

Travel Lodge – Stockley Park, The Arena, Uxbridge

9th October 2019

Planning Condition Response

Planning Condition 17 Part 5 – PVs

No development shall commence above ground level until details of all materials (including physical samples where appropriate) are provided of:

- 1) Samples and manufacturers details of all external materials and finishes.*
- 2) Details of the materials, construction and finishes of all external doors, windows and glazed stairwells/features.*
- 3) Details of the construction and materials of the eaves, parapets and cladding junctions.*
- 4) Details of the type, size and location of all external services, flues and AHUs.*
- 5) Details of the type and design of roof top PVs (where applicable).*

No development shall commence above ground level until these details have been approved in writing by the Local Planning Authority. Thereafter, the development shall be constructed in accordance with the approved details and be retained as such thereafter.

The detailed PV analysis undertaken by the specialist determined in the space allocated on the roof:

Performance Estimate

<i>Installed Capacity of system Kwp</i>	<i>7.56</i>
<i>Orientation of PV array</i>	<i>South</i>
<i>Inclination of system - degrees</i>	<i>10</i>
<i>Postcode Region</i>	<i>1</i>
<i>Calculations</i>	
<i>Kwh/Kwp (KK)</i>	<i>896</i>
<i>Shading Factor</i>	<i>1</i>
<i>Estimated annual output</i>	<i>6773.8</i>
<i>Co2 Saving .529Kg</i>	<i>3583</i>



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Project methodology, Solar PV

Installation for the project includes 27 x 280wp Polycrystalline modules, installed capacity 7.56 Kwp.

Estimated output of 6773.8 Kwh/pa.

Panel dimension 1650 x 992 x 35 mm, weight of each panel 19.2Kg. Panel efficiency 17.11%.

The PV panel is guaranteed by the manufacturer for a period of 10-years product warranty for material and workmanship with 25-year linear power warranty.

System complete with:

1. 1 x Solis inverter, AC & DC isolator, 1 x ABB B23 Three Phase
2. Generation meter with AC isolation, and all associated DC cabling to complete works.

The inverter is to be mounted in the second floor linen room on a fire rated class C 18mm MDF un-painted backboard and generation meter.

The inverters have 5 years warranty, but extended warranties can be purchased direct from the manufacturer.

All panels to be mounted on the flat roof using aluminum A-frames held in position with ballast installed on an aluminum foot plate with 6mm layer EDPM for protection to roofing membrane.

Total combined weight 1943Kg equating to 43.97Kg/m2, this weight is depending on the layout of PV panel array.

Once installation is complete, commissioning of the system will be carried out to standard BS 7671:2008, BS EN 61194 and BS EN 61215 and in line with MCS MIS3002 regulations.

The installation will meet all standards and best practice guidance as set out by the ECA guide to installation of PV systems and BS7671 wiring regulations. The installation will comply with safety class II for modules, wiring and inverters, and achieve all necessary standards IEC60664-1/ IEC61140/ EN50178/ IEC61000-4-5.

The installation must comply with relevant fire resistance (BS476), wind uplift (BS6399 and weather proofing standards (BS5534).



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