

## Report to the Cabinet

Meeting to be held on Thursday, 8 March 2018

## Report of the Head of Asset Management

**Part I**

Electoral Divisions affected:  
All

### Street Lighting - LED Lantern Replacement Scheme

Contact for further information:

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#### Executive Summary

The Department for Transport (DfT) Challenge Fund and the £5m county council Invest to Save schemes are nearing completion and collectively have enabled 87,000 light emitting diode (LED) lanterns to be installed and approximately £3.4m saved from the street lighting energy revenue budget since 2014/15.

Following discussions with Salix Finance Ltd, a government funded body that provides interest-free funding to the public sector to improve energy efficiency, reduce carbon emissions and lower energy bills, a proposal has now been developed to enable the street lighting energy efficiency programme to be completed. The proposal as detailed in the report meets Salix funding requirements and would enable a further 38,000 street lighting lanterns to be replaced with LED equivalents. It is anticipated the proposal will cost in the region of £9.200m, which would be funded by an interest free loan and enable a further £1.843m to be saved recurrently from the street lighting energy revenue budget per year when complete.

This is deemed to be a Key Decision and the provisions of Standing Order No. 26 have been complied with.

#### Recommendation

That Cabinet is recommended to approve:

- (i) The application for Salix funding as set out in the report;
- (ii) That the proposal as set out in the report be included within the Capital Programme 2018-2021.

## **Background and Advice**

The first phase of the street lighting energy efficiency programme started in 2008 and ran until 2012. As a result of a successful bid to the Department for Transport (DfT) Challenge Fund in January 2015 the county council has been able to replace 67,000 LED lanterns, replace up to 4,000 lighting columns between June 2015 and March 2018 and establish a scheme to install 150 electric car charging points in the coming months. In 2017/18 the county council made a capital allocation of £5m to enable a further 20,000 LEDs to be installed and extend the scope of the DfT works.

By the end of March 2018 it is anticipated that following this three year investment period approximately 87,000 energy inefficient street lighting lanterns will have been replaced with LED equivalents and our energy consumption will have reduced by just over 37% between 2014/15 and 2017/18. Had this work not been carried out the 2017/18 street light energy revenue budget outturn would have been in the region of £8.2m instead of the current forecast to March 2018 of just over £5.1m.

Following discussions with Salix Finance Ltd, a government funded body that provides interest-free funding to the public sector to improve energy efficiency, reduce carbon emissions and lower energy bills, a further phase of the programme has now been developed to enable the street lighting energy efficiency programme to be completed. This proposal involves converting to LEDs, the remaining 38,000 non-LED street lights which mainly comprise of 150w and 250w high pressure sodium lamps and are of a higher wattage than the works undertaken as part of the DfT scheme. All installation works will be undertaken by the county council's highways service and the opportunity will be taken to revise lighting levels where appropriate which will involve changing some 250w lighting to 150w, using LED equivalents.

The proposal meets Salix funding criteria in that the payback period is less than 5 years and the cost of saving the carbon saved is less than £120 per tonne (the cost of works divided by tonnes of carbon saved). In order to address the logistics in relation to scheme design, lantern procurement and installation it is proposed that the project will be undertaken over the 2018/19, 2019/20 and 2020/21 financial years. The scope of works will be continuously reviewed to ensure the proposal remains compliant with Salix expectations and provides a cost effective scheme of works for the county council.

During the three financial year period April 2018 to March 2021, Salix proposes to make 8 interim payments. The county council will need to pay off each year's loan over a 5 year period, with the first instalment becoming due 6 months after the commencement of works in each of these years and 6 monthly thereafter.

If approved, the proposal would need to be included in the Capital Programme 2018-2021. The scheme will cost £9.2m to implement, will run from April 2018 to November 2020 and result in street lighting energy revenue savings of approximately £1.84m per annum being realised once complete. Due to the way the proposal is to be implemented and the inventory declaration process the full energy savings associated with this proposal will not be realised until October 2022.

