.

Store electricity for a cloudy day: if your home isn't connected to the national grid, you can store excess electricity in batteries to use when you need it.

Planning Permission not required: usually does not require planning permission to attach to existing building.



Solar Panels



A cost effective package for domestic installations



Quick to specify, simple to install. Solarcentury has designed the range of pre-engineered Sunstation systems, to provide everything a solar installer or developer needs in one complete package.

Each pre-designed system comes complete with all of the on-roof and electrical components.

Sunstation uses the Intersole mounting system for pitched roofs and is compatible with a wide range of roof tiles and slates.

By integrating into the roof line, Sunstation systems can help avoid the need for additional roof support, saving time and money.

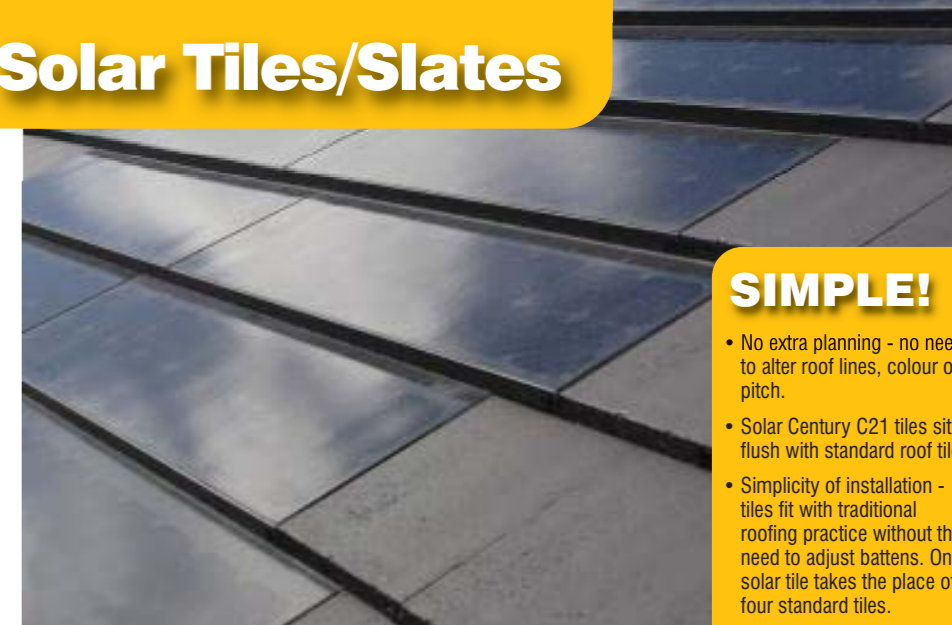


PANEL SYSTEM SIZES & COMPONENTS

Each pre-engineered Sunstation System includes the PV Modules, a complete InterSole system, the Inverter and a full Electrical Pack.

System size kWp	0.71	1.41	1.88	2.12	2.35	2.82	3.29	3.76	4.23	4.70
Number of Modules	3	6	8	9	10	12	14	16	18	20
Module Orientation	Portrait	Portrait	Portrait	Landsc	Portrait	Portrait	Portrait	Landsc	Landsc	Landsc
Layout (Rows x Columns)	1x3	2x3	2x4	3x3	2x5	3x4	2x7	4x4	6x3	5x4
Length (m)	1.7	3.3	3.3	3.0	3.3	5.0	3.3	4.0	6.0	5.0
Width (m)	3.0	3.0	4.0	5.0	5.0	4.0	7.1	6.7	5.0	6.7
Area (m)	5.0	10.0	13.3	15.0	16.7	20.1	23.4	26.8	30.1	33.5

Solar Tiles/Slates



SIMPLE!

- No extra planning - no need to alter roof lines, colour or pitch.
- Solar Century C21 tiles sit flush with standard roof tiles.
- Simplicity of installation - tiles fit with traditional roofing practice without the need to adjust battens. One solar tile takes the place of four standard tiles.
- No specialist skills - all roofing work carried out by the roofing contractor, allowing electrical work to follow build programme.
- Fast to fit - tiles are integrated in exactly the same way as interlocking concrete roof tiles.

Building Integrated solar electric roof tile/slate

- High power output - 52Wp per tile, less than 8 square metres per kWp (kilowatt peak).
- Discreet 'SunPower' PV laminate blends superbly with regular roof tiles offering an unrivalled aesthetic.
- Back mounted contact strips increase active area and reduce surface glare, typical with standard solar cell technology.
- Power output is guaranteed to 80% of generation performance for 25 years from date of commissioning.
- Tiles arrive on site as complete units - no need for on-roof assembly.
- No complex electrical or mechanical work required on roof.



TILE/SLATE SYSTEM SIZES & COMPONENTS

System Size Tiles/Slates	System Size (kWp)	Electricity per year ^[1]	CO ₂ Offset per year ^[2]	C21e Tile format		C21e Slate format	
				Min Roof Length*	Min roof Width†	Min Roof Length*	Min roof Width†
18	0.94	777	441kg	3.6m	3.1m	3.8m	3.9m
24	1.25	1036	588kg	3.3m	4.3m	3.5m	5.1m
36	1.87	1554	883kg	3.6m	5.5m	3.8m	6.3m
48	2.50	2072	1177kg	4.6m	5.5m	4.7m	6.3m
60	3.12	2590	1471kg	4.0m	7.8m	4.1m	8.8m
72	3.74	3108	1765kg	4.6m	7.8m	4.7m	8.8m

[1] kWh (kiloWatt hour). [2] Using SAP calculation method for grid displaced electricity - 0.568kg per kilowatt hour. ** Measured Eaves to Ridge. † Measured Verge to Verge