

LED Lighting

South Gloucestershire Council (SGC) needs to make significant financial savings and reductions in CO₂ emissions over the coming years. This is to meet national spending targets, as well as our commitment to reduce the Council's carbon footprint under European legislation.

The Council currently has approximately 29,500 street lights and 3,500 lit road traffic signs, which currently cost £1.5 million in energy and create in the region of 8000 tonnes of CO₂.

Like many local authorities, we are introducing LED (Light Emitting Diode) street light technology to help reduce our energy costs and cut carbon emissions. Over the next decade, we will be gradually replacing all 29,500 street lights with LED units.

The following sets out answers to commonly asked questions about LED lights:

How much will this cost and how much will it save?

This is an 'Invest to Save' project, which is designed to pay for itself over time and then deliver ongoing savings for the council. The total cost of replacing all units with LEDs is approximately £14m. On average, the lights will pay for themselves within approximately eight years of installation. After this, we expect that the total yearly energy savings for the council will be about £800,000 (at 2013 prices).

What are the big differences between LED lights and my current lights?

- **The lights are dimmer** - We are aware that areas will be dimmer; however, on balance, the council considers the lighting level to be appropriate.
- **There are darker areas between lights** - The focusing technology of LEDs makes sure that more of the light's output is most usefully directed at the ground, reducing the amount that 'spills' out to the sides. This will make it appear darker outside lit areas.
- **Light pollution is considerably less** – less light spills into the sky and into gardens, meaning driveways and doors don't get illuminated.
- **LED lights use 60% less energy** - When fully implemented will reduce our total street lighting-related carbon emissions by about 60% - equal to around 4,800 tonnes per year.
- **LED units last four times as long** – This results in lower maintenance costs
- **LED lights can be controlled** – This means we will be able to dim lights down in quieter times, to help save more money.

When will my street lights be replaced with LEDs?

LEDs will be introduced gradually over the next 10 years, so your street lights may not change for a number of years. We will generally prioritise main roads and some urban areas first, as these use more energy and will deliver the bulk of energy savings.

Will you be replacing the lighting columns to do this?

No, we will be reusing all columns and their existing positions unless they need to be replaced as part of our routine maintenance programme.

Will you be dimming the LEDs when they are installed?

Yes. A useful feature of the new technology is that it allows us to adjust the output of the lights, to help reduce energy consumption and carbon emissions. We plan to dim all of our street lights by between 25% and 50%. Evidence from other local authorities suggests that dimming LED street lights by this level is barely noticeable to the human eye.

Will you be getting rid of part-night lighting now that we have LEDs?

The part-night lighting strategy will continue with the LED lights, as this is part of our programme to conserve energy and reduce carbon emissions.

Is the Council legally required to provide street lighting?

There is no statutory requirement on local authorities in the UK to provide public lighting, the law states that:

- The Highways Act empowers local authorities to light roads but does not place a duty to do so
- The Council has a duty of care to road users and has an obligation to light some obstructions on the highway
- The Council has a statutory duty under the Highways Act to ensure the safety of the highway and this includes any lighting equipment placed on the highway
- The Electricity at Work Regulations impose a duty on owners and operators of electrical equipment to ensure its safety