TO: EXECTIVE
20TH OCTOBER 2015

INVEST TO SAVE: LED STREETLIGHTS
Director of Environment, Culture and Communities / Borough Treasurer

1 PURPOSE OF REPORT

1.1 To agree an £7.3 million investment which ensures all of the borough's street lights are LED and capable of being controlled from a central computer within a three year period. The project offers further efficiencies which will form part of any future budget proposals put forward by Environment, Culture and Communities.

2 RECOMMENDATION(S)

2.1 A supplementary capital approval of £7.3m for the Streetlight LED project be sought from Council on 25 November to allow the replacement programme to begin in March 2016.

2.2 That column replacement continue to be funded from Local Transport Plan capital grant for the duration of this project.

3 REASONS FOR RECOMMENDATION(S)

3.1 The investment in LED lighting will reap significant financial savings and the earlier we can take these benefits the better. LED lighting will also significantly improve the Council's carbon footprint thereby contributing to the Councils aspirations in terms of climate change.

4 ALTERNATIVE OPTIONS CONSIDERED

4.1 The only realistic option is to continue with the current strategy of replacing lighting with LED on an ad-hoc basis which will take decades to complete resulting in the Council needlessly wasting money on energy costs over a lengthy time period and in so doing unnecessarily adding to CO2 emissions.

5 SUPPORTING INFORMATION

5.1 In recent years, the CMT have had previous reports relating to the desirability of installing LED lights as a means of saving money and reducing CO2 emissions. While at each previous stage the financial case for the investment has been superficially strong, backed up by the prevalence of other authorities adopting this approach, it was not felt the project plans or financial case was robust enough to approach the Executive with a view to making such a significant investment in street lighting. However, it is now believed that the project plan and financial case presented in Appendix 1 is a robust proposal which should give the Executive sufficient assurance to support the investment. Given the detail in the Appendix, only a summary of the project and benefits is presented in this report.

5.2 Bracknell Forest has approximately 14,500 street lights on the network. They consume about £550,000 worth of electricity each year, require about £70,000 of routine maintenance involving bulk lamp changes and cleaning each year, and such is the generally poor condition of the stock also need about £112,000 of reactive maintenance to replace suspect poles and failed lamp units. Much of the problem derives from Bracknell being a New Town in that the majority of street lamps were originally erected within a short time span and therefore it is unsurprising that many are failing, or anticipated to fail, around the same time too. Consequently, while this project shows a return on investment and stands in its own right, in reality the Council would be spending this level of resource on replacement columns in any case over the next 10 years which is an unavoidable cost.

5.3 The project seeks to replace all of the old units with an LED solution within a two or three year window. The sooner this can be done the sooner the Council can benefit from the maximum reduction in energy and maintenance costs. It is also proposing to connect all lights to the existing Central Management System (about 2,000 of our existing lights are already connected) which allows further efficiencies in operational and maintenance terms. The business case assumes a level of "dimming and trimming" of street lights but does not assume part night lighting if, for example, the Council was to choose to switch off some lights between 12 midnight and 5am. It has not been included because of the necessary policy discussions and public consultation that would be required if this were to be considered, but if the Council was to adopt this policy a further £2m could be saved over 25 years with an average of just under £80,000 per annum.

5.4 Our highways and street lighting contractor Ringway would undertake the project. They bring considerable expertise to the project having just completed a street lighting PFI in Hounslow. Confidence is high therefore that the project can be complete in the timescales identified and within budget.

Value for money

5.5 The existing contract with Ringway, which includes a comprehensive street lighting specification based on the national Specification for Highway Works, was only recently competitively tendered. The documents were deliberately drafted to include a mechanism to procure large scale capital projects without the delay/expense of spot tendering but this option exists if the Council does not believe it is achieving value for money. The process is termed NEC3 Option C Target Costing.

Option C Target Costing enables the Council to agree the most current and therefore most competitive prices and programme timings utilising Ringway's experience and construction knowledge from the early design stage. The early involvement of contractors has been shown to bring efficiencies to both the client and contractor and is cited as best practice. The Target Cost mechanism includes a risk-sharing and cost management incentive designed to minimise cost and time overruns. Critically, the Option C Target Costing process is totally transparent which, when combined with the expertise and market awareness of Council officers (an intelligent client), results in both parties fully understanding the risks involved meaning these are not speculative but fully informed ensuring the Council Is not paying a financial premium for risk.

Ringway have a proven track record in transforming borough-wide street lighting systems through their PFI contracts and their 'buying power', in the LED market, will work to the Borough's advantage. Consequently, Officers believe utilising Ringway as the contract offers the best solution to providing value for money combining as it

does a baseline cost which has only recently been market tested together with fully transparent negotiations on the target cost. These negotiations have in the background as a healthy "tension" the option of spot tendering should the Council not be satisfied about value for money.

Conversely, it is not felt to be a financially or operationally astute alternative to undertake an EU procurement for this work.

