



Anesco Solar Farm Materials



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Brookbarn Farm Rev A



- 1.1. **Frame work** – The solar panels will be mounted in a configuration of 3 in portrait on a galvanised steel metal frame work at a tilt angle of 17.5 degrees (as shown in Fig 1). The frame work is driven into the ground and requires no concrete. The max height of this arrangement is 2.5m. Attached to the back of the frame under the solar panels is some electrical infrastructure including the solar inverters, this does not protrude beyond the line of the solar panels (as shown in Fig 2).



Fig 1: Frame work



Fig 2: Rear of the array

- 1.2. **Buildings** – The design for this solar farm includes 3 types of building arrangements. The specific details of the Buildings can be found in drawings: 001269_401 Typical Buildings and 001269_400 PV Array Elevations, Section and Security Fence Detail.

- 1.2.1. LV Substation Arrangement (as shown in Fig 5) converts the low voltage to a higher voltage. This set up include 2 structures:

- 1.2.1.1. Transformer 2.4m (as shown in Fig 3) in height with a foot print of 1.6m x 1.3m. This is manufactured from mainly steel.

- 1.2.1.2. LV switch (Feeder Pillar) 1.9m in height (As shown in Fig 4) with a foot print of 2.6m x 1.1m. This is manufactured from steel and finished in Holly Green (BS4800 14 C 39).



Fig 3: Transformer



Fig 4: LV switch



Fig 5: LV switch with transformer

1.2.2. Typical DNO substation measures 2.8m in height with a foot print of 3.25m x 2.65m (As shown in Fig 6). To operate as a renewable energy source exporting electricity to the national grid, a substation is essential to fulfil the technical and operational requirements of the DNO. The substation is the link between the solar farm and the point of connection and without it the solar farm would not be capable of commercial operation. The building is manufactured from steel and finished in Holly Green (BS4800 14 C 39).



Fig 6: Typical DNO substation

- 1.3. **Fencing** – The design for this solar farm uses a common Deer Fence which is 2.2m in height. This is manufactured from steel with wooden fence posts. The appearance of the fence is shown in Fig 8. The specific details of the fencing can be found in drawing: 001271_400 PV Array Elevations, Section and Security Fence Detail.



Fig 8: Deer Fence Appearance

- 1.4. **DNO Access Track** – A small section of temporary track will be established to meet requirements of the Distribution Network Operator. The track will be constructed with a geotextile membrane laid under a natural Type 1 crushed stone aggregate.