



Broseley Town Council have recently upgraded to LED street lighting February 2024

[Broseley Town Council](#) have invested £55,000 to convert 55 of our street lights to low energy LED units. The project will also include replacing the 55 concrete lighting columns, to a 6 metre Galvanised Steel column.

The overall upgrade was a huge success which will now help towards our drive to cut CO2 emissions, reducing annual carbon emissions by 2.4 tonnes and saving 78 per cent in both energy costs and CO2.

Reasons for the upgrade

- Having declared a climate emergency, we are upgrading our street lighting to LEDs to support carbon reduction and cost savings in the longer term.
- To remove a Health and Safety RISK by upgrading concrete columns with sleeves as a priority.
- This work is an important part of our plan to reduce energy consumption, carbon usage, and ongoing street lighting maintenance costs.

The benefits of LED lighting

Using LEDs will:

- be much more energy efficient and reduce energy consumption;
- last longer and reduce the likelihood of faults;
- minimise light pollution into homes and gardens by directing light onto the road and pavement where it is needed;
- be programmable so they can be dimmed when appropriate.

Dimming LEDs

The new street lights will be dimmed, this will increase the energy saved and ensure areas are lit according to use. Dimming option from midnight to 05.30am, which will drop the power to 75% Output.

Costings and timings

The overall cost of the scheme is £55,000

Cost comparison table:

Existing Lanterns 35W SOX (55/28 Cell)	New Lanterns 14W TRT LED lanterns (20/20 Cell)	Saving
4130 X 65W = 268,450W	New 14W TRT LED lanterns (20/20 Cell)	£1,660.21 per annum in energy costs
268,450W / 1000 = 268.45 kW	4091 X 14W = 57,274W 57,274W / 1000 = 57.274 kW	2,405.04 kg CO ₂ e (2.40504 Tonne)
268.45 kW X 0.14639p p/kWh = £38.57 per year in energy costs to light that individual lantern.	57.274 kW X 0.14639 p/kWh = £8.38 per year in energy costs to light that individual lantern.	78% Saving in both Energy costs and Carbon.
55 No. x £38.57 = £2121.35 per annum in energy (excluding the feed in tariff as this won't change)	55 No. x £8.38 = £461.14 per annum in energy (excluding the feed in tariff as this won't change).	
0.20707 kg CO ₂ e per kWh x 268.45 kW = 55.588 kg CO ₂ e	0.20707 kg CO ₂ e per kWh x 57.274 kW = 11.860 kg CO ₂ e	
55 No. x 55.588 kg = 3,057.34 kg CO ₂ e (3.05734 Tonne)	55 No. x 11.860 kg = 652.3 kg CO ₂ e (0.6523 Tonne)	

The successful installation of the LEDs and columns was completed by Prysmian in four weeks, and the feedback from residents has been great.

Brightness

- 3K Colour Temperature which is a “Warm White”, and switching to 3000k. This lantern is Certified by the Dark Sky Association creating less light pollution up into the sky at night.
- Residents are often surprised at the apparent brightness of a newly installed LED street light.
- LEDs offer a whiter light with better colour contrast so that objects are more visible for road users and residents alike.
- Most people perceive the light from LEDs as brighter, whereas in fact it is just whiter and clearer.

Light shields

In the past we have installed shields in locations where residents' properties were affected by the light glare. We will monitor this throughout the scheme and adjust as required.



Town Mayor Andy Taylor, Deputy Town Mayor Caroline Bagnall, and Cllr Ian West visited Collins Close to see the completed street lighting upgrade for this area. They were thrilled with the overall result and were pleased to hear that residents were too.