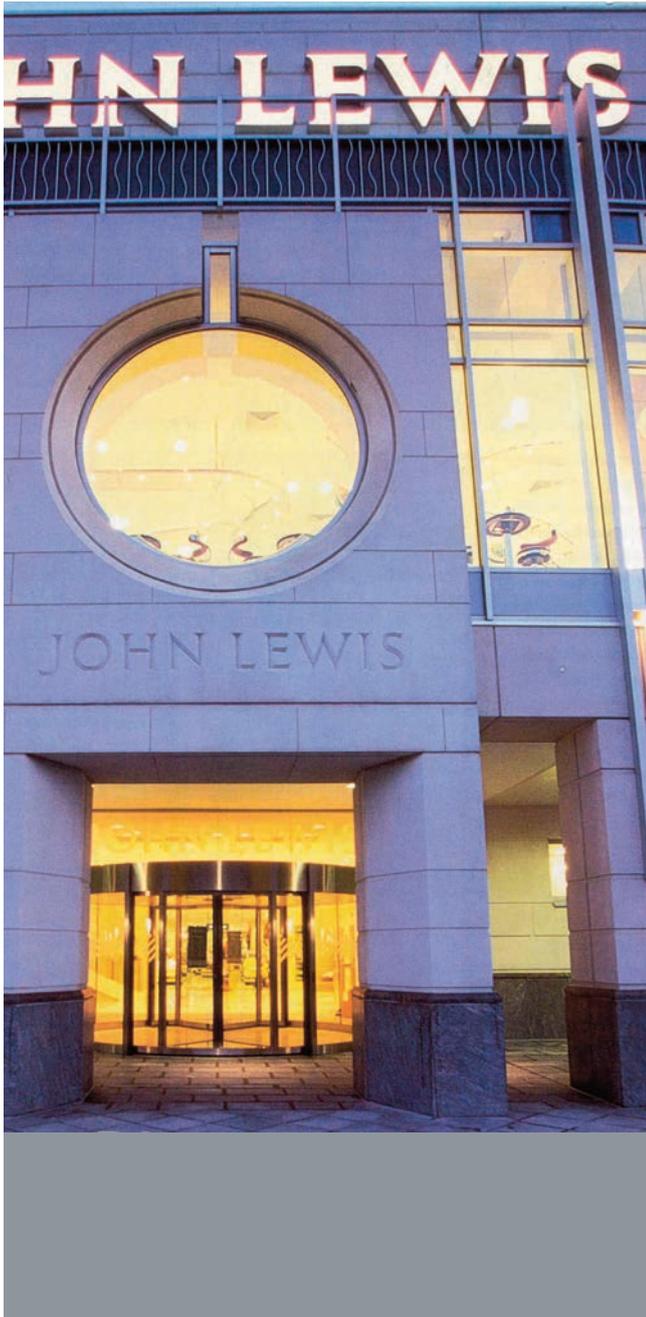


Measurement, Modelling & Monitoring Drive Sustainable Carbon Savings



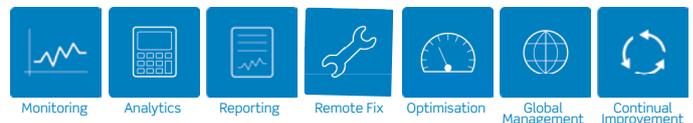
Overview

The John Lewis Partnership have set stringent energy and carbon targets for their business. The Partnership is working to reduce absolute operational CO₂e emissions by 15 per cent by 2020/21 against the 2010/11 baseline.

As a business, the Partnership's shops and branches are focussed on the overall customer experience. Energy management initiatives have always placed this, and partners' engagement, as the key foundation of the Partnership's sustainability strategy.

Over the last two years Next Control Systems have worked with Lateral Technology (Low Carbon Consultants) to implement an integrated programme to reduce energy and carbon consumption within thirty John Lewis branches.

iBOS Components Delivered



Measurement, Monitoring & Recommissioning



Through accurate metering of existing plant, potential energy saving measures were identified in thirty branches.

These measures were then implemented by optimising the existing Building Management Systems, configuring demand based control strategies and adding the systems to the John Lewis internal IT network.

Energy Consumption Modelling

To support a sustainable energy management strategy, each store's metered energy consumption was monitored as part of an evaluation process that allowed further improvements to be identified while isolating out-of-the-ordinary power consumption spikes.

This phase of the project offered a unique insight into energy performance and the information allowed the team to replicate the effects of modifying the Building Management System closely, and thus highlight areas of inefficiency.

The energy management solutions were evaluated further in the context of any potential customer impact.

Optimised BeMS Control Settings

A model of the optimum BeMS control point settings for each branch was created and loaded onto the Next Control Systems data servers. The intelligent system compares the optimum settings with current store settings on a daily basis.

Any deviations are highlighted and reviewed directly with the branch services staff to identify the reasons for change by the Next Control Systems Response Team. This ensures the energy and carbon savings are sustained for each branch and remain fixed to the model.

Continuous Monitoring for Sustainable Savings



Throughout the implementation the carbon and energy benefits were monitored continuously using Next Control Systems technology. This validates the modelled energy reductions and supports further adaptation to target additional potential energy saving measures.

Carbon and Energy Savings Achieved

The project was executed in collaboration with Lateral Technology and Solutions (M&E and Carbon Consultants for John Lewis). Once rolled out across the targeted John Lewis Branches, the service reduced the electrical consumption by 11% and enabled a 12.3% drop in carbon.

Key points

- Remote monitoring and active alarm management maximises carbon savings, and improves customer service and reinforces brand reputation
- Genuine carbon savings cannot be made without continuous monitoring
- Carbon savings can only effectively be sustained with ongoing remote monitoring and alarming
- Specialist skills and early involvement increase and accelerate ROI
- Web-based systems provide secure 24/7 access from any internet capable device