

# i Low Energy Lighting



Lighting can be responsible for around 25% of household energy use. Swapping older inefficient bulbs for low energy equivalents is a relatively cheap and easy way to reduce your carbon emissions and energy bills.

## Typical Costs and Savings...

 **45kgCO<sub>2</sub>e**  
Annual Carbon Savings

 **£60**  
Annual Bill Savings

 **£80**  
Typical cost

## Choosing the Right Light

### Halogen Lighting

Following a European ban in 2018, Halogen bulbs are being phased out in the UK, although low wattage halogen lighting may still be available from some retailers. Although halogen bulbs use 20-30% less energy than the incandescent bulbs which preceded them, they are relatively inefficient and should be avoided where possible.



### Compact Fluorescent Lamps (CFLs)

Compact Fluorescent Lamps (CFLs) are the most common type of energy saving lightbulb in the UK, using around 60-80% less energy than incandescent bulbs. CFL's can be slower to brighten than other types of bulbs, so are less suitable for stairways and bathrooms where bright light is required instantly. However they are long lasting and relatively inexpensive

### Light Emitting Diodes (LEDs)

LED lighting is currently the most energy efficient way to light your home, using around 90% less energy than an incandescent bulb. The price of LED bulbs has fallen significantly in recent years; although still comparatively expensive to buy, they last a lot longer than other bulbs and so tend to be cheaper in the long run.



## Keep it Renewable

A simple way to make sure that your lighting uses less carbon is to switch your electricity to a 100% renewable supplier.

Do your research before you switch. Some suppliers claim to provide 100% renewable energy tariffs, but buy little or no energy directly from renewable generators. See our guide to Green Energy Tariffs for more information.



\* Figures are taken from Energy Saving Trust and are based on fuel prices as of October 2023. Estimates are based on replacing all remaining incandescent bulbs and halogen spotlights with LEDs.

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## Comparing Lumens and Watts

In the past, lightbulbs have generally been rated in Watts. However, as energy saving bulbs produce more light per watt, it is better to compare lightbulbs by their lumen rating, which refers to the amount of light given off by the bulb. A table of equivalent ratings is shown below:

Lumen Rating	400	800	1600	2150
Incandescent	40W	60W	100W	150W
Halogen	28W	42W	70W	105W
CFL	8W	11W	23W	30W
LED	6W	8W	13W	20W

### Halogen bulbs

Use 20-30% less energy than incandescent bulbs

Bulb costs around £2

Lifespan up to 2 years

£6 approximate yearly cost per bulb (inc. purchase and running costs)

### CFL bulbs

Use 60-80% less energy than incandescent bulbs

Bulb costs around £3-£4

Lifespan up to 10 years

£2 approximate yearly cost per bulb (inc. purchase and running costs)

### LED bulbs

Use around 90% less energy than incandescent bulbs

Bulb costs around £4-£8

Lifespan 25 - 30 years

£1 approximate yearly cost per bulb (inc. purchase and running costs)

## Other tips to reduce the energy used to light your home

- Remember to turn lights off whenever you leave a room
- Think about your lampshades. Dark or dusty shades absorb some of the light that a bulb emits
- How much light do you need? Can you use a lamp instead of the main room lights?
- Consider installing sensors so that lights turn off if nobody is in the room

## Next steps...

If you are interested in reducing energy, NEP are here to help. For advice on grants or for energy advice, please complete our online form at:

[www.nottenergy.com/self-referral-form](http://www.nottenergy.com/self-referral-form)

or call us on **0115 947 2207**