
Meeting: Executive

Date: 18th August 2009

Subject: Strategy for managing Highways Lighting

Report of: Portfolio Holder for Sustainable Communities

Summary: Central Bedfordshire is responsible for the upkeep of approximately 21,000 street lights. Whilst street lighting is expensive to maintain and environmentally damaging, it has the benefit of reducing road accidents, as well as helping to address issues related to fear of crime. Also, the Council has a general duty of care to road users and the general public to ensure their safety, but in common with many local authorities in England, our capital allocation from Central Government is insufficient to allow the Council to maintain the value of its existing highways assets over the long term. A street lighting strategy has therefore been developed which aims to provide the level of service that people expect in a sustainable way.

Advising Officer: Gary Alderson – Director Sustainable Communities

Contact Officer: Basil Jackson – Assistant Director Highways and Transport

Public/Exempt: Public

Wards Affected: All

Function of: Executive

Key Decision Yes

**Reason for urgency/
exemption from call-in
(if appropriate)** N/A

RECOMMENDATIONS:

That members approve the proposed strategy for the provision, maintenance and renewal of street lighting.

Reason for Recommendations: So that best value may be obtained from the highways capital allocation for street lighting.

Street Lighting Strategy

1. There are over 21,000 lighting units in Central Bedfordshire which need to be replaced after between 25 and 40 years in service. About 60% of the existing stock is over 20 years old and the cost of replacing it over the next 20 years requires a capital investment of £20m. In January 2009 the executive approved an increased capital budget allocation for 2009/10 – 2012/13. In addition, new developments are increasing the lighting stock without any corresponding increase in available maintenance budgets. It is therefore proposed to introduce a sustainable strategy for the provision, maintenance and renewal of street lighting aimed at improving value for money. (A more detailed summary of the proposed lighting strategy is at Appendix A).
2. The proposed strategy will:
 - 2.1 Save on lighting energy costs by:
 - 2.1.1 dimming street lighting between 23.00 and 06.00 on all traffic routes and also during the remaining lit hours, depending on the nature of the trafficked route;
 - 2.1.2 trimming street lighting by reducing burning hours (coming on 10 to 20 minutes later and similarly turning off earlier);
 - 2.1.3 turn off street lights for part of the night, say 24.00 to 06.00, where supported by the local community and partner organisations;
 - 2.1.4 replace lanterns with white light varieties in residential areas which will allow energy consumption and luminance levels to be reduced;
 - 2.1.5 remove illumination on signs and bollards where new standards allow; and
 - 2.1.6 trial the use of LED lanterns.
 - 2.2 Reduce the cost of capital renewals by adopting new local street lighting standards aimed at reducing the luminance levels, and therefore the number of lighting columns, in streets where it is safe to do so. This involves the development of new local lighting standards to:
 - 2.2.1 provide varying lighting levels and light sources dependant on environmental zone, road hierarchy, accident statistics and crime map; and
 - 2.2.2 greater use of white light lamps which allows a lower luminance level for the same degree of visibility

- 2.3 Apply similar reduced street lighting standards to new developments through the planning approvals process to reduce future energy, maintenance and renewal liabilities. The Authority is presently updating the Highways Design Guide, which is due to be presented to Members for approval later this year. The proposed strategy for maintenance of highway lighting will be included in the revised version of the Highways Design Guide. In the intervening period prior to adoption Highways Development Control will be instructed to ensure that new developments comply with this strategy.
 - 2.4 Introducing the proposed strategy in 2009/10 will result in a minimum annualised revenue saving of £20,000 in electricity charges plus a further £10,000 in maintenance costs for a capital replacement budget of £2.2M. Continuing the programme in future years will lead to further savings of the same magnitude.
 - 2.5 In 2009/10 it is proposed to replace approximately 1,600 columns/lanterns with a similar number in the next 3 years. This represents about 8% of the Authorities stock per annum. Assuming a minimum reduction in energy consumption of 50% per new lantern, it is expected that the street lighting energy consumption will be reduced by a minimum of 4% per annum. In June 2009, the Authorities CBMT received a report on climate change, which identified the need to reduce energy consumption to meet the Authorities Carbon Reduction Commitment (CRC). Street lighting accounts for about 15% of the Authorities CO₂ emissions. From April 2010 onwards it is estimated the Authority will incur £45,000 per annum to pay for CRC allowances, thus 4% reduction in CO₂ emissions equates to an annual saving of £1,800 per annum.
- 3 Reducing or removing levels of lighting has the potential to create an environment where crime and disorder or fear of crime can increase, additionally changes in levels of lighting does have the potential to impact negatively on some equality groups. To ensure that only areas which are suitable for lower lighting levels are selected as part of the strategy consultation will be undertaken both internally within CBC and externally with partner organisations.
 - 4 The proposals will be piloted at 2 sites, one in Flitwick and one in Dunstable. In Flitwick the pilot will involve the replacement of 196 existing lighting units with LED white light units with full electronic control to allow dimming, trimming and part lighting. It will also involve the removal of sign and bollard lighting where possible and in other cases replacement of sign lighting with LED units. In Dunstable a similar pilot will be conducted with the replacement of 119 existing lighting units.
The pilots are both programmed to commence in September with works completed by November.
 - 5 For LED lanterns, the indications are that whole life benefits in terms of revenue savings, carbon reduction and environmental enhancements will make this the preferred choice for future illumination of the highway. It is proposed that a report on customer and operational feedback from the pilot areas will be presented to the Executive in January 2010, before a final decision to adopt the use of LED lanterns as the preferred option for all future highway lighting is taken.

