Cable installation using power rollers

EDF Energy Networks

London

Term: 1 year

Value: £1.4m

The 10-month contract was the first that Morrison Utility Services had secured in the EDF Energy London area. The Open Book Target Cost project was awarded on the strength of the innovative and pioneering approach that Morrison brought to deliver the complex project. This project was a finalist in the Small Project of the Year category at the Quality in Construction Awards.

The contract comprised the installation of 1 km of 132kV dual circuit cable from the incoming overhead line feeder to Bow Substation and an outgoing supply of 2.5km of 11kV four-circuit cable. The reinforcement project was designed to provide a robust power supply to the CTRL boring machines at Stratford.

The 12-man construction team used powered push–pull rollers to install the 132kV dual circuit cable along the 1km ducted route. This innovative approach ensured that a single length of manufactured joint-free cable could be installed in a single operation.

This installation method saved in excess of £30,000 and avoided the need for costly and highly disruptive joint bays in a congested highway (both traffic and utility apparatus). Only by adopting this approach was it possible to install the cable along the desired route.

At certain sections, a 12-way duct route was laid in a single excavation to allow for existing services. Where there was insufficient room in the highway, Morrison found alternative routes.

Key Benefits

- Cable system integrity and lifespan maintained
- Whole project cost savings of £230,000 due to joint minimisation and single trenching
- Least impact solution adopted
- Zero health and safety incidents
- Zero service strikes
- Open book accounting – a new approach for the client
- Partnership approach to manage changes