

<b>Subject:</b>	<b>Street lighting Infrastructure Investment Options Business Case</b>		
<b>Date of Meeting:</b>	<b>22 January 2015</b>		
<b>Report of:</b>	<b>Executive Director for Environment, Development &amp; Housing</b>		
<b>Contact Officer:</b>	<b>Name:</b>	<b>Gill Packham</b>	<b>Tel: 29-1202</b>
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<b>Ward(s) affected:</b>	<b>All</b>		

**FOR GENERAL RELEASE**

**1. PURPOSE OF REPORT AND POLICY CONTEXT**

- 1.1 This report presents an 'invest to save' proposal for street lighting to provide greater efficiency and reduced outgoings in the longer term, with a view to minimise our total cost of ownership.
- 1.2 This is an opportunity for the council to consider the provision of a platform for multiple smart city services including street lighting, traffic signals, public transport information, and parking.
- 1.3 Recent consultation on the highway maintenance funding received from central government as part of the council's formula grant has indicated that local authorities need to pursue efficiencies and asset management. Those authorities that cannot show evidence of this are likely to have their grant reduced year on year. In particular, the government document states that there is significant opportunity to achieve improvements in street lighting energy efficiency.
- 1.4 The Department for Transport is keen for local authorities to consider the issues in "Invest to Save", produced by the UK Lighting Board and the Institution of Lighting Professionals.
- 1.5 The Brighton & Hove Corporate Plan 2011-15 sets priorities that include 'Creating a more sustainable city' and 'modernising the council'. As a One Planet council, Brighton & Hove have reduced CO2 emissions by 2.8% between 2011/12 and 2013/14.
- 1.6 Should it be decided to pursue a full business case submission, funding for a full business case will be met from the street lighting budget.

## **2. RECOMMENDATIONS:**

### **That Policy and Resources Committee**

- 2.1 Approve the principle of formalising a £26m 'Invest to Save' city wide street lighting feasibility assessment with the Green Investment Bank or other potential investors.
- 2.2 Grant approval to officers to review 'best practice' approaches and solutions including joint investment options with SE7 authorities.
- 2.3 Give permission for officers to resource the preparation of a detailed financial model to inform a full business case submission to a subsequent P&R Committee in late 2015/early 2016.

## **3. CONTEXT/ BACKGROUND INFORMATION**

- 3.1 For the year 2014-15 street lighting energy costs are forecast to total £1million. Energy costs to street lighting have increased by over 100% in the past 10 years in spite of energy saving initiatives, and by 32% since April 2010.
- 3.2 The city's street lighting infrastructure includes 26000 assets owned and maintained by the council of which 5000 are cast iron columns (140 are listed by English Heritage). Approximately 8000 columns are at or close to the end of their useful life. Over 2000 structurally defective columns have been replaced since 2010.
- 3.3 An estimated 40 miles of private underground electrical cable network is owned and maintained by BHCC much of which is in need of renewal.
- 3.4 An estimated 15,500 lanterns are in need of replacement and updating to either Light Emitting Diode (LED) or alternative efficient light source. Current funding afforded by the council is not adequate to sustain or support the level of investment and works required to update existing infrastructure to modern standards. Since 2010 the council has replaced in excess of 3,500 sodium lanterns with LEDs or energy efficient white light, resulting in energy and carbon reductions of approximately 35%. It is estimated that the capital cost of LED and energy efficient lanterns can be recovered with 8 years or less through energy savings. The initial assessment of scope and cost of works to address the entire city is estimated at £26million. A detailed financial model is required to determine the feasibility and payback period of an 'Invest to Save' initiative.
- 3.5 The approach to appraisal will review the inventory of assets and key technical assumptions. Once formulated this will form a basis for option appraisal. Options will then be tested in line with the energy saving objectives and budgetary constraints and with an aim to raise the environmental profile of the council in meeting carbon reduction targets.
- 3.6 The objective of the appraisal is to assess the energy saving potential of various street lighting measures in their ability to deliver carbon and energy reductions and their affordability in terms of investment and payback.

