**Commercial Specification**

PRIVATE & CONFIDENTIAL

COMMERCIAL IN CONFIDENCE

TfL Restricted

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HV Power

HV Cables Services

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Transport for London

London Underground

Systems & Infrastructure

HV Power

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# DOCUMENT CONTROL

## Document History

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| **Version** | **Date** | **Changes since previous issue** |
| V0.1 | 10/06/2024 | First Issue |
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## Final Version Approval

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# ORGANISATIONAL OVERVIEW

## Transport for London (TfL)

TfL was created in 2000 as the integrated body responsible for London’s transport system. TfL is a functional body of the Greater London Authority. Its primary role is to implement the Mayor of London’s Transport Strategy and manage transport services to, from and within London.

TfL manages London’s buses, the Tube network incl. the Elizabeth Line, Docklands Light Railway, Overground and Trams. TfL also runs Santander Cycles, London River Services, Victoria Coach Station, the Emirates Air Line and London Transport Museum. As well as controlling a 580km network of main roads and the city’s 6,000 traffic lights, TfL also regulates London’s taxis and private hire vehicles and the Congestion Charge scheme.

Further background on what TfL does can be found on the TfL website here:

### <https://tfl.gov.uk/corporate/about-tfl/what-we-do>

## Business Unit

London Underground

Systems & Infrastructure

HV Power

# INTRODUCTION

## Background

London Underground operates and maintains a High Voltage power distribution network, which includes multiple bulk supply intake points where HV power is distributed to a network of substations and distribution points via 11 & 22kV cables. These cables are laid within LUL rail infrastructure, public highways or Network Rail routes.

The network comprises of cables ranging from 80-year-old Paper Insulated Lead cables to polymeric cables, with sizes varying from 70 to 630mm², single and 3-core. Additionally, the HV Cables department manages the control cable estate, which includes both copper Pilot and Fibre Optic cables.

To effectively handle fault repairs and maintenance of both HV and Pilot networks, the HV Cables department occasionally requires the expertise of a local contractor.

## Objectives

The aim of this specification is to establish a commercial partnership with a specialised contractor who has the necessary knowledge and expertise to support HV Power in both planned and reactive maintenance activities for their infrastructure. Additionally, the contractor will also be required to support and assist in project work that can be managed in-house to benefit the business.

# SCOPE

## General Requirement

Provide resources and materials to support HV Cables in meeting its planned and reactive maintenance and project commitments.

Planned and Reactive Maintenance requirements include:

## Supply 11 & 22kV jointing teams to:

### Perform jointing, terminating, installation and maintenance of all classes and types of cable up to and including 22kV.

### Assist with HV cable fault location.

### Assist with cable and cable joint termination testing.

### Conduct mechanical breakdown and inspection of faulted cables, cable joints and terminations.

### Assess cable condition prior to jointing (e.g. moisture content/insulation condition.

## Provide staff to oversee external contractors or TfL staff working adjacent to HV assets, ensuring safe practices and asset protection.

## Supply cable hands for installing cable closures across LUL and roadside infrastructure.

## Supply emergency highway frame and cover repair to TfL standards.

## Provide all street works permits, materials, guarding, lighting, signage traffic management and welfare arrangements.

## Prepare Method Statements, Risk Assessments, work plans, temporary work designs and minor works certificates.

## Produce red line drawings.

## Supply materials as needed for HV cable repairs and associated assets, including;

### Cable management systems.

### Cable posts.

### Cable hangers.

### Post fixing materials.

### Cable ducting.

### Roadside manholes, covers and furniture

Additional Project specific requirements include:

## Prepare conceptual and outline design documentation.

## Develop project plans and activity schedules.

## Procure cable, joints and cable management systems as per the approved design.

## Install HV cables throughout LUL infrastructure, road tunnels and roadside trenches/excavations.

## Supply cable hands for installing cable closures across LUL rail and roadside infrastructure.

## Provide street works permits, materials, lighting, guarding and signage, traffic management and staff welfare arrangements.

## Prepare Method Statements, Risk Assessments and Quality Inspection Completion Certificates.

## Safety, health and environment requirements

To be able to undertake the above works, the contractor must be able to provide trained and competent staff with the required licences to work on London Undergrounds infrastructure.

Competencies required include but are not limited to:

* Disclosure Scotland
* Sentinel
* Substation Entry
* Emergency First Aid
* Confined Spaces
* Site Person in Charge
* Basic Track Awareness
* Personal Track Safety
* Fire watchperson
* Track Trolley Operator

# DELIVERABLES / MILESTONES

Planned/reactive maintenance:

* Method statements
* Programme of works
* Completion reports with photographic evidence
* Incident reporting
* Red line drawing

Projects:

* Conceptual design reports
* Obsolescence identification and industry commercially available replacement
* Survey reports
* Programme of works
* Activity schedule with milestones
* Periodic progress reports
* QICC documentation
* Incident reporting
* Drawings to LUL standards

# SERVICE LEVEL AGREEMENTS (SLAS)/KEY PERFORMANCE INDICATORS (KPIS)

|  |  |  |
| --- | --- | --- |
| **Description** | **Service Level** | **Default Threshold** |
| Response time to emergency call | Normal working day 8 hours from being called  Nights and weekends  16 hours from being called | 100% |
| Provide quotation for works | 48 hours from time of request | 100% |
| Response time from request to provide labour and materials Days or Nights | 24 hours from received request | 100% |
| Response time to provide HV Cable jointers | 72 hours from time of request | 100% |
| Completion / progress Reporting | 5 workings after completion of works | 100% |
| Incident reporting | 2 hours after incident | 100% |
| Incident close out reports | 5 working days after the incident | 100% |

# APPENDICES

Applicable Standards include but are not limited to:

* S1900 A3 – Quality inspection completion certificate
* G0900 A3 – Quality inspection completion certificate
* S1902 A1 – Safe systems of work on or near electrical equipment
* PR0270 – Work on or adjacent to high voltage cables
* S1931 A3 – 11kV & 22kV power cables and accessories
* S1932 A2 – Power cables – copper cable, fibre cable and accessories
* S1971 A1 – Power cable route design, testing and recovery requirements
* PR0275 – Working in confined spaces
* HSG47 – Avoiding danger from underground services
* LU Rule Book 1 to 24

# DEFINITIONS

* HV – High Voltage
* LV – Low Voltage
* DC – Direct Current
* FO – Fibre Optic
* CRMS – Cable Route Management System
* SCADA – Supervisory Control and Data Acquisition
* SAP – Senior Authorised Person
* AP – Authorised Person