Sandwell
Metropolitan Borough Council

Report to Cabinet

16 November 2022

Subject:	Investment Programme – Street Lighting
Cabinet Member:	Cabinet Member for Environment Cllr Zahoor Armed
Director:	Director of Borough Economy, Alice Davey
Key Decision:	Yes
Contact Officer:	Assistant Director Highway Services Robin Weare robin_weare@sandwell.gov.uk

1 Recommendations

1.1 That the Capital Programme for Borough Economy is increased by £1,695,425 for 2022/23 to undertake the spend to save to fund Street Lighting Investment Programme and cyclical replacement of streetlighting columns.

1.2 That the Capital Programme for 2023/24 for Borough Economy is increased by £1,695,425 for 2023/24 to undertake the spend to save to fund Street Lighting Investment Programme and cyclical replacement of streetlighting columns.

1.3 That subject to the approval of 1.1 and 1.2 above the schemes are funded by Prudential Borrowing.

1.4 That the ongoing capital pressure of £275,750 per year from 2024/25 onwards is added to the Council's capital programme.

1.5 That investment of the net budget saving from energy reduction, after prudential borrowing charges is reinvested to partially fund ongoing Highway Maintenance inflation pressures.

1.6 That the Director of Borough Economy is authorised to award the necessary street lighting contract, following a compliant competitive tender process.

1.7 That any necessary exemptions be made to the Procurement and Contract Procedure Rules to enable the course of action referred to in 1.6 to proceed.

1.8 That the Director of Law and Governance – Monitoring Officer is authorised to execute any documentation necessary to enable these recommendations.

1.9 That the recommendations are approved, subject to a satisfactory financial appraisal being completed by Strategic Finance.

2 Reasons for Recommendations

2.1 Approval is sought to undertake and fund the implementation of a two-year project to replace high energy SON street lighting lanterns with low energy LED lighting and also to fund the cyclical replacement of life expired columns. It is proposed to fund the project using prudential borrowing paid back using energy savings.

2.2 As a responsible local Highway Authority, Sandwell MBC provides and maintains more than 30,900 streetlights on the adopted highway. Of the 30,900 Council streetlight assets some 23,020 have been modernised through a previous SOX lantern replacement programme, delivering the associated efficiencies and carbon reduction benefits.

2.3 The previous SOX lantern replacement programme mainly on residential estates also replaced around 2% of life expired columns

2.4 The Council has a further 6705 SON streetlight lanterns, a type of high-pressure sodium lantern that have high energy consumption. The SON lanterns are located on principal roads.

2.5 Significant reductions in energy consumption, carbon, associated energy costs can be delivered by converting Sandwell's remaining SON lanterns to LED with a central management system (CMS).

2.6 £2,839,314 of capital funding is required to deliver the replacement of 6,705 SON lanterns to LED lanterns and CMS.

2.7 The benefits arising from replacement of SON lanterns to LED are:

- It is estimated that replacement of SON lanterns to LED would reduce electricity consumption by 3,273,848 Kwh of electricity per year. From 10,802,930 Kwh in 2021/22 to 7,529,082 Kwh of electricity in 2024/25.
- The reduced energy costs are estimated at £332,619 per year as well as mitigating the exposure to future energy price increases
- A reduction of 758 tonnes in CO2 emitted each year
- A return on investment of at least 12% per annum
- The opportunity to fund a shortfall in revenue budget, keeping highway street lighting maintenance costs within budgets.

2.8 Sandwell Highway Service has identified a budget shortfall from existing capital grants and revenue budgets required to deliver the objectives outlined in the approved Highway Infrastructure Asset Management Policy, Strategy and Plan for Street Lighting.

2.9 Sandwell Highway Service delivers the cyclical renewal of street lighting columns, informed by a structural inspection regime. This prioritises the renewal of street lighting columns in high risk of failure or collapse.

2.10 There would be no benefit in providing electric charging points for vehicles at the 2% of locations on principal roads where lighting columns will be replaced as part of the first 2 years of the SON lantern replacement programme. Electric charging points are required on residential streets where lantern renewal has been already been completed. The preferred approach for electric charging points in Sandwell is the use of kerbside pillars next to electric charging bays to provide a more practical, efficient, convenient, lower maintenance, low risk and lower whole life cost solution. It is noted that the lighting columns in Sandwell are generally

placed at the back of the public footway often remote from the identified charging bays.

2.11 The use of Council assets for 5G roll out, including a potential option to use lighting columns, has been the subject of early Corporate discussions. However, the establishment of preferred options has not been concluded and there is currently no established project for implementation. Any requirements for the use of highways assets will be assessed as part of the development of this project.

3 How does this deliver objectives of the Corporate Plan?

	Best start in life for children and young people: Good, well maintained streetlighting encourages more walking and cycling among our younger people increasing their wellbeing, improving road safety and promoting cleaner air quality.
	People live well and age well: The Highway environment plays an important role in the life of the community, particularly the positive opportunities that they can bring from social inclusion and interaction. Good streetlighting discourages criminal and anti-social activity, reducing the fear of crime and supports the increased use of public transport.
	Good quality streetlighting will make our communities feel safe, more protected and confident in their homes and neighbourhoods.
	Replacement of SON streetlighting lanterns to LED would deliver significant energy savings from reduced electricity consumption and support delivery of carbon reduction savings and the associated benefits outlined in the Corporate Plan.
	Our highways are the arteries of our communities. They connect our residents to employment, education, local services and indeed the wider world. They enable economic growth, social mobility and are vital in ensuring good health outcomes.

