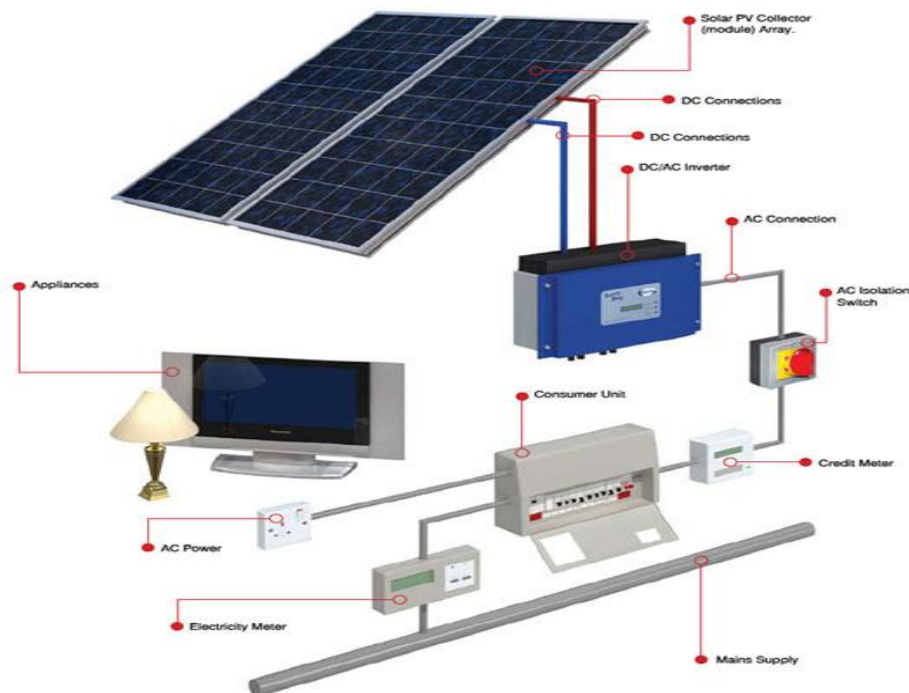


# Solar Photovoltaic (PV) System FAQs

**Q: What is a photovoltaic system?**

A: A typical photovoltaic system consists of the components below.



The solar PV collector (module) converts light into DC electricity. This is then fed to the DC/AC inverter which converts DC electricity to AC electricity. The amount of electricity generated is measured by the credit meter (also known as a generation meter). The reading from this meter is used for the feed in tariff payments.

**Q: Do I need constant sunshine for my PV system to work?**

A: No, your PV system will be generating electricity even on a cloudy day. It will generate electricity during daylight hours.

**Q: Will my PV system generate 100% of my electricity?**

A: No. A PV system cannot generate 100% of your electricity. Your PV system will not generate during darkness so you will need to pay for your night-time usage.

**Q: What does kWp and kWh mean?**

A: Solar PV systems are given a power rating in kilowatts peak (kWp). This is essentially the rate at which it generates energy at peak performance, for example, at noon on a sunny summer day.

The total amount of electricity the PV system actually generates in a year is measured in kilowatt hours (kWh). These are sometimes referred to as 'units'.

**Q: How long will my PV system last for?**

A: A well designed PV system will still be operating in excess of the manufacturer's warranty. A PV module has no moving parts, and so has a lifetime expectancy of at least 30 years.

Most inverters have a five-year warranty. PV module manufacturers' generally give a 10-year product guarantee and a 25-year linear performance guarantee.

**Q: Do solar PV panels produce hot water?**

A: No, solar PV panels produce electricity. Solar thermal collectors produce hot water. These look quite similar from a distance and many people get them mixed up.

**Q: What is the 'Feed in Tariff'?**

A: The Feed in Tariffs are the payments made to ordinary energy users for the renewable electricity they generate (for example, through solar PV systems). Feed in Tariff are also known as FITs.

