ITEM No …6……..

REPORT TO: **CITY DEVELOPMENT COMMITTEE – 11 DECEMBER 2017**

REPORT ON: **LED OUTLINE BUSINESS CASE FOR STREET LIGHTING**

REPORT BY: **EXECUTIVE DIRECTOR OF CITY DEVELOPMENT**

REPORT NO: **435-2017**

1 PURPOSE OF REPORT

1.1 To request capital funding for investment in energy saving street lighting to both improve the quality of street lighting throughout the city and reduce the impact of expected energy price increases on revenue costs.

2 RECOMMENDATION

2.1 It is recommended that the Committee:

- notes that energy costs are forecast to increase significantly within the next 10 years;
- approves Capital funding of the order of £4.8m in order to deliver the proposed programme of LED installations; and
- notes that the proposals would not only reduce the Councils likely future revenue costs for street lighting energy but would also contribute to the Councils overall carbon reduction targets and requirements under EU directive 2005/32/EU.

3 FINANCIAL IMPLICATIONS

3.1 The overall programme of LED installations and energy conservation has been modelled by the use of the Scottish Futures Trust (SFT) Street Lighting Toolkit, the outputs of which have been quoted in this report. There is an estimated capital cost of £4.8m and this will require to be added to the 2018-23 Capital Plan.

3.2 The toolkit has identified annual savings of an estimated £909k on electricity, Carbon Reduction Commitment (CRC) and reduced maintenance on completion of the installation works. The cost of borrowing of the £4.8m is £310k per annum allowing a full year's saving total of £599k.

4 BACKGROUND

4.1 The Council currently owns some 24,797 street lights and 2583 illuminated signs and bollards which consume approximately £1.1m of electricity per year (at 2015/16 prices). The energy required for street lighting alone produces 4,375 tonnes of CO2 from which CRC tax at £15.70/tonne is £68,693.

4.2 Energy costs in regard to street lighting are expected to increase over time. Current analysis of the energy market shows that electricity prices have been forecast to increase in line with the Consumer Price Index (CPI) and Department of Energy and Climate Change (DECC) forecasts. Due to advances in lighting technology there is now an opportunity to review street lighting provision with a view to making significant revenue savings on energy and its associated costs.

4.3 The Council's Carbon Management plan has the target to reduce carbon emissions by 5% per annum to 2020. Currently Dundee's street lighting produces 4,375 tonnes of CO2 per annum. Post-installation this project would reduce that figure to 2,361 tonnes, a reduction of 46% in CRC charges (at predicted 2022 rates).

4.4 A further consideration for the Council is that modern lower energy street lighting and new legislation (EU Directive 2005/32/EU) will prohibit the use of inefficient technologies including the control gear (spare parts) used in the majority of our street lights. Investment in this apparatus will be necessary as spares for some existing equipment will no longer be available after 2017. It should also be noted that with the accelerated installation of new LED lighting by local authorities throughout the UK, the cost of parts for maintaining existing luminaires is expected to rise.

4.5 The requirements of this Directive for discharge lamps has major implications on the use of some existing technologies currently used which will be deemed inefficient and effectively withdrawn from service. This directly affects over 22% of the current lighting inventory.

4.6 The Scottish Government has identified street lighting is an area where energy reduction can be easily achieved through investment in new infrastructure. This project and report were developed with the involvement of Resource Efficient Scotland (RES), Scottish Futures Trust (SFT) and Zero Waste Scotland (ZWS) funding made available for local authorities. An Outline Business Case (OBC) has been produced which reviews the current concerns and pressures placed on the Council with regard to operating the street lighting infrastructure and investigated methods and technologies available to reduce the ongoing financial costs. Copies of the Business Case have been forwarded to the Lord Provost and Group Leaders.

4.7 SFT has developed a financial model (Toolkit) for the evaluation of street lighting within the public sector. The model uses current forecasts from DECC to predict future energy costs and potential savings. The model also uses costs and performance figures for LED luminaires from the Scotland Excel framework and indicates potential savings available when converting to energy efficient lighting. This model has been externally audited by BDO to confirm its robustness and accuracy and appropriately uses underlying technical data to generate financial forecasts.

4.8 In order to deliver the project successfully there will be a considerable design workload. Lighting for each street will have to be designed individually in order to maximise savings and ensure compliance with standards and legislation.

4.9 Delivery of the project will be through utilising the knowledge and experience of the Street Lighting Partnership (SLP) staff to undertake all design and installation work for this project therefore securing local jobs. Should additional resources be required for installation work, Scotland Excel has a framework contract in place which could be called upon if required.

4.10 The programme of LED conversion will take approximately 18-24 months from approval of Capital Funding.

4.11 It is anticipated that conversion will commence in April 2018 and will be designed and delivered by the SLP.

4.12 Once all equipment has been modernised, Dundee City Council will benefit from modern reliable street lighting, will significantly reduce our street lighting electricity cost and greatly reduce the carbon footprint of lighting our streets.

4.13 In relation to this project early discussions regarding inclusion of Intelligent Street Lighting in areas of high footfall are being held with the Partners and will be subject to a funding application to ERDF for financial year 2019/2020.

5 POLICY IMPLICATIONS

5.1 This Report has been screened for any policy implications in respect of Sustainability, Strategic Environmental Assessment, Anti-Poverty, Equality Impact Assessment and Risk Management. There are no major issues.

6 CONSULTATIONS

6.1 All members of the Council Management Team have been consulted and are in agreement with the contents of this report.

7 BACKGROUND PAPERS

7.1 None.

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NHG/ET/KM

30 November 2017

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