



To: COUNCIL

On: 25th June 2015

Report by: Director of Community Resources and Director of Finance and Resources

Heading: Better Council Programme - Street Lighting Investment Strategy, Renfrewshire

1. Summary

- 1.1 Following approval at the Environment Policy Board on the 12th March 2014, Outline and Detailed Business Cases have been progressed for a street lighting strategy which will modernise the Council's street lights. It is proposed as part of the strategic business case to undertake a large scale programme to replace existing lanterns with Light Emitting Diodes (LEDs) which produce white light, consume less electricity and require significantly less ongoing maintenance throughout their estimated 20 year lifespan. Unlike the existing yellow lamps in most street lights, the white lights from LEDs deliver good colour rendition and are recognised to positively contribute to community safety. Street Lighting accounts for around 20% of the Council's carbon consumption and in view of the lower power consumption of LEDs the proposed strategy will contribute significantly to the Council's carbon reduction targets.
- 1.2 The Outline Business Case (OBC) and Detailed Business Case (DBC) has identified a proposed programme to replace 28,613 existing lamps and 1,356 existing columns across Renfrewshire. In addition to the community safety improvements, the upgraded street lighting estate, will also support the delivery of gross annual revenue savings, estimated at £1.391m per annum and a net annual saving of approximately £0.75m after taking account of the

annual cost of borrowing associated with the delivery of the investment programme. It is also recognised that these estimated savings are based on existing costs and delivery of the renewal strategy would also support cost avoidance in respect to future energy price increases.

- 1.3 The capital investment cost to deliver this large scale strategic renewal programme has been estimated at approximately £11 million.
- 1.4 The OBC and DBC were developed on the basis of delivering the renewal programme over a 3 year period. However, as detailed within paragraph 6.1 of this report, it is considered that there exists the opportunity to explore the accelerated delivery of this project by the end of financial year 2016/17.
- 1.5 Due to the extent and scale of works that would require to be undertaken across Renfrewshire, it is recognised that a key component of the overall delivery arrangements, will be a comprehensive information and communications strategy. Effective communication and engagement with communities across Renfrewshire, both in terms of the programme of delivery and the wider benefits, will be a key objective as part of successfully managing the delivery of the programme.

2. Recommendations

It is recommended that Council approves:-

- 2.1 The street lighting improvement strategy for the replacement of existing street lanterns with LEDs to improve the quality of light and reduce energy and maintenance costs;
- 2.2 That a capital investment programme, estimated at £11m to fund delivery of the strategy by the end of financial year 2016/17 be established; and
- 2.3 That the investment programme be delivered through the appropriate application of capital lifecycle maintenance resources available during the delivery programme period with the balance funded through self financed prudential borrowing arrangements

3. Background

- 3.1 As set out in previous reports on street lighting to the Environment Policy Board, Renfrewshire Council currently owns some 31,765 street lights which

cost £1m per annum (contractor costs, lamps & mantles) to maintain and consumes approximately £1.4m of electricity per year (at 2014 prices).

- 3.2 The energy required to light our streets (14.5 million Kwh) produces 7,294 tonnes of carbon (CO₂) which is approximately 20% of the Council's total carbon production and has incurred a £16/tonne tax since April 2014 costing £117k per annum.
- 3.3 The combination of these three figures results in an annual lighting revenue cost of approximately £2.5m. In addition, based on current analysis of energy market, it is predicted that energy costs over the medium term are likely to double in the next 10 years, followed thereafter by a gradual increase in line with inflation.
- 3.4 Street lighting is a benefit to the local community, contributes to night time road safety, has a reduction/prevention role in terms of street crime, provides for a feeling of general security, and helps to promote economic development by supporting a 24 hour economy. Street Lighting is provided in accordance with the requirements of the Roads (Scotland) Act 1984 and via guidance provided by relevant British and European Standards.
- 3.5 As approved at the Environment Policy Board on the 12th March 2014, Outline and Detailed Business Cases have been developed for a proposed strategic renewal programme to replace lanterns throughout Renfrewshire with LED technology.
- 3.6 LED technology offers the following recognised and well established benefits over conventional street lamps:-
 - Both energy and maintenance savings through increased efficiency and lifespan of over 20 years ,
 - High quality white light which improves colour rendition and reduces light spill into adjacent areas,
- 3.7 The key findings from the Outline and Detailed Business Cases are set out in paragraphs 4 and 5 respectively.

4. Outline Business Case (OBC)

- 4.1 The OBC investigated options for a large scale lantern replacement programme, concluding that the preferred option is to replace the lanterns in all street lights, along with limited column renewal, across Renfrewshire at a capital investment cost estimated at approximately £11m.

