

Proposed Chilterns Carbon Offsetting Scheme

Low Energy Light Bulbs

It is proposed to give away 11W low energy light bulbs (suitable to replace either 60W or 100W traditional bulbs). The calculations are based on replacing 60W bulbs.

The industry calculates that the average light bulb is on for 1700 hours per year. This calculation assumes only 800 hours.

Low energy light bulbs have a predicted lifespan of 8000 hours - 10 years.

1 Kwh of electricity use results in approx 0.3 kg of carbon dioxide

The carbon saving over 10 years resulting from replacement of a 60W traditional bulb by an 11W low energy bulb would be:

49 Watts x 800hours x 10 years = 392 KWH x 0.3Kg CO₂ = **117 Kg of CO₂**

100 bulbs would result in a carbon saving of 11.76 tonnes over 10 years.

Tree Planting

A fully grown mature native hardwood tree will absorb approx 0.5 tonnes of carbon over a lifespan of 100 years.

It has been assumed that of each 1000 trees planted only 100 will reach maturity (10%).

Based on a survival rate of 10%, each tree planted will ultimately result in 50Kg of carbon absorption if those trees which survive live to 100 years or more (this will depend upon the species thus long lived species such as oak will be preferred).

100 trees planted could result in 5.0 tonnes of carbon being absorbed.