Feed in Tariff give you three financial benefits:-

- A payment for **all** of the electricity you produce, even if you use it yourself.
- Additional bonus payments for electricity you export into the grid.
- A reduction on your standard electricity bill, which accounts for the energy you produce yourself.

The UK government have announced some significant changes to the Feed-in Tariffs. The new rates come in effect from 1<sup>st</sup> August 2012.

Key Changes as from 1<sup>st</sup> August 2012 for Solar PV

- The new tariff rate for systems <4kWp will **drop** to **16p/kWh** with an EPC band D or higher (if band E or less the lower tariff rate has also dropped to **7.1p/kWh**).
- The export tariff rate will **increase** to **4.5p/kWh** for all new solar PV installations.
- The tariff period (lifetime) will be reduced from 25 to **20** years for all new installations.
- The tariffs are to be reviewed every three months and will be revised according to deployment rates.

The EPC requirements are explained further below.

Summary of solar PV tariffs for systems with an eligibility date on or after 1<sup>st</sup> August 2012

PV Output (kW)	Standard generation tariff (p/kWh)	Multi-installation tariff (p/kWh)	Lower tariff (if energy efficiency requirement not met) (p/kWh)
< 4kW (new build and retrofit)	16.0	14.4	7.1
> 4kW – 10kW	14.5	13.05	7.1

**Note:** The eligibility date is usually the date that your FIT supplier (also known as the FIT licensee) receives a valid application for FITs. This will be after the date your solar PV system has been installed.

You will receive the standard generation tariff **provided that your home has an Energy Performance Certificate (EPC) Band D or better (A being the best).**

**Q. What is the EPC requirement?**

A: From April 2012 your property will need to be assessed by a qualified and accredited domestic energy assessor (DEA) and an Energy Performance Certificate (EPC) obtained. This is like the certificate required when selling a property or renting out a property.

To obtain the full FIT rate for your installation your property will need to have a rating of **D** or above.

We have a specially chosen independent, local and experienced DEA partner who is able to carry out an EPC assessment for you – with no hassle!

**There is a fee of £65.00 (no VAT) per property for this assessment (payable to the assessor), but this is fully refundable if you place the order for your PV installation with us.**

If your property has a rating lower than a **D**, you will be advised on the most appropriate course of action that may be required to bring your property to a **D** rating and therefore qualify for the full FIT rate applicable to your installation.

**Q: What if my property will never become a D rating, no matter how much I try to improve it?**

A: Properties which do not have an EPC band **D** or better will get will get a reduced generation tariff rate of **7.1p/kWh**.

**Q: What are the FIT rates for later this year?**

A: A new tariff rate will come into force on 1<sup>st</sup> November 2012. The exact rate will be decide by the government depending upon how much solar PV is installed between August 2012 and November 2012.

**Q: How do I get paid?**

A: Your electricity supplier will contact you once every three months to ask for a generation meter reading. They will then pay you based on this reading.

**Q: How much does an average PV system cost?**

A: Each PV system is bespoke designed to give optimal performance and the maximum efficiency considering the individual circumstances of your property. Therefore it is impossible to give a price without conducting an on-site survey.

**Q: Do I need planning permission for a PV system?**

A: You may need planning permission if you live in a Conservation Area or your property is listed. It is the customer's responsibility to check if planning permission is needed with their local authority. We can do this for you, but this will incur an additional fee.

**Q: How many units of electricity will my system generate in a year?**

A: We will provide you with an estimated annual yield calculation in accordance with the Government's **Standard Assessment Procedure for Energy Rating of Dwellings** (commonly known as SAP 2009). Please be aware that this is only an estimate because it is impossible to predict with any certainty the variability in the amount of sunlight from location to location and from year to year.

**Q: Will my PV system still generate when there is a power cut?**

A: No. It will automatically stop generating in the event of a power cut. This is in accordance with industry regulations.

**Q: Will my PV system need any maintenance?**

A: Approximately one month after installation we will carry out a quick check to see if everything is operating correctly. After that, an annual maintenance visit is recommended. The extent of maintenance required will vary from system to system.

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