

# West Weybridge 33Kv Switchgear Commissioning



**Case Study:** SAT Testing and Protection Scheme Verification at West Weybridge, London

**Client:** UK Power Networks

**Project Partner:** WJ Project Services

**Location:** West Weybridge, London

**Scope:** Site acceptance testing (SAT), primary and secondary injection testing, functional verification of protection devices, and detailed reporting



## Project Overview

WJ Project Services was commissioned by UK Power Networks to support the commissioning of the West Weybridge substation. The project focused on verifying that all equipment, including protection relays, busbar systems, and switchgear, was correctly installed, fully operational, and compliant with client specifications.

## Approach

The team executed SAT procedures across all substation components. Tests included secondary injection and functional testing of protection devices, VT and CT analysis, primary injection testing, high-voltage pressure testing, contact resistance checks, and busbar protection validation. Detailed records and documentation were produced to provide clear evidence of performance and compliance.

## Commissioning & Training

Following successful testing, WJ Project Services provided a full set of reports outlining raw data, findings, and recommendations. Any defects were addressed with the client to ensure safe commissioning. On-site demonstrations were provided, enabling client personnel to confidently operate and monitor protection devices and switchgear systems.

## Equipment

ABB ZX2 metal-partitioned, gas-insulated switchgear with arc-proof cubicles and vacuum circuit breakers was used

## Outcome

The project delivered fully tested and verified substation equipment, comprehensive documentation, and trained personnel, ensuring all systems met operational and safety requirements and allowing the substation to be put into service efficiently.

