

Delivering Green

£0.2M p.a. energy saving • 1,200 tonnes CO₂ reduction

“The savings being made are a huge benefit to us in terms of extra profit for the organisation. Not only do they accrue to rapidly repay our investment, but they will continue to slash our costs for many years hence.”

John Polglass – Director of Property & Business Services, Molson Coors



The Challenge

Do you have a large warehouse with a £1¼M+ per year power consumption? One of the world’s biggest brewers did and with a vigorous environmental policy to implement, they decided to dramatically reduce this energy burn.

Molson Coors’ National Distribution Centre, located in Burton on Trent, is operated by Tradeteam Ltd. (a DHL company). Both Molson Coors with their “from grain to glass” approach and Tradeteam with their “GoGreen” strong environmental agenda have committed to reducing energy waste and carbon emissions.

The challenge was to reduce the energy consumption and carbon footprint of the site and do it in a testing ambient environment while full business operations continued. Savenergi’s team of experts duly completed their Energy Feasibility Study and set out to achieve the following benefits:

- Release cash, create competitive business advantage.
- Decrease operational cost.
- Increase business revenue & shareholder value.
- Reduce carbon footprint.
- Enhance the working environment.



“We were amazed at the savings being projected before the start but based on the results of other multi-site projects we had confidence. This was proven to be well-placed when the results confirmed the forecast.”

John Polglass – Director of Property & Business Services, Molson Coors

The Solution

The site energy consumption is predominantly electricity and to achieve the desired objectives, Savenergi identified a combination of technologies to be used, namely high efficiency lighting, voltage optimisation and intelligent sensor controls.

The 380,000ft² space is comprised of warehouse, offices, staff areas and several storage outbuildings. There is no heating and a fleet of forklifts whizzing around shifting stock pallets. This presented technical and operational challenges, for example, T5 fluorescent technology would not be suitable for the low winter operating temperatures. The forklifts have centrally-heated cabs with windscreens, so the sensor technology has to be sensitive enough to detect a driver behind glass and fast enough to provide light for an oncoming fork-lift travelling at speed.



Savenergi’s engineers worked with Tradeteam staff to get the best on/off switching for security, optimum light levels, ambient daylight levels and staff movements. A smart combination of integrated sensors mounted uniquely to each luminaire ensures that motion and/or poor daylight will ensure instant light is made available where needed. Some safety-sensitive areas have ‘always-on’ status. Conversely, sensor shielding ensures that lights are not turned on unnecessarily, for example, when a forklift tracks near a pedestrian-only walkway.

‘Flexiplan’ implementation is a component of Savenergi’s SAVER Programme™ methodology. The project is run according to a pre-agreed project plan, flexed on a daily basis to suit the ever-changing needs of a commercial logistics environment. This understanding of the operational constraints combined with excellent communications with staff, contributed to a smooth-running project.

“The project was delivered on time and with a minimum of fuss. Savenergi’s engineers worked flexibly and seamlessly within our operational areas and improved our working environment.”

Graham Toon – NDC Site Services Manager, Tradeteam

The Results

Four factors of prime importance in delivering projects such as this:

- Total cost of ownership
- Health & safety
- Ongoing maintenance
- Carbon effect

Working-at-height risks are reduced through lowering the light fittings and installing long-life lamps. With the lamps installed on a lower plane, extra lux levels are achieved. All of these factors are key drivers for the return on investment. Savenergi’s years of delivery experience and know-how were poured into the scheme such that savings of a high magnitude were realised and the maximum value was squeezed from this project, also positively contributing to carbon reduction schemes and CRC commitments.

The warehouse that once had all lights ‘always-on’ now appears to have a reactive life of its own. As staff walk through a darkened area, lights switch on instantly in advance to light their way. As a forklift powers through the warehouse, a wave of lights flows before it, ensuring brilliant visibility and safety. As for the energy and cost savings, they are enormous:

