

<b>13 August 2014</b>		<b>ITEM: 14</b> <b>01104315</b>
<b>Cabinet</b>		
<b>Investment in Highways Lighting</b>		
<b>Wards and communities affected:</b> All	<b>Key Decision:</b> Key	
<b>Report of:</b> Councillor Andy Smith, Portfolio Holder for Regeneration, Highways & Transportation		
<b>Accountable Head of Service:</b> Ann Osola, Head of Transportation & Highways		
<b>Accountable Director:</b> David Bull, Director for Planning & Transportation		
<b>This report is Public</b>		
<b>Purpose of Report:</b> To approve £6million of prudential borrowing to convert Thurrock's illuminated street furniture to Low Emission Diode (LED) operation.		

## **Executive Summary**

Thurrock currently has around 17,000 street lights which currently cost the Council over £800K per year in electricity bills. By converting the street lighting stock to Low Emission Diode operation, the Council could cut this bill by half, reduce street lighting maintenance costs and significantly reduce Thurrock's carbon footprint. The resultant saving would allow the capital investment to be repaid, whilst still achieving the target £250K revenue saving from 2017 onwards. This report seeks Cabinet approval to undertake prudential borrowing to undertake this action.

### **1. Recommendations:**

**That Cabinet:**

- 1.1 Approve a programme of work to replace the current conventional street lighting lanterns with energy saving Light Emitting Diode (LED) units.**
- 1.2 Give authority for the Head of Corporate Finance to seek £6m of prudential borrowing to cover the cost of the LED Conversion Programme.**

## **2. Introduction and Background**

- 2.1 There are currently 17,330 street lamps in Thurrock operating with traditional high energy sodium lanterns. These lanterns cost the Council over £800,000 per year to illuminate and this cost has been rising at approximately 10% per year. In addition to the electricity costs, traditional lanterns need to be replaced approximately every 3 – 4 years, incurring additional costs to the Highways budget.
- 2.2 In the 2007 Energy White Paper, Government announced a Carbon Reduction Commitment (CRC), which undertook to reduce the UK's carbon emissions by introducing mechanisms whereby major private and public sector organisations would incur charges if they failed to reduce their carbon footprints. In 2010, the SRS Energy Efficiency Order came into being, paving the way for a mechanism whereby local authorities would effectively have to 'buy' the right to generate carbon emissions. The detail of this charging mechanism is still being developed, but there is a clear incentive for the Council to take measures to reduce its future carbon footprint to minimise the impact of any future charge.
- 2.3 Conversion of Thurrock's street lighting to LED operation would require a capital investment of £6 million, against an asset life of 20 years, resulting in an annual saving of £680,000 per year in reduced electricity bills and maintenance costs. This would be offset against a repayment cost of £430K per year, leaving a net budget saving of £250K from 2017/18 onwards.

## **3. Issues, Options and Analysis of Options**

- 3.1 LED technology is widely used and well established. LEDs produce a high quality white light, which compares favourably with the more yellow light produced by sodium lanterns. Thurrock has already begun a small scale programme to convert other street furniture such as illuminated bollards and Belisha beacons to LED operation. However, conversion of the street lighting stock requires significant 'up front' capital investment.
- 3.2 Alternative options for saving electricity costs, including the removal of street lights and switching street lights off between midnight and 5 am, have been considered but rejected as unnecessary at this stage.
- 3.2 Various mechanisms have been considered to fund this investment.

### *Salix Energy Efficiency Loan Scheme*

Salix provides zero interest loans to public bodies to fund initiatives to reduce carbon emissions. The eligibility criteria for loans are such that less than half of Thurrock's street lighting stock would be eligible for conversion, and the loan would need to be paid back within 5 years, putting an unnecessary strain on the Council's cash flow.

### *Green Investment Bank*

The Green Investment Bank provides loans to Local Authorities to fund initiatives to reduce their carbon footprint. However, the interest charges offered compare unfavourably with the cost of Prudential Borrowing and significant arrangement fees would be incurred for any loan.

### *Prudential Borrowing*

This option would provide a low interest solution, and give the Council maximum flexibility in optimising its debt portfolio.

### **Preferred Option**

Having considered the above options, it is recommended that Prudential Borrowing Option is the preferred method of securing the required capital funding.

### **Implementation**

In terms of implementation, a lead time of 9 months would be required to procure contractors to undertake the work, in compliance with European procurement legislation. The conversion programme would be delivered over 2 years, with energy savings being realised from the end of year 1.

## **4. Reasons for Recommendation**

- 4.1 It is recommended that the Council secure £6m of Prudential Borrowing to convert street lights in Thurrock from sodium to LED operation, in order to:
- Give savings against current revenue budgets
  - Reduce Council exposure to risk of energy price rises and CRC tax
  - Improve the quality and reliability of street lighting for local communities

## **5. Consultation (including Overview and Scrutiny, if applicable)**

- 5.1 This proposal does not require consultation as the work required will be only to re-lamp existing street light columns.

## **6. Impact on corporate policies, priorities, performance and community impact**

- 6.1 This proposal will assist the Council in delivering budget targets and improve street lighting provision across the Borough.

## **7. Implications**

### **7.1 Financial**

Implications verified by: **Sean Clarke**  
**Head of Corporate Finance**

This is within the budget framework for Cabinet to approve as invest to save capital projects were delegated to Cabinet as part of the budget reports. The financial implications of the proposal are set out in Appendix A.

### **7.2 Legal**

Implications verified by: **Alison Stuart**  
**Principal Solicitor**

There are no direct legal implications arising from the report.

### **7.3 Diversity and Equality**

Implications verified by: **Rebecca Price**  
**Community Development Officer**

Street lighting is part of the built environment and experienced by all users of the public highway, both residents and visitors to the area. The LED installation programme will increase night-time visibility benefitting all users by producing a high quality white light greater than the yellow light currently produced. Further, a reduction in carbon emissions will indirectly benefit the whole community by contributing towards mitigation of climate change.

Contractors commissioned to complete these upgrades will be expected to undertake works with due regard to the Equality Act 2010 and therefore mitigate adverse impact on users of the public highway, residents and visitors.

### **7.4 Other implications** (where significant) – i.e. Staff, Health, Sustainability, Crime and Disorder)

This initiative would support the Council's commitment to sustainability and carbon reduction.

## **8. Background papers used in preparing the report** (including their location on the Council's website or identification whether any are exempt or protected by copyright):

N/A

## **9. Appendices to the report**

- Appendix 1 – Financial Implications

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