Agenda Item No: 4

Street Lighting Energy Savings

To:	Highways and Transport
Meeting Date:	3rd October 2023
From:	Frank Jordan, Executive Director of Place and Sustainability
Electoral division(s):	All
Key Decision:	Yes
Forward Plan ref:	2023/077
Outcome:	The purpose of the report is to update the Committee on progress of the Street Lighting LED Implementation, approved as part of the business planning process for 23/24, reference B/R.6.221. The Committee is asked to agree to delegate authority to the award of contract and proceed with the implementation of the project.
Recommendation:	That the Committee: a) notes the update report and the progress made with the Street Lighting LED implementation. b) Delegate authority to enter into contract via the Street Lighting PFI Contract with Connect Roads Cambridgeshire to the Executive Director of Place and Sustainability in consultation with the s151 officer and the Chair and Vice Chair of the Committee, to implement the project.

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1. Background

1.1 Street lighting energy price increases have been dramatic over the past 18 months, with prices doubling, effective from October 2022, and a further 20% increase forecast for October 2023. This business case was submitted to this Committee on 4th Oct 2022, 6th December 2022 and was approved at Full Council on 7th February 2023.

1.2 With energy prices increasing by 100% in October 2022, the Council's energy spend for street lighting will reach an annual cost of around £4.6m, therefore, any interventions for reducing energy consumption by a significant percentage will have a considerable impact on future budget demands and will insulate the council from further price increases.

1.3 To achieve savings in revenue budgets, this proposal reduces both energy and maintenance costs for street lighting assets. A number of options were explored to reduce the energy used by our streetlighting stock, engaging with key stakeholders, the Council's preferred option is for replacement to Light Emitting Diode lanterns (LED over a two-year programme. The primary focus of this business case is to reduce ongoing costs for the authority by reducing energy consumption and maintenance activities and therefore costs to the Council whilst maintaining the current lighting service standards.

1.4 The business case forecast a saving of £2.6m by FY26/27 based on current energy rates and forecasts at the time, however with a payback on investment of circa. 6 years, this saving will be determined by energy costs that are currently unknown in the future. This is dependent on the actual energy prices, the forecast is only predicted at this stage which could result in a £1.65m saving in FY 26/27, however this cannot be confirm until the energy costs are confirmed. The figures are impacted by fluctuations in energy costs with current forecasts being slightly lower than anticipated with a reduction of 5.27% forecast for FY24/25, payback is still estimated between 6-8 years.

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1.6 Additional benefits will be delivered including a significant reduction in carbon over 20 years, aligned to the percentage cost saving, improved lighting quality and reduced maintenance costs long term.

2. Main Issues

2.1 The current lighting assets consume considerably more energy than modern LED lanterns. A programme of replacements would be to replace 47516 existing luminaires with energy efficient LED's. This would reduce the overall energy consumption per year by more than half.

2.2 This project requires a £13.2m investment spread over two years and offers a payback on this investment in under six years based on current electricity prices, this aims to mitigate the impact of rising energy prices on the street lighting revenue budget. At current energy rates the project will deliver a £2.4m annual saving by FY26/27 however applying historical inflation would see this figure rise to £3.3m by FY28/29 accelerating the payback. Energy rates are in a state a flux at present with forecasts changing significantly on a regular basis.

If significant reductions in energy prices occurred the payback period would be increased, but our absolute spend on energy would also reduce.

2.3 The current energy spend is in the region of £4.6m per annum. Design processes to identify the programme and the contract negotiations are progressing on track.

2.4 There are a number of risks associated with this project, we are required to negotiate a deed of variation (DOV) with the PFI providers, requiring legal, contractual and commercial process during 2023 to enable this project to progress. A further two years will then be used to conduct the replacement programme with approx. 48k assets being replaced in a programme designed to generate maximum benefit, completion target date of end of March 2026.

2.5 Project Risks

Risk	Impact	Mitigation	Risk rating
Variable energy rates	Biggest unknown, as rates have fluctuated greatly over recent years, and future rates are not within our control. Confidence levels of future energy rates are low, due to the unpredictability of inflation. The energy consumption will go down by approx. 50%, the margin of savings is dictated by the energy rates.	Tracking rates and develop programme to optimise savings	High
Deed of Variation (DOV) on the SL PFI Contract.	Stakeholder delays could affect programme timescales	Previous project lessons learnt and learning from others. Regular communication with stakeholders.	Medium
Commercial/ contract delays	The Authority will not make any payment until the Deed of Variation is executed. Supply of LEDs may affect the programme completion and cost of the project, and therefore achieving the indicative savings targets. Officers to continue to sustain project momentum by effective communication.	Updates to Capital Programme Board, on budget profiling	Medium
Installation delay	Connect Roads to agree to a programme of works (signed up to in the Deed of Variation). Energy savings to be returned to the Authority by the programme completion date regardless of whether the installation works are in reality complete. Supply of materials due to unexpected world events.	Supply check are being undertaken and communication with suppliers in the market.	Low

2.6 To award the work through the Street Lighting PFI contract, the Deed of Variation process, needs to be followed. Advice has been sought from Legal and Procurement regarding the proposed direct award and have confirmed that this complies with the Public Contract Regulation 2015, Reg. 72(1)(b). A benchmarking exercise has been conducted which demonstrated that current indicative costs were 15% lower than the costs in 2018, when the last LED programme were rolled out. Also, the current costs are 280% lower than a recent competitors price locally.

2.7 There will also be added value by retaining the columns within the PFI contract whilst carrying out the work, saves procuring new contract, management costs and unnecessary charges to the Council, as well as a consistent level of service.

