

Buying Solar Photovoltaic Panels - Useful information

Make a note of your annual electricity use in order that estimates can be made of the potential savings.

Get at least three quotes in writing. When comparing quotes, check the following is included: scaffolding; internal wiring works; electrical connection work; and a generation meter.

Be very wary of companies offering to install systems for free as they will gain almost all the financial benefit.

Ensure your supplier is MCS (Microgeneration certification scheme) approved. To be eligible for the government's Feed-In Tariff both the technology and the installer must be MCS certified. They should also be a member of the Renewable Energy Assurance Limited (Real) scheme.

There is a choice to be made between using the available space for solar photovoltaic to provide electricity or solar thermal to provide hot water. Thermal is a lot more complicated and expensive to install but is more efficient. There is currently no government backed financial incentive for solar thermal although this is being considered.

Different photovoltaic panels have different efficiency with the more efficient panels being a little more expensive and not offered by all suppliers.

The Standard Assessment Procedure (SAP) is a government standard way to estimate the annual output. The SAP equation assumes all panels have the same efficiency assumes a nationwide average solar radiation, and an average shading factor. The parameters are subject to the opinion of the installer. The installer should also be able to give you an alternative estimate based on your property taking into account shading (e.g. from chimneys or roof dividing walls), orientation and local climatic data.

Some companies overestimate the annual output of energy from the PV system, and therefore underestimated the payback time. This is partly because the way MCS members are supposed to calculate the payback time under government regulations is flawed, as it takes no account of where you live in the UK. Discuss this in detail with your installer.

Check if you need planning permission. You don't generally need planning permission for solar systems. The big exceptions are if you've a flat roof, the property is listed, or it's a conservation area.

You might need to get approval from your council's building control team though. Check with your local authority. The situation regarding building control is currently inconsistent across local authorities.

Inform your mortgage provider and home building insurers of the planned installation

Pay by credit card if possible as this will give you additional rights if the company goes bust.

A small array can be installed in one day.

You need to complete a form with your electricity supplier to register for Feed-in Tariff (FiT) payments as soon as possible after installation. The FiT is fixed at the rate given when installing your system and guaranteed for 25 years, it is also tax free and index linked. As a result you will see the returns increase as electricity prices rise.

If any repairs are needed to the roof in years to come it is possible to remove and replace the panels. They are held in place by dips fitting down onto the rails. These can be undipped and the panels lifted off. The cables on the backs of the panels then have a safety connector which again can be

undone. It is recommended that the installers are contacted to remove the panels and replace them at the beginning and end of any works.

If the house is sold at a future date the guarantees will be passed on to the next homeowner. The tariff is assigned to that address and it is the intention that the system adds value to the property in the knowledge that there is a steady income attached to the property. However, it is possible to sign the tariff across to a second party. You could come to an arrangement with the buyer for the income to be signed over to you but they get the benefit of the free electricity. However, should they choose to change supplier, they would have to complete a new FiT application form.

It is useful to collate the information obtained in various quotes to be able to compare them and the following table may be useful.

Fully installed cost including VAT
System Size (kWp)
Active Area of panels (sqm)
Number of and type of modules (e.g. 6 x Sanyo 250W)
Type of Inverter(e.g. Eversolar 1700GB inverter)
Annual Yield based on SAP (kWh)
Annual CO2 offset (kg)
Energy Savings Yr 1 (£)
FiT Revenue Year 1 (£)
25 yr FIT income forecast (£)
Simple Payback (years)
Deposit Required (%)
Annual return on Investment (%)
Installation time from order (weeks)

Questions to ask before inviting solar company to come and do a survey.

Is your company MCS (Microgeneration certification scheme) approved?

Is your company a member of the Renewable Energy Assurance Limited scheme?

Questions to be asked of potential installers after their survey

Apart from complying with planning regulations, will I need building control approval or any other consents?

Is my roof strong enough for the installation?

What direction does my roof face and what is the pitch? How will this affect the output?

What are the measurements of the maximum space available for panels?

Would you recommend that I install solar thermal and/or solar photovoltaic panels?

What is the maximum annual yield you can achieve in this space?

Will your estimated output take account of shading, e.g. from the chimney?

Are the panels you supply the most technologically advanced available?

Can you provide an illustration of how the system will look on the roof?

Are internal wiring works, electrical connection work and a generation meter included?

Will I need any additional electrical works before the installation can be done?

Do I need to do any other work before installation?

Where would the inverter, isolator switch and meter be located?

Where will cables run through the house?

Will your quotation include the cost of erecting and dismantling scaffolding?

If the scaffolding is put up the day before installation is it OK for a roofer to use it to access the roof for any repairs?

Would you need to access my neighbours' roofs to install the panels?

Who is responsible for any substantial damage that may be caused when installing the panels?

Will the installers be qualified electricians?

Will you subcontract any of the work? If so to who?

How many years of experience does your company have in installing solar systems?

Has your company got public liability insurance?

What guarantees will you provide?

Do you accept payment by credit card?

How long would installation take?

When would you be able to install the system?

Could the weather affect whether the panels can be installed on a particular day?

Can I have contact details of at least two previous customers for whom you have installed systems?

Questions to ask of other customers of your potential installer?

- When were your panels installed?
- Why did you choose this company?
- Were you happy with the work they carried out?
- Have you had any problems with your system?
- Is there anything else you think I should be aware of?