

## Freedom of information questions - LED street lighting

### Part 1 The introduction of LED Street lighting and Health and other assessments

<p><b>1) Introduction of LED street lighting</b></p> <p>a) Has your council introduced any LED street lighting over the past 5 years? If yes please explain why it was introduced.</p> <p>b) Were residents consulted before the LED street lighting was introduced? If yes, please supply us with copies of all reports on the consultation and associated papers?</p> <p>c) Did the council pilot the introduction of LED street lighting in any areas? If yes, please supply us with a copy of the evaluation of the pilot sites.</p> <p>d) Has the council had complaints about LED street lighting? If so, please let us know the number of complaints each year, and a breakdown of the reasons for the complaints, if available.</p>	<p>Yes – we introduced a scheme to upgrade our SOX lantern that were beyond repair and inefficient in 2014</p> <p>Yes – we chose 4 roads from around the County and 4 different kelvins ratings then sent questionnaires round to gauge opinion</p> <p>As above</p> <p>We don't have this information, any complaints have been dealt with on an as and when basis to a satisfactory level.</p>
<p><b>2) Health and other assessments</b></p> <p>a) Did the council conduct research into the safety and user acceptability of LED street lighting?</p> <p>b) Did the council undertake a health impact assessment prior to introducing LED street lighting?</p> <p>c) Did the council undertake a disability impact assessment prior to introducing LED street lighting?</p> <p>d) Did the council carry out an Equality Impact Assessment, for example to ensure that older people are not disadvantaged by such lighting?</p> <p>e) How did the council ensure that the introduction of LED street lighting met its obligations under the Public Sector Equality Duty (PSED) to ensure that it did not cause discrimination?</p> <p>f) Did the council carry out an EIA (Environmental Impact Assessment)?</p>	<p>Yes – Questionnaire to residents as per above. Safety was challenged with manufacturer</p> <p>Lighting manufacturer will have this info – Holophane UK</p> <p>Lighting manufacturer will have this info – Holophane UK</p> <p>Lighting manufacturer will have this info – Holophane UK</p> <p>Lighting manufacturer will have this info – Holophane UK</p>

<p>g) Did the council assess the impact on protected species (e.g. bats) and what steps (if any) were taken to ensure that the chosen LED specification satisfied the statutory duties relating to biodiversity. If yes please supply LightAware copies of relevant documentation.</p> <p>h) How does the council take into account the sensitivities of residents with sensitivities to LED street lighting, e.g. people suffering from migraines, lupus and autism? Please describe the process.</p> <p>If the answer is yes to any of the questions a) to g), please supply a copy of the relevant council papers and assessments.</p>	<p>Lighting manufacturer will have this info – Holophane UK</p> <p>G and H: These are dealt with on and as and when basis following issues raised with us to a satisfactory agreement</p>
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## Part 2 Investment in LED street lighting

<p>3) How much has the council invested in LED street lighting in each of the past five financial years?</p>	<p>2014/15 - £800,000  2015/16 - £1.8m  2016/17 - £1.5m  2017/18 - £1.5m  (for 2017/18 provisional figures if appropriate)</p>
<p>4) How was the LED street lighting funded in 2017/18?</p> <ol style="list-style-type: none"> <li>1) Green investment bank?</li> <li>2) Public works loan board?</li> <li>3) Prudential borrowing?</li> <li>4) Revenue to capital?</li> <li>5) Other (please specify?)</li> </ol>	<p>All project funded by Salix Finance</p>
<p>5) How many streetlights in the current council area are currently (as of 30 June 2019)?</p> <ul style="list-style-type: none"> <li>• Low Pressure Sodium discharge lamps</li> <li>• The high-pressure sodium lamps</li> <li>• Metal Halide</li> <li>• LED</li> <li>• Other please specify</li> </ul>	<p>Number of each</p> <p>2264  32,714  59,300</p>

