

Core Valley Lines – Commissioning Programme



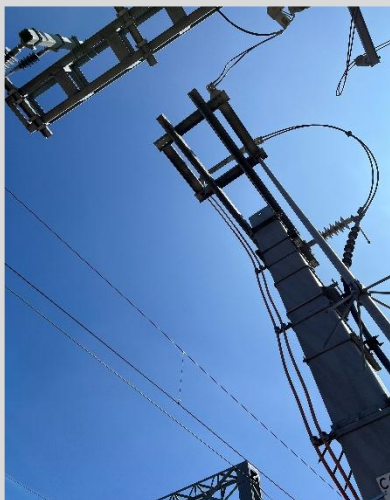
Case Study: Core Valley Lines Energisation and Commissioning via new 25 kV substations

Client: Transport for Wales (Via Balfour Beatty/ Amey Infrastructure Wales)

Project Partner: WJ Project Services

Location: Ninian Park

Scope: Substations and OLE infrastructure commissioning



Project Overview

WJ Project Services was commissioned by Balfour Beatty to support commissioning works on the Core Valley Lines programme. The project reinforced electrification infrastructure to enable enhanced train services through the installation of new 25kV traction supply substations incorporating Accelerated Distance Protection (ADP).

Approach

The team produced Test Dossiers / Procedures for the SAT of each substation on CVL route. Test Plan were developed for MOS switches, PSP Transformers, and Section Proving & Short Circuit Testing, to ensure that they comply with BS / IEC / Network Rail standards. All procedures and results were fully documented for client reference / approval.

Commissioning & Training

All testing results for the equipment were evaluated against the pass / fail criteria. Relays were commissioned in line with client settings, and signalling to SCADA was verified. Section Proving was considered successful upon proving the electrical continuity, separation from all other OCS infrastructure and 25 kV integrity. Short Circuit Testing data was compared to 6 kA short circuit modelling data and compliance with BS / TfW standards.

Equipment

Siemens 8DA11 switchgear substation, and OLE infrastructure.

Outcome

The project delivered fully commissioned substations and OLE infrastructure, ensuring reliable long-term operation.