

UNLOCKING HIDDEN ENERGY SAVINGS WITH BMS OPTIMISATION

How a BMS Survey Exposed 25% Wasted Energy and Identified £80k in Annual Savings Potential



A large multi-site organisation was facing spiralling energy costs and poor visibility of how its estate was performing. Despite ongoing maintenance, their systems were running inefficiently, and forecasts showed energy bills could rise by 158% in just two years.



25% of total energy use was happening out-of-hours, when buildings were empty.



Lack of building controls was driving up energy use, contributing to an annual carbon footprint of 214 tCO₂e.

The organisation needed a clear, evidence-based roadmap to reduce waste, cut costs, and meet sustainability obligations.

The Findings

Our independent BMS survey identified critical inefficiencies across their estate:

- Heating and cooling running at the same time.
- Fans and pumps left in manual override, running 24/7.
- Time schedules not aligned with occupancy.
- Outdated sensors, no longer calibrated or responsive.
- Legacy BMS software with limited visibility and no energy dashboards.



Without intervention, annual energy costs were set to rise by more than 150% in just two years.



Well-maintained BMS systems can reduce energy costs by up to 35% compared to poorly controlled systems.

The Recommended Solution

We provided a phased improvement plan combining quick wins and long-term upgrades:

Quick Wins – reset time schedules, recalibrate sensors, and correct manual overrides.

Medium-Term Actions – install variable-speed drives on pumps/fans, upgrade outdated BMS software, reintroduce optimum start/stop control.

Long-Term Strategy – integrate IoT room sensors, install energy monitoring dashboards, and explore renewable add-ons like solar PV.

The Potential Outcomes

By implementing the recommendations, the organisation has the potential to achieve:

- Annual savings of c. £80,000, rising to £110,000 with solar PV integration.
- Avoidance of a forecasted £150,000+ annual cost increase.
- Up to 40% reduction in energy use.
- Carbon emissions cut by 39% (214 → 131 tCO₂e).
- Long-term savings potential: £3m+ over 25 years

With a payback period of just 1.8 years, the investment could be self-funded by year two, delivering ongoing savings thereafter.



The Before & After Impact

Before:

- Outdated BMS controls and sensors.
- Systems running 24/7 regardless of occupancy.
- Energy wasted out-of-hours and at weekends.
- Rising bills with no visibility of consumption.

After (if implemented):

- Modern BMS with demand-led scheduling
- Heating, cooling, and ventilation aligned with occupancy
- Smart controls reducing waste
- Potential to save £80,000+ per year and cut carbon footprint by 39%

Key Takeaway

Even well-managed estates can hide major inefficiencies. A BMS survey provides the evidence to act—helping organisations save money, reduce carbon, and comply with sustainability requirements like SECR and the Academy Trust Handbook 2025.

How much energy is your estate wasting without you knowing?

Our BMS surveys highlight wasted costs and carbon, and show you the savings potential.

