

EMU 9

Energy Management Unit for hotels with individual bedroom control. Flexible system that can be retrofitted to control all types of building and heating.

- Manage the whole hotel heating from one system
- Zone control with the ability to individually control bedrooms
- Analyse energy consumption
- Room Booking system – match heating to occupancy
- Wireless battery powered sensors for easy installation
- Other plant (air condition/ventilation) and renewables can also be controlled

How EMU9 Makes Savings

EMU9 controls heating using information from a variety of temperature sensors measuring the external outside temperature, room, hot water tank(s) and heating flow & return temperatures.

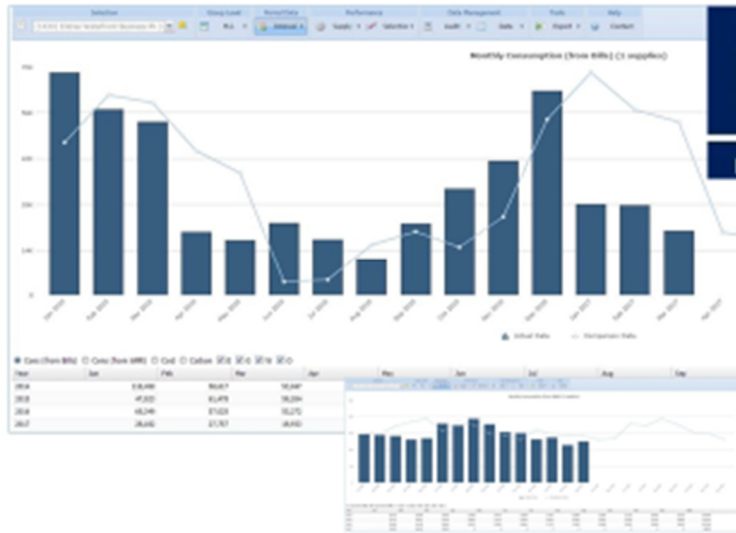
EMU9 achieves the targeted energy savings by

- Superior control of heating that uses a “heat loss algorithm” for each heating zone to switch the heating on as late as possible to still reach the required temperature by the required time.
- Preventing the building from overheating by applying adaptive outside temperature compensation.
- Occupancy sensors reduce/switch off heating when nobody is around in intermittently used areas such as bedrooms and meeting rooms to ensure empty rooms are not heated.
- Multi stage frost protection, smart use of pumps to distribute residual heat.
- Works with eTRV for individual room by room control
- Varying a room temperature set point automatically depending on outside weather conditions.
- Applying heat loss algorithm and variable heating patterns to immersion heaters + automatic anti-legionella function.
- Applying heat loss algorithm and variable heating patterns to air conditioning units.
- Real time energy usage monitoring, billing/costing together with kWh’s and CO₂ statistics.
- Solar PV electricity generation monitoring with graphs, kWh’s and CO₂ saved.
- Solar PV electricity harvesting so exportable energy is stored and not sold back to the energy companies for only 3p per kWh.
- Electric water immersion heater control
- Legionella Boost & Multi stage frost protection
- PC Alerts/Alarms – automatic alerts inform staff of faults for engineering staff to take remedial action.
- Access control can be combined to configure heating automatically in relation to exactly who is in the space. For hotels this could be applied to smart bedroom locks.

The overall effect of the features listed above is cumulative, which means that they can easily add up to savings of 25%-30%.

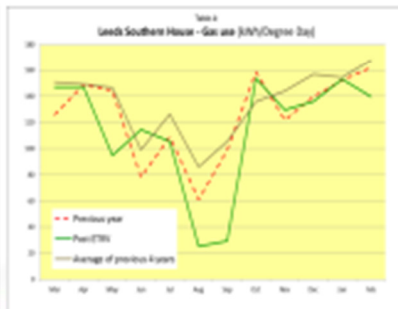
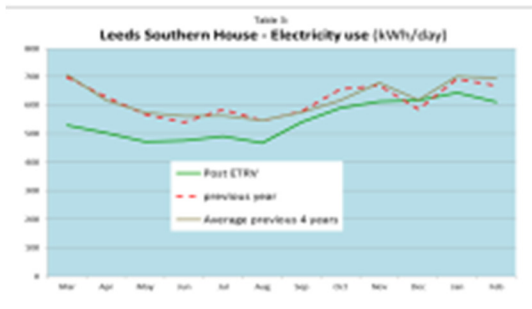
Case Study 1:

