EMPOWER

Wycombe Hospital

Case Study

Background: Wycombe Hospital is situated in the centre of the historic town of High Wycombe, and offers a full range of planned surgical services, as well as 24 hour emergency medical care (including minor injuries) and specialist medical care, including stroke and heart conditions. There is also a midwifery-led maternity unit. The hospital also offers specialist cancer and urological services.

The Project: The medical air plant needed to be brought in line with the latest NHS directive 10395, which meant upgrading the plant to conform. Hitherto the plant controls were not providing data for trending faults, and lacked some of the information required - such as dew point data on the dryers. The Estates Managers had recently seen a demonstration of SHJ's **EVOLUTION**, and requested that SHJ provide a quotation and project plan for **EMPOWER** in order to solve their immediate issues.

The Solution: SHJ provided an intelligent control system – **EMPOWER** – which maintains plant at optimum performance levels; automatically changes duty cycles; senses and records hours run, temperature, amperage load, dew point, pressure and service intervals. **EMPOWER** was purchased as a stand-alone system for medical air, since the hospital didn't need connectivity to its estates office at the time. The system was installed after SHJ upgraded the plant itself, and added sensors where necessary. After testing, the system was commissioned and now provides local intelligent control, which enables engineers to trend frequent faults, and to keep automatic records for later review.

EMPOWER is the latest technology to assist APs and Estates Managers in controlling their medical gas plant. The system at Wycombe Hospital was always going to be the first half of the two systems – **EMPOWER** & **EVOLUTION** - where **EMPOWER** provides local control and **EVOLUTION** provides remote monitoring of all the hospital's medical gases. This means that reporting is a whole lot easier, takes up less manual time in collating information, and provides positive feed-back to Estates Managers for future capital expenditure requirements. **EMPOWER** complies with HTM 02-01 and ensures directive 10395 is adhered to. The system includes a touch screen for easy local control.

The on-screen schematics of the plant means that identification of components is simple. Should any part of the **EMPOWER** system fail; all plant automatically reverts back to a manual system of operation.

Conclusions: Because EMPOWER uses the same Secure Private Telemetry© (SPT) as **EVOLUTION**, the hospital is now incorporating EVOLUTION to give the on-call team a total solution. The total time-saving in diagnostics and remedial action means faster turn-around of repairs and maintenance. Engineers are thus freed up for more pressing tasks and on-call engineers make only one trip with the correct replacement parts when required. *A subsequent independent energy consultant's report showed an electrical saving over the standard plant controller of £4,927 per year – providing a payback of 33 months.*

SHJ HOSPITAL PIPELINES

Innovations in Medical Gas Technology