Design & Access Statement

2 Hallett Road, Havant, Hampshire, PO9 2PJ

Proposed Solar Panel Installation



Mr & Mrs Penrose PV-10259

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Prepared by Ideal Home Group

Ideal
HOME GROUP PLC

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1.0 Introduction

This Design and Access Statement is submitted in support of a planning application at **2** Hallett Road, Havant, Hampshire, PO9 2PJ.

The client is proposing to install solar PV panels to the main house roof to the elevations facing South & West and also to the flat garage roof mounted on A-Frames facing South. This application is for the six photovoltaic panels mounted on A-Frames located on the garage roof. Planning permission is sought to enable the applicants to reduce their properties carbon emissions and energy bills and to increase their self sufficiency in terms of electricity production.

2.0 Existing evaluation of the site and its characteristics

The house is a semi-detached property within a largely residential area. The house is traditionally constructed and faced with render with a tile roof covering. The garage is of brick construction with a large close boarded fascia.



View from front (south) of property to receive A-Frame mounted Photovoltaic panels

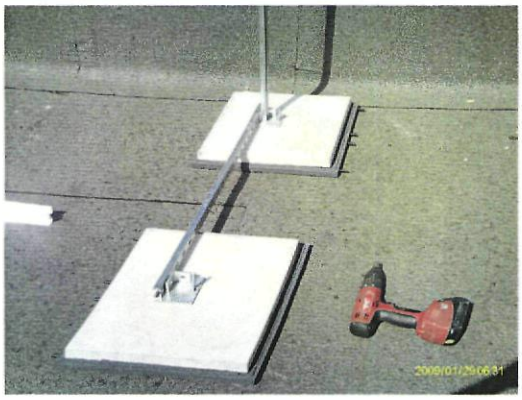


View from rear (south) of property

3.0 The Proposal

The proposed PV panels will be located on the garage flat roof and set at a pitch of 40 degrees. This will give the best yield from the system.

The panels are being retrofitted and will be fixed to stainless steel bars that are then fixed to a concrete slab which in turn sits on a black rubber matt as indicated in the example below:





4.0 Location and design principles

Care has been taken to shield the panels from view and shade. The appropriateness of the location and design of the project has been considered, taking into account environmental, technical and safety issues.

The solar panels are to be located on the adjoining garage flat roof to the West of the main house which is the optimum location and allows the panels to benefit from as much UV daylight as possible. They will be below the ridgeline with minimal projection from the roof so represent an unobtrusive feature.

5.0 Technical specification

Solar panels that generate electricity are commonly known as PhotoVoltaic (PV) panels and are quite different from the "solar collectors" which are used to produce hot water.

The PV panels proposed for use at 13 Church Road are the Kyocera KD 210.

Kyocera PV panels are generally less reflective than alternatives and also have a black painted frame, a powder coated aluminium (RAL 7015), which is less reflective than a metallic frame. To protect against harsh weather conditions, the cells are embedded between a reinforced glass covering and EVA foil and are sealed with a PET foil backing.

6.0 Array dimensions

Kyocera PV panels come in several standard sizes depending upon the rated power output of the panel. The Kyocera PV panels to be used in this installation measure 1500mm x 990mm. There will be a total of 6 panels on the flat roof with the remaining 12 panels located on the main roof of the house The number of panels needed for any individual property is calculated on the basis of the amount of electricity that can be generated when the panels are working at their optimum performance and the roof area available for installing the panels. The use of solar energy is recognised as a long-term solution to improve energy efficiency and reduce carbon emissions.

The number of PV panels and their location are critical factors. Solar panels are fixed so that they capture UV-daylight from early in the morning, when the sun rises, to the end of the day, when the sun sets. The longer the number of daylight hours that the PV panels can absorb UV the better they perform. Too small a number of panels and too far off a south-facing direction and the solar panels will not generate sufficient electricity to make msolar panels viable in either the short term or long term.

The layout of panels is detailed on the drawings included with the planning submission.

7.0 Landscape

The installation will not physically alter any of the surrounding landscape.

8.0 Access

No public right of way or access to the dwelling or other dwellings within the area will be altered or obstructed by the installation of the solar panel. Furthermore, the solar panels will have no impact on vehicle movement or parking, or access for emergency vehicles.

The installation will be completed from within the curtilage of the property and there is space on site for safe temporary storage. There is no requirement for excavations. Scaffolding will be erected to facilitate installation as required.

9.0 Vehicular & Transport Links

Not applicable for this type of installation request.

10.0 Neighbouring Amenity

Not affected by the works

11.0 Sustainability

PV systems produce no greenhouse gases. Government guidance as well as national and local plans are clear about the need for more renewable energy systems to be incorporated into buildings. This proposed installation is in line with the stated objectives of both local and national government in relation to renewable energy generation.

The proposed scheme uses proven and viable technology. A typical domestic system can save approximately 1.2 tonnes of carbon dioxide per year, adding up to almost 30 tonnes over a systems lifetime.

12.0 Conclusion

The visual effects of the Solar Photovoltaic array installation is minimal, and is outweighed by the economic, social environmental benefits of the proposal.

The site for the array has been chosen for practical reasons related to the size, shape and orientation of the existing roof it is to be mounted on. It is largely indistinguishable from most mid and distant public viewpoints and not visible at all from close to the building. This taken together with the demonstration of no harm is considered that this development is appropriate for the location and purpose for which it is proposed.