Solar PV Panel Guidance

How to retrofit solar to existing buildings

November 2025

Camden

What is Solar PV?

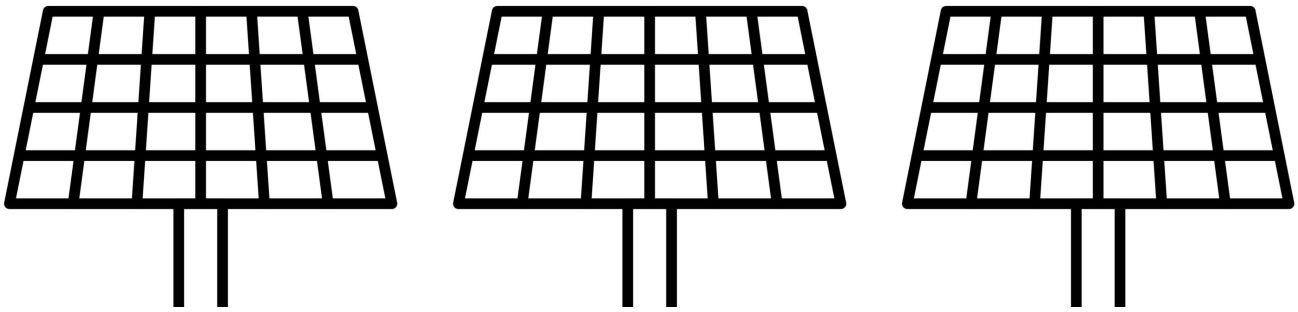
Solar panels use the energy of the sun to generate both hot water or electricity. Installing solar panels can save money on your energy bills and reduce your carbon footprint. This guide provides an overview of how solar panels work, and information on where to install panels without the need for planning permission, where permission is required and sets out how to make a successful planning or Listed Building Consent application.

How do they work?

Solar panels convert sunlight into electricity or heat. They have an immediate impact of supplying renewable energy and reducing energy bills. Solar panels work best when installed on south facing slopes but also work on west and east facing roofs, ideally at an angle of 30 degrees. Shallower angles and orientations away from south will reduce the efficiency of the array.

Solar panels generate peak power during the day when homeowners are not always consuming as much electricity. Solar diverters offer a way to utilise this solar energy for hot water heating by redirecting it to an immersion heater in the hot water cylinder. The roof of your building may require strengthening in places to accommodate panels.

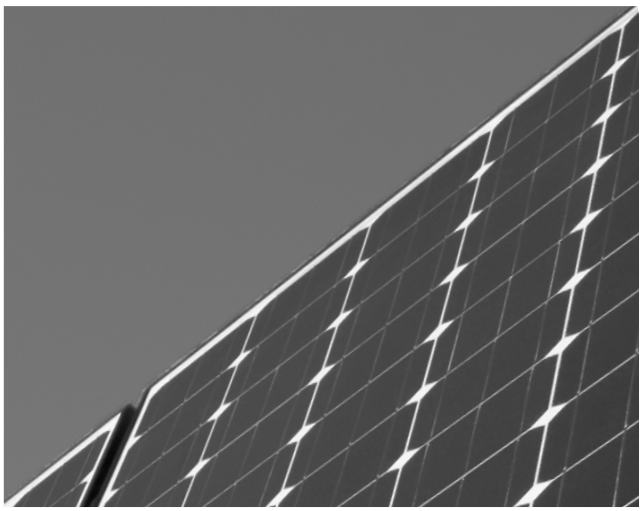
If panels are mounted at more than a 15 degree angle, they are mostly self-cleaning. They need to be inspected for cracks–we suggest doing this every other year. Solar panels should be installed by a MCS certified Istaller.



Planning Permission

Do I need to obtain Planning Permission?

The installation of solar panels is development, but in many instances planning permission has already been granted as 'permitted development' through legislation and may not require an application to the local planning authority. The flowchart and information on permitted development below are designed to help you understand if an application is required.



Do I need planning permission?