6 At its meeting on 4 August 2009 the Sustainable Communities Overview and Scrutiny Committee (SCOSC) considered a proposed strategy for the provision, maintenance and renewal of street lighting. The Committee endorsed the proposed strategy, subject to the following conditions:

- that all new developments in Central Bedfordshire should be constructed with new LED lanterns.
- that in accordance with the proposed strategy local consultation should be undertaken with local communities to inform the application of the various approaches set out in the strategy.
- in principal the sooner LED lighting could be implemented throughout Central Bedfordshire the better.

In addition to these agreements the Committee commented that there had been several positive comments from local residents with regards to the LED columns/ lanterns and many residents were keen to see the new lights erected in their local areas. Whilst pilot schemes were underway in Central Bedfordshire Members were keen for officers to review feedback from other local authorities such as Buckinghamshire, where schemes of de-illumination had been used, to assess their impact on the local area and to determine the potential benefits to the Council of implementing such schemes locally.

Officers were also requested to look into issues regarding 30 mph speed zones and the use of signage in these areas if a scheme of de-illumination was implemented.

7 Officers are now consulting with other highway authorities that have implemented large scale LED highway lighting schemes to determine the success of these schemes.

8 Between September 2009 and January 2010 the next phases of the highway lighting column replacement programme include residential areas in Dunstable and Flitwick adjacent to the initial pilot sites. It is not expected that the results of the consultations referred to in para.5 will be reported until January 2010. Therefore subject to officers receiving positive feedback from their consultations with other highway authorities and based upon the recommendations of the Sustainable Communities Overview and Scrutiny Committee of 4th August 2009, it is intended to use LED lighting for the schemes in Dunstable and Flitwick.

CORPORATE IMPLICATIONS

Council Priorities:

The strategy will contribute towards the following Council priorities:

- Restraining council tax through value for money
- Managing growth effectively

Financial:

For an initial capital outlay in 2009/10 of **£2,200,000** the strategy detailed in this report would save the Authority **£20,000** per annum in electricity and a further **£10,000** in maintenance costs. Members should note that there is sufficient funding allocated in the capital programme deliver the 2009/10 proposals.

Legal:

There is no statutory requirement for a Highway Authority to illuminate the highway; however Central Bedfordshire as Highway Authority has a duty under the Electrical Wiring Regulations BS7671 17th Edition to safely maintain existing lighting. Under Section 17 of the Crime and Disorder Act 1998 the Council has a statutory requirement to take all reasonable measures to prevent crime and disorder.

Risk Management:

The Authority has a duty of care and should ensure new lighting is provided in compliance with BS5489 (EN13201-1) whilst ensuring that existing lighting is maintained according with our duties under the Section 41 of the Highways Act.

Staffing (including Trades Unions):

None

Equalities/Human Rights:

The equalities implications are intrinsically linked with the community safety implications outlined as a broad range of evidence shows certain vulnerable groups are more disproportionately affected by these, and therefore benefit. These groups include disabled people, older people, children and young people, women, some ethnic minority groups, some religion and belief groups, and Lesbian, Gay, Bi-sexual and Transgender people.

Community Safety:

Provision of good quality street lighting provides the local community with an increased sense of security and confidence. Well lit areas also have lower levels of crime and lower levels of the fear of crime, a major factor in community safety. Reducing or removing lighting has the potential to increase crime and disorder or fear of crime. Reduced levels of lighting can also have an adverse effect on the effectiveness of public space surveillance including the operation of CCTV.

Sustainability:

On June 10th CMBT received a report “Tackling the climate change agenda: key actions for 2009/10”. The proposals will assist in meeting the Authorities Carbon Reduction Commitment (CRC) by reducing CO₂ emissions by **0.5%** for each year of implementation and reducing the Authorities CRC costs by **£1,800** for each year of implementation.

Appendices:

Appendix A – Central Bedfordshire Lighting Report July 2009

Background Papers (open to public inspection):

None

Location of papers: Priory House, Chicksands