



LOW ENERGY LIGHT BULBS

CATEGORY: ENERGY

CASE STUDY YEAR: 2007

Business Details:

**Haggerston castle Holiday Park
Berwick Upon Tweed
Northumberland**



<http://www.haggerstoncastleholidays.co.uk>

Description:

Haggerston Castle holiday park have undertaken a program to replace some lighting in the main entertainment complex. The old lighting consisted of 100 x 35w GU10 type halogen lights. With this type of lighting only about 25% of the energy is converted into light and the rest into heat. The lights were replaced with compact florescent equivalents, which are rated at 11 watts. This is a significant step for the business to take towards minimising its environmental impact.



Economic

Purchasing 100 11w CFL bulbs would cost approx £650. Annual electricity costs for 100 35w bulbs would be approx £1225 assuming a cost of 8 pence per unit and operation of 12 hours per day, 365 days a year. So the payback period for the replacing the bulbs is around 1 year and will save around £600 PA thereafter. Although there is initially a greater cost when fitting low e bulbs the bulbs can last eight times longer than standard bulbs so maintenance costs will be cut also.



Environmental

The carbon emissions resulting from the energy consumption of the original lighting would be approx 6500 kg of carbon a year. The carbon emissions resulting from the new low energy lighting would be approx 2066 kg per year. Carbon savings resulting from new low e lighting would be approx 4434 kg per year.



Social

This measure can have far reaching social implications; waste is greatly reduced as is maintenance. Guests can see that the business is responsible and cares about the environment. Obviously energy consumption and the resulting pollution can affect us all.

WEB

Megaman Energy Saving Lamps: <http://www.megamanuk.com>
Lightbulbs direct: <http://www.lightbulbs-direct.com>
BLT Direct: <http://www.bltdirect.com>