OSL develop solutions covering the entire spectrum of engineering.
The purpose of this statement is to provide a quick reference for the capabilities of OSL’s Overhead Line Equipment (OLE) team, Capability and Capacity.

OSL Rail was established in 2010 to provide signalling and multi-disciplinary engineering, technical and project delivery support and consultancy services to clients in the UK and internationally. Since company formation we have rapidly established ourselves as one of the leading independent signalling design and testing companies in the UK market and we are currently working towards achieving similar status outside of the UK. We have worked on a range of major high profile rail industry projects and programmes in a variety of roles.

An exemplary track record has led to OSL becoming the delivery partner of choice with many major rail industry companies on both the client and supply-side.
OSL takes pride in the competence, professionalism and quality of our people. We currently employ more than 100 highly capable individuals, across a full spectrum of disciplines and experience, ranging from Project Directors, Principal Engineers and Testers in Charge with 20+ years of rail experience through to assistant designers, IRSE Module 5 testers and technical support staff.

All of our people are experienced rail professionals with more than 500 years of combined experience of working across all major railway sectors including:

- Main Line;
- High Speed;
- Heavy Rail Metro;
- Light Rail and;
- Tram systems.

Whilst our focus to date has been within the UK, our work force has extensive experience in both the UK and in a wide range of other countries and regions including: the Middle East, North America, Europe, Asia and Australasia.

DEVELOPMENT & SUSTAINABILITY

One of the key elements of OSL’s strategy for creating a sustainable business is to encourage and support the professional development of our people.

This ranges from mentoring and coaching, sponsoring staff through training, accreditation courses and encouraging skill development.

Supported by approved competence management systems, our attrition rates are far below industry averages, allowing us to pass on the benefits of highly experienced and cost effective resources to our clients.

OSL are also an approved IRSE Assessing Agency with a dedicated Training Academy as part of a long-term plan to tackle industry competence shortages.
We currently have an efficient team covering (but not limited to) the following disciplines to support OLE design:

- Electrical;
- Mechanical;
- Civil;
- Structural;
- BIM, 2D & 3D CAD.

The team structure supports:

- CRE’s;
- CEM’s, that can cover across the disciplines to manage the multi-discipline design delivery;
- Principal, Senior and Design Engineers;
- 3D CAD and technician levels.

In addition to the above OLE activities, OSL are and do undertake E&P works associated with supporting OLE, such as; HV substations, cable routing, cable containment, testing and commissioning of power supplies.

**SKILL / EXPERIENCE**

Our core team has strengths in OLE design and the project management of installations and testing. OSL have developed a skills matrix to ensure we are able to undertake all the areas of OLE with depth of named labour to ensure designs are fully developed into construction drawings and not simply just proposals.

**DEVELOPMENT OF RESOURCE**

OSL have developed a structured training programme to acquire and train resources of varying skilled backgrounds directly from other industries as well as developing apprenticeship and graduate training schemes. Our long-term aim is to train up future resource from grass-roots to the benefit of OSL and the Rail industry to provide a stable resource pool.

Our long-term aim is to train up future resource from the grass-roots to provide a stable resource pool to the benefit of OSL and the Rail industry as a whole.
The typical survey work undertaken:
- LV and HV substations;
- Power cabling and routes, UTX/OTX;
- Power / load monitoring;
- Bonding and Building Services.

DESIGN

Our OLE designers can deliver high quality designs on any standards used in railways. We have an adept resource base and in depth knowledge on different overhead equipment systems.

Our experience in OLE/OHL design includes:
- Route Map
- General Supply Diagram
- Wiring and sectioning diagram
- Location plan for TSS, SP and SSP
- Base designs
- Gantry structural design and BoQ
- Staging plans
- Layout Plans
- 3D Modelling
- CSD/SED Drawing
- As built drawings
- Switching Station and Sub Station Designs
  - Foundation Layout
  - Structure AFC drawings
  - Cable Run Layout
  - As built Drawings
- Selection of switch gear
- Bus bar Layout
- Earthing System
- Bonding Design.

The OLE Survey capability is supported by our use of a 360-degree camera system, which we use to provide a view unique to the site. The 360 view assists with design and can be annotated with information and measurements made from the view and captures used for reporting and directly importing into BIM tools. The ease of date interpretation results in upmost efficiency. A major benefit of the package is the health and safety application of using it in locations to reduce staff visits.

INSTALLATION & TESTING

OSL have a team that can install and test the work designed by the OLE and E&P designers either in-house design or with external design. Although we do not undertake the OLE main gantry, stanchions or catenary installation ourselves, we can Project Manage subcontractors for this element of works.

Our Construction team are lead by Construction CREs, and can be supported by strong team leaders and installers.

This enables OSL to access, undertake isolations and work on HV Substations.

We are in process of developing further Payee staff to enable them to undertake Level B courses and provide them (through our partners and clients) sufficient switching experience to maintain their logbooks and competences. Our commissioning team of five (5) support all of our works and are a progressive addition to our signalling T&C team.
Our team has experience of and worked on the following projects:

- West Coast Main Line design and standards for the electrification, M&E and E&P;
- HV AC/DC traction power supply protection upgrade Mersey rail (15 Substation);
- Installation of DC rectifier substations, on the Manchester Airport line, also installation of 6 & 11kV AC RMU/ Switchgear/ HV/LV cable routing and earthing requirements;
- 25kVA OLE Power Design for Ardwick depot, HV Distribution, LV distribution, Protection relay and SCADA interface & design;
- Eurostar Depot Stratford, Olympic Village modification works.
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"OSL HAVE A WEALTH OF INDUSTRY EXPERIENCE GAINED IN THE UNDERTAKING OF WORKS ON MANY UK AND OVERSEAS RAIL INFRASTRUCTURES"