

V13 PHOTOVOLTAIC SYSTEMS

PART 1 SYSTEM OBJECTIVES

100.010 PERFORMANCE OBJECTIVES:

The development shall be provided with a connection array of PV panels for the generation of onsite electricity.

These panels shall be mounted directly upon a metal framework system at roof level.

The PV's are to be electrically connected to the main electrical distribution network to enable their output to be utilized throughout the building.

Given the output of the PV installation, it is not envisaged that energy exporting shall take place.

100.020 DESIGN PARAMETERS:

For design parameters please refer to Section 1 – A1 Project Design Parameters

PV output to meet the requirements of the BREEAM and energy requirements of the development.

Guide to the Installation of PV Systems - DTI/pub URN 02/788.

Engineering Recommendations G99 – Energy Networks Association

Full design and installation by the specialist PV contractor.

100.026 LOW-ZERO CARBON TECHNOLOGIES – BREEAM 2008 REQUIREMENTS:

- BREEAM requirements
- Comply with BREEAM 2011 Issue ID Ene 04.

100.030 SYSTEM DESCRIPTION:

The Buildings Services Contractor shall employ the services of a PV specialist, to design, supply, install, commission, and set to work, roof mounted PV panel array. The PV panels shall be provided and mounted on a metal support system fixed to the roof level, via a proprietary ballast system, with cabling back to the inverters and isolators, enclosed within, weatherproof external container.

PV Panels shall be high efficiency LG, reference LG365Wp panels or equal and agreed.

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The system shall be connected into the main electrical infrastructure as detailed on the LV schematic. The system shall include a generation meter provide and installed by the PV specialist, for monitoring energy generated and for submission of any government feed in tariff. The specialist PV contractor shall allow time to make the required application, also liaising with the DNO to ensure that the system is both commissioned and set-up for the feed-in tariff to give a fully operational system to the Client.

The specialist PV contractor shall allow for and complete the ENA ER G99, application process and allow for the submission of the documents, drawings and other supporting technical documentation as part of the process.

The specialist PV contractor shall allow for liaising with the Buildings Services Contractor to ensure that they, compete the ENA ER G99, application process and allow for the submission of the documents, drawings and other supporting technical documentation as part of the process.

Upon completion of the works the PV Specialist, shall provide warranties to include (minimum) 5-year PV Solstice Energy workmanship warranty & all manufacturer warranties.

The PV Specialist shall allow time and attendance to return to site, to allow 2No visits to demonstrate the operation of the system to the client at a handover/training session.

100.040 CONTROL REQUIREMENTS:

Connection and inverters to meet the requirement of G99 Type A to run in parallel with the grid.

100.050 SYSTEM SCHEMATICS:

Refer to GDM drawing 1800-GDM-CH-XX-DR-E-3601.

100.060 SYSTEM DRAWINGS:

Refer to GDM's 24XX series drawings.