

Financial Sector

A Complete Energy & Power Management System installed at a 50MW Multinational Financial Services Data Centre in the South of England

PROJECT BRIEF

This particular client is a 50MW multinational financial services data centre based in the south of England in need of a site wide Energy & Power Monitoring Software Package capable of monitoring their power from the incoming 60KV right down to final cabinet distribution including branch circuit monitoring on every data cabinet supply.

The monitoring package had to be capable of integrating into their own corporate network in order to allow access to the data by the infrastructure team.





THE SOLUTION

Our solution was to provide a single platform monitoring system capable of capturing, handling and manipulating the data on a site wide basis. The installation of e-Power Energy & Power Management Software gave our client access to data from their PDUs, Branch circuit monitoring of every cabinet within each data hall, their HV & LV Switchgear, Generators, UPS' and batteries.

In order to capture specific data within critical areas of the data centre, we installed over 250 power meters throughout the HV & LV systems for reporting and logging to the redundant e-Power servers. In addition to this we also installed power quality analysers in specific areas to capture transients and events throughout the power system. All power monitors are recorded to the SQL database where they can be reviewed and exported to third party file formats.

The e-Power system has been fully integrated to our clients own corporate network via a dedicated network interface controller, ensuring that every member of the infrastructure team has access to the system locally or remotely via a secure corporate environment. Critical alarms are sent to a worldwide alarm handing centre via a custom SNMP interface, these can be set by the client and include door tamper switches, TVSS, TX Core temperatures and breaker monitoring.

A fully animated single line power diagram has been created showing breaker and busbar status. Real time and historical data for every cabinet can be exported to multiple formats. Reports are automatically generated but can also be manually created if needed. These reports can be added, removed and edited by site engineers without the need for specialist training. With the Capacity Planning function each data hall is drawn to scale with all monitored data cabinets shown in their correct location with the ability for the client to remove or add customers as necessary.

SITE SPECIFICS

Within the data centre we monitor all site equipment including:

- **36 Intelligent PDU's with full branch circuit monitoring for each data cabinet supply**
- **Over 3000 data cabinets monitored & recorded including KW, KVA, KVAR, PF, V, I**
- **Over 70 HV Switchgear sections fully monitored**
- **UPS & Battery Monitoring - high level interface to third party equipment**
- **10 x 4000A Switchboards fully monitored**
- **4 x 2.5MVA generators fully monitored including mains control & multiple dual redundant PLC Master control panels**
- **Over 250 Meters installed throughout the site with strategically placed Power Quality Analysers.**

The data for all the equipment is visible on the e-Power Software, providing the user with an animated single line diagram including breaker and busbar status; virtual simulation of field equipment, equipment specific overview, Branch Circuit Monitoring and report generation.

“ The user-friendly interface and native web functionality allows our operations team to interrogate the system and produce reports for upper management locally or remotely without the need for a specialist software engineer visiting site. ”

Executive Director – European Data Centres



TREND



E-TEC
POWER MANAGEMENT

E-TEC Power Management Ltd, 21 Hercules Way,
Farnborough, Hants GU14 6UU
Tel: 0844 477 4794 | ukinfo@e-tecpowerman.com