

Installing Solar PV or Solar Thermal Panels and Permitted Development

A Guide for Property Owners in West Devon

(Outside of the Dartmoor National Park)



**West Devon
Borough
Council**

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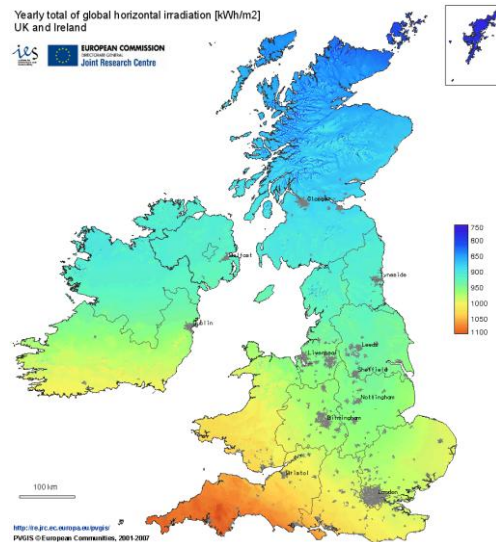
1 Introduction

The Government has set targets to increase the amount of energy generated from renewable sources. Local Authorities, through their role in supporting communities and granting planning permission, are expected to play a role in this. More small scale generation of heat and power is being encouraged. Installation of solar pv panels and solar hot water systems is becoming more commonplace.

This guide is designed to help householders decide if their solar energy installations require planning permission or other consents. The guidance is for households resident in West Devon, but outside of the Dartmoor National Park.

2 Getting Started

The South West has the best solar resource in the United Kingdom. There are two ways in which the sun's energy can be harnessed for use.



Solar thermal hot water systems use roof mounted collectors to capture solar radiation from the sun. They can typically provide about half of domestic hot water requirements over a year. A [full guide](#) to the technology is available from the Energy Saving Trust

Solar photovoltaic (pv) cells convert solar energy into electricity which is used to power domestic appliances and is fed into the grid. Further guidance on the technology is available from the [Energy Saving Trust](#). Solar pv systems are made up of panels of about 1.5 square metres which can be bolted together to suit most sizes and shapes of roofs.

Photovoltaic technology can also be integrated into buildings in the form of roof tiles; coatings and films.

TILT degrees	West				South				East										
	90	80	70	60	50	40	30	20	10	0	10	20	30	40	50	60	70	80	90
0	87	88	90	91	92	92	93	93	93	93	93	92	92	91	90	89	87	86	
10	84	87	90	92	94	95	95	96	96	97	97	96	95	94	93	91	89	87	84
20	82	85	90	93	94	96	97	98	99	99	98	97	96	95	93	91	88	84	81
30	78	83	87	91	93	96	97	98	99	100	98	97	96	95	93	89	85	81	78
40	75	79	84	87	92	94	95	96	96	96	96	95	94	92	90	86	82	77	72
50	70	74	79	83	87	90	91	93	94	94	94	93	91	88	83	80	76	73	70
60	65	69	73	77	80	83	86	87	87	87	88	87	85	82	78	74	71	67	63
70	59	63	66	70	72	75	78	79	79	79	79	79	78	75	72	68	64	61	56
80	50	56	60	64	66	68	69	70	71	72	72	71	70	67	66	60	57	54	50
90	41	49	54	58	59	60	61	61	63	65	65	63	62	59	60	52	50	47	44

Before installing a solar system it is **important to make sure your home is as energy efficient as possible.**

That way you will get the most from your investment and are more likely to comply with the necessary energy efficiency ratings required to draw down financial benefits, such as Feed in Tariff.

3 Roof Orientation

The best roofs for solar installations are those with unobstructed south facing aspects, or where the aspect is within 90 degrees of south. Maximum efficiencies are achieved with a southerly orientation and a tilt of about 30 degrees. The roof should be free of shadows thrown by trees, chimneys and other buildings as this will reduce the amount of sunlight reaching the panels. With some installations shadowing affecting one panel will reduce the efficiency of the whole system. The possibility of vegetation growing and preventing light reaching panels during the lifetime of the system should also be taken into account. Other risk factors, such as the possibility of nearby development may also need to be factored in to a decision on location.

