



A member of  
Alliance Boots

## **Boots UK unveils first Low Carbon Store Trial in Eastbourne**

### **A strong heritage of energy efficiency and carbon reduction**

**The store was officially re-opened on 11th May 2011 by Alex Gourlay, Chief Executive of the Health and Beauty Division, Alliance Boots.**

From the use of efficient combined heat and power in the early 1900s, to the installation of award winning energy-efficient stores lighting systems in 1994, Boots has a strong heritage of managing energy, and therefore carbon, efficiently and responsibly.

Energy use in buildings is by far the largest contributor to our carbon emissions, with our stores being the main users of energy. This is just one of the reasons that carbon management forms one of our four main strategic Corporate Social Responsibility (CSR) objectives.

In 2005, Boots became a member of The Prince's Mayday Network, giving a public commitment to reduce its carbon emissions by 30% in Boots legacy stores\* by 2020.

In January 2010 Boots was awarded the Carbon Trust Standard, an external accreditation confirming our commitment to reducing the carbon footprint of our business operations.

The low carbon store trial concept and implementation at Eastbourne is another significant step forward on our sustainability journey, helping us to increase our understanding towards the achievement of our long-term commitments.



Inside Boots UK's Sovereign Retail Park store, Eastbourne

## Energy Consumption

The typical energy consumption for Boots UK's edge of town stores are less than half of supermarket edge of town stores per square metre (sqm).

### Low Carbon Solutions at Eastbourne

- Eastbourne typically has over 1,800 hours of sunshine per year and in 2010 it was claimed to be the sunniest place in the UK.
- The store incorporates a number of different technologies/ applications to reduce carbon emissions, including:
  - To maximise the natural daylight, sky lights and sun pipes have been fitted into the roof to channel daylight directly into the store. Sun pipes provide a diffuse light from daylight by means of a double glazed lens. The lens on the outside of the building captures the diffused daylight and directs it by a second lens into the building where the daylight is then used for general illumination.



Sun pipes outside / inside Boots UK store at Sovereign Retail Park, Eastbourne

- Solar Photovoltaic (PV) panels have been fitted on the south facing roof to generate electricity. Solar PV cells convert the energy in the sunlight to electrical energy which can be used within the building, reducing the amount of energy drawn from an external electricity supply. The provision of electrical energy from PV is a means of generating electrical energy from a renewable source. Operators of PV cells receive a supplementary payment for each unit of electricity generated.
- High efficiency lights have been fitted and linked to the daylight contribution from the sun pipes and sky lights. The light fittings installed are of the highest efficiency in terms of light delivered for energy consumed for this type of lighting. 92% of the light generated is directed onto the store retail and back shop areas. The light fittings are controlled to take into account the amount of light being provided by the sun pipes so that the overall illumination of the trading area is maintained at the current specification level of 800 lux. This reduces the output of the light fittings in daylight conditions and reduces the energy consumed.
- Light Emitting Diode (LED) technology is included in our external signage at Eastbourne. This reduces the energy consumed by only illuminating the lozenge and wording areas. LED lamps provide their light output in a single direction and are more

efficient than fluorescent tubes in external signage.

- An Innovative Heating, Ventilation and Cooling (HVAC) plant is used in the delivery of heating and cooling, mounted at high level, with de-stratification fans to distribute and mix the air. The energy usage of the HVAC plant will be reduced by using high efficiency motors driven by variable speed drives.



High efficiency lighting in the store



External signage, which includes LED technology

- The highest efficiency boiler and chilling plant has been installed.
- Heat is provided to the over door heaters from heat pumps which reduces the energy consumption by a significant amount.

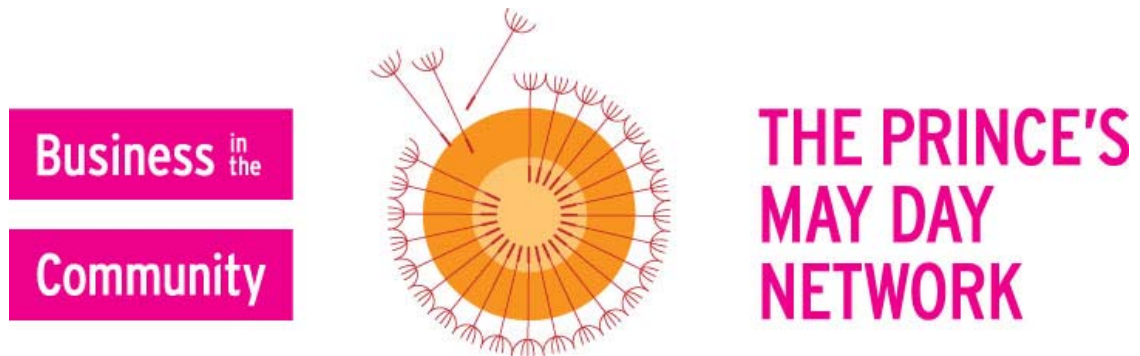


Over door heaters at Boots UK's store in Sovereign Retail Park, Eastbourne

- A voltage optimisation device is to be fitted to this store's electrical supply to ensure the voltage is appropriate for the connected load. Voltage Optimisation is achieved by means of an electrical transformer which reduces the magnitude of the incoming supply voltage from the grid to the optimal level for the installation. Savings are achieved by reducing losses in the connected load and by ensuring that items of electrical equipment are operating most efficiently.
- Energy metering has been fitted to all store sub circuits to monitor actual usage for each type of load. The energy usage will be continuously monitored to spot any increasing trends and provide useful detailed information for future developments.

- The assessment of the results of the trial is expected to show energy savings of around 40%. This would amount to 82 tonnes of carbon per annum.

More information on Boots UK's corporate social responsibility agenda can be found at [www.boots-uk.com/csr](http://www.boots-uk.com/csr)



\*Boots stores prior to the 2006 merger between Boots Group PLC and Alliance Unichem Plc.

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