

CHESHIRE EAST COUNCIL

BRIEFING PAPER: : Environment and Prosperity Scrutiny Committee

Date of Meeting:

Report of:

John Nicholson – Strategic Director, Places and Organisational Capacity

Subject/Title:

Street Lighting Strategy

Portfolio Holder:

Cllr. Rod Menlove - Environmental Services Portfolio Holder

1.0 Report Summary

- 1.1 This report outlines the strategy for the investment into street lighting within Cheshire East to deliver both energy and carbon savings.
- 1.2 This requires a significant change to the approach that is taken to the provision and operation and management of street lighting across the highway network.
- 1.3 Cheshire East Highways currently maintains approximately 38000 street lighting units across the Borough. The columns and lighting units are of a variable age and condition affecting the level of maintenance and efficiency of the lighting units.
- 1.4 This strategy does not address the condition of the street lighting asset due to the limitation of the funding.
- 1.5 There is no statutory duty to light the highway; the Highways Act 1980 empowers the authority to provide street lighting. Once lit there is a statutory duty to maintain lighting in a safe working condition.
- 1.6 The energy bill for street lighting within Cheshire East is approximately £1.6M per annum. The authority is committed to reducing the energy bill by approximately 40% by 2016 against a trend of increasing energy charges.
- 1.7 The authority is committed to reduce its carbon dioxide emissions by 25% by 2016. Street lighting is responsible for 14% of the Authorities CO₂ emissions, outputting some 7200 tonnes of CO₂ per annum

2.0 Recommendation

- 2.1 The strategy developed by Cheshire East Highways, that will deliver the savings required, is to be implemented across the whole network. The Borough is divided into 117 street lighting zones that include the traffic, town centre and residential areas.

- 2.2 This strategy should be adopted for the review of all existing street lighting and any new installations being adopted.
- 2.3 This strategy will follow a seven step process.
 - 2.3.1 The process will be applied across the zones to identify the appropriate operation for the street lighting.
 - 1. **Identify a zone to be assessed** - It is intended to try to assess all of the zones within the 2012 / 13 year. This will allow those zones not able to be funded in the 2012 / 13 financial year to be identified for future years and also the scale of savings to be assessed and required funding identified.
 - 2. Prepare a **Lighting Design Engineer's report** – This will apply the overarching strategy principles to identify what changes can be made to the zone. This will allow the energy and carbon savings to be estimated and the required funding identified.
 - 3. Determine that the **selected site** has no obvious site specific issues that will render the site inappropriate for lighting -adjustments. This will consider those elements outside of the lighting engineer's assessment including reference to the police specifically in residential areas where crime may be an issue.
 - 4. Prepare a **Road Safety Engineers Briefing** - to provide an assessment of the locations where street lighting has been provided and the changes that are being proposed. This assessment may make recommendations that change the proposed approach at some locations due to the accident history.
 - 5. Implement the **Communications plan** – this has been developed to ensure stakeholders are consulted.
 - 6. **Implementation** – this will be completed within the 2012 / 13 financial year. It is proposed that the strategic road network will be completed during the 2012 /13 financial year. The residential zones will be completed progressively with the final number to be completed in the 2012 / 13 financial year currently being established.
 - 7. **1st year review** – the initial implementation will not remove any of the assets from the network only change the operation. After 6 months of the revised operation correspondence, accident / crime data will be reviewed to confirm that the operation will be retained.

3.0 Reasons for Recommendation

- 3.1 To deliver the Council's energy and carbon reduction targets the changes identified have to be implemented as only a significant change in the operation will realise the level required.

4.0 Wards Affected

- 4.1 All Wards are affected by the strategy.
- 4.2 It is targeted to complete the implementation of the strategy across the Borough on the strategic traffic network within the 2012 /13 financial year.
- 4.3.1 Due to the volume of street lights in residential areas the implementation of the strategy and available funding will not see the completion of all areas in the 2012 /13 financial year. The assessment of these is planned in the 2012 /13 financial year to establish future programmed works.

5.0 Local Ward Members

- 5.1 All Ward Members are affected by the proposal.

