

CHALLENGE

BAE Systems is the 2nd largest global defence, security and aerospace company with approximately 107,000 employees worldwide. The Company delivers a full range of products and services for air, land and naval forces, as well as advanced electronics, security, information technology solutions and customer support services.

Their UK Headquarters at Farnborough has the corporate objective of reducing the environmental impacts of its operations in order to:

- ✔ Cut costs and carbon emissions
- ✔ Improve efficiency
- ✔ Comply with the growing volume of environmental regulation. Specifically, the Carbon Reduction Commitment (CRC) came into force on 1st April 2010 and threatens heavy financial and reputational penalties for those organisations that fail to comply
- ✔ Satisfy stakeholders, who have growing interests in climate change and rising energy costs

To achieve this objective, BAE has to be able to accurately monitor, record and analyse its energy usage.

SOLUTION

Synetica undertook a full audit of BAE UK Headquarters' existing energy measurement and control systems using its DataStream Energy Logger and Wi-LEM wireless metering technologies, with the objectives of:

- ✔ Refining and improving BAE's energy usage monitoring and reporting.
- ✔ Identifying cost saving opportunities.

BENEFITS & RESULTS

Working with their newly installed Synetica metering and analysis tools, BAE:

- ✔ Identified and corrected flaws and gaps in their existing energy monitoring data, resulting in an accurate picture of the site's activity and a strong foundation for Carbon Reduction Commitment reporting requirements
- ✔ Increased the accuracy of their energy scheduling by bringing heating and air conditioning systems in line with the occupancy patterns of buildings. This resulted in:
 - 21% reduction of energy consumption, cost and carbon emissions
 - Extended plant life cycles through reductions in operating hours
 - Improved staff comfort levels
 - Automatic Fault Detection and Diagnostic feature alerts of inefficient operation before it impacts energy performance.

Project Benefits

21% reduction in energy consumption and cost

Real time monitoring of electricity and gas using energy dashboards via the Internet

Automatic fault detection & diagnostic algorithms highlight areas of inefficiency

Provision of CRC compliance reports

Identification & realisation of significant recurring monthly energy & cost savings through improved efficiency

Powerful mesh wireless metering dramatically reduced installation time and site disruption

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