<p>6) Of the LED streetlights how many are:</p> <ul style="list-style-type: none"> <li>• Phosphor-Converted Amber (PCA) LED Street Lamps?</li> <li>• Narrow-Band Amber (NBA) LED Street Lamps?</li> </ul>	None
<p>7) Colour temperature of LED street lighting. Of the currently installed street lighting please let us know the number in the following correlated colour temperature categories:</p> <ul style="list-style-type: none"> <li>• Under 3000 degrees kelvin</li> <li>• 3000 – 3999 degrees kelvin</li> <li>• 4000 degrees kelvin and higher</li> </ul>	<p>Number of each</p> <p>Our LED's are currently 4,000 Kelvins, we are hoping to trial 3,000 in the near future now they are available.</p>
<p>8) Glare and flicker - What steps (if any) the authority has taken to mitigate the known and serious problems (relating to health and road and public safety) of glare and flicker that are associated with LED street lighting.</p> <ul style="list-style-type: none"> <li>• How many of the installed LED streetlights are flicker free?</li> <li>• How does the council monitor that they remain flicker free?</li> <li>• How many of the installed LED streetlights have unshielded LED chips?</li> </ul>	<p>This falls to the manufacturer, we are moving with changes in technology as SOX are no longer available and SON becoming more difficult to get hold of. The move to LED is industry led not Council led, we can simply follow and make sure the chosen manufacturer complies to all the standards.</p>

### Part 3 Planned investment in LED street lighting

<p>9) How much has/ does the council plan to invest in LED street lighting in each of the following financial years?</p> <ul style="list-style-type: none"> <li>• 2018/19</li> <li>• 2019/20</li> <li>• 2020/21</li> </ul>	<p>18/19 – £2.4M 19/20 - £1.2m</p>
<p>10) How does the council plan to fund this investment?</p> <ul style="list-style-type: none"> <li>• Green investment bank?</li> <li>• Public works loan board?</li> <li>• Prudential borrowing?</li> <li>• Revenue to capital?</li> <li>• Other (please specify?)</li> </ul>	Salix Finance

<p>11) Of the current streetlights in your council area (see question 5), how many do you plan to replace over the next 3 years?</p> <ul style="list-style-type: none"> <li>• Low Pressure Sodium discharge lamps</li> <li>• The high-pressure sodium lamps</li> <li>• Metal Halide</li> <li>• LED</li> <li>• Other please specify</li> </ul>	<p>Low pressure sodium – all High pressure sodium – 12,000 at the present time</p>
<p>12) What do you plan to replace them with? If the replacements are LED let us know the number in the following colour temperature categories:</p> <ul style="list-style-type: none"> <li>• Under 3000 degrees kelvin</li> <li>• 3000 – 3999 degrees kelvin</li> <li>• 4000 degrees kelvin and higher</li> </ul>	<p>LED with a 3000-4000 kv rating</p>
<p>13) In undertaking this investment has the council taken into account recent reports on the health and safety of LED lighting produced by:</p> <ul style="list-style-type: none"> <li>• The EU SCHHER report on potential risks to human health of Light Emitting Diodes (LEDs)? see link <a href="https://ec.europa.eu/health/sites/health/files/scientific_committees/scheer/docs/scheer_011.pdf">https://ec.europa.eu/health/sites/health/files/scientific_committees/scheer/docs/scheer_011.pdf</a></li> <li>• The latest EU guidance on the procurement of LED street lighting? see link <a href="https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/revision-eu-green-public-procurement-criteria-road-lighting-and-traffic-signals">https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/revision-eu-green-public-procurement-criteria-road-lighting-and-traffic-signals</a></li> <li>• The French public health institute (ANSES) report on effects on human health and the environment (fauna and flora) of systems using light-emitting diodes (LEDs)? see link <a href="https://www.anses.fr/en/system/files/AP2014SA0253EN.pdf">https://www.anses.fr/en/system/files/AP2014SA0253EN.pdf</a></li> </ul>	<p>Yes, we work closely with the lantern manufacturer, Holophane to ensure all health issues are considered and BS met, IEC 61471 &amp; IEC 62778</p> <p>yes</p> <p>yes</p> <p>No</p>