Project Profile

SOLAR PV FARM CONNECTION

DEVELOPMENT IN BASILDON, ESSEX

Team - Power | **Value -** Multi-million | **Voltage -** 33kV | **Capacity -** 15MVA

Client - Undisclosed | **Duration** - 8 months | **Date** - June 2024

Pre-construction
33kV DNO switchroom and cable route design - JSM employees completed the detailed design which included single line diagrams, protection and interface design – Power System and G99 Studies - Cable route design and cable calculations, ducting, cable install and jointing - earthing design, report, soil resistivity test, earth mat installation and fall of potential test.

Construction
33kV DNO Switchroom - supply and install 33kV Switchroom inc Battery Chargers and Metering Room.

4.2km 33kV cable duct installation inc cable pull and jointing.

Post-construction
Works included cold and hot commissioning, energisation and providing As-Built records.

Principal Designer	Principal Contractor	Compound construction	Compound earthing
DNO switchgear & substation	4.2km cable route	Civils	33kV Cables & Duct installation
LVAC supplies	Jointing & Terminations	Hot and cold commissioning with Energisation	

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Project challenges

Challenge	Solution
Congested route Cable route crossed the busy A127 highway route into London.	Horizontal Directional Drill design and installation under the A127, as agreed with Essex Highways Authority.
Adjacent third party project Adjacent 3rd party project required excavation of the same route, high probability of disruption to local residents.	JSM were aware of both schemes happening at a similar time and facilitated a collaborative route sharing exercise to avoid the same busy road being excavated twice.