

# Case Study



Hampshire Hospitals   
NHS Foundation Trust

## Basingstoke & North Hampshire Hospital opt for Enercom AMR

### Introduction

The Basingstoke and North Hampshire hospital, situated to the north of Basingstoke, Hampshire, is part of Hampshire Hospitals NHS Foundation Trust which also includes the Royal Hampshire County Hospital, Winchester and Andover War memorial Hospital. The hospital serves a wide area with a number of emergency and planned patient services. It is an acute hospital with some 450 beds, with a number of additional buildings on the site both trust owned and leased. Because of the complexity of the energy distribution around the site, as a result of contraction over the years, it was decided that installing AMR on the site would give a better understanding of where the energy was being used. Initially AMR was installed on the main HV intake and the nine sub stations that make up the 11kv HV ring. Additional meters including some gas, the CHP plant and the main boiler house were also added.

### The Objective for Basingstoke Hospital

The estates team wanted a system that was flexible given that not all the meters were located within the main building and some distance from the main site. The Enercom solution provided meters that could not only access the existing network through hard wiring, but also loggers using modems installed on the remote parts of the site. It was essential that the data could be imported into the existing aM&T software to provide detailed monitoring and targeting. It was critical the system could be easily expanded, that individual floors could be added at a later date.

### Basingstoke Hospital



### The Solution

By using Enercom's Automatic Meter Reading (AMR) System, Basingstoke Hospital is able to collect half-hourly data from designated energy meters, thus enabling the targeted monitoring of energy across the site. The AMR System consists of a series of Multilog data loggers strategically placed throughout the hospital estate collecting pulses from the relevant energy consuming plant and equipment.

### Data Provision for Energy Management

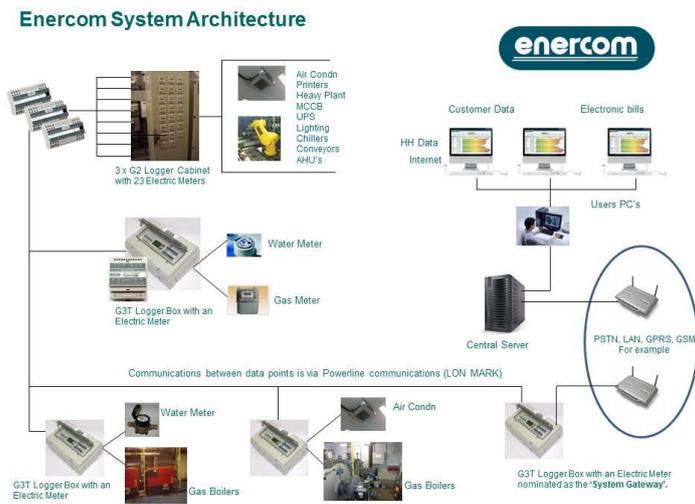
The Multilog units receive meter pulses from energy meters (any type of meter: gas, electric, water, oil, heat etc.), and convert the pulse count into a kWh energy usage figure for each half hour (or other programmed unit and time period) and stores the time-stamped values from 6 months to 7.5 years depending on the logger used.

Multilog controller software running on the host PC initiates regular automatic downloads of the half hourly data and copies it into "easy to use" CSV/ASCII files for interpretation by either Enercom MC Web Software



or another preferred aM&T Software or even into a Building Management System (BMS) for analysis.

The software ensures the data arrives complete, if communication is interrupted during data download the software initiates multiple retrievals until all the data for that period is collected. The system has proven to be robust and reliable in operation. The Multilog system also provides useful raw data such as instant meter readings, date and time-stamped kWh values, energy use profile charts and the means to easily view, analyse and copy data from a Web-Browser application into Microsoft applications such as excel.



### Convenient and Clean Installation

Multilog units are equipped for communication over a variety of media including existing single or multiphase mains cables using an in-built PLT-22 Powerline interface and twisted pair using an in-built LONworks communications chip. This means that installation is clean and convenient; thus the need to drill walls and lift carpets/floorboards for cabling/network is negated. Disruption to power supplies is minimised and any work can be carried out during normal hours.

Where network components or host PC is remotely situated, communications can be extended via internal telephone networks or PSTN using dial-up modem or TCP/IP Ethernet LAN interface to the Multilog "gateway" unit.

This system provides minimum disruption to the client. System expansion is easily accommodated to suit client needs and where continuous plant operation necessitates a phased approach can be implemented as required.

### The Outcome

Although savings have yet to be realised, due to increased capacity and new buildings coming on line, the installation of AMR has given a complete picture of energy use. It has enabled the targeting of areas where further investigate is required to fully understand energy consumption issues and make better use of the energy used. AMR is viewed as one part of an overall energy package.

One unforeseen outcome was being able to extract consumption figures in a couple of locations where the existing meter had failed, and by using the data from the logger, continuity of consumption data was provided.

Basingstoke Hospital is now in the process of installing some Enercom equipment at their hospital in Winchester which was recently acquired as a result of trust mergers.

### Testimonial

The equipment was easily installed requiring minimal disruption and no interruption to services.

The data that was immediately available was easily transformed into graphs using the Enercom software, without the need for a full aM&T package.

**Ian Burrows**  
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