



Essex County Council

AGENDA ITEM 6

Report to Cabinet	Forward Plan reference number: FP/355/12/15
Date of Meeting: 22 March 2016	County Divisions affected by the decision: All Divisions
Title of report: Installation of LED Lanterns in ECC Streetlights	
Report by Councillor Rodney L Bass - Cabinet Member for Infrastructure	
Responsible Director: Paul Bird - Director for Commissioning: Transport and Infrastructure	
Enquiries to Julian Sanchez – Commissioning Delivery Manager - Julian.Sanchez@essex.gov.uk	

1. Purpose of report

- 1.1 Cabinet is asked to agree a proposal to invest £9.222m which would be spent on the replacement of approximately 19,000 sodium street lanterns with more efficient LED lanterns. These lanterns are those which are lit all night under the Council's part night lighting scheme. The proposal will save the council an estimated £24m in energy, maintenance and carbon taxes over a 20 year period. Part of this investment, £4.350m would be forward funded by an interest free Salix loan under a government scheme.
- 1.2 Cabinet is asked to agree that the work can be directly awarded to Ringway Jacobs.

2. Recommendations

- 2.1 Agree that up to £9.222m can be spent on the installation of LED lighting units on the basis of the savings projections contained in this report.
- 2.2 Agree to commission the work directly from Ringway Jacobs subject to a requirement that they will undertake a competitive tender for materials and labour is undertaken when sub-contracting the work.
- 2.3 Delegate to the Director for Commissioning: Transport & Infrastructure authority to:
- (a) determine the technical specification; and
 - (b) issue an order to Ringway Jacobs.

3. Background and proposal

- 3.1 The Council has undertaken a pilot to evaluate the use of LED technology as a replacement for the existing lanterns to monitor the energy savings predicted as a result of a switch to LED (Phase One). The pilot sought to establish whether it is prudent to roll out the wider use of LED lighting.
- 3.2 The Phase One pilot results have demonstrated energy and maintenance savings broadly in line with forecasts and lessons were learned regarding people's experience of the new lighting.
- 3.3 The Council is now reconsidering the wider use of LED technology, the cost of which will in part be supported by an interest free loan from Salix, a Government funded not-for-profit body.
- 3.4 In light of these facts, it would seem prudent to prioritise the next tranche of replacement streetlamps in the lights which use most energy. These are the 14% of lights which are lit all night because they meet the exemption criteria in the Council's part night lighting scheme. Lights are lit all night because, for example, they are in a town centre location or needed for safety reasons. This applies to around 19,000 lights and would cost around £9.222m to install. The financial benefits of this project are set out in section 5 of the report.
- 3.5 Given the scale of the project, it is recommended that the project is implemented in stages and a mechanism is established to capture feedback received through customer services and stakeholder engagement, which will then be considered by a technical panel. The panel will identify the optimal calibration of the new lighting to reflect local factors; and will balance these against safety and traffic management requirements to achieve an outcome which is both publicly acceptable and meets lighting standards for road safety.
- 3.6 The Council has a long term contract with Ringway Jacobs. Under this contract the Council is able to award the work directly to Ringway Jacobs, although it is not required to do so. It is proposed that the Council should award the work to Ringway Jacobs because:
 - (a) Benchmarking work shows that the price that the company proposes to charge compares favourably with our market intelligence. The company have indicated that they will undertake a competitive tendering process for materials and labour in order to achieve good value for money and thus deliver the cost saving benefits to the council for the lowest price.
 - (b) The company has contracts with other local authorities for similar works; this has the potential to drive down costs.
 - (c) The company have indicated that they can deliver the project within a timescale which delivers the council on-going savings to the revenue budget.

(d) Ringway Jacobs is already responsible for street light maintenance under the current contract. Therefore if a light fails there can be no argument about who is responsible for the defect.

- 3.7 The intention is to achieve project delivery by early 2018. This would depend on the availability of labour and materials. No difficulties with this timetable are anticipated and opportunities to compress delivery times to bring forward the benefits will be explored.

4. Policy context and Outcomes Framework

- 4.1 This decision relates most closely to the Commissioning Strategy and Outcome: People in Essex experience a high quality and sustainable environment and to the indicator “Cost of Energy” which relates to the amount that is spent on energy. Furthermore, the decision relates to parts of the Essex Vision (2013-2017) which commits ECC to:

- **Spend taxpayers’ money wisely:** This project focuses is on keeping our running costs low so we can invest into people and communities. Our services must be sustainable in the long term.
- **Develop and maintain the infrastructure** that enables our residents to travel and businesses to grow.

5. Financial Implications

- 5.1 The total capital cost of this project is £9.222m which includes a contingency of £400,000. There is an existing allocation within the capital programme for this investment. This will save the authority an estimated £24.063m in energy, maintenance costs and carbon tax reduction over a 20 year period, based upon a best estimate of energy price inflation of 3.2%. After offsetting costs of debt there will be net saving of £12.525m. The project will be delivered over a 2 year period from 2016/17 through 2017/18 and this delivers a payback over 10 years and a return on investment of 115% by year 20. An overview of the investment required and the savings achieved by implementing this project can be seen in the Project Financial Statement below.