Is the property in the grounds of a listed building (a curtilage structure)?
- Y → Planning Permission is REQUIRED
- N → Is it in a conservation area and on a wall that fronts the highway?
  - Y → Planning Permission is REQUIRED
  - N → Will any part of the panel protrude more than 0.6m from a flat roof?
    - Y → Planning Permission is REQUIRED
    - N → Will any part of the panel protrude more than 0.2m from a wall or a pitched roof slope?
      - Y → Planning Permission is REQUIRED
      - N → Will any part of the panel protrude above the highest point of the roof (excluding the chimney)?
        - Y → Planning Permission is REQUIRED
        - N → Planning Permission is NOT REQUIRED

Permitted Development Criteria: for Solar PV on roofs of dwellings.

For houses, block of flats or buildings within the curtilage of a house or block of flats

Solar PV on roofs of dwellings is permitted development both within and outside of conservation areas provided the following criteria are met:

1. Equipment 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. Where the proposed panels would be visible in public views
2. On a pitched roof, panels should not be installed above the highest part of the roof (excluding the chimney) - Fig. 1.
3. On a pitched roof, panels should project no more than 0.2m from the roof slope or wall surface.Camden's transport strategy - Fig. 2
4. On a flat roof the highest part of the solar PV equipment cannot be more than 0.6m higher than the highest part of the roof (excluding chimney) - Fig. 3
5. When no longer needed equipment should be removed as soon as reasonably practicable.

For homes in conservation areas, the following additional requirement must also be met:

1. Solar panels must not be located on a wall fronting a highway
2. Solar PV on flat roofs in conservation areas the developer must apply to the local planning authority for a determination as to whether the prior approval of the local planning authority will be required with respect to the impact of the appearance of the solar PV or solar thermal equipment on that land

If any of the above criteria cannot be met, then planning permission will be required from the local planning authority. Permitted development rights do not apply to listed buildings.

