



Corporate HQ

Installation of a Combined Energy & Power Management System at a critical building in London

PROJECT BRIEF

Our client had in place a Power Monitoring System that was insufficient to provide them with their required level of resilience. They were determined to replace it with a combined Energy Management and Power Management System, to give support to their infrastructure team at one of their critical buildings in London.

The client needed to be able to monitor the complete power consumption of the building as well as the status of existing equipment on site - all to be viewed in one head-end software package either locally or remotely. As part of their drive to reduce carbon they required daily energy reports to be sent to a specific location.





THE SOLUTION

In order to monitor the complete power consumption of the site we had to install over 350 power monitors through a combination of retrofit, replacement and new switchgear. These monitors are connected to a dedicated Ethernet backbone reporting onsite to our e-Power Monitoring System. Additional power quality analysers were installed to capture CBEMA, transients and events.

All these power monitors are recorded to the SQL database and can be reviewed and exported automatically or manually. The e-Power solution also monitored the onsite UPS Systems, Generators, CHP and Fuel Cell to provide detailed live and historical information and alarms.

The system is visible locally at the Building Control Centre Workstation or remotely via the secure corporate VPN allowing energy managers anywhere within the estate to view the project with full functionality and visibility. The e-Power solution sends daily reports to the clients national energy portal to allow profiling of the building energy consumption.

A dual redundant PLC control system with hot/hot availability was also installed with over 300 interlock circuits-providing a completely new interlock system. A high level interface to all of the power meters and the e-Power EMS allows this PMS to intelligently load shed when required. The PMS also controls the diesel generators, gas CHP Fuel Cell.

“ The ability to automatically export half hourly data to our global energy management system allows us to meet our DECC commitments and free vital onsite resource. ”

Environmental Manager

SITE SPECIFICS

Within the building we monitor all site equipment including:

- 5 incoming utility supplies
- LV & HV Switchgear
- UPS Systems

We also control the following:

- Generator Systems
- LV Switchgear
- CHP
- Fuel Cell

The data for the site equipment above is visible within the e-Power Software. It provides the user with an animated single line diagram including the status of breaker and busbar, a virtual simulation of field equipment, an equipment specific overview, Branch Circuit Monitoring and bespoke report generation.



TREND



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POWER MANAGEMENT

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