

Black Bush – Solar Farm

Client: Fenland District Council
Contractor: Lark Energy
Supply: 1,750 No. MR88 ground anchors with ratchet tensioners
Date: Installed July-October 2012



Requirements

Lark Energy proposed and was granted approval to build a 3.0MW solar farm on Black Bush Farm, Whittlesey in Cambridgeshire.

The solar farm is made up of 14,000 solar photovoltaic (PV) panels and will generate enough energy to power 900 local homes. From the outset it was clear that the ground conditions were not favourable for uplift resistance via the latticed steel infrastructure holding the photo voltaic panels facing the sun. There were many months of rain both prior to and during the construction phase and it was determined that an alternative method of anchoring the steel infrastructure needed to be devised.



The Solution

Anchor Systems (Europe) Ltd (ASEL) were approached to provide a solution that would not only meet the uplift loading criteria based on average wind conditions for the region, but also the durability requirements for the life of the Solar Farm.

ASEL proposed the use of MR88 anchors on 6mm galvanised wire covered with PVC to 8mm. The MR88

anchor was proposed so that a maximum of 12kN tension resistance could be achieved with a proposed durability of 25-35 years. Following testing it was decided that 6.5m would be the correct embedment level to achieve the desired load. The MR88's were supplied with 6.5m lengths of translucent PVC coated wire and ratchet tensioner to ensure that the in line load was achieved.

Galvanised eyenuts were fitted to the steel frame and ASEL supplied the tensioners which connected to the eyenuts via galvanised bolts. ASEL ground anchors were fitted on every third post to achieve the tension capacity on each run of panels.



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