

Case Study



Winchester University opt for enercom AMR



Introduction

The University of Winchester has an excellent reputation for environmental performance and carbon reduction, recently the Estates department have attempted to stay ahead of the sector by improving old buildings and ensuring new construction has the lowest environmental impact possible. The University has two compact campuses in the city of Winchester with a range of residential, sporting and teaching facilities and buildings dating from the 1860's



The objective for Winchester University

The university wanted a system that monitored all utility usage for the Universities gas, electricity and water on a half hourly basis. They wanted a reliable communications system that did not require use of the University's own network and could be accessed from any internet connected PC. The ultimate goal of the system is to check and reduce our utility consumption across the campus and demonstrate energy reduction projects.

The Solution

By using Enercoms Automatic Meter Reading (AMR) System, Winchester University 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 University 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.

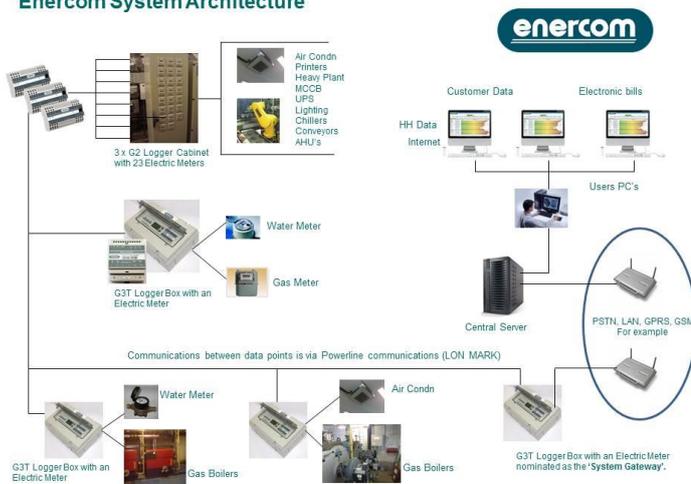
Multilog controller software running on the host PC initiates regular automatic downloads of the half hourly data and copies it into "easy to use" CSV/ASCII files for interpretation by either Enercom MC Web Software or another preferred aM&T Software or even into a Building Management System (BMS) for 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.

Enercom System Architecture



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 minimized 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 suite client needs, and where continuous plant operation necessitates a phased approach can be implemented as required.

The Outcome

The University has achieved the aim of having an AMR system running on all our buildings. The system has been effectively used by the Energy and Environmental Manager to reduce unnecessary energy consumption measuring energy saving fittings and finding water leaks. This has led to substantial cost and carbon savings. The University are now using Enercom to fit metering solutions in all our new buildings.

Testimonial

I have been the main contact for Enercom at Winchester University for three years and four phases of the AMR installation. Their hardware solution has adapted to our needs and when mobile communications in the area changed the hardware was able to retain data until new solutions were found.

I have had no problems with their ability to follow site regulations and work in sensitive areas, they have also adapted to the specific needs of the University. The after sales support is also very helpful and the reason why we continue to have good working relationship.

Adam Boulton,
Estate Department, University of Winchester

Many Thanks to Adam Boulton, Mat Jane and the Marketing Department at Winchester University for the provision of data and materials used in this case study.