

CRITICAL TRANSFORMER REPLACEMENT PROJECT

CITY OF LONDON



SUCCESSFULLY REPLACING OLD WITH NEW – SAFELY, EFFICIENTLY AND TO THE HIGHEST STANDARDS

PROJECT OVERVIEW



PTL successfully completed the replacement of a critical cast resin transformer and associated housing within a live operational commercial building in the City of London.

The project ensured continued reliability of the building's LV distribution infrastructure whilst maintaining operational continuity throughout the works.

The project environment presented significant logistical, operational and safety challenges due to restricted access, occupied building conditions and complex lifting requirements.

SCOPE OF WORKS

- ✓ Removal of existing cast resin transformer and housing
- ✓ Installation of new transformer within existing footprint
- ✓ Reconnection to existing HV RMU arrangement
- ✓ Modification and reconnection to existing LV busbar works
- ✓ Builder's works and enclosure replacement
- ✓ Testing, commissioning and energisation
- ✓ Full project management and stakeholder coordination

KEY PROJECT CHALLENGES



CRITICAL OPERATIONAL BUILDING

The building remained fully operational throughout the project. PTL worked closely with building management, tenants and stakeholders to deliver the works within the agreed outage windows.



EXISTING INFRASTRUCTURE CONSTRAINTS

The replacement transformer was installed within the existing substation environment, requiring retention of the existing HV RMU and modification of the existing LV busbar infrastructure.



COMPLEX LIFTING OPERATIONS

Restricted access and confined working areas required specialist lifting plans and careful sequencing to safely move and install heavy equipment within a live operational environment.

PROJECT OUTCOME



Successfully completed within the planned outage period with:

- ✓ No safety incidents
- ✓ No unplanned operational disruption
- ✓ Successful reinstatement of all building supplies

PROJECT IMAGE GALLERY



EXISTING TRANSFORMER ARRANGEMENT



EXISTING LV BUSBAR WORKS



TRANSFORMER REMOVAL



HV RMU INTEGRATION



NEW HOUSING INSTALLATION



COMPLETED INSTALLATION

RELEVANT EXPERIENCE TO ONE STRAND PROJECT

This project demonstrates PTL's experience in delivering works highly comparable to the proposed One Strand project, specifically:

- ✓ Transformer replacement within occupied critical buildings
- ✓ Retention and integration with existing HV RMU infrastructure
- ✓ Adaptation to existing LV busbar systems
- ✓ Installation within restricted operational environments
- ✓ Complex lifting and logistics planning
- ✓ Detailed outage coordination
- ✓ Phased commissioning and reinstatement
- ✓ Critical infrastructure lifecycle replacement works

PTL CAPABILITY HIGHLIGHTS



CRITICAL
INFRASTRUCTURE
REPLACEMENT



LIVE OPERATIONAL
BUILDING
ENVIRONMENTS



HV/LV INTEGRATION
AND MODIFICATION
WORKS



EXISTING BUSBAR
ADAPTATION AND
RECONNECTION



RESTRICTED ACCESS
LIFTING
OPERATIONS



DETAILED OUTAGE
AND STAKEHOLDER
COORDINATION



TESTING, COMMISSIONING
AND ENERGISATION



END-TO-END
TURNKEY PROJECT
DELIVERY



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