



Energy Management Bureau Service

The Energy Management Bureau Service (EMBS) automatically collates, analyses and reports on energy and environmental data.

The EMBS incorporates a variety of data types (both in terms of frequency and type) from a range of sources - from local site contacts, to central teams, and external organisations. The accurate and timely report outputs identify energy, water and waste efficiencies that translate into real cost and carbon savings.

The EMBS represents an innovative solution that integrates multiple COTS components into the BAE Systems secure IT architecture. The result is a new service offering for BAE Systems in the energy domain that is powerful and unique. It is particularly well suited to defence energy management due to its ability to automate the

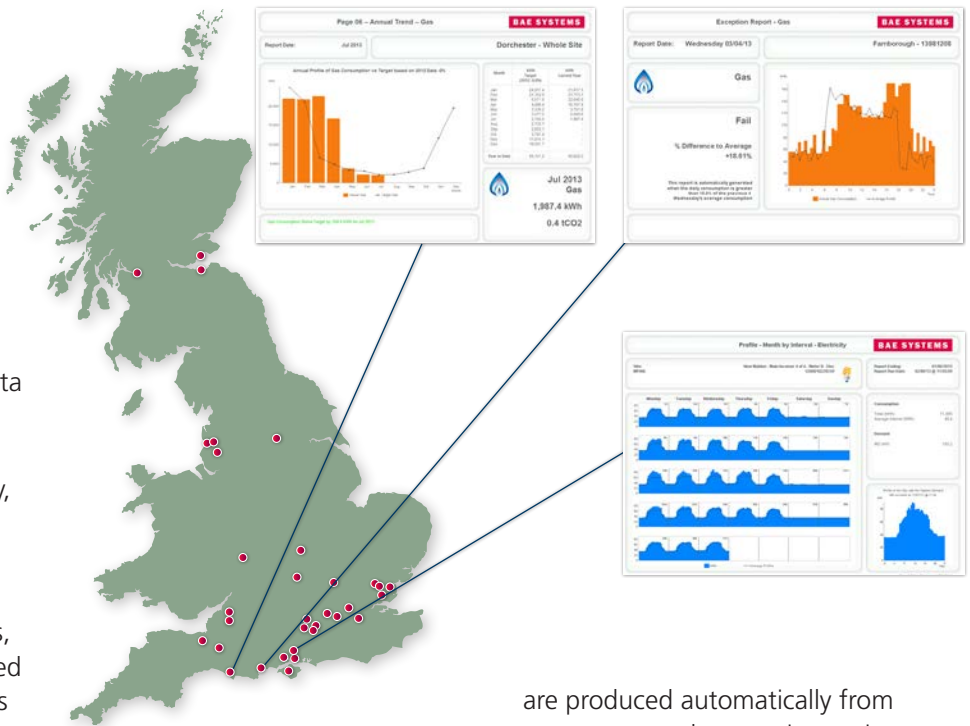
collation and analysis of the variety of data types commonly required from large campus sites. Unlike standard energy metering setups it is also able to operate across secure networks using a novel email-based solution as part of the COTS architecture.

Energy management software is commonly configured for half-hourly data from fiscal utility meters – typically covering just electricity and gas. Working with the software provider we have configured the software in a bespoke manner and located it in a technical architecture that allows collation and analysis of:

- **Multiple data types** (manually read or calculated data; invoice data including cost and consumption etc.)
- **Multiple data streams** (electricity, gas, oil, water, sewerage, landfill waste, recycled waste, hazardous waste etc.)
- **Multiple senders** (utility suppliers, internal site contacts, subcontracted FM providers, external bill checkers etc.)

The result is an automated management and reporting service that covers the full spectrum of energy and environmental activity, allowing for far more consistent reporting to a variety of users (energy managers, facilities management, accounts) across these inter-connected areas.

The analytical capability of the system is also improved as relationships can be identified between different data streams. The COTS bureau architecture is generic and is currently in operation on the BAE Systems Real Estate Solutions estate that covers 33 sites across the UK with an annual energy spend of approximately £7m. The system is fully compliant with all



Defence Infrastructure Organisation requirements, and is currently being extended for use on Portsmouth Naval Base – the largest energy user in the MOD estate with an annual energy spend of £9m.

Time savings

The software has reduced the data collation and reporting time from approx. 6 weeks man-time per month to 5 days, enabling energy management effort to be better spent on improving performance.

Increased Reliability

Data quality functions reject invalid data and prioritise the use of more reliable data types. Reports

are produced automatically from one common data set, increasing consistency and eliminating the chance of manual error.

Increased Customer Satisfaction

New-style reports are well presented, timely, and tailored to customer needs.

Identification of Energy Saving Opportunities

The system identifies opportunities for energy saving, whether via improved energy management or technical intervention.

Automated Approach to Manual Data

The system automatically validates and processes manual meter readings and information from other environmental functions



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