



THE POWER BEHIND AIRPORTS





Ensuring the Airport industry has a safe and reliable electrical infrastructure

WHAT WE DO

UK Power Networks Services recognises that one of the vitally important considerations of the Airport industry is the operation and maintenance of a safe, reliable and cost effective electrical infrastructure. To achieve this, UK Power Networks Services offers a full spectrum of professional services including consultancy, project management, finance, design, construction, operation and maintenance, asset management and sustainability solutions.

UK Power Networks Services finances, operates and maintains the High and Low Voltage distribution networks at London Heathrow, London Gatwick, London Stansted and London City Airport. Our clients have a critical dependency upon the secure and consistent operability of their electrical power infrastructure, which is delivered through our highly experienced teams.

We are flexible in our approach, and can offer various contractual delivery options ranging from a standard contracting framework to a more bespoke financing model with a longer term commitment (typically involving an ongoing maintenance solution).

UK Power Networks Services are happy to discuss all opportunities and can provide financing solutions to suit your business needs.

HEALTH & SAFETY IN AIRPORTS

UK Power Networks Services deliver a fully integrated approach to developing health and safety by applying proven strategies and innovations from the Safety Management System (SMS). This enables a fostered environment of continuous measurable safety enhancement and collaborative approaches with all stakeholders and clients to deliver a step change in safety performance.

STAY SAFE INITIATIVE

In January 2013, UK Power Networks launched the 'Stay Safe' programme to challenge the psychological aspects of behaviour and attitudes towards safety. In its first year, 2,293 staff attended the 'Stay Safe' launch day, where all were given the opportunity to progress further to become Front Line Coaches (FLCs), Organisational Coaches (OCs), or trainers.

The programme has now been delivered to a total of 5,202 staff, with 861 volunteering to be FLCs. Currently now in its fifth and final phase, the programme is expected to be complete in 2016; to encourage the staff at UK Power Networks Services to make methodical decisions and choices when it comes to the safety of themselves, their colleagues, and their families.

As a result, the 'Stay Safe' programme has contributed greatly to UK Power Networks' lowest incident rate ever for a Distribution Network Operator (DNO) in 2014.

ACCREDITATIONS

(Certificates and Licenses)

- BS-EN-ISO 9001:2008 – Quality Management System
- BS-EN-ISO 14001:2004 – Environmental Management System
- BS-OHSAS 18001:2007 – Health and Safety Management System
- BS11000 – Collaborative Business Relationships
- Achilles UVDB
- Lloyds Register NERS
- Constructionline
- CHAS/CHAS Designer
- Electrical Contractors Association (ECA)

OUR TECHNICAL CAPABILITIES

Project Management:

- Whole lifecycle project management
- High voltage and low voltage electrical infrastructure design (415V – 33kV)
- High voltage and low voltage build/installation
- Street lighting
- Strategic project management to optimise capital works and asset replacement
- High voltage and low voltage diversions
- CDM 2015

Network Management:

- Robust security of supply solutions
- Risk management
- Whole lifecycle asset planning and optimisation
- Strategic network development to create robust efficient networks

Operations and Maintenance of High Voltage and Low Voltage Networks:

- Expert maintenance in line with industry 'best practice'
- Internal and external network studies
- Asset maintenance scheduling
- Inspections and audits of crucial electrical infrastructure
- Fault response
- 24-hour on-call support to match airport operational requirements

Professional Services:

- Turnkey high voltage and low voltage solutions
- Network studies
- Asset condition monitoring
- System performance enhancement
- Ad-hoc maintenance



HEATHROW AIRPORT – TERMINAL 2 PROGRAMME

As part of Heathrow Airport Limited's £2.5 billion vision to redevelop Terminal 2 into 'Europe's Hub of Choice' UK Power Networks Services successfully delivered all of the associated electrical infrastructure works to increase the electrical systems capabilities, range and resilience.

The magnitude of the project required the detail design and installation of, but not limited to:

- 2 new 33/11kV primary substations to supply the new Terminal, its' satellite terminal and the multi-storey car park
- 7 new main terminal building 11kV/415V internal substations, powering all terminal infrastructure including baggage, passport control and retail
- 5 new internal satellite terminal 11kV/415V substations

One of the main challenges for UK Power Networks Services was the proximity of the works to an operational airport and runway. Careful consideration was needed when planning the works to ensure that not only passengers using the airport remained unaffected, but that the works were conducted to the highest safety standards.

Scrupulous planning was essential to completing the works within a 24 month timeframe for Heathrow Airport to achieve their planned opening date. A mere 4 hour window was allocated for equipment delivery and even during these hours, the runway could never fully close as it had to be open 24-hours for emergency landings.

The approach taken with Terminal 2 was to utilise internal resource much more with the emphasis on detailed project management, planning and delivery being taken in-house. This approach delivered value to the client but also provided development opportunities to the UK Power Networks Services team.

Through UK Power Networks Services' position as Operator and Maintainer, we brought holistic awareness of the deliverables of each project item and network capabilities, helping to provide crucial insight into Electrical Distribution, foreseeing and solving potential issues before their effects took hold. The works were delivered by an onsite team who knew and understood the operational airport environment requirements.



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