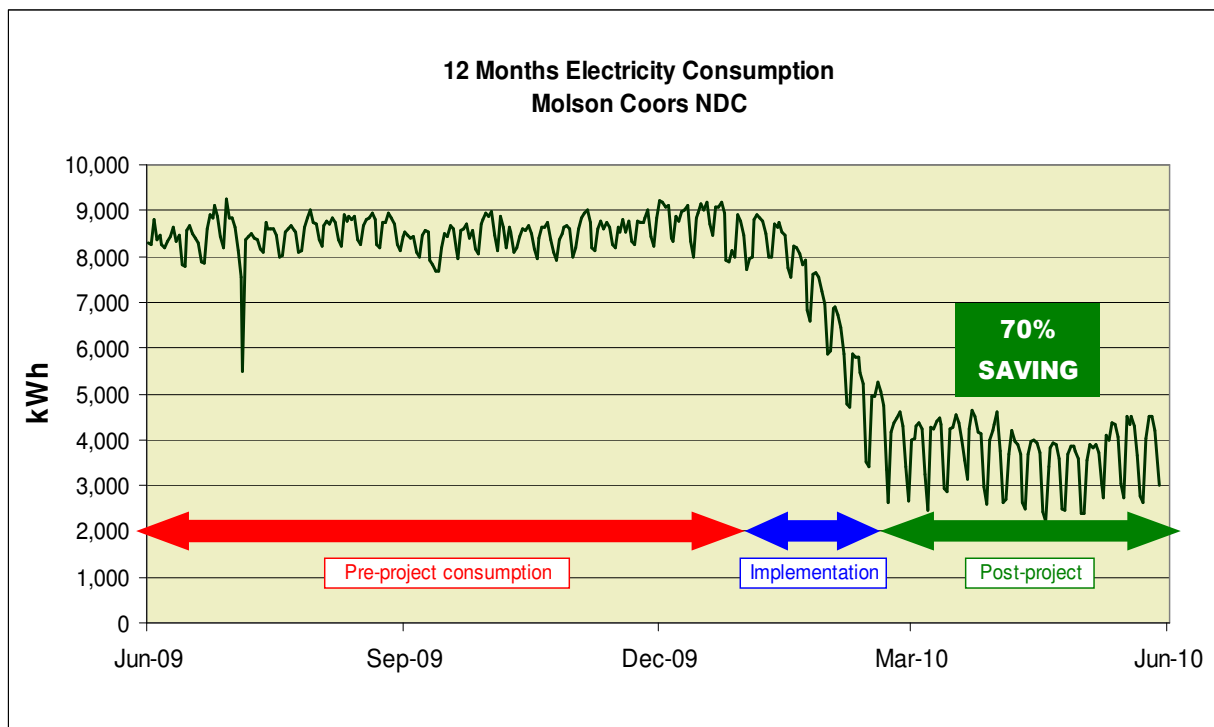
Project Benefits	
Electricity consumption before project *	3,200 MWh p.a.
Electricity consumption after project **	950 MWh p.a.
Percentage saving (whole of site)	70%
Operating cost saving @ 7.99p / kWh †	£192,000 p.a.
ROI payback	19 months
CO ₂ emission reduction	1,224 tonnes p.a.

* Whole of site pre-project usage, measured one year, 13/01/09 to 12/01/10.

** Projected, from first 3 months available data. † Includes standard maintenance, est £12K p.a.

The environment for employees has also been improved as all lights are now a more natural white light, with all-round higher light levels for safer operations work and productivity benefits, e.g. label reading and stock-picking.

The following graph illustrates a year's energy consumption 'falling off a cliff' in terms of reduction.



Summary

The benefits to be derived from projects such as these are predicated on the inter-reaction between a large number of variances. Savenergi understands these complex scenarios and can both advise on the best course of action and provide complete, turnkey solutions.

Savenergi delivers the maximum benefit available in a given situation and crucially, results are evidenced with clear proof and reports. We invite you to ask our valued customers about their experience.

“One of the most satisfying aspects is walking into the warehouse and seeing the lights off, either because areas are quiet or because there is already enough daylight. Then I know it's 100% savings time.”

*Graham Broadhurst – NDC Primary Operations Manager,
Tradeteam*

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Savenergi Ltd. is an energy consultant and distributor of technically-innovative energy-saving products and advice. Our service-driven, consultative approach to Government initiatives such as CRC and general energy reduction allows us to guide our customers towards energy efficiencies.

Savenergi is committed to reducing unnecessary energy waste in the commercial and industrial sectors, thereby achieving lower direct energy costs and a reduction in carbon emissions. Savenergi will lower emissions immediately and save you money within a short payback period.

All customers are encouraged to utilise Savenergi's SAVER Programme™; a proven methodology for identification of CO₂ footprint and cost savings through to implementation and cash benefit realisation with emissions reductions.

Savenergi is UK-based and services all sizes of organisation across the commercial, finance, retail, public sector, logistics, distribution, heavy industry, leisure, electronics, defence, highways, food and pharmaceutical sectors. More information on Savenergi can be found at www.savenergi.com



Molson Coors Brewing (UK) Ltd. was founded as a family business and tracing its roots back to 1786, Molson Coors Brewing Company has over 11,000 employees worldwide, 10 breweries in three different countries, and a broad portfolio of over 40 brands, including Molson Canadian, Coors Light and Carling.

Molson Coors Brewing Company is one of the world's largest brewers, with combined annual volume of more than 48 million hectolitres (over 8,447 million pints) and net sales of more than US\$5.6 Billion. Molson Coors is a leading brewer in the UK, Canada and the US.

Molson Coors (UK) is a business of rich history and high ambition and aims to be the number one brewer in the UK beer market. More information on Molson Coors Brewing (UK) Ltd. can be found at www.molsoncoors.co.uk



Tradeteam Ltd. is part of the world's largest logistics company DHL and is the UK's leading drinks logistics business. It was formed in 1995 with the sole aim of offering brewers, drinks brand owners and retailers cost savings through a number of tailored services.

Tradeteam has 2,300 employees in over 30 operations running over 600 vehicles. There are over 2,000 product lines with 50 million items picked each year with proud record of 99.88% accuracy.

More information on Tradeteam Ltd. can be found at www.tradeteam.com