4 Financial Incentives

To stimulate renewable energy generation at home, the Government has introduced the Feed in Tariff (FiT). This pays householders for every kWh of electricity generated, regardless of whether it is used in the home or not, and also gives a payment for electricity exported to the grid. Payments are made for a 20 year period and are index linked. Tariff tables and eligibility dates for applications to the scheme are published on the [ofgem](#) web site. To qualify for the FiT scheme installations must meet a range of requirements; for example, the technology must be installed by an accredited installer and the property must reach a minimum energy efficiency rating to qualify for the highest tariff. More details can be found on the [Energy Saving Trust](#) web site.

The Government is currently consulting on proposals for the Renewable Heat Incentive scheme for domestic properties. This would subsidise householders for installation of certified ground and air source heat pumps, biomass boilers and solar thermal panels. The Government's preferred proposal is to introduce tariff based payments over a seven year period. Payments would be made on the basis of a deemed amount of renewable heat generated, taking into account the circumstances of the property, with the rate paid varying according to the type of renewable technology installed.

5 Do I Need Planning Permission or Other Consents?

In some cases it is possible to install solar panels without the need for planning permission, so long as certain criteria are met. This is termed "permitted development". Permitted Development Rights derive from a general planning permission granted not by the Local Authority, but by Parliamentary legislation. The information below (sourced from the [Planning Portal](#)) offers general advice; as there are many terms and conditions that apply to Permitted Development legislation you are strongly advised to contact the Council to seek confirmation your proposals can proceed without a planning application.

Solar panels mounted on a house or on a building within the grounds of a house

All the following conditions must be observed:

- Panels on a building should be sited, so far as is practicable, to minimise the effect on the external appearance of the building and the amenity of the area.
- When no longer needed for microgeneration panels should be removed as soon as reasonably practicable.

All the following limits must be met:

- Panels should not be installed above the highest part of the roof (excluding the chimney) and should project no more than 200mm from the roof slope or wall surface.
- The panels must not be installed on a building that is within the grounds of a listed building.
- The panels must not be installed on a site designated as a scheduled monument.
- **Wall mounted only** - if your property is in a conservation area, or in a World Heritage Site, panels must not be fitted to a wall which fronts a highway.

Stand alone solar panels within the curtilage of a dwelling but not on a building

All the following conditions must be observed:

- The panels should be sited, so far as is practicable, to minimise the effect on the amenity of the area.
- When no longer needed for microgeneration panels should be removed as soon as reasonably practicable.

All the following limits must be met:

- Only the first stand alone solar installation will be permitted development. Further installations will require planning permission.
- No part of the installation should be higher than four metres
- The installation should be at least 5m from the boundary of the property
- The size of the array should be no more than 9 square metres or 3m wide by 3m deep
- Panels should not be installed within boundary of a listed building or a scheduled monument.
- if your property is in a conservation area, or in a World Heritage Site, no part of the solar installation should be nearer to any highway bounding the house than the part of the house that is nearest to that highway.

Note - permitted development rights for solar panels are available for both single houses and buildings which consist solely of flats.

If you are a leaseholder you may need to get permission from your landlord, freeholder or management company.

You are advised to check with West Devon Borough Council whether all of these limits and conditions will be met.

It is advisable to check the need for planning permission with the [Development Management team](#) at the Council offices, particularly if you live in a listed building, conservation area or World Heritage Site (see key contacts at the end of this document).

If your property is a listed building, you will require **listed building consent** before equipment is installed. This will be in addition to planning permission if all of the criteria above cannot be met. English Heritage has published useful [guidance](#) on small scale solar energy generation and traditional buildings.

In addition to planning and listed building consent, those planning to install roof mounted systems will need to ensure the roof is strong enough to support the equipment. **Building Regulations** may be required to check the adequacy of the roof strength and to advise on any strengthening work required. Building Regulation approval may also be required for other aspects of the work, such as electrical installation.

6 Other Considerations

6.1 The Removal of Permitted Development Rights

You will need to check if there are any conditions attached to a property, perhaps as part of an original planning permission. Planning conditions and other mechanisms are sometimes used to remove permitted development rights from properties. You can check with the Development Management team (contact details below).

