

Application Ref: 2015/1672/P – Condition 11 – Photovoltaic Cells
21st January 2016 – DB
1) Condition Wording
Condition 11

Prior to the commencement of that part of the development relating to the teaching and sports centre buildings detailed plans showing the location and extent of the photovoltaic cells to be installed on the building, demonstrating a minimum cell area of 400m² and minimum 56.25 kW_{peak} output in accordance with the approved energy statement and addendums shall be submitted to the Local Planning Authority and approved in writing. The measures shall include the installation of a meter to monitor the energy output from the approved renewable energy systems. The cells shall be installed in full accordance with the details approved by the Local Planning Authority and permanently retained and maintained thereafter.

Reason: To ensure the development provides adequate on-site renewable energy facilities in accordance with the requirements of policy CS13 of the London Borough of Camden Local Development Framework Core Strategy and policy DP22 of the London Borough of Camden Local Development Framework Development Policies.

2) Associated Documents

Jestico + Whiles drawings:

- a) GA-133 rev C03 – New Teaching Building Roof Plan
- b) GA-141 rev C03 – New Sports Building Roof Plan

TH White Energy Drawings:

- c) New Teaching Block PV Cell Layout
- d) Sports Hall PV Cell Layout

PV Cell Information:

- e) Hanwha Q Cell Data Sheet
- f) Trisol 10-15° Mounting System Data Sheet
- g) SolarEdge Power Optimizer Data Sheet
- h) SolarEdge Three Phase Inverter Data Sheet

3) Proposal

Working with TH White Energy we are proposing to install Hanawha Q Cell's as shown on the associated layout drawings. Each cell is 1670mm x 1000mm (1.67m²) and has an output of 265W.

| Area | Number of Panels | Area of Panels (m ²) | Peak Output (kW) |
|--------------------|------------------|----------------------------------|------------------|
| New Teaching Block | 213 | 355.71 | 56.445 |
| Sports Hall | 30 | 50.10 | 7.950 |
| Total | 243 | 405.81 | 64.395 |

As can be seen we meet the minimum requirement of 400m² and significantly exceed the minimum 56.25kW_{peak}.

4) Additional Information

The panels will be supported on ballasted frames at an angle of 10° to the horizontal. Maximum use is made of the New Teaching Block roof as the lack of over-shadowing gives the greatest suitable area. Due to roof mounted heat recovery units, air handling units and Science Laboratory fume cupboard extract fans the full 400m² cannot be accommodated. There are some restrictions in the

suitable area on the Sports Hall building due to the increased storey height over the main hall area. However the remaining 50m² of panels can be located effectively.

Access to both roof areas will be provided by internal ladders and parapet/guard rails will allow safe maintenance access.

The actual power generated will be metered and we will be providing a data link to allow the school to display the energy savings within the new building.