



## CASE STUDY

<b>Scheme</b>	Gospel Oak to Barking Electrification
<b>Location</b>	Gospel Oak to Barking
<b>Client</b>	Amey Inabensa
<b>Completed</b>	June 2017



RJ Power Rail has provided works to support Network Rail's Gospel Oak to West Barking Electrification scheme, a rail programme to upgrade the existing rail freight and passenger train lines from diesel to traction power via the installation of new overhead lines.

The overall objective of the scheme was to reduce pollution and increase frequency and efficiency of passenger and freight services on these lines.

The project formed part of the £2 billion National Electrification Programme to electrify more than two thousand miles of Britain's railways up to 2020.

Amey Inabensa were awarded the overall design and build scheme by Network Rail, however, selected the specialist electrification skills and experience of RJ Power Rail through a competitive tender process to initially undertake the installation, interconnecting cabling and pre-commissioning of the new AC structure mounted out door switchgear (SMOS) and MPTSL.

RJ Power Rail's work scope for the project consisted of the following deliverables:

- Supply and Installation of SMOS Pallet interconnecting Bus Bar Structure
- Installation and Interconnection of 25kV HV Cabling between SMOS Pallets and OLE Structures
- Installation and Interconnection of LV control wiring between SMOS Pallet Marshalling Cubicles and MPTSL
- Undertaking of additional Electrical and Mechanical Installations
- Installation, Interconnection and Testing of DNO supply to MPTSL
- Supply, Installation and Testing of Fibre connections for SCADA comms
- Testing & Pre-commissioning of LV and HV equipment



#### The Challenges and Solutions

RJ Power Rail faced challenges with the timescale of this project due to the works being part of a pre-arranged block programme. This caused some restrictions to access of HV cabling and possession access, meaning RJ Power Rail's team needed to be extremely flexible when approaching milestones in the programme.

As a result of some of the client programme delays RJ Power Rail were presented with a number of resourcing conflicts due to requirements on concurrent projects. These were managed with our client to ensure all project deliverables were accommodated so the overall programme remained unaffected.

The project was further challenged by a number of changes in design, and the location of a live construction depot, which the Gospel Oak to Barking line passed through. This meant additional safety considerations, including relevant inductions being carried out for all staff working at the depot.

RJ Power Rail's project team worked closely with Amey Inabensa to develop a partnership working approach, which helped overcome difficulties with the programme. Close communication and liaison between the project and engineering teams and the HSQE team was crucial in highlighting potential risks and providing a comprehensive solution.

#### The Benefits

RJ Power Rail's collaborative working approach allowed seamless integration into Amey Inabensa's practices.

The initial positive progress at Gospel Oak was rewarded by the award of a second site at South Tottenham and by working with Amey Inabensa closely during the tender and taking cognisance of the lessons learnt from Gospel Oak the team were able to deliver South Tottenham demonstrating efficiencies and achieving tight programme milestones.

As a vastly experienced HV services provider RJ Power Rail was able to call on its expert knowledge to provide consultation on design and delivery elements of the project. Following an unexpected cable outage RJ Power Rail project team organised and presented a HV awareness presentation to the client, advising on standards, guidelines and best practices to avoid cable strike avoidance.

The success of delivering both works at Gospel Oak and South Tottenham provided further opportunity to support Amey Inabensa in providing Pre-commissioning Testing support for a partially completed site at West Barking. This has further allowed RJ Power Rail to demonstrate our flexibility in supporting our clients and provided further opportunity for RJ Power Rail to continue to undertake additional minor work-scopes in support of the overall project scheme



### Why RJ Power Group

RJ Power Rail's capabilities in the HV market combined with its ability to offer additional works and engineering input made it an ideal contractor for this project.

As a tier-2 contractor they offer a consistent, reliable and flexible service with exceptional expertise and proven project delivery.

### Testimonial

"RJ Power Group's project and engineering teams pulled out all stops to ensure this electrification support project was delivered on time and to specification. In addition to this the teams worked collaboratively with us to support changes in design and perform additional works that will benefit the wider scheme.

"I would like to thank all involved for their efforts in this completing this project.

**Chris Walker, H&S Manager, Amey Inabensa**