It is anticipated that scheme design, lantern procurement and other preliminary activities will commence in April 2018 to enable LED replacement work to start in October 2018. The street lighting inventory will be updated as and when LEDs are installed and street lighting energy revenue savings will start to be realised on a rolling basis commencing December 2018 following the monthly, in-advance inventory submission process.

It is anticipated that the outcome of the lantern procurement exercise will be subject of a further Cabinet report in summer 2018. The key milestones related to this proposal are set out below:

08/03/18 - Budget and bid approval

01/04/18 - Lantern procurement tender process and schemes design starts

15/09/18 - Lantern procurement tender award

01/10/18 - Works start on site

30/09/20 - Works complete on site

08/11/20 - Financial closure

### **Consultations**

N/A

### **Implications:**

This item has the following implications, as indicated:

### **Risk management**

If this invest to save proposal is not approved the revenue savings identified in the report will not be realised.

As works are proposed to be carried out in three phases, over a three year period with funding being drawn down in instalments, there is an opportunity for the county council to review this proposal at any time. Should the county council no longer wish to pursue all three phases or a change circumstances such as falling energy prices or increased lantern costs make it difficult for the 5 year rate of return to be achieved, works can be stopped at any time. As a consequence the county council can mitigate the risk of financial expose should factors outside its control change.

### **Financial**

The proposal currently meets Salix funding criteria. Should LED lantern prices change or the price of energy fall, the county council may be required to contribute towards the cost of this proposal by funding any shortfall that Salix finance could not cover.

Current indications are that estimated LED prices are in-line with those that are likely to be achieved via tender and that energy prices are forecast to increase rather than fall. As a consequence, the risk of the county council having to contribute to this scheme is considered small.

The key financial information is detailed in the table below:

**Table 1**

Financial Year	Energy Saving (in year) (£)	Energy Saving (Annual) (£)	Planned Capital Expenditure (£)	Salix Payment for work (£)	Salix Repayment (£)
2018/19	-63,999	-63,999	1,925,226	-2,300,000	0
2019/20	-742,385	-806,383	4,548,644	-4,599,999	230,000
2020/21	-857,582	-1,663,965	2,726,130	-2,300,001	920,000
2021/22	-179,196	-1,843,162			1,610,000
2022/23		-1,843,162			1,840,000
2023/24		-1,843,162			1,840,000
2024/25		-1,843,162			1,610,000
2025/26		-1,843,162			920,000
2026/27		-1,843,162			230,000
2027/28		-1,843,162			0
	<b>-1,843,162</b>	<b>-15,436,481</b>	<b>9,200,000</b>	<b>-9,200,000</b>	<b>9,200,000</b>

The expenditure will form part of the capital programmes for 2018/19 – 2020/21 and will be profiled as per the planned capital expenditure shown in Table 1. The interest free loan that has been provided from Salix will fund the scheme with the cost of the loan repayments offsetting the saving made in the revenue budget. This will mean the profiling of the saving in the revenue budget will be as shown in Table 2 with the final saving of £1.843m not being realised until 2027/28.

**Table 2**

Financial Year	Energy Saving (Annual) (£)	Salix Repayment (£)	Revenue Saving Profile
2018/19	-63,999	0	-63,999
2019/20	-806,383	230,000	-576,383
2020/21	-1,663,965	920,000	-743,965
2021/22	-1,843,162	1,610,000	-233,162
2022/23	-1,843,162	1,840,000	-3,162
2023/24	-1,843,162	1,840,000	-3,162
2024/25	-1,843,162	1,610,000	-233,162
2025/26	-1,843,162	920,000	-923,162
2026/27	-1,843,162	230,000	-1,613,162
2027/28	-1,843,162	0	-1,843,162
	<b>-15,436,481</b>	<b>9,200,000</b>	<b>-6,236,481</b>

## **Legal**

If this bid is approved, Legal and Democratic Services will be asked to examine the agreement proposed by Salix Finance Ltd and once satisfied with this, that the Director of Community Services be authorised to sign the agreement of behalf of the county council.

## **List of Background Papers**

Paper	Date	Contact/Tel
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None

Reason for inclusion in Part II, if appropriate

N/A