- 3.7 Technical options will be developed and analysed financially including initial investment, long term revenue savings and energy consumption.
- 3.8 A Risk Assessment will be included to identify risks and how these can be mitigated.
- 3.9 The qualitative assessment will look at the advantages and disadvantages of each option in line with current policies and industry standards. Potential advantages of options could be improvements in lighting quality, energy savings from reducing energy consumption, efficiencies in routine maintenance as well as innovation and development of new technologies. Potential disadvantages for Do-nothing and Do-minimum scenarios could be lack of lighting amenity, accident risk, no reduction in energy consumption resulting in increasing energy cost and Carbon Reduction Commitment.
- 3.10 The quantitative assessment will summarise the total financial costs of each option and potential savings.
- 3.11 The financial assessment will take into account any restructure or recruitment overheads required to enable the project to move forward if agreed.
- 3.12 Initial discussions have been opened with the Green Investment Bank as potentially the primary lender to the council with interest rates competitive and comparable to Public Works Loan Board.
- 3.13 There is further potential to introduce innovation and investment of street lighting infrastructure. Upgraded cabling and columns could provide opportunities to promote improved central management and monitoring allowing controllable dimming and switching, utilisation of columns for ancillary equipment including telecommunications, camera technology, environmental sensors and other media. The availability of suitably adapted columns could facilitate other uses including charging points for electric vehicles and bicycles.

#### **4. ANALYSIS & CONSIDERATION OF ANY ALTERNATIVE OPTIONS**

- 4.1 Sources explored include Salix funding which has limitations as it requires a payback period of 5 years or less.
- 4.2 Institutional (Pension) Funding has inflation linked returns which tend to make this a relatively expensive financial option.
- 4.3 Private Finance Initiatives (PFI) are not currently available from the government.

#### **5. COMMUNITY ENGAGEMENT & CONSULTATION**

- 5.1 Consultation will be carried out with all ward councillors.
- 5.2 Staff will be available to present as required to community groups and councillor surgeries

## 6. CONCLUSION

- 6.1 This is an opportunity to explore alternative future funding to enhance the city and enable long term financial and carbon savings and reducing our total cost of ownership.

## 7. FINANCIAL & OTHER IMPLICATIONS:

### Financial Implications:

- 7.1 It is estimated that consultancy costs to undertake a project to inform a full business case submission will be approximately £100,000. This will be funded from resources available within the existing street lighting budget in 2014/15 and 2015/16.
- 7.2 A full business case for the street lighting infrastructure scheme will be presented to Policy and Resources Committee at a later date including financial implications and funding options.
- 7.3 If a street lighting infrastructure investment scheme proceeds, it is anticipated that there will be on-going revenue cost reductions in relation to energy and Carbon Reduction Commitment costs. The anticipated cost reductions will be included in the business case to be presented to Committee.

*Finance Officer Consulted: Jeff Coates*

*Date: 13/01/15*

### Legal Implications:

- 7.4 There are no legal implications in this report but the full business case would include a detailed section on all legal implications identified.

*Lawyer Consulted: Katie Matthews*  
*2014*

*Date: 04 December*

### Equalities Implications:

- 7.5 There are no direct equalities implications in this report but the full business case would include an assessment of any equalities issues identified.

### Sustainability Implications:

- 7.6 Well-lit streets help reduce crime and fear of crime as well as providing a safer night-time street scene.
- 7.7 There is potential to make long term carbon and energy savings.
- 7.8 The proposal would also support the South Downs National Park Authority in its application to become a 'dark sky reserve'.

Any Other Significant Implications:

- 7.9 Implementation of the Brighton & Hove Permit Scheme will enable an enhanced programme of works and benefit all parties involved. On a citywide basis, this should lead to greater customer satisfaction, and less disruption to stakeholders.
- 7.10 Risk, opportunity and citywide implications are referred to within the supporting Forward Plan document

## SUPPORTING DOCUMENTATION

**Appendices:**

None