

Solar PV Grant Application

Small Scale Installations (Stream 1 Applicants) Grid-connected FACTSHEET

WHAT IS THE SOLAR PV GRANT PROGRAMME?

This £31 million programme is the first phase of the Department of Trade and Industry's Major Photovoltaic (PV) Demonstration Programme. Substantial grants are available towards the installation of solar PV equipment to generate electricity.

The programme is divided into 2 application streams based on the size of the solar PV system being installed. The size of solar PV installations is expressed by their kilowatt peak (kWp) potential, which is an indication of how much electricity the installation could generate in peak conditions.

From June 2003, the programme will offer grants to both grid-connected and stand alone (off-grid) PV systems.

This fact sheet covers stream 1 grid-connected small scale applications – installations with a potential of 0.5 to 5 kWp that are to be connected to the national electricity grid. These are most appropriate for individual properties, for example houses, small commercial properties or schools.

There are separate fact sheets available for the stream 1 stand alone PV applications and for stream 2 medium to large scale grid-connected and stand alone applications.

Stream 1 applications are received and processed on a continuous basis i.e. a rolling process.

Who can apply?

- Individual homeowners
- Small to medium sized enterprises
- Public sector organisations such as state funded schools, local authorities
- Social housing groups
- Voluntary / charitable organisations / community groups

Applications can be received from across the UK except the Channel Islands and the Isle of Man.

Applications will be assessed on receipt and approval can be given fairly automatically, as long as the application meets certain criteria. Grants are paid after proof is submitted of the installation being complete.

What funding is available?

Stream 1 applications for funding will be capped from June 2003. The cap will be applied to the size of the system being installed. This ensures that larger PV systems (up to 5kWp) will receive the same proportion of funding as the smaller PV systems (min 0.5kWp). There will be a different cap level for standard 'bolt-on' PV systems which are generally cheaper than the integrated PV systems which have a higher grant cap level.

- Bolt-on systems will be eligible for a capped grant of **the lesser of £2,500/kWp or 50%**.
- Integrated systems will be eligible for a capped grant of **the lesser of £3,500/kWp or 50%**.

Grant cap levels will be monitored closely and reviewed every 3 months to ensure that grant levels match the continuous fall in PV prices.

Example 1

For a 1.2 kWp bolt-on system that costs £5,500 calculations would be as follows.

- $1.2 \times £2,500 = £3,000$
- $£5,500 \times 50\% = £2,750$

So the applicable grant would be £2,750 or 50% as this is the lesser amount.

Example 2

For a 2.5kWp integrated system that costs £21,250 the calculations would be as follows.

- $2.5 \times £3,500 = £8,750$
- $£21,250 \times 50\% = £10,625$

So the applicable grant would be £8,750 or the capped figure as this is the lesser amount.

What is included in the total installation cost?

PV grants help to cover the costs of the equipment and work directly related to the PV system, including the modules, inverter(s), installation, grid connection and warranty, but not associated building works. VAT will be paid as part of the grant if you are not VAT registered. If you are VAT registered, the grant will only be paid on total installation cost net of VAT (i.e. excluding recoverable VAT).

Does the programme have approved products and installers?

Yes, the programme has lists of accredited installers and products, which must be used for any application funded under the programme, to help ensure that your proposed system is installed to high standards, delivers a high performance and meets recognised/certified requirements. These lists are available from the website at www.solarpvgrants.co.uk or by calling the enquiry line on 0800 298 3978.

How do I apply for funding?

Applying for a grant is simple. You can start the process online – www.solarpvgrants.co.uk – by downloading the application form or call our enquiry line on 0800 298 3978 for a hard copy of the application form.

The application form contains some straightforward eligibility questions regarding your contact details and status, and some detailed questions regarding your proposed system. The relevant accredited installer can help you to complete the form. All applicants are advised to get at least 2 quotes from accredited installers when planning to install a PV system.

You then need to send your completed application form to the freepost address shown on the form.

How soon will I hear if my application has been successful?

Your application will be assessed to make sure all the information supplied meets the grant requirements. If there's a problem it will be returned to you with an explanation why and an invitation to supply the additional information required.

- Once your application meets all the criteria and is approved, we will send you a grant offer letter with a confirmation of the grant amount that has been set aside and a reference number, within 5 working days of receipt of your application.
- It is a condition of the grant offer that you install your PV system within 6 months.
- For grid-connected installations, when the work has been completed you need to return a copy of your grant offer letter, a copy of the accredited installer's final invoice, warranty reference number, copies of commissioning forms and your electricity grid connection certificate.
- Your grant will then be paid.
- A proportion of installations will receive a site visit to inspect your system to ensure continued high quality of installations funded by the programme.

Frequently Asked Questions

What are Photovoltaics?