6.0 Policy Implications including - Carbon reduction - Health

- 6.1 The Authority emitted some 51000Tonnes of CO₂ in 2008/2009, the baseline year adopted in the Cabinet approved report "Carbon Management Plan". Street lighting is responsible for approximately 14% of the total (7140t).
- 6.2 The Authority has agreed to reduce its emissions by 25% by 2016.
- 6.3 Street Lighting's contribution towards the corporate savings target of 25% is approximately 1800t. The approach being adopted and based on the budget provision allocated for 2012/13 will result in carbon emission reductions estimated at 1500t.

Equating to over 80% of the total Street Lighting target being achieved by the end of 2013 subject to the condition of the asset.
- 6.4 In addition to the savings achieved from Street Lighting, further reductions will also be secured from the Traffic Signal equipment upgrade to LED technology.
- 6.3 The strategy has a number of different options embedded within it; these options will be carefully selected to ensure that the safety and security of all users of the highway network are not adversely affected.

- 6.4 The current policy for Street Lighting has no facility within it to allow for differing operating and management regimes. It is proposed that the policy be amended to allow for a variety of switching regimes as well as the ability to dim lighting along routes at certain times. The technologies for allowing these are well proven.
- 6.5 The policy may identify locations or routes where the street lighting is no longer considered appropriate for retention. In these cases the lighting may be switched off and subsequently removed (subject to future funding).

7.0 Financial Implications (Authorised by the Director of Finance and Business Services)

- 7.1 £1.75M has been secured to implement and deliver the year one savings. The capital bid business case was made on the basis of the project being cost neutral over 7 years, with the savings made in electricity costs being reinvested by the Authority.
- 7.2 To deliver future years' savings additional investment will be required. Completion of the assessment of all of the zones within the 2012 / 13 year will allow future year spend profiles to be established.

8.0 Legal Implications (Authorised by the Borough Solicitor)

- 8.1 The Highways Act 1980, section 97(i) bestows a power upon the Authority to light the highway, it is not a statutory requirement. The same Act also gives the Authority the power to remove such equipment as and when it is deemed necessary, section 97(ii).

9.0 Risk Management

- 9.1 A separate risk register is attached as Appendix A.

10.0 Background and Options

- 10.1 Street lighting may have been previously installed on sections of historic highway where isolated incidents have occurred. The system of street lighting installed at these locations often has provided an over provision on the approaches to the local area.
- 10.2 New sections of highway, built pre 2010, have also been lit to a very high standard. The need to light being based on anecdotal evidence that shows that lit highways are safer than unlit highways.
- 10.3 The latest major highways project constructed in Cheshire East, the Alderley Edge Bypass, has street lighting only provided where the road meets the roundabouts at either end of the section; an approach endorsed by Cheshire East Highways.

- 10.4 Estate roads are mainly lit for footway illumination only and, where Cheshire East Council is the lighting authority, the Roads for Adoption guidance currently specifies that lighting will be provided.
- 10.6 Trials have been completed across the country that adopt a new approach to street lighting. This information has been researched and considered in determining the most appropriate strategy for Cheshire East.
- 10.7 A number of trials have now been completed within Cheshire East that include:-
- Part Night Trails in residential areas in Wilmslow
 - Dimming trial (40% reduction in the lighting level) on the Middlewich Road, Sandbach
 - Street light switch off and LED lighting trials on the A34 from the Borough boundary to the Alderley Edge Bypass.

These trials are being used to inform the proposed strategy.

- 10.5 It is proposed that a new policy be adopted that allows the authority to:
- Remove street lighting on sections of inter urban road that would no longer qualify for street lighting under this strategy.
 - To dim lights, after a set time, such that they are effectively at 50% power
 - To “part night” light residential areas
 - To alter the ambient lighting levels at which street lighting is switched to allow for a shorter burn time
 - Replace lanterns that need to be “on” at all times with energy efficient units such as LED or fluorescent lanterns.
 - To promote the use of energy efficient lanterns for all future developments and to ensure that these developments adopt the same switching regime that is promoted in the same locality. And in addition ensure that over provision is not made.
- 10.6 It is acknowledged that not all areas will be treated in the same manner. This will be data led and that close liaison with the Police will be required prior to altering any lighting regime within a residential area.
- 10.7 Two matrices are attached, as Appendix B, which will be used to assess how an area will be treated. The matrices are based on objective criteria to ensure that a consistent application of the policy can be achieved.
- 10.8 Approval of the approach is critical to being able to deliver the savings allowing as many changes to be implemented prior to the autumn / winter months.

11.0 Access to Information

11.1 The background papers relating to this report can be inspected by contacting the report writer:

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