6.2 The Environment

West Devon is well known for its high quality environment and much of the District is designated for its landscape or special environmental qualities. The installation of solar equipment is development that could potentially impact on these special qualities, particularly in the Areas of Outstanding Natural Beauty that cover 38% of the District.

Living in an area designated for its environmental value need not prevent investment in domestic scale solar installations. It will however be important to ensure that the special qualities that underpin the designation are not compromised, while allowing for development that supports sustainable living in the area. This will mean making sure you take steps to site your solar installation in a way that does not impact on the character of the area and the design, colour and arrangement of panels is kept as simple and uncluttered as possible. Some basic guidance is given below.

Attention is drawn to the potential for presence of bats within roofspaces. If bat/s are discovered before or during installation of panels, work should stop immediately and advice should be sought from a suitably qualified ecologist or from the Bat Helpline (0845 1300 228). It is a criminal offence to deliberately kill, injure or capture bats, or to deliberately disturb them or to damage or destroy their breeding sites and resting places (roosts). On discovering bats, further works may require an European Protected Species Licence to proceed.

The presence of other wildlife in and around buildings also needs to be considered. Many birds are species of conservation concern and some are protected by National and European legislation. Retrofitting renewable energy devices can result in loss of nest sites for birds and affect roost/maternity sites for bats. The RSPB recommends good practice such as carrying out work outside of the nesting season. Impact on birds should be avoided and specialist advice sought prior to any works. Information on birds and buildings can be obtained from the [the RSPB](#). Further advice is available from [this link](#)

6.3 Design Considerations

The historic and architectural inheritance of the District contributes to its unique character, appearance and value. Where renewable energy proposals require planning permission or listed building consent, the Development Management team will ensure the nature of proposals, their siting and the materials used, are in keeping with the building and area concerned and the impact is acceptable.

Where planning permission is not required it will still be good practice to have regard to the nature of the panels erected and the impact they may have on the local environment and the amenity of neighbours. The following provides some general guidance:

- The general appearance of a building may be altered by the addition of solar panels. Try to avoid patterns of panel installation that give an unbalanced or cluttered appearance to the roof, taking account of the symmetry and appearance of other neighbouring roofs, the arrangement of windows and other roof features. Where the opportunity arises, joint projects with neighbours may offer better design solutions than two individual projects (and may be cheaper for both householders). The [Transition Totnes](#) website provides an example of a collective purchasing project.
- Take account of the nature of nearby buildings and the materials used in their construction. In many traditional settings the use of panels and frames with low reflective surfaces and anti-glare properties can look better. Similarly, panels and frames with darker surfaces will look less intrusive where slate is the predominant roof material. Generally, darker frames are preferred as they will also result in less contrast with panel colour.
- If an efficient layout of panels is difficult to achieve on the dwelling consider locating panels on an outbuilding or as a small free standing array within the curtilage of the dwelling. Other domestic buildings such as garages, conservatories and workshops can provide alternatives.
- Trees, hedges and other natural features are important contributors to 'sense of place' and are also habitat features that support wildlife and provide 'green routes' for animal movement. Removal of vegetation can affect the character of an area, particularly if trees are prominent visual features both from within and outside of the curtilage. Consequently, felling or lopping trees needs careful consideration. If removing or lopping trees to avoid overshadowing is necessary and is likely to have minimal impact on the character of the area, check that they are not subject to a tree preservation order. Trees in conservation areas will need consent for felling or lopping.

6.4 If You Think You Need Planning Permission

If you think you need planning permission for your solar energy proposals, or are unsure, please contact the Development Management service.

Prior to making a planning application it is important to discuss your ideas with a planning officer. This can help explore options, refine designs and scope the information the officer will need with a planning application. It is common for planning applications to be delayed by the need to collect information after submission. By flushing out potential issues early in the process, delays can be avoided and a better end result achieved. [Pre-application advice](#) is available on the West Devon web site.

Council Contacts for Further Information (to be added)

Advice on improving energy efficiency in the home		
Development Management		
Building Control		

Other Sources for Further Information (to be added)