3. Alignment with corporate priorities

3.1 Environment and Sustainability

The following bullet points set out details of implications identified by officers:

- This project is proactive, contributing to moving forward the net zero target for Cambridgeshire County Council towards 2030, by reducing the service's demands on energy consumption.

3.2 Health and Care

The following bullet points set out details of implications identified by officers:

- Contributes to the wellbeing of local communities by ensuring the street lighting service can be financially sustained and avoid reducing lighting levels, which these groups and service providers need to perform at their optimum levels.

3.3 Places and Communities

The following bullet points set out details of implications identified by officers:

- Creating 'Places' that support communities to live low carbon, resource efficient lifestyles, by lighting the streets at night offers people more sustainable and economically viable sustainable transport options.

3.4 Children and Young People

- Support our children and young people in care to achieve the best possible outcomes and ensure that our care leavers are able to access the support they need as they move into adult life.

3.5 Transport

The following bullet points set out details of implications identified by officers:

- Encourage more residents to make use of active and sustainable travel options, by keeping the lights in light.

4. Significant Implications

4.1 Resource Implications

The following bullet points set out details of significant implications identified by officers:

- Additional capital investment has been approved to deliver this project along with the additional staff resources required.

4.2 Procurement/Contractual/Council Contract Procedure Rules Implications
The report above sets out details of significant implications in 2.6.

4.3 Statutory, Legal and Risk Implications
The report above sets out details of significant implications in 2.6. The risks on project implementation are low, however due to the fluctuations in energy prices this is a high risk as it is unknown, in terms of delivering the savings.

4.3.1 There is no legal requirement for local authorities to provide street lighting, but the Council has a duty to maintain street lights that are installed on adopted highways. The Council has a duty to the highway users and must ensure it can demonstrate it has systems and programmes in place to ensure the safety of all highway lighting equipment.

4.3.2 The following legislation governs the Council's provision of street lighting:

- The Highways Act 1980 empowers local authorities to light roads but does not place a duty to do so;
- The Council has a duty of care to road users and has an obligation to light obstacles on the highway;
- The Council has a statutory duty under the Highways Act 1980 to ensure the safety of the highway and this includes any lighting equipment placed on the highway;
- The Electricity at Work Regulations impose a duty on owners and operators of electrical equipment to ensure its safety.

4.3.3 The LED replacement project will be undertaken during the contract period of the PFI Contract, the PFI contractor would be required to maintain such lighting for the duration of the PFI Contract. There have been discussions with the PFI contractor with respect to maintenance savings which shall be addressed by a formal contract variation.

4.4 Equality and Diversity Implications
There are no significant implications within this category. A full EQIA has been undertaken as part of the business planning process.

4.5 Engagement and Communications Implications
There are no significant implications within this category. The business case has already been to H&T Committee and Communications Team are engaged on this project.

4.6 Localism and Local Member Involvement
There are no significant implications within this category.

4.7 Public Health Implications
There are no significant implications within this category. By keeping lights in light, encourages health and wellbeing activities to continue, with no reduction in current service levels.

4.8 Environment and Climate Change Implications on Priority Areas):

4.8.1 Implication 1: Energy efficient, low carbon buildings.
Positive Status:
Explanation: Reduction in carbon footprint, reduction in energy demands to maintain current service levels. Decreases energy use for the Council.

4.8.2 Implication 2: Low carbon transport.
Positive Status:
Explanation: Reduces the dependency on use / reliance on the private car during the hours of darkness and encourages use of cleaner modes of transport.

4.8.3 Implication 3: Green spaces, peatland, afforestation, habitats and land management.
Neutral Status:
Explanation: N/A

4.8.4 Implication 4: Waste Management and Tackling Plastic Pollution.
Neutral Status:
Explanation: Although we will look to recycle waste components from this project wherever possible.

4.8.5 Implication 5: Water use, availability and management:
Neutral Status:
Explanation: N/A

4.8.6 Implication 6: Air Pollution.
Positive Status:
Explanation: By reducing the dependency on motorised vehicles allowing sustainable travel choices may have a positive impact on the air quality, at least will be no worse than current levels.

4.8.7 Implication 7: Resilience of our services and infrastructure and supporting vulnerable people to cope with climate change.
Positive Status:
Explanation: By reducing energy consumption and costs, current levels of service can be maintained and therefore ensure current choices will still be available. Less reliance on energy will have an impact on the supply and outputs from delivering the service.

Have the resource implications been cleared by Finance - Yes
Name of Financial Officer: Sarah Heywood

Have the procurement/contractual/ Council Contract Procedure Rules implications been cleared by the Head of Procurement - Yes
Name of Officer: Clare Ellis

Has the impact on statutory, legal and risk implications been cleared by the Council's Monitoring Officer or LGSS Law- Yes
Name of Legal Officer: Emma Duncan and Stephen Randall – Pathfinder Legal Services.

Have the equality and diversity implications been cleared by your Service Contact- Yes
Name of Officer: Jeremy Smith

Have any engagement and communication implications been cleared by Communications Yes
Name of Officer: Sarah Silk

Have any localism and Local Member involvement issues been cleared by your Service Contact? Yes
Name of Officer: David Allatt

Have any Public Health implications been cleared by Public Health - Yes
Name of Officer: Iain Green

If a key decision, have any Environment and Climate Change implications been cleared by the Climate Change Officer - Yes
Name of Officer: Emily Bolton

5. Source documents

5.1 Source documents

None