

PROJECT OLYMPUS: DELIVERING A HIGH VOLTAGE CONNECTION TO A NEW DATA CENTRE IN EAST LONDON

FINDING A CABLE SOLUTION TO DELIVER HV POWER THROUGH CENTRAL LONDON'S CONGESTED STREETS

Freedom was contracted to design and manufacture a 132kV HV cable to connect the Project Olympus 300MVA 132kV/33kV substation with the grid supply point (GSP) at Islington. The challenge was to find an engineering solution capable of carrying the high voltage load within the constraints of a highly urbanised area of central London.

We completed a technical feasibility review. The outcome identified a standard design would have required multiple aluminium cables installed in a wide trench along the entire 13km cable route. Our value engineered design specified a non-standard 1600mm² copper cable. Our cost benefit analysis showed additional costs for copper compared to aluminium offset the single circuit in a narrower trench.

Freedom sought a derogation agreement from UKPN for our non-standard 1600mm² copper cable. We also applied the standard practice of trackers on the cable drums and onsite security to mitigate copper cable theft.

We appointed Demirer Kablo in Turkey as the approved supplier to manufacture the cables and audited the factory for compliance before manufacture began. We witnessed the first factory acceptance test (FAT) with an independent assurance auditor and UKPN; we returned to attend subsequent FATs with the external auditor.

Freedom managed our specialist supply chain partners to batch deliver the HV copper cable drums from Turkey to the Project Olympus London site, organising transport, marine warranty surveys and customs clearance.



Project Olympus is a site in East London acquired by the client to be developed into a new data centre.

Freedom managed the consultation with UK Power Networks (UKPN) and secured a live connection of 300MVA to the grid for the client. This is the single biggest connection on UKPN's network to date.



PROJECT
Design & manufacture of the 132kV HV cable

CLIENT
A data centre operator

SERVICES
Design, procurement, manufacture and delivery

SUPPLY CHAIN PARTNER
Demirer Kablo, Turkey

LOCATION
East London