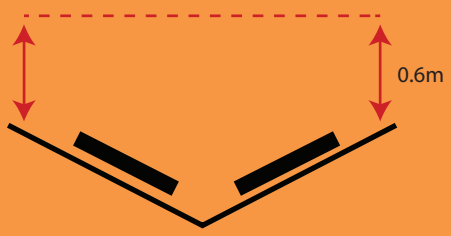


Figure 1

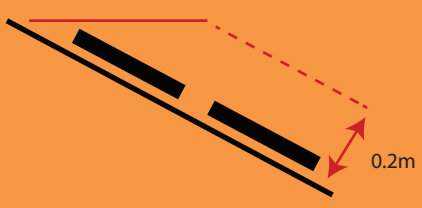


Figure 2

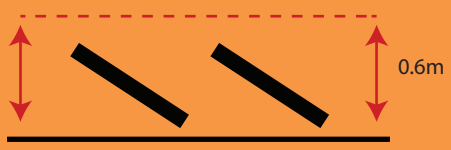
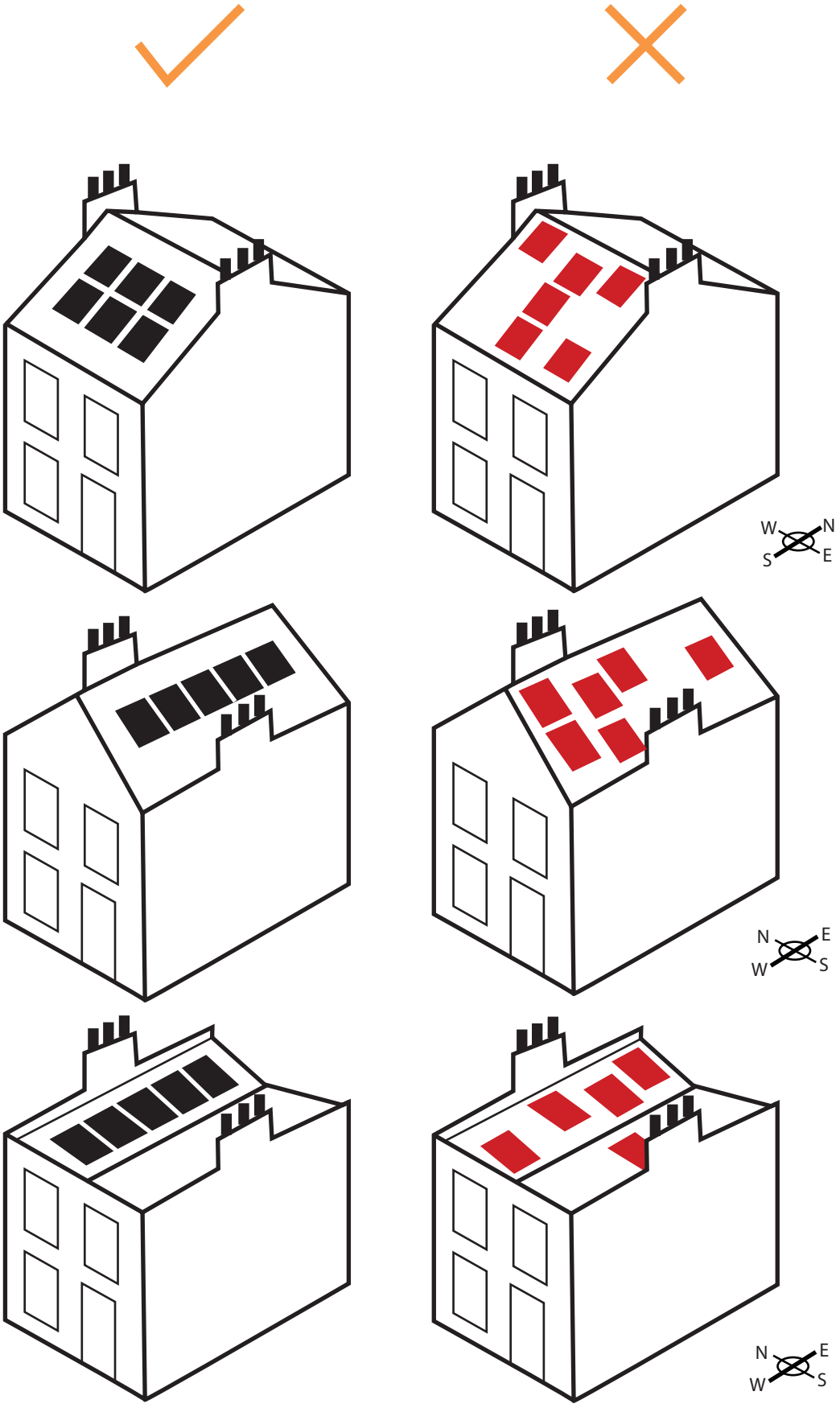


Figure 3


W
N
S
E
N
E
W
S
N
E
W
S

Pemitted Development Criteria: for a stand-alone solar panel on domestic premises, not fixed to a building

You need only apply for planning permission when any of the following apply:

- More than one stand-alone solar installation would be installed
- It would exceed 4 metres in height
- It would be located 5 metres within the boundary of the property
- It would be installed within the curtilage of a listed building; curtilage refers to the garden or grounds
- It would be located in a conservation area, and any part of the solar installation would exceed 2m in height and be closer to a highway than any part of the property, this includes roads, patch and public rights of way*
- The surface area of any stand-alone solar installation will exceed 9 square metres or 3m wide by 3m deep. Even if you don't need planning permission, for stand-alone panels you will also need to ensure panels are sited to minimise effect on the amenity of the area (see advice in Part 4); and removed when no longer needed

Pemitted Development Criteria: for Solar PV non-domestic premises

Solar PV on roofs of dwellings is permitted development on non-domestic buildings both within and outside of conservation areas provided the following criteria are met:

