BREEZ Guidance – LED Lighting

BREEZ offers public sector funding to help cut energy costs for eligible SMEs in Sunderland. LED lighting can be an excellent way to cut energy costs but it is essential to ensure BREEZ funding is allocated in accordance with industry best practice and avoids the potential pitfalls of non-specialist lighting advice and poor quality products. This document is intended to help SME clients set a benchmark for lighting projects which are funded from public sector grants.

It is important to note BREEZ will only fund a scheme which is financially viable, reduces energy use and cuts carbon emissions whilst providing good quality LED lighting demonstrating value for money over the specified lifetime of the product. The following guidance suggests the minimum requirements for typical LED lighting projects. This standard may be amended in order to provide the right lighting solution for more specialist applications.

1) Replacing existing fluorescent tubes and bulbs (lamps) with retro fit LED tubes and bulbs is not, under any circumstances, supported by BREEZ. Only new and complete LED luminaires can be considered for funding. **This means the existing light fitting and the bulb must be replaced with a new LED light fitting.**

2) All LED lighting quotes must be itemised and set out the
   - Make and model,
   - Wattage per unit type,
   - Colour Temperature: we expect a colour temperature of 4K although in lower lighting applications such as café's and restaurant's we may accept 3K. Higher colour temperatures above 5K are not permitted without prior consent from of the council.
   - Colour Render (CRI)– when colour is viewed under artificial light it should look as natural as possible. BREEZ requires a minimum CRI of 0.8.
   - Manufacturer and installer warranties for the proposed new LED light fittings and bulbs to also include specified lifetime of the product and warranty details (typically 5yrs covering full failure, reduction in light output, colour shift and any partial failure on the LED light engine)
   - Labour
   - All costs not including VAT

3) Computer screens are commonplace in some environments, in order to comply with guidance for computer screens all products shall be UGR 19 (EN12464).

4) Flicker of LED products can be a problem in many environments, from more obvious issues such as ripple on TV screens when video conferencing or strobe effect on rotating machinery such as lathes in workshops but also much more widespread and concerning effects. The existing technologies in LED lighting sometimes cause flicker at frequencies that may have adverse health effects. The various adverse effects of flicker include eye strain, fatigue, headache, migraine, blurred vision as well as photo epilepsy in sensitive individuals. In order to mitigate this we require all lighting products to comply with IEEE P1789

5) Where possible and if budget constraints and Health and Safety requirements allow dimmable lighting and automatic controls can further reduce energy consumption.

SME must request this information when inviting supply and / or install LED lighting quotations. To qualify for public funding compliance with points 1-5 above is a pre-requisite. Reputable LED lighting providers and installers will be familiar and comfortable with these requirements.

If you have any questions please contact Graeme.Stephenson@sunderland.gov.uk or call 07880 465 959