smarter

The SmarterDM wireless energy management system has been deployed across a wide range of customer sites in a mix of different industry sectors for more than a decade.

The system uses our own proprietary hardware, a bespoke wireless network infrastructure and a flexible software platform to give multi-site estates the tools to monitor and manage its energy consumption. It can be delivered to monitor usage and manage maintenance issues but most importantly gives remote, automated control of HVAC equipment to drive significant energy savings.

PROJECT OVERVIEW

Below is an overview of how we deployed our system across a commercial property portfolio:

✓ Installation of our energy management equipment across 10 sites in the portfolio

✓ The system has given remote monitoring capability, including:

- Main electricity and gas meters
- Wireless submetering data on a floor-by-floor basis and/or by equipment type
- Environmental data (Including temperature, humidity and occupancy levels)
- Performance and run data for assets such as boilers and heater systems, ventilation equipment, air conditioning systems and interfacing with existing BMSs

✓ The system has given remote control capability of all HVAC systems and BMS plant with online remote scheduling tools to drive energy savings

✓ Monitoring hot water storage and calorifiers daily rather than on a monthly PPM activity to provide more detailed and earlier notice of legionella risk

CUSTOMER TESTIMONIAL

The introduction of the SmarterDM system to our portfolio has provided us with a level of control – of consumption, carbon and cost – previously unattainable for this level of CAPEX outlay.

We have successfully introduced a scheduling model for boilers and HVAC equipment, where previously obsolescent plant was perfectly ok but unmodifiable.

This allows us to control the temperatures in staff environments more effectively while also delivering more-than-expected cost savings too. We now have the ability to modify any schedules for bank holidays, extra hot or cold periods and to accommodate changes in client work patterns as necessary from a laptop, phone or tablet, wherever I am. This has significantly reduced requirements for engineers visiting sites to make changes.

The implementation of this system has delivered electricity savings across the board and most impressively reduced consumption where we have oil-fired boilers by 15% for a relatively low-cost installation cost.

We have now access to minute-by-minute remote data at the sites. This not only aids our contractors with fault diagnosis but also helps us to provide cost evidence to end users. I have data from profilers to check electricity submeter data, especially when queried by clients. We have occupancy records to assist us fine tuning on and off periods for HVAC.

All in all, this is the best value programme we have run in terms of ROI and payback terms. It provides the best value analytics I have found and is so flexible for plant type, configuration or any other parameter I could ever need.

MAPELEY

Andy Creamer, Energy Manager, Mapeley

smarter DM

ALARMS

The platform's easy-to-use alarming system has allowed the customer to become smarter and more proactive in managing its property portfolio.

Users can set up alarms based on any of the data being collected and reported on the system – and each individual alarm can be assigned a priority rating which enables it to have a specific desired output allowing different business stakeholders to be made aware of different critical information.

Alarms can be configured to trigger to certain users, on certain days and on specifically defined timeframes to optimise the transfer of information.

This helps the estate's facilities management team to be made aware of issues – or potential issues – as soon as they arise and gives them the remote tools to start diagnosis remotely before a site visit.

The savings attained via reduced site visits have been as sizeable to the customer as the energy savings driven through the platform.

EXAMPLE ALARMS:

- **Energy consumption exceeding certain levels outside of periods of operation or occupancy**
- **Error codes on individual pieces of equipment e.g. Air Conditioning systems**
- **Temperatures falling outside an agreed range (above or below) during hours of operation**
- **Flow and return rates on heating systems (or either side of heating pumps) to enhance proactive maintenance**