Photovoltaic means electricity from light. Photovoltaic systems, commonly known as solar PV systems, use daylight to power ordinary electrical equipment, for example, household appliances, computers and lighting. The solar photovoltaic (PV) process uses cells to convert the sun's energy directly into electricity.

A PV cell consists of two or more thin layers of semi-conducting material, most commonly silicon. When the silicon is exposed to light, electrical charges are generated and this can be conducted away by metal contacts as direct current (DC). The electrical output from a single cell is small, so multiple cells are connected together and encapsulated (usually behind glass) to form a module (often referred to as a "panel"). The PV module is the principle building block of a PV system and any number of modules can be connected together to form an array, to give the desired electrical output.

Does solar PV provide hot water or heating?

Solar PV systems provide electricity, which can then be used for a variety of purposes including of course, powering electric boilers or water heaters. Solar PV technology does not however directly generate hot water – this is solar thermal technology, which is not funded under this programme.

Why install a PV system?

Solar PV is a non-polluting energy source, increasingly recognised as a major renewable technology for the future. Installing your own solar photovoltaic (PV) system means that you can generate your own electricity from the free and inexhaustible energy from the sun, and reduce your electricity bills. A photovoltaic system never needs refuelling, has no moving parts, emits no pollution, is silent, and requires minimal maintenance.

Can a PV system be installed on my building?

Photovoltaic modules can be placed on almost any building surface which receives daylight for most of the day. Roofs are the usual location for PV systems on houses but photovoltaic modules can also be placed on facades, conservatory or atrium roofs, sun shades, etc.

The surface on which the PV array is mounted should receive as much light as possible as the more light received, the more electricity will be generated. The three issues which affect how much light a surface receives are:

- **Orientation:** Due south is generally the best possible orientation for buildings in the northern hemisphere. Systems should be preferably within 45 degrees of south facing.
- **Tilt:** A tilted array will receive more light than a vertical array. Tilts should be between 10 and 60 degrees of horizontal. NB horizontal modules can collect water and can therefore be prone to water ingress.
- **Shadowing:** Shadowing, for example from tall trees or neighbouring buildings, can reduce system performance considerably.
- In addition, the area needed for a PV array depends on the output electricity desired and the type of module used.

Your accredited installer will be able to advise you on these points.

Will I require planning permission?

Planning permission is not normally required. However, exceptions may apply for systems on listed buildings or in areas of outstanding natural beauty. In all cases it is best to check with your local council planning department. If you do require planning permission, you will need to get this approval before funding can be awarded under the programme.

Is PV expensive? How much will it cost to install?

Over the last 20 years the price of PV modules has fallen dramatically. At the moment, a typical price for a grid-connected PV system is between £4000 and £8000 per kWp, which means that a 2kWp system for a typical domestic property would cost around £8,000 – £18,000 before claiming back a Solar PV grant. There are a number of factors however, that influence the cost of a system:

- if the system is being installed to an existing property or as part of a new build process.
- a larger system may be cheaper per kWp than a smaller system.
- if the roof is a complicated shape or requires complicated scaffolding, costs will be higher.
- there is a range of module types and technologies available, which vary considerably in price.

How much will I need to power my home?

A typical domestic system of 2kW in the UK would produce around half of the annual electricity demand of an average family household. Solar PV systems produce electricity during day light hours only. Any electricity produced and not used through the day can be sold back to the electricity grid. Anyone thinking of installing a renewable generator (like PV) onto a building should ensure the building's energy needs have been reduced to the minimum possible by installing energy efficiency measures first. You should talk to your installer about the right system size for your needs.

Does PV technology need bright sunshine to work properly?

The electrical output of a PV cell is dependent upon the intensity of the light to which it is exposed. So PV cells will tend to generate more electricity on bright days than when skies are overcast. However, photovoltaics do not need to be in direct sunlight to work, so even on overcast days a PV cell will be generating electricity.

Connection to the grid

When connecting an electricity generator to the grid, you will need to get in contact with your local Distributor Network Operator (DNO). In general, the bigger the system being connected to the grid, the more complex the connection requirements and therefore the discussions required with the DNO. However, developers of small-scale distributed generators (i.e. PV systems less than 5kWp) are not required to enter into detailed connection discussions with DNO prior to commissioning their plants, although they must notify the DNO upon commissioning.

Your accredited installer will be able to advise you about your requirements and usually deal with the DNO on your behalf. The List of all the DNOs is available from the programme website.

What will I be paid for the excess electricity generated by my PV system?

Different electricity suppliers will pay different rates for any excess electricity exported back to the grid. You may need to change your electricity supplier to take advantage of the best possible deal for exported electricity that you generate. See the website at www.est.org.uk/solar for lists of available tariffs.

Where can I get further information on PV technology?

Further information is available from the programme website at www.solarpvgrants.co.uk and from the UK Photovoltaic trade association at www.pv-uk.org.uk

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