1. Equipment 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. Where the proposed panels would be visible in public views (see section 3.2)
2. On a pitched roof, panels should project no more than 200mm from the roof slope
3. On a flat roof the highest part of the solar PV equipment cannot be more than 1metre higher than the highest part of the roof (excluding chimney).
4. When no longer needed equipment should be removed as soon as reasonably practicable.
5. The PV panels cannot be installed on a listed building or within the curtilage of a listed building
6. The solar PV equipment or solar thermal equipment would be installed on a wall and within 1 metre of a junction of that wall with another wall or with the roof of the building

For buildings within conservation areas:

1. The installation of solar panels on a wall fronting a highway is permitted subject to the condition that before beginning the development the developer must apply to the local planning authority for a determination as to whether the prior approval of the authority will be required as to the design or external appearance of the development,

How to minimise the effect on the external appearance of the building and the amenity of the area

- Select, design, site and group panels to have minimal visual impact:
- Solar panels should be grouped neatly and uniformly
- Visual impact will be most significant when panels positioned on pitched roofs slopes visible from public locations. Wherever possible, place panels on rear roof slopes, behind parapets, on concealed valley roofs or set back on flat roofed areas. Solar panels should be sited to maximise energy generation (sunlight) and minimise their effect on the external appearance of the building.
- Select panels which blend with the existing roof finish as much as possible (this does not mean they need to be integrated within the roof). This includes careful selection and design of the colour, contrast, framing, size of the panels.

Can I get written confirmation that I do not need planning permission?

You can apply for a Certificate of Lawfulness to confirm that you do not need to make a planning application. You are advised to apply and obtain the certificate before doing the works. A Certificate of Lawfulness is useful as it provides clarity to any potential future purchaser that the necessary approvals were obtained for the works. More information about the costs associated to the Certificate of Lawfulness can be found here

Can I get advice before I submit a planning application?

Yes, you can apply for pre-planning application advice. This is a paid for service and you can apply on our website.

Listed Buildings

Installation of PV Panels on Listed Buildings

On listed buildings, solar panels are supported where they are sensitively sited and designed, in a way that will preserve the special architectural and historic interest of the building. This includes the impact on the appearance of the building but also the potential for work to cause damage to or loss of historic fabric for example roof slates or tiles. As works to listed buildings can be more complicated, and both Listed Building Consent and Planning Permission will be required, we strongly recommend you seek pre-application advice before submitting your application. We will work with you to help you find the most suitable locations for solar panels.

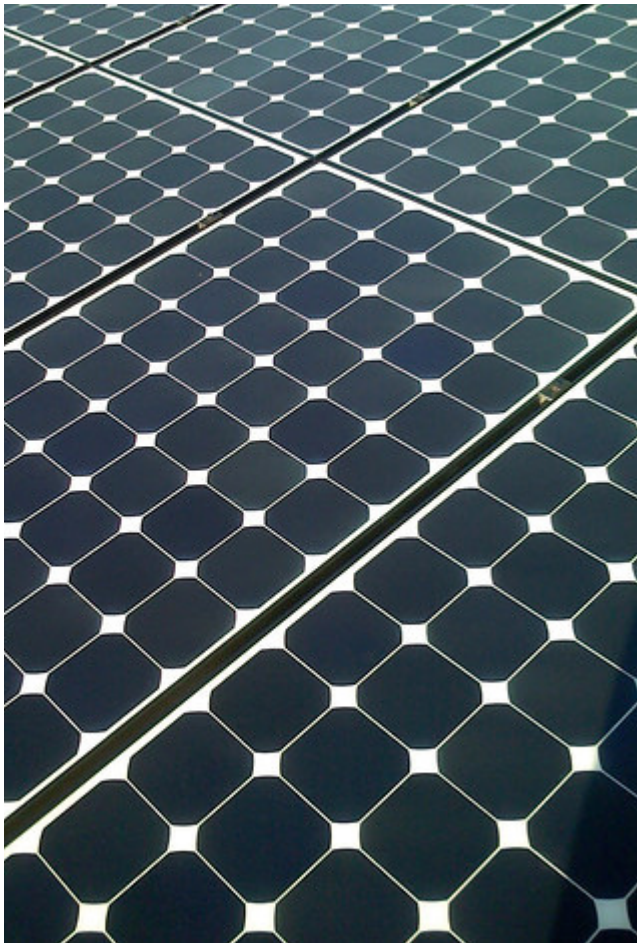
Historic England's Guidance on installing solar voltaics can be found here: Installing Solar Panels