Lombard House, Elstree
61% gas saving
January to March 2017



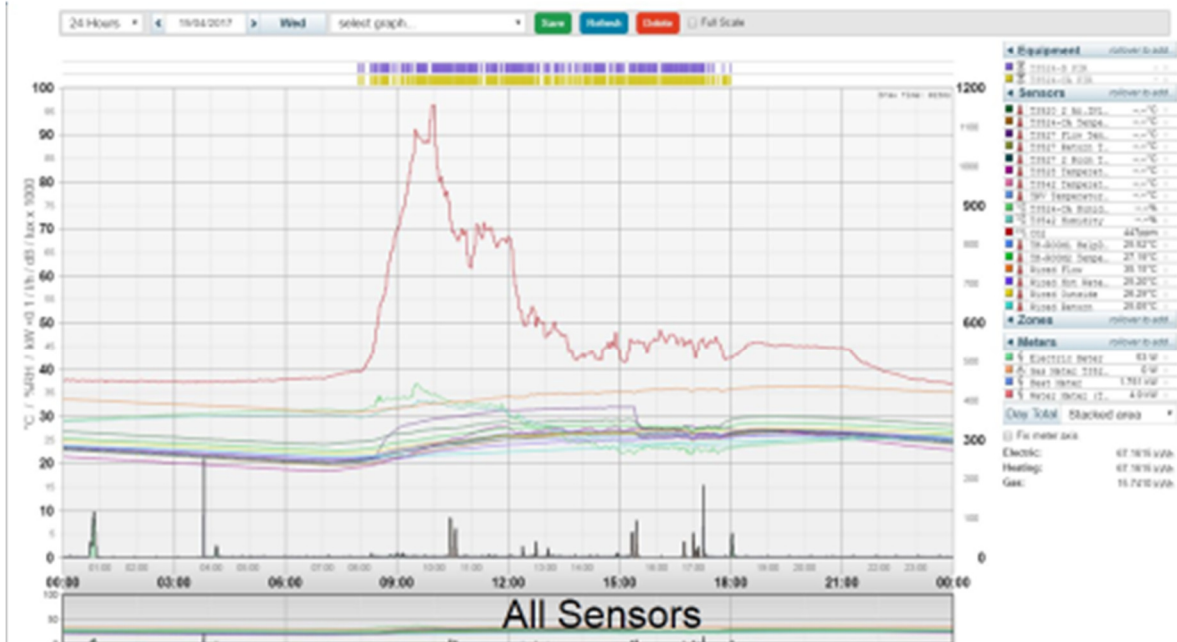
Case Study 2:

Southern House – Leeds
8% gas, 21% electricity
saving



Screen Shot of sensors information:

EMU9
Sensor Information



Chalmor Awards:



Chalmor Experts in Energy Saving Lighting and Heating

Some of our awards...



ENERGY MANAGEMENT AWARD SCHEME
AWARD SCHEME
INNOVATION IN LIGHTING

THE ENERGY AWARDS

The Building Controls Industry Awards

LIGHTING DESIGN AWARDS

GREEN APPLE AWARD WINNER 2016

CIBSE BUILDING PERFORMANCE AWARDS

RBS
The Royal Bank of Scotland
RBS Innovation Gateway

The Innovation Award

Energy Innovation Award WINNER

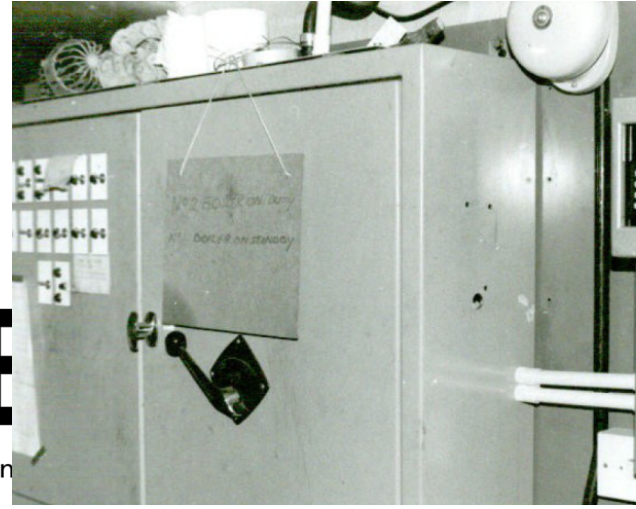
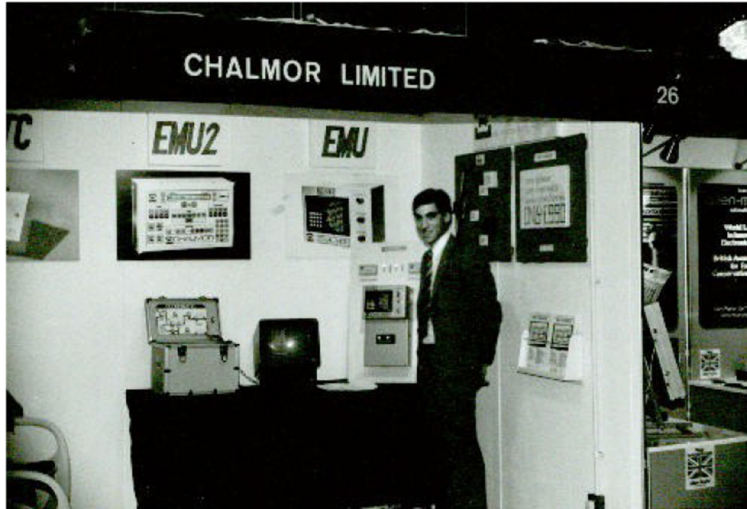
Shell springboard

FINALIST ecobuild
Innovation Future Zone

www.chalmor.co.uk

The EMU Story

Chalmor established 65 years, since 1952 Energy Management since 1982
Experts in Energy Saving Lighting and Heating for 35 years – from EMU1 to EMU9!



Chalmor Accreditations

