



Decision Pathway – Report

PURPOSE: Key decision

MEETING: Cabinet

DATE: 05 April 2022

TITLE	Tender and Implementation of the LED/CMS Street Lighting Contract			
Ward(s)	Citywide			
Author: Razvan Constantinescu	Job title: Assets and Contracts Manager			
Cabinet lead: Cllr Donald Alexander, Cabinet Member Transport	Executive Director lead: Stephen Peacock, Executive Director Growth and Regeneration			
Proposal origin: BCC Staff				
Decision maker: Cabinet Member				
Decision forum: Cabinet				
Purpose of Report:				
<ol style="list-style-type: none">1. To seek approval to spend £12 m funding through the existing contract with the aim of replacing Bristol's existing street lighting installation with a new LED (Light Emitting Diode) and CMS (Central Management System) street lighting network.2. To seek authorisation to be delegated to Executive Director Growth and Regeneration to approve and oversee the disbursement of the necessary budget for the implementation of this project in consultation with the Cabinet Member Transport.				
Evidence Base:				
<ol style="list-style-type: none">1. This proposed contract would be a far-reaching technical contract, enabling Bristol City Council to be among the cities in the replacement of the existing obsolete high-pressure sodium, ceramic metal halide and cosmopolis based street lighting network. The proposed LED system combined with a CMS system will give the council greater flexibility and control over the street lighting system, resulting in energy savings, reduction of carbon and a reduction in maintenance costs.2. The proposed LED/CMS system would provide remote control, monitoring and energy measurement of street lighting over a wireless interface, allowing the Council to adapt and manage lighting in line with the Mayoral priorities e.g. carbon reduction.3. The proposal also seeks to agree a new lighting regime for the city, which will provide significant revenue benefits alongside the carbon reductions. Details of the potential dimming regimes are supplied in Appendix.4. Importantly, the project would generate 17,741 Tns of Carbon reduction across the projected life-cycle. The project will assist the authority to deliver its target of carbon reduction by 20255. Other Councils such as Ealing Council who implemented a similar combination of LED conversion and CMS have generated an estimated 45-50% of energy savings, which is enough energy to power up to 5,000 homes per annum, as well as significantly reducing CO2 emissions. Further savings are anticipated will be made as the Council could increase the use of the CMS system to 'trim' streetlights in certain areas and the increased longevity of the LED luminaries and a reduction in maintenance costs.				

6. The current BCC stock of lighting units consists of 38,000 units out of which 27,000 units are a combination of high-pressure sodium, ceramic metal halide and cosmopolis lights sources, combined with street lighting lanterns that have reached or are nearing the end of their life span and are in need of change. Depending on the option selected for delivery, the contract would be across several years and the anticipated cost of the entire project estimated to be in the region of £12 m.
7. All heritage lamp posts will remain and will be refurbished including installation of LED lighting and CMS connection. We have already trialled and delivered the refurbishment to cast columns in parts of the city. The CMS system will allow us to control the lighting levels remotely allowing the city to make decision on different lighting levels for different locations and ability to react to safety issues and incidents on the network
8. Amending the existing contract for "Maintenance, installation and upgrading of highway electrical assets in the City of Bristol" to include the upgrading of LED lighting and hardware, as well as a provision of a smart CMS, is in compliant with PCR Reg72 as long as the value does not exceed 50% of the original contract value. This would mean that Value for Money is embedded in the contract, and the soft market testing made since the contract was let indicated that the market rates have increased over the summer due to the inflation in the wider economy. Overall, the route of amending the existing contract to include the works and services is therefore the advised approach.

Cabinet Member / Officer Recommendations:

That cabinet:

1. Authorise the Executive Director Growth and Regeneration in consultation with the Cabinet Member Transport to take all steps necessary to use the existing contract for "Maintenance, installation and upgrading of highway electrical assets in the City of Bristol" to include the upgrading of LED lighting and hardware, as well as a provision of a smart CMS to deliver the LED/CMS street lighting network project at a cost of up to £12 m.

Corporate Strategy alignment:

This project if approved in full will significantly reduce Bristol's Carbon footprint, saving 17,741 Tns of Carbon reduction across the ten years of projected life-cycle and generating annual electricity savings of approximately £1.8 m. This figure is dependent on energy prices going forward but has been based on an average figure of 32 p per KWH.

City Benefits: The overall impact of these proposals is likely to be a significant reduction in electricity usage and light pollution from more energy efficient equipment with better optical controls. The CMS system combined with the LED Lighting and static dimming regimes will allow the control and operation of the lighting system in order to facilitate any ecological requirements.

Social: The proposed LED/CMS system would provide remote control, monitoring and energy measurement of street lighting over a wireless interface, allowing BCC to adapt/manage lighting in line with the Well-Connected priority.

Environmental: This proposed contract would be a far-reaching technical contract, enabling Bristol to be among the cities in the replacement of the existing obsolete high-pressure sodium, ceramic metal halide and cosmopolis based street lighting network thus significantly reducing Carbon emissions.