Installation of PV Panels on Listed Buildings

- Their installation can often be designed in a way that avoids harm to the special interest of listed buildings. The installation of panels will generally be acceptable if hidden from views - this includes locations which will normally have very minimal, or no impact include valley roofs and behind parapets on flat or low-pitched roofs
- Installation of panels on principal roof slopes will generally not be acceptable if they are visible and would detract from the buildings special interest. As the front elevations of buildings are generally the most important and the most prominent, they will usually be the most sensitive place to site photovoltaic and solar thermal panels. In some cases, other elevations and their associated roof slopes will be equally, or more, sensitive.
- Installation of panels on roof slopes of less prominence will generally be acceptable, even if they would be visible. Roof slopes to subordinate parts of a complex building (for example, lower wings or rear ranges) may provide the most appropriate place for such installations. Exceptions may include highly graded listed buildings (Grade I and II*) whose significance may be such that the installation of panels on roof slopes of less prominence would not be appropriate.
- Proposals should seek to ensure the panels are as sensitive as possible which can be achieved by using black frames, avoiding silvered or reflective panels and avoiding irregular or stepped panel layouts.

Mounting panels on outbuildings or land associated with a listed building

- Mounting panels on outbuildings or land associated with a listed building, provided they are not of greater prominence, will generally be preferable to the main building.
- However, consideration will still need to be given to the effect of an installation on the setting of the listed building.
- Where an installation can be made away from the listed building, and would cause no, or less, harm to its special interest, there will be less justification to install panels on the building itself.
- Consideration should be given to reducing the visual impact of ground mounted panels in the setting of listed buildings, for instance using hedges to screen them and designing unobtrusive security measures.



Making an Application

How to find out more about energy saving measures and grants

If you are a private resident in Camden, you may be eligible for a grant to help make your property more energy efficient. Different grants are available for homeowners, landlords and private tenants. If you are a private tenant, you will need written permission from your landlord to be eligible. Further details can be found here: Energy efficiency grants for private residents - Camden Council

Application Requirements

PlanX can be a useful tool to find out if you need planning permission or whether the work is Permitted Development.

London Solar Opportunity Map

You can also use the London Solar Opportunity Map developed by the Greater London Authority to help you identify the solar potential of your home.

Enter your address or postcode, to access detailed information about the solar potential of your rooftop, including the estimated energy output, the size and orientation of the roof, and the suitability for solar panel installation. Click the button below to access the London Solar Opportunity Map.

Applications should include the following:

Completed application form	Signed and dated. Make sure you complete the ownership certificate at the end of the form. For most people this is likely to mean completing either Certificate A – where you own all the property affected; or Certificate B where there are other interested parties e.g., where you are a flat owner/occupier in a larger building.
A location and site plan	This is to clearly identify the building affected. Your location plan needs to be a scaled plan of the site at 1:1250 or 1:2500 scale, which outlines in red the boundary of the application site. You can read this national guide on how to prepare a site plan and you can buy a plan online.
Elevations, plans and section drawings	These will be scaled drawings which show what the building looks like from the outside. Only those roof plans and elevations showing the location of panels need to be included. You should also provide plans and sections showing any associated equipment, fixings, wires and pipes, including details of internal works for listed buildings.
FEE	Listed Building Consent has no fee. See the fee schedule on our website - Fees for Householder and full planning permission application. A full application applies if you live in a flat/apartment. For example, if you live in a mansion block.
For applications located within a conservation area or a listed building	
A Design and Access and/ or Heritage Statement	This is to explain your reasoning for the choice of installation, its position, the energy benefits it delivers and how it will impact on the heritage significance of the building. Both a Design and Access and Heritage Statement are required for listed buildings, but this can be one document. There is guidance and a template you can use on our website, see heritage statements and heritage statement template.