- 5.2 An interest free loan is available from Salix to the value of £4.350m. Salix is a not for profit organisation funded by the Department for Energy and Climate Change and the Department for Education which has been established to enable public sector organisations to take a lead in tackling climate change by increasing energy efficiency. The Salix loan will be paid back within 5 years. ECC will need to fund the remainder of the capital investment £4.872m as well as repaying the Salix loan.

The average borrowing costs and split of the funding source for this project can be seen in the Project Financial Statement below.

Project Financial Statement

	£000	
	Total	
Total Project Costs Inc Contingency	9,222	
Funded by:		
0% SALIX Loan	4,350	
ECC Funding	4,872	
Total Funding	9,222	
	Average	Savings
	annualised	over 20
Impact of Investment	Savings £000	years £000
Energy Savings	1,001	20,015
M'tce savings	112	2,234
Carbon Reduction	91	1,815
Total Savings	1,203	24,063
Loan Repayment charges (Borrowing Costs & Minimum Revenue Provision (MRP*))	(577)	(11,538)
	-	
Total - (cost)/saving	626	12,525
* MRP - Local authorities are required to set aside prudent sum towards capital expenditure financed by borrowing.		

This proposal will generate gross cashable saving with the summary of Energy, Maintenance and Carbon Savings below

Maintenance cost savings

- In total ECC currently spend £240,000 pa on revenue maintenance of street lights.
- This project will reduce maintenance by £111,700 pa or £2.234m over 20 years, due to more efficient bulbs.

Carbon reduction

- In total ECC currently spend £150,000 pa on carbon taxes for street lights. Lower consumption will reduce the tax by £90,000 pa which is a 60% reduction. This equates to a saving of £1.815m over 20 years.

Energy cost savings

- ECC currently spend £3.900m pa on energy costs relating to street lighting.
- All night lighting electricity consumption is estimated to be reduced by 7,225 MWh (63%) as a result of this proposal.

- The reduction in the cost of electricity to ECC equates to £20.000m over 20 years, assuming RPI growth of 3.2% after the two year fixed price expires in 2018.
- 5.2 The energy industry is a volatile market and extremely complex to try to predict. The reduction in the cost of electricity to ECC equates to £20.000m over 20 years, assuming RPI growth of 3.2% after the two year fixed price expires in 2018. However, the anticipated savings could be higher or lower, but reduced consumption mitigates the risk of volatility impacting upon the Council's finances.
- 5.3 The revenue savings presented within this report are included within the MTRS.

Non-financial benefits

- 5.4 Within the Commissioning Strategy, there is a specific energy strategy which sets out the commissioning intention to 'buy better, use less, generate more (see details below) for ECC, Essex residents and Essex Businesses'.
- Buy Better, there are opportunities for local authorities to more effectively purchase energy as well as influence local residents and businesses in the way they buy energy
 - Generate More - Whilst local authorities can not directly control the cost of energy they can play an active role in tackling consumption levels across public, private and residential properties.
 - Use Less - Local authorities are taking a range of roles in local energy generation be that through the establishment of an Energy Services Company; joint ventures with local communities or commercial groups and providing support so that businesses and community groups can establish community generation energy schemes

6 Legal Implications

- 6.1 ECC is not required to provide street lighting in most circumstances but in practice it provides a large number of lights.
- 6.2 The proposal to award the work to Ringway Jacobs is in accordance with the contract and procurement law but the Council should only take these steps if it is satisfied that this is likely to be the best value for money. The arguments advanced by Place Commissioning are set out in section 3 of the report.

7. Staffing and other resource implications

- 7.1 There are no staffing, property or other resource implications as a result of this decision, as it is delivered within existing resources and contracted arrangements.

8 Equality and Diversity implications

- 8.1 Section 149 of the Equality Act 2010 creates the public sector equality duty which requires that when ECC makes decisions it must have regard to the need to:
- (a) Eliminate unlawful discrimination, harassment and victimisation and other behaviour prohibited by the Act
 - (b) Advance equality of opportunity between people who share a protected characteristic and those who do not.
 - (c) Foster good relations between people who share a protected characteristic and those who do not including tackling prejudice and promoting understanding.
- 8.2 The protected characteristics are age, disability, gender reassignment, pregnancy and maternity, race, religion or belief, gender and sexual orientation.
- 8.3 The equality impact assessment indicates that the proposals in this report will/will not have a disproportionately adverse impact on any people with a particular characteristic.

9. List of Appendices

(available at www.essex.gov.uk if not circulated with this report)

Equality Impact Assessment

10. List of Background Papers

Evaluation of pilot.

(Any request for any background papers listed here should be made to the person named at the front of the report who will be able to help with any enquiries)