Consultation Details: A second round of consultation was conducted with market leaders, with a view to understanding market changes that have occurred since the previous, first consultation in 2020. The project team re-evaluated optimal specifications in light of technical developments and costs implications.

Background Documents: Please see Outline Business Case and Appendices

Revenue Cost	£	Source of Revenue Funding	Insert specific service budget name
Capital Cost	£12 m	Source of Capital Funding	Existing £4.8 m CIB allocation Feb 2021 + New £7.2

			m allocation of March 2022
One off cost <input checked="" type="checkbox"/>	Ongoing cost <input type="checkbox"/>	Saving Proposal <input checked="" type="checkbox"/>	Income generation proposal <input type="checkbox"/>

Required information to be completed by Financial/Legal/ICT/ HR partners:

1. Finance Advice: 1. Finance Advice: The Transport and Highways Service are requesting approval to implement a £12 m capital project to replace existing street lighting with modern Light Emitting Diodes (LEDs) controlled via a Central Management System (CMS). The project has already secured £4.8 m in the Capital programme and the balance of £7 m has recently been included in the approved budget for 2022-23 from the “Invest to Save scheme” pending Full Business Case development.

The Outline Business Case (OBC) financials show that at April' 21 energy usage was 10.1 m kWhs, costing £3.2 m at 0.32p per kWh. By April '24 it is anticipated that most of the installation works will be completed, with energy consumption down to 3.6 m kWhs, costing £1.3 m at 0.345p per kWh, saving approximately £1.8 m, an inflation allowance of 2.5% per annum has been included. It should be noted that due to the volatility of the current energy market and global issues affecting energy prices in the UK - anticipated saving levels will continue to fluctuate, with the actual “real” saving only becoming known, once the prevailing rate at the time is realised.

The project is continuing with the existing term contract and supplier (following confirmation from BCC’s procurement team), which only came into operation at the tail end of 2021. The contract pricing was completed in early 2021, prior to significant increases in manufacturing costs, equipment costs, inflation and energy price increases, which has helped to mitigate these cost pressures and ensure Bristol is achieving value for money and a competitive price for the new equipment. Where these conditions to change during the project period, it would be essential to review the procurement strategy and possible explore alternative procurement options.

The new modern equipment, coupled with the CMS, will help to prolong the life of the lights and reduce the repair and maintenance costs as well, which have not been factored into the savings, but should be included in the future business case required to drawdown the £7 m.

The project will generate significant carbon reductions for Bristol, assisting with longer-term health benefits and reducing any potential costs associated with this.

Robust project management and sufficient resources will be needed to ensure the project is delivered within the timescale, so as to achieve the anticipated savings and reduce the ongoing costs. Any additional costs will have to be met from within the Transport and Highways Capital programme budget.”.

Finance Business Partner: Kayode Olagundoye, Interim Finance Business Partner, Growth and Regeneration, 11 March 2022.

2. Legal Advice: Legal advice has been provided generally and in particular on the implications of optional routes to contract. Legal Services will continue to provide advice and support in relation to the extension to the existing contract (“Maintenance, installation and upgrading of highway electrical assets in the City of Bristol”) to ensure compliance with the 2015 Procurement Regulations and the Councils own procurement rules.

Legal Team Leader: Husinara Jones 23 March 2022

3. Implications on IT: IT would be keen to engage to understand the way in which these new lights will be managed in relation to both the wireless interface mentioned and the CMS, ie where that will be hosted. IT do support the progression of/and benefits of this project.

IT Team Leader: Gavin Arbuckle – Head of Service Improvement and Performance, 14 March 2022

4. HR Advice: No HR implications are evident with these proposals.

HR Partner: Chris Hather, HR Partner 3 March 2022

EDM Sign-off	Stephen Peacock, Executive Director Growth and Regeneration	19 January 2022
Cabinet Member sign-off	Cllr Alexander, Cabinet Member Transport	6 February 2022

For Key Decisions - Mayor's Office sign-off	Mayor's Office	7 March 2022
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Appendix A – Further essential background / detail on the proposal Full list of options + investment/benefits case studies are included in the Outline Business Case.	YES
Appendix B – Details of consultation carried out - internal and external Please see Outline Business Case for relevant information.	NO
Appendix C – Summary of any engagement with scrutiny Please see Outline Business Case for relevant information.	NO
Appendix D – Risk assessment Please see Outline Business Case for relevant information.	NO
Appendix E – Equalities screening / impact assessment of proposal	YES
Appendix F – <u>Eco-impact screening/ impact assessment of proposal</u>	YES
Appendix G – Financial Advice	NO
Appendix H – Legal Advice	NO
Appendix I – Exempt Information	No
Appendix J – HR advice	NO
Appendix K – ICT	NO
Appendix L – Procurement	NO