PowerLogic®

Sales reference

Electrical installation monitoring

Complete building monitoring and control – Royal Edinburgh Infirmary

UNITED KINGDOM

Customer presentation

The Edinburgh Royal Infirmary was classified as a PFI (Privately Funded Initiative) and therefore consisted of a number of companies involved in the design, build and lease of the hospital to the Health Authority. The project comprised the development of a new hospital on a Greenfield site.

Market data

•**Building**

↪ Health sector

Customer need

•To facilitate the monitoring and identification of potential problems.

•Maintaining supply and availability.

•Security of supply

Key words

- Country
- Products
- Needs
- Segments

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Schneider Electric

Building a New Electric World

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Benefits

The system will load-shed the LV loads to allow the generators to come on stream, and as generator capacity is available the system will then automatically re-instate the LV loads in terms of importance, up to a load level that does not exceed the generator capacity. Thus – the system is monitoring load as well as controlling it.

Schneider solution

The solution provided by Schneider Electric is responsible for the distribution of power to all areas of the hospital including Inpatient / Out-patient accommodation, Operating Theatres and Accident & Emergency areas.

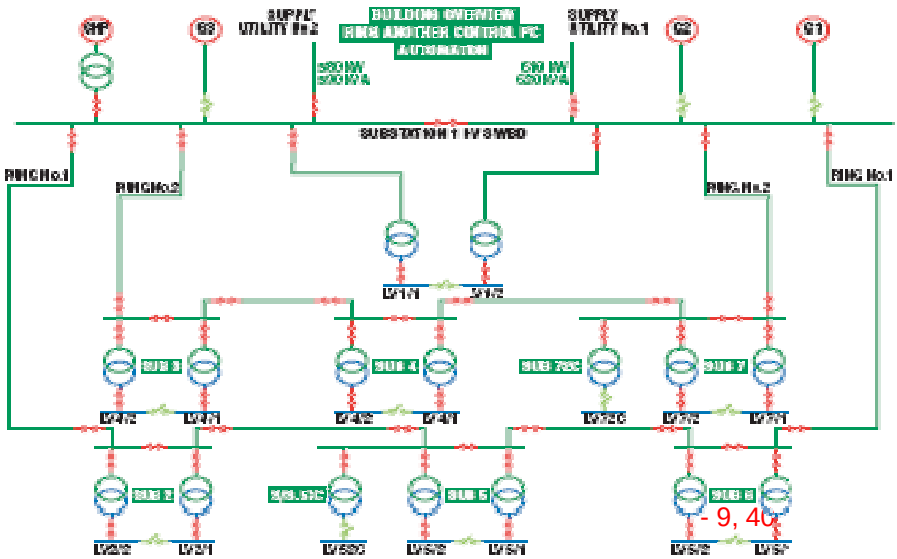
Schneider Electric provided a complete turnkey solution ranging from project management (a project manager was resident on site for the duration of the project), MV/LV Switchgear, Cabling and Testing / Commissioning.

Early discussions with the client clearly established that Schneider Electric's PowerLogic System would be a key driving force in maintaining supply and availability.

Step of project

Schneider Electric's 'Genie' panels and seven double-ended Packaged Substations rated at between 3200 and 4000A were supplied; with all circuit breakers having integral intelligence to enable communication via a central PC.
Schneider Electric's 'Quantum' PLC is the main automation master. This is in constant communication with the Sepam relays on the Genie HV circuit breakers. This detects mains failure and initiates the generator control system to start and manage all HV transformer breakers, low voltage Air Circuit Breakers, Bus Sections and low voltage Moulded Case Circuit Breakers.
There are two main PowerLogic PC's situated in the hospital's energy centre and facilities management department respectively.
The Edinburgh Royal Infirmary Scheme comprises a fibre optic ring around the seven substations. In addition to having a centralised 'PC monitoring station', localised monitoring and analysis of switchgear is also possible, such as the Air Circuit Breakers through to individual Moulded Case Circuit Breakers. Each substation has its own control monitoring system comprising a Micro PLC, PowerLogic PC and UPS. The Micro PLC is used for logical operations and is networked back to the two main PowerLogic servers via a dual redundancy fibre optic ring. Each substation has the ability for manual control in the event of a failed automation sequence.

Architecture



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