

1) Background information

1.1) As per phase 1 LED discussions, it was agreed that the Transport and Infrastructure service area would provide the Scrutiny panel the following information prior to commencing roll out.

a) Original Scrutiny Recommendation

All future programmes put forward will aim to maximise the potential savings, and will seek a complete funding package (which may include more than one source).

Approved Executive Action

"All future programmes put forward will continue to maximise the potential savings, and will seek a complete funding package (which may include more than one source)."

b) Original Scrutiny Recommendation

The submission of Capital funding bids would not normally be determined through the Scrutiny process as they are often speculative bids for central government funding pots. Details of what further works needed to complete the LED programme have already been determined and a suitable source of funding has yet to be identified. Once suitable funding has been obtained the details of the programme can be reported to the Panel

Approved Executive Action

Regarding the proposed action in respect of Scrutiny recommendation (b), concerns were raised with regards to this recommendation in that this may impact on the ability to seek funding in a timely manner. It was therefore proposed and agreed that the Scrutiny Panel be informed as soon as possible once suitable funding had been obtained.

1.2) The Transport and Infrastructure service area has worked to refine and provide a more robust case for the roll out of phase 2 of the street lighting upgrade programme. This is presented to scrutiny panel for consideration, following the outlined approved actions.

2) Salient points from the programme:

- Fewer fittings to be upgraded following rationalisation of high level estimation of inventory
- Price per unit negotiated. Majority are now significantly cheaper
- Energy costs have risen by 16% since the initial estimation
- Carbon Tax saving assumptions from Central Government have altered, reducing the level of savings possible
- Funding option sought from Salix, which will provide the Council 99.8% of funding on an interest free loan basis (£2.491m).
- Middlesbrough Council will fund the remaining 0.2% of the value of the bid (£4k)
- The payback period for the revised programme is 8.3 years; 33% better than previously estimated.
- This will result in 100% of the inventory being upgraded, resulting in energy savings of £300k per annum
- The Appendix below highlights the calculations and rationalisation for the alterations to the 2017 information provided.

Appendix

3) Inventory and costs

3.1) The Council has ratified its inventory position since 2017, and held negotiations with the existing partnering contractor, Galliford Try (GT), to ensure a commercially acceptable deal for Middlesbrough Council to deliver the required upgrades. This will result in a 100% coverage of the lighting stock to LED. The table below highlights the achieved savings as per investigations in comparison to the initial high level assessment in 2017.

Original fitting	Proposed replacement	Initial cost estimate 2017 (£)	Refined cost estimate 2019 (£)	Difference (£)	% difference
35 SOX	34 LED	332.53	345.852	13.322	4.0
55 SOX	34 LED	332.53	345.852	13.322	4.0
90 SOX	34 LED	332.53	345.852	13.322	4.0
135 SOX	80 LED	481.03	408.46	-72.57	-15.1
180 SOX	80 LED	548.53	453.466	-95.064	-17.3
50 SON	34 LED	332.53	345.852	13.322	4.0
70 SON/PLT	34 LED	332.53	345.852	13.322	4.0
100 SON	34 LED	548.53	408.46	-140.07	-25.5
150 SON	80 LED	616.03	408.46	-207.57	-33.7
400 SONWL	200 LED	591.88	453.47	-138.41	-23.4
250 SON	120 LED	616.3	453.47	-162.83	-26.4

(Table 1 – comparison of costs from initial estimation)

3.2) The costs are based on progression in the technology investment, and supply and demand; there is more supply to match an increased demand, which increases competition and drives costs down.

3.3) The majority of local authorities are undertaking these works, which has massively impacted upon the market, making for higher levels of competition, resulting in lower prices.

4) Funding options

4.1) The Council has also had dialogue with Salix Finance Ltd. Salix provides interest-free Government funding to the public sector to improve their energy efficiency, reduce carbon emissions and lower energy bills. Salix is funded by the Department for Business, Energy and Industrial Strategy, the Department for Education, the Welsh Government and the Scottish Government and was established in 2004 as an independent, publicly funded company, dedicated to providing the public sector with loans for energy efficiency projects. Based on the assessment of the upgrade requirements, Salix have offered the Council an interest free loan of 99.8% of the total programme value. It is proposed that the Council takes up this offer, and provides the 0.2% of the value from the Capital Programme.

4.2) The loan is payable back to Salix over a period of 5 years from completion, payments are taken from the savings made from the energy bills through a reduction in consumption.

5) Proposed action

5.1) Following rationalisation, the Council has been able to more clearly identify the units that are suitable for replacement from the inventory. This has resulted in a reduced number of total units requiring replacement. The table below highlights the variations in programme compared

to the initial estimations produced in 2017. The total cost involves installation costs, and traffic management associated with the replacements.

Original fitting	Proposed replacement	No. of units required	Refined cost estimate 2019 (£)	Total cost (£)
35 SOX	34 LED	31	345.852	10721.41
55 SOX	34 LED	118	345.852	40810.54
90 SOX	34 LED	114	345.852	39427.13
135 SOX	80 LED	59	408.46	24099.14
180 SOX	80 LED	2	453.466	906.932
50 SON	34 LED	13	345.852	4496.076
70 SON/PLT	34 LED	2095	345.852	724559.9
100 SON	34 LED	1366	408.46	557956.4
150 SON	80 LED	2398	408.46	979487.1
400 SONWL	200 LED	13	453.47	5895.11
250 SON	120 LED	236	453.47	107018.9

Total (£) 2495379

(Table 2. No. of units of each type to be replaced)

5.2) The Council is proposing to make available a 10% contingency (£249,500) from the Council Capital programme. This will allow a buffer for any unforeseen circumstances; such as excessively corroded columns identified during the replacements to be remediated. This will only be utilised should such issues be identified.

6) Comparison Summary Table

The below table highlights the variance from the high level estimations made in 2017, compared to the refined assessment in 2019.

	Initial estimation presented at Scrutiny (2017)	Proposed progression (2019)	Difference	% Difference
No. fittings	8692	6445	-2247	-25.9
Energy rate (P/Kwh)	11	12.8	1.8	16.4
Existing energy cost (£k)	493	491	-2	-0.4
Reduced energy cost (£k)	175	190	15	8.6
% saving	60	56	-4	-6.7
Estimated cost saving (£)	318	302	-16	-5.0
Carbon tax saving (£k)	15	1	-14	-93.3
Cost to replace (£k)	3924	2495	-1429	-36.4
External funding (£k)	0	2491	2491	
Council funding (£k)	0	4	4	
pay back ratio (years)	12.3	8.3	-4.1	-33.0

(Table 3. Comparison of initial estimated programme in 2017, to 2019)

The above table highlights the variations from the initial proposal presented in 2017.