



SOLAR PV FARM CONNECTION

DEVELOPMENT IN BRAINTREE, ESSEX



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.

- Principle designer
- Principle 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

PROJECT CHALLENGES

CHALLENGE



Adjacent third party project

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

DNO Design approval

UK Power Networks Design Approval.

SOLUTION



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

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

