



<18
months
typical ROI

15-30%
reduction in
energy spend

BeMS (Building energy Management Systems) are typically associated with larger buildings, until now. Optimised BeMS is a potentially game changing solution that has been realised as a result of the technology partnership with Schneider Electric. The solution is based on the Schneider Electric SmartStruxure Lite product that provides a feature rich, open technology at a price point that enables building controls to be applied to applications where until now, the cost has been prohibitive.

The Optimised BeMS solution is ideally suited to smaller buildings such as high-street retailers, commercial offices, convenience stores, business parks, nursing homes and any facility where greater control is required at an affordable price to manage energy more effectively. The solution provides a scalable platform to monitor and control heating, ventilation, air conditioning, lighting and any switched circuit to enable automation of the application either locally or remotely.

In smaller commercial buildings the HVAC (Heating Ventillation and Air Conditioning) and Lighting can be up to 60% of the energy consumption of the building. In these facilities up to 10% of the sites operating expenses can be on energy.

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Combining HVAC, Lighting and Energy Management has enabled the Optimised BeMS to be deployed as a retrofit solution, delivering an energy saving of between 15-30% and a typical ROI of around 18 Months.

Customised applications can be developed to meet specific needs and deployed in a single site through to a national roll-out.

Key Benefits

-  Typical savings of 15-30% of total energy spend
-  Typical ROI around 18 Months
-  Wireless technology ensures non-intrusive and quick install
-  Customer IT connectivity or new 3g/4g communications
-  Central monitoring, control and management
-  Open protocol technology
-  No product licence fees
-  Can be linked to the Optimised Bureau managed service offering to minimise end-user time and skill constraints
-  Can be linked to Optimised aM&T to provide full energy management on sites connected

The Solution

The solution takes advantage of direct inputs and outputs, open protocols (Bacnet, Web Services, Modbus), wireless technology (ZigBee and EnOcean), connectivity via Ethernet or 3g/4g communications and is scalable to thousands of sites. The web server provides local hosting of control strategies, connectivity and data logging and with the addition of third party wireless devices the flexibility in applications that this can be applied to is endless.

The Optimised BeMS solution is delivered as a product that is ready to install in your site, including control panel, peripherals and connectivity. Installation can also be offered and deployed as a full turnkey solution.



Optimised Bureau

We appreciate the challenges and pressures facilities, estates and engineering teams are under today in delivering a low cost operational building to the business. Which is why we deliver Optimised BeMS as a managed service through the Optimised Bureau. For a single annual fee we manage the technology, licences, maintenance and data analysis. Our team of Energy Analysts and engineers review your site data and feedback to you in a format that enables action to be taken, ensuring bottom line business results are achieved. Everything that is available to our Energy Analysts is also available to service providers and end-users.

Highlighted capabilities

Networking

- Ethernet connector for BACnet Ethernet/IP
- Wireless mesh networks
- Wired serial bus for daisy chain (CANbus)

Third-party interoperability

- BACnet, EWS, oBIX, FTP
- EnOcean (wireless)
- ZigBee (wireless)
- Modbus
- CANbus

Inputs/Outputs

- Inputs: 6 universal (analogue: 4-20mA, 0-10V, digital: dry contact, thermistor: 1-100K)
- Outputs: 2 relay, 4 analogue
- EnOcean (wireless): 128 points
- ZigBee (wireless): 30 peripherals

Other

- Real-time clock
- 400MHz processor
- 64MB of RAM
- 2GB of Flash for local storage



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