Sainsbury’s puts the spotlight on energy efficiency in stores across the UK.

The Opportunity

For the second largest chain of supermarkets in the United Kingdom, sustainability goals are a high priority. Sainsbury’s prides itself on doing the right thing for its customers – and creating a greener supermarket is chief among the company’s core values.

As noted by Paul Crewe, Sainsbury’s Head of Sustainability, Energy, Engineering & Environment, the company is committed to lowering the carbon emissions of its stores.

IN FACT,

Sainsbury’s aims to reduce absolute carbon emissions by 30%

compared to 2005 baseline levels, as outlined in the supermarket’s Sustainability Plan.

The target has spurred numerous energy efficiency and renewable energy initiatives across UK stores – and switching to LED lighting is a big step in the right direction. To that end, Sainsbury’s is partnering with Current, powered by GE to become the first grocery retailer in the UK to power all its supermarkets entirely by LED lighting.
The Solution

To unlock substantial energy savings – and align with the company’s sustainability goals – Current has developed a large-scale, integrated lighting solution for Sainsbury’s.

The solution includes upgrading 250K LED fixtures across more than 450 stores over the next 3 years, cutting Sainsbury’s energy consumption by 58% and reducing greenhouse gas emissions by more than 3% annually.

The solution is unique in several ways. First, Current can leverage its lighting expertise in retrofit design, product design, manufacturing, testing, and installing/commissioning to recommend lighting technological specifications available in the marketplace. In doing so, Current will act as an independent lighting consultant with a primary focus on making the solution meet Sainsbury’s key performance indicators.

Second, the specification allows for the seamless lighting and intelligent environment integration required by Sainsbury’s. The LEDs provided through this solution are either available within GE’s store or externally sourced, providing the technology in-house only when it’s estimated as the best fit for the purpose in the marketplace.

The Results

Current is delivering the massive lighting retrofit as a turnkey service, embedding financing from GE Capital Industrial Finance with lighting design, product supply, installation, and project management services. The full LED conversion across all Sainsbury’s stores is scheduled to be completed by 2020.
By leveraging GE Capital Financing capabilities and in-depth expertise, Current can provide a solution that will be paid over time through the savings the company unlocks.

Current will also be working with Sainsbury’s to further co-innovate and co-create intelligent environments. The goal is to unlock additional investment to drive energy efficiencies and other benefits leveraging the wide GE store – tailoring solutions for the Sainsbury’s business and its customers.

“For years, Sainsbury’s has placed itself on a trajectory toward reducing its impact on the environment. At Current, we believe the adoption of energy efficient technology can be a core piece of building not only a more sustainable business, but also a more profitable one. We’re proud to continue partnering with the Sainsbury’s team, and this ambitious project represents the next step of that journey.”

—Pete Lau
CEO of European operations
Current, powered by GE
Control the new lighting luminaires
Monitor power usage in real time
Improve efficiency to reap greater savings

Current’s Daintree TM Solution Helps Mack Technologies Realize Greater Savings and a Lasting and Sustainable Impact

The Opportunity
Mack Technologies, a leading provider of complex electronic manufacturing services, makes electronic circuit boards for the defense, telecom, and industrial sections in its facility in Westford, Massachusetts.

Mack Technologies researched efficient commercial lighting solutions to meet aggressive operational cost reduction goals, but concerns about the initial cost of replacing several thousand fluorescent bulbs made the manufacturer cautious about conversion. Mack Technologies also wanted to be a leader in corporate social responsibility. To do that, the company needed to significantly reduce its energy consumption and enhance employee working conditions while minimizing the cost of investment.

The Solution
Mack Technologies believed that the key to achieving energy efficiency was to leverage transformative technologies. Knowing that LED lighting, along with Daintree intelligent lighting controls, represent a significant innovation in energy efficiency, Mack Technologies sought to retrofit its 108,000-square-foot manufacturing facility in Westford.

To make this goal a reality, the firm brought in Bluestone Energy Services to develop and execute the comprehensive LED lighting and intelligent control project. Realizing the value of Daintree, Mack raised the bar in LED conversion by integrating controls to dramatically improve efficiency and flexibility.

The Results
The Daintree solution from Current, powered by GE, provides a wireless control solution for smart buildings, allowing Mack to transform LED conversion into a greater energy- and cost-savings investment. Daintree controls the new lighting fixtures through a standards-compliant ZigBee mesh network, enabling the driver in each lighting fixture to provide maximum flexibility to lighting control strategies.

Between October and December of 2012, Mack replaced 2,600 T-8 fluorescents with LED fixtures—investing over 3,000 man hours for the installation. The LED fixtures are warranted for five years or 50,000 hours and will not require frequent replacement like the fluorescent lighting fixtures they replaced.

At Mack, each fixture is individually programmed through ControlScope Manager to achieve maximum savings. Mack decreased the lighting intensity in one area from its normal level in 1-percent increments to better understand what levels were important for the tasks being performed. Not until the level reached 50 percent of spec standard did occupants perceive the lighting to be noticeably dimmer. So, while Mack is already saving significant money on its energy bill, it has opportunities to extract more savings from Daintree as the users gain experience with actual usage requirements.

“We were blown away by the information we came across in terms of the energy savings and the positive impact to the environment that we could realize.” —John Kovach, Former President of Mack Technologies

Through ControlScope Manager, Mack Technologies has access to reports that show its energy usage based on its settings. This information enables Mack to discover and implement opportunities to improve the facility’s energy usage, boosting the business profitability. Mack can also use this information to define and refine zones of lighting to be controlled as a group on a schedule, on demand, or on sensor-based occupancy as they see fit.