

Case study: UK Data Centre

Electrical enhancements allow UK Data Centre to achieve Tier III status



Summary

In order to achieve Tier III status on its incoming electrical supplies, the UK Data Centre required the service of expert cabling providers to improve the resilience of their LV power supplies.

This complex project was delivered by the team at GCL who have created a respected reputation for:

- High levels of service
- Technical expertise and competence
- Meeting deadlines and budgets
- Efficiency, innovation and quality
- Diversity of skills



"We were impressed with both the advice we received from GCL and the quality and expertise of the delivery. They successfully negotiated all of the inherent risks of working in a live data centre to achieve the desired outcome."

UK Data Centre

GCL Building Technologies

PO Box 93, Tunbridge Wells,
Kent, TN5 7ZR

sales@gcl.uk.com

London: 020 3906 6070

Kent: 01892 576 950

www.gcl.uk.com



The Requirements

GCL provided electrical enhancements for the main LV distribution panels and wider building infrastructure for a UK Data Centre to achieve **Tier III** status on incoming electrical supplies.

The data centre necessitated GCL to:

- Provide an additional mains utility power feed and transformer
- Facilitate automatic take up by the generators should one or both power sources fail
- Replace component parts that were suffering from lack of maintenance
- Minimise disruption to business operations
- Update existing operational and maintenance manuals

The Challenge

This presented a number of challenges for the design team at GCL including:

- The data centre (despite classification as critical load) did not have two dedicated sources of mains supply
- Delivery issues of the high voltage RMU (Ring Main Unit) and LV transformer that were required due to restricted access on site
- Working with structural engineers to support the 4000 Amp Schneider busbar system through a very constrained route
- The necessity to maintain business continuity
- The inherent risks associated with the complete shutdown of all systems within a data centre

The Solution

During the client consultation, it became clear that a complete audit of the infrastructure was required. Any solution needed to keep the critical equipment energised whilst installing the new transformer and second supply. This required a detailed logistical exercise to resolve how to winch the required equipment into a very restricted location on the site.

GCL used their expert knowledge to implement a mobile electrical generation system, the fixed infrastructure and the IT equipment itself to transfer power to the temporary feed in a deliberate and time-sensitive manner. Through constant communication with the client, IT department, Distribution Network Operator and subcontractors the project was delivered on time and on budget.



Benefits to the Client

The UK Data centre not only achieved the **Tier III** status they required but also benefited from:

- Completely unaffected operations during the shutdown period over Easter weekend
- Uninterrupted out of region operations
- Full compliancy with UK Health and Safety Legislation (Electricity at Work 1989)

To find out more, speak to one of our dedicated team on **020 3906 6070**