- 4.2 To inform the robustness of the business case development process, a significant programme of condition surveys has been undertaken across all of the Council's the existing stock base. The survey results confirmed that the majority of the existing street lighting columns are capable of taking "retrofit" LED units. As a consequence, for the vast majority of locations across Renfrewshire the proposed renewal programme will involve a relatively straightforward change to the existing lantern head to achieve the energy and maintenance savings and associated wider public safety benefits. It was identified that an estimated 1,356 street lighting columns will have to be replaced due to their existing condition and provision for this more significant investment has been included within the estimated capital cost estimates. In addition, it is recognised that, notwithstanding the depth and quality of the condition survey information, in moving forward into delivery that this position may change as installations progress and an appropriate level of contingency for addition column replacement has been included in the estimated capital costs.

5. Detailed Business Case (DBC)

- 5.1 The DBC progressed the OBC preferred option of LEDs, in greater detail and also examined options for delivery of the project
- 5.2 The DBC highlighted that there is insufficient in house professional and contractual resource to progress this project and has recommended that an external provider carries out the design, project management and on-site installation of the LEDs.
- 5.3 In the course of progressing the OBC and DBC, a number of LEDs have already been implemented or committed across Renfrewshire (2,143 out of 30,756 lamps across Renfrewshire) associated with existing specific funding allocations. The DBC has revised the anticipated capital required in comparison with the OBC to reflect that the actual number of street lamps to be replaced under this programme as 28,613. Costs estimates include project delivery including all professional services, contractual costs and appropriate programme contingencies. As detailed above the required capital allocation has been estimated at £11m.
- 5.4 The revenue implications of delivering this project through the replacement of the 28,613 street lights (which have not already been committed for replacement through other programmes) is a gross recurring revenue saving of estimated at £1.391m per annum. The annual revenue savings would be delivered from a reduction in energy costs, lower maintenance costs due to the longevity of LEDs in comparison with existing lamps and a reduction in Carbon Tax costs. It is proposed that the revenue savings generated from the

programme are used to support self financing prudential borrowing to augment the Council's normal capital lifecycle funding identified to support ongoing renewal in the street lighting stock. Taking this into account, it is estimated that the net recurring revenue saving after addressing the ongoing annual revenue cost arising from the prudential borrowing is estimated at approximately £750k. It is also recognised that moving forward the delivery of the programme will also support future cost avoidance in the context of an expected increase in energy costs over the medium to longer term.

6. Implementation Timescales

- 6.1 It is estimated that subject to approval, a start on site can be achieved by January 2016. Although the OBC and DBC were developed on the basis of an installation programme spanning 3 years, subject to materials and contractor availability it is considered that this project can be accelerated and delivered by the end of financial year 2016/17. In line with all other projects, detailed and comprehensive risk register and programme delivery arrangements will be created, which will include the key risk associated with the availability of LEDs within the international market place to support the desired delivery timescale. Whilst the situation in this respect looks positive at present, it will require to be kept under careful review.

7. Public Engagement and Communications

- 7.1 It is proposed that a community wide communications strategy be prepared to ensure that Renfrewshire Residents are well informed about the proposals and the reasons behind them, the potential for short periods of disruption during implementation and the projected benefits that will be delivered with respect to how streets will look and feel.

Implications of the Report

1. **Financial** - Capital Investment for the recommended strategy will be funded predominantly from self financed prudential borrowing, the annual revenue costs of which will be supported from the gross savings released by the renewal programme.
2. **HR & Organisational Development** – None
3. **Community Planning** – the programme will deliver significant benefits that will directly contribute to key objectives of the Community and Council plans in relation to improved community safety and improved environmental

improvements through the use of cleaner and more efficient lighting technology.

4. **Legal** - None
5. **Property/Assets** – An estimated investment of £11m will be made in street lighting improvements.
6. **Information Technology** – None
7. **Equality & Human Rights** -
The Recommendations contained within this report have been assessed in relation to their impact on equalities and human rights. No negative impacts on equality groups or potential for infringement of individuals' human rights have been identified arising from the recommendations contained in the report. If required following implementation, the actual impact of the recommendations and the mitigating actions will be reviewed and monitored, and the results of the assessment will be published on the Council's website.
8. **Health & Safety** – None
9. **Procurement** – the delivery of the programme will require a significant procurement strategy to be developed and a procurement exercise to be undertaken under the Council's existing contract arrangements.
10. **Risk** – the renewal programme will involve a range of delivery risks that will require to be carefully managed as part of the overall programme delivery arrangements.
11. **Privacy Impact** – None