



# SOLAR PV FARM CONNECTION

DEVELOPMENT IN BRAINTREE, ESSEX

**Team** - Power | **Value** - Multi-million | **Voltage** - 33kV | **Capacity** - 35MVA  
**Client** - Undisclosed | **Duration** - 5 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**

3.6km 33kV cable route

**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

3.6km cable route

Civils

33kV Cables & Duct installation

LVAC supplies

Jointing & Terminations

Hot and cold commissioning with Energisation



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## Project challenges

### Challenge

#### Adjacent third party project

Adjacent 3rd party project required excavation of the same route, high probability of disruption to local residents.

### Solution

JSM assisted in arranging a collaborative shared trench arrangement with the host DNO to facilitate a joint 132kV and 33kV duct installation.

#### DNO Design approval

UK Power Networks Design Approval.

Worked closely with the client (and their contractors) and UK Power Networks to achieve an acceptable design for approval.