4 Context and Key Issues

4.1 Addressing the Shortfall in Revenue Budget

The Highway Service has identified a budget pressure of £275,750 per annum that is required to address the shortfall from existing budgets or grants to deliver the priority objectives.

Table 4.1: Calculation of Budget Shortfall		
Cyclical renewal of steel columns	£308,950	
Cyclical renewal of concrete columns	£777,000	
Structural Testing Programme	£50,000	
Total required annual funding	**£1,135,950**	
Funding Available:		
LTP funding for streetlighting	£130,000	
Capital from Road Safety Improvement schemes	£200,000	
Revenue budget allocation	£530,200	
Total Available Funding	**£860,200**	
Additional Funding Requirement		**£275,750**

Use of Prudential Borrowing would result in a total Capital requirement of £3,390,850 over 2 years for implementation and would leave an ongoing capital requirement of £275,000 plus inflation 2024/25 as shown in table 4.2 below. A net revenue saving of £74,358 in 2023/24 and £148,715 from 2024/25 onwards would partially offset the ongoing Highway Revenue Pressure from Inflation.

Table 4.2:	2022/23	2023/24	2024/25	Ongoing
CAPITAL				
Capital required to deliver the Spend to Save to Fund Street Lighting programme	£1,419,657	£1,419,658		
Additional Funding Requirement	£275,750	£275,750	**£275,750**	**£275,750**
Total Prudential Borrowing Requirement Pressure	**£1,695,425**	**£1,695,425**		
REVENUE				
Financing cost from prudential borrowing		£91,952	£183,904	£183,904
Energy benefit		(£166,310)	(£332,619)	(£332,619)
Net Revenue saving to offset Highway Revenue Pressure from Inflation - Ongoing		**(£74,358)**	**(£148,715)**	**(£148,715)**

4.2 Consultation Undertaken

An appraisal by the Strategic Investment unit is currently being undertaken and approval of the recommendations is subject to a satisfactory outcome.

4.3 Timescales

Details of the timescales over which the project will run and the period over which benefits will be realised is shown in table 4.3 below:

Table 4.3: Phase of Project	Month	Year
Detailed Design Work	Sept - Nov	2022
Estimated Construction Start	January	2023
Construction period		1 year

Replacement of high-pressure SON to LED can be achieved within 18 months of securing the necessary funding.

The full energy savings will be secured in the financial year following installation and have no end date.
Replacement of the 66 street lighting columns categorised as high risk across principal roads and bridges, would be achieved within the same financial year as approval is granted.

4.4 Project Delivery Approach

The street lighting contract for the project will be procured through a compliant tendering process in accordance with the Council's financial regulations.

4.5 Prudential Financing Cost Calculation

Assumptions:

1. Life of loan 30 years (estimated asset life)
2. Current PWLB Interest rate 3.48%
3. Repayments £183,904 per year

4.6 Project Risks

A summary of the key risks and mitigations associated with the delivery of the project is shown in table 4.4 below:

Table 4.4: Risk Description	**Likelihood**	**Impact**	**Score**	**Mitigations**
Democratic process – issues & delays	3	3	9	Liaise closely with SIU Consultation with Cabinet member
Construction Stage Risks	2	2	4	Pre-contract ECI Good programme and project management Compliant procurement and supervision of specialist contractors.

Disruption and safety issues during construction	2	3	6	Traffic Management Plan Health and Safety Plan
Financial Risks	2	3	6	Detailed cost estimate and cost benefit analysis developed with ECI Allowance for contract price inflation Reviewed by SIU Allocated and monitor budget

5 Alternative Options

5.1 The recommended option is to access prudential borrowing to fund these one-off implementation costs and cyclical replacement costs as set out in the recommendations. The drawdown of Prudential Borrowing would occur over a two-year period and be repaid over 30 years.

The alternative option would be to use capital funding provided through the Council's capital programme. This option would fully fund the cyclical replacement of red risk lighting columns from 2024/25 onwards including an allowance to mitigate inflation. However, there are no available capital resources to fund this project. The project is suitable for Prudential Borrowing as it releases savings to fund the borrowing costs as well as ongoing energy savings to reinvest in the service.

6 Implications

Resources:	This is straight forward repetitive work at many locations and will be managed by governance arrangements that have successfully delivered similar projects such as the SOX to LED conversion programme previously. Corporate procurement officers will assist Highway Services officers with procuring a compliant Contract. The financial resource implications are set out in the report.

Legal and Governance:	The principal statutory duty imposed on local highway authorities to maintain the highway at public expense is set out in Section 41 of the Highways Act 1980. This duty includes ensuring that street lighting is maintained and illuminated. The Traffic Management Act 2004 imposes a network management duty on a council as the Local Traffic Authority to manage the authority's road network to facilitate as far as reasonably practicable the expeditious movement of traffic. This proposal will support these statutory duties.
Risk:	A summary of the key risks and mitigations associated with the project is detailed in section 4.7 above.
Equality:	There are no specific equality issues regarding the proposals contained in this report. The requirements of the Equality Act 2010 are included in the Framework Agreement Documentation to draw attention to the detail of, and the need to comply with, the Act.
Health and Wellbeing:	The Highway environment plays an important role in the life of the community, particularly the positive opportunities that they can bring from social inclusion and interaction. Good streetlighting discourages criminal and anti-social activity, reducing the fear of crime, supporting the increased use of public transport, delivery of carbon reduction savings and the associated benefits outlined in the Corporate Plan.
Social Value	Highways are the arteries of our communities. They connect our residents to employment, education, local services and indeed the wider world. They enable economic growth, social mobility and are vital in ensuring good health outcomes.

7. Appendices - None

8. Background Papers - None