

Department of Climate Change Case Study

MHA Lighting – providing lighting solutions for a low carbon economy

A MANCHESTER-based lighting specialist is helping businesses cope with the cost of meeting their obligations for flexing into a low carbon economy.

MHA Lighting has invested in developing revolutionary LED technology that offers organisations up to 80% energy savings and slashes CO2 emissions, whilst offering the same higher quality of light of traditional lamps.

MHA Lighting MD Tom Harrison believes that while the costs of responding to climate change legislation for businesses may be high, it also has immense benefits for a business' bottom line.

Tom said: "How businesses manage their exposure to carbon price, internally and in their supply chain, will become a major differentiating factor in the markets they operate in.

"Companies must understand the way that carbon price will impact their bottom line and see that there are significant benefits to be had under the CRC Energy Efficiency (CRC).

"These new regulations are real opportunities for the companies at the forefront of new green technology and for those who respond to the CRC swiftly."

"The CRC Energy Efficiency scheme affects large organisations such as the NHS means for every tonne of carbon saved, hospitals save £12. This money can be directly ploughed back into frontline patient services."

MHA Lighting have attracted a number of contracts from CRC participants such as the NHS, Manchester Airport and Greater Manchester Police which has facilitated a period of rapid growth for the company. These CRC participants chose MHA Lighting's LEDs because of their low energy requirements. The patented technology has been shown to provide energy savings of up to 80% compared with more traditional lighting sources.

Sales have increased from £300,000 in 2010 to more than £2m in 2011, which has allowed MHA Lighting to take on six new members of staff.

In the first six months of 2011, MHA Lighting won several large contracts.

These included a contract to supply lighting in Manchester Airport's terminal two and three car parks which will involve fitting more than 2,000 lights. Manchester Airport is expected to save up to £80,000 a year in electricity costs by using the product. In addition, it secured contracts with Chevron-Texaco to supply lighting on its garage forecourts.

MHA Lighting approached its bank - NatWest - to secure the money to ensure that it was able to successfully fund the new contracts. It now anticipates that these new contracts - and an ever-growing order book - will enable it to break through the £4m turnover threshold over the current financial year.

In addition to being low energy, MHA Lighting's products generate far less heat than

conventional lighting. This brings tangible savings to temperature controlled environments like offices and grocery stores. Convenience retail stores to recently purchase lighting systems from MHA Lighting include Mace, Cost Cutter and SPAR.

Mr Harrison added: "Convenience retail is a growth area for us and in 2011 we installed lighting for a branch of SPAR in Widnes. By installing our LED lighting, energy consumption at SPAR Widnes was reduced by 79% and the annual electricity costs have been reduced from £7,629 to £1,618 per annum. The lack of heat given off by LED lighting also allows further energy savings to be made through reduced use of air conditioning systems."

MHA Lighting began developing their patented LED technology in 2008 in response to the Green agenda.

The LED technology was designed to burn 20% of the energy of traditional fluorescents and their 60,000 hour life span (seven years) also eradicates the needs for routine maintenance and bulb replacement.

The LEDs were also designed as a fully sealed unit to stop dust, bacteria and dead insects from gathering around warm light fittings, making the installations the ideal solution for public spaces – particularly in the health sector.

Tom said: "At a time when the Government has set the NHS tough targets to reduce CO2 emissions, more energy efficient lighting is paramount in saving money and reducing Hospital Trust's carbon footprint.

"Trusts are always seeking ways to free up money for clinical care and the battle against superbugs is continuous.

"MHA Lighting is delighted to have found a solution that can help in both these vital areas and hope to be able to make our technology available to all Trusts nationwide."

MHA Lighting has now completed numerous lighting refurbishments for the NHS as well as the private health care sector.

They recently completed an installation in North Devon District Hospital in Barnstaple, which is part of the North Devon Healthcare Trust (NDHT).

There MHA Lighting replaced traditional 72 watt fluorescents with their unique 4000 Kelvin Tilite 20 and 30 watt LED units in wards, corridors and reception areas.

The high colour rendering of 4000 Kelvin is precisely the colour the NHS requires to provide the precise light quality for examining patients.

In rooms for medical attention and in areas where colour inspection take place a colour of at least 4000k (neutral) is specified as it depicts skin pallor at its true colour.

Tom added: "MHA's patented LED technology is unique.

"Unlike other LED technologies, the light is not shone directly out. It is shone sideways and reflected out in a uniformly distributed manner.

"This achieves the photometric performance of traditional lamps whilst offering all of the benefits of LED in terms of energy and financial savings and offers a long and maintenance free life.

"Every year, the Trust was consuming large amounts of electricity on lighting using up 127910 KW/H per annum and emitting 70 Tonnes of CO₂ in the specified areas.

"The new lighting installation has reduced the hospitals overall carbon emissions by 354 Tonnes and saved 94, 866 KW/H and with the integration of dimmers energy savings have exceeded 75%."

Since 2010 MHA Lighting has increased sales from £300,000 to more than £2m in 2011. With interest from Australia, New Zealand, China and the Philippines projected sales for 2012 total more than £6m.

They now employ 30 full-time staff at their Atherton HQ and have set up a permanent base in Brisbane, Australia to develop their LED business down under. This office is expected to independently generate more than £2m worth of sales next year.

Their technology has also won a number of awards, including the Energy Innovation Centre's prestigious Grand Prix award for Energy Innovation.

Tom added: "We have put so much effort into building the business this year, and to have our efforts recognised by our peers in this way is a major boost.

"The future of the lighting side of our business looks bright and there is so much in our favour.

"Our LEDs use two thirds the energy consumption of our closest LED competitor and electricity prices are continuing to rise. Organisations are seeing a 20% increase in their energy costs and want energy saving solutions now.

"The rewards are there for forward-thinking firms that can develop innovative solutions to slash carbon and help organisations save energy."

MHA Lighting design, manufacture and supply energy efficient LED lighting solutions to Public and Private sector organisations throughout the UK.

MHA has LED lighting solutions for most internal and external applications.

Wherever fluorescents, halogens and metal halides are employed, MHA has an equivalent that will provide at least the same quality of light for a fraction of the energy consumption.

Because of their unique patented technology MHA's LED's do not need to use diffusers allowing for maximum optimal light output.

For more information about MHA Lighting and its patented award-winning technology please visit www.mhalighting.com

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Notes to Editors:

For more information of for further interview opportunities, please call Caroline Aspinall at Active Profile on 0151 705 3675 or email caroline.aspinall@activeprofile.co.uk

Additional information:

MHA Lighting has been in operation since December 2009 and is a subsidiary company of MHA Int-Elect, which has more than 10 years' experience in designing and developing innovative electronic solutions.

The company employs around 30 people at its facility in Atherton.

Fully approved and accredited, this unique and patented technology successfully delivers the advantages of 'traditional lighting' - uniformly distributed, glare-free and safe viewing, clean, fresh light - from an LED lighting solution.

MHA lighting uses award-winning patented Luminanz technology in the design and manufacture of all its products.

All of MHA lights come as fully sealed units and are designed for durability. The rugged and robust design will not break or explode like standard fluorescents.