

CASE STUDY: Kings Arms Hotel

Energy efficiency makeover



The thermal image above shows bright yellow-orange patches where heat is escaping from the hotel.

Funding for the Kings Arms Hotel's energy audit and to help with installation of recommended energy efficiency measures was provided by the Rural Regeneration Zone.

MEA's Project Carbon team conducted an energy audit of the Kings Arms Hotel in Cleobury Mortimer and found that switching to low energy lighting would save over £800 and over 4 tonnes of CO₂ each year.

As the letting rooms are being refurbished there was also an opportunity to insulate the roof of the property. Through insulating a large part of the floor of the top storey (which is used only for storage) it has been ensured that only the parts of the building actually in use are being heated as well as less heat escaping the building. It was found that this, in combination with window shutters to reduce night-time heat losses, would save an additional 2 tonnes of CO₂ and £300 in heating oil each year.

CARBON DIOXIDE SAVINGS

	Annual CO ₂ savings	% of total CO ₂	Lifetime CO ₂ savings*
Low energy lighting	4.35 tonnes	14%	13.1 tonnes
Insulation and shutters	2 tonnes	6.4%	40 tonnes

*This assumes an operation time of 3 years for the bulbs and 20 years for the insulation and glazing.

FINANCIAL SAVINGS

	Annual cost savings	Payback period (approx.)
Low energy lighting	£840	6 months
Insulation and shutters	£300	10 years