To tender a project of this scale will require a full EU procurement process which will delay the project start by up to 18 months or at the very least by 12 months. New documents will have to be drafted, tenderers selected and returned documents assessed. How the Borough chooses to manage the inherent risks in a project of this scale will affect the prices returned. There is no guarantee that tendering the project will return prices any more competitive than those already available through our contract with Ringway and given that risk would be have to be priced in the process means that costs are likely to be higher. The costs of LED lights are typically decreasing which the Council benefits from under Option C Target Cost, whereas in a tender situation the cost would be locked in at a higher price. An alternative supplier to Ringway would be required to set up an operational base in the borough, again highlighting the probability of increased costs. The procurement process does not enable us to involve contractors at the early design stage and the ability to reduce costs by agreement before work starts is unavailable.

There are operational issues to reflect upon also in terms of how the work is procured. Should another contractor win the bid the Council will face an increasing management burden co-ordinating routine street lighting maintenance activities by Ringway together with a replacement programme provided by others. There will be ongoing management issues to resolve as the end of contract works defect correction period will extend for at least 12 months, and possibly longer, beyond the time of installation of the new units – effectively the Council will have 2 contractors maintaining our lighting stock with the inherent risks that that brings.

We estimate the potential cost of delaying the project will accumulate to £300k a year, based on current electricity prices alone. We are unable to estimate how Ringway may revise their routine maintenance charges if they are to manage LED units installed by others when the project is complete.

Consequently, for the reasons cited above, Officers strongly believe that value for money is best achieved by adopting the Option C Target Cost methodology permitted within the Highway Maintenance and Street Lighting contract we have with Ringway.

CO2 emissions

5.6 The Council is committed to reducing wastefulness in all its forms in order to contribute to a more sustainable future. The installation of LED street lights will significantly reduce the Council's carbon footprint. It is estimated that 2857 tonnes of CO2 will be saved each year, equivalent to the annual emissions from about 285 homes or 570 local residents.

Timing

5.7 It is proposed that the Executive request Council on 25 November 2015 to consider a supplementary capital approval. This timing optimises the installation operation since

there is currently a three month lead-in for LED lamps meaning that installation could begin in February/ March 2016. The electricity company base their charges to us on the inventory we submit and the hours of burning and this inventory is reviewed on an annual basis. It therefore makes sense to complete the installation as soon as possible.

5.8 The Executive is therefore asked to review Appendix 1 and agree to support the bid for a supplementary capital approval.

6 ADVICE RECEIVED FROM STATUTORY AND OTHER OFFICERS

Borough Solicitor

6.1 The proposed procurement may be carried out by means of a call off under the Highway Maintenance contract with Ringway. No significant legal issues arise from the matters discussed in this report.

Borough Treasurer

6.2 Whilst the investment appraisal undertaken by Ringway at Appendix 1 is robust from a commercial perspective, it does not take into account the peculiarities of local government finance and the way in which the capital investment and anticipated savings will impact upon future Council budgets. The impact of the above approach is to reduce the potential revenue savings in the years shortly after replacement, but over the life of the asset cumulative savings in excess of £8m can be anticipated (Appendix 2), with annual savings peaking at £618,000 in Year 25. Irrespective of which approach to investment appraisal is used the financial case for investing in replacement LED street lights is strong.

6.3 The investment appraisal also provides two options for the overall level of capital investment. The first option assumes capital expenditure of £8.4m, to include the replacement of 2,000 concrete or mild steel street lighting columns. Prior to this proposal the Council's intention was to replace these columns using capital grant provided by the DfT for Local Transport Plan schemes. Were the Council to continue funding the replacement columns using this grant the overall level of additional capital expenditure required would fall to £7.3m. For the purposes of the figures below it has been assumed that the Council will use the Local Transport Plan capital grant as this maximises the overall revenue benefit.

6.4 The most significant differences between the figures included in Ringway's investment appraisal and those outlined in the table below are:

- No savings in carbon tax have been assumed. There is no budget for carbon tax within the Council's financial plans and the timing and basis on which it will be introduced remains uncertain.

- Financing costs are calculated using the statutory basis (known as the Minimum Revenue Provision), requiring the capital investment to be written off over the estimated life of the asset (in this case 25 years) with interest calculated using the outstanding balance.

REVENUE IMPLICATIONS OF CONVERSION TO LED LAMPS AND COLUMN REPLACEMENT
£7.3m Capital Investment

	2016/17 £'000	2017/18 £'000	2018/19 £'000	2019/20 £'000	2020/21 £'000
Energy Saving (Inflation as per DECC)	163	422	459	479	492
Routine Maintenance	12	56	57	59	60
Reactive Maintenance/Less CMS Annual Management Fee	0	73	76	79	82
GROSS SAVING	175	551	592	617	634
Financing Costs					
Interest (25 Year PWLB Loan)	64	187	240	230	220
Minimum Revenue Provision (25 Years)	0	146	292	292	292
FINANCING COSTS	**64**	**333**	**532**	**522**	**512**
NET SAVING	**111**	**218**	**60**	**95**	**122**
Annual Incremental Impact	**-111**	**-107**	**159**	**-35**	**-27**

Equalities Impact Assessment

6.5 None required

Strategic Risk Management Issues

6.6 Without this proposal, the Council would be faced with similar capital investment costs but over a lengthy period since the majority of lamp columns are in need of replacement and therefore in the long term the expenditure is unavoidable. Failing to proceed with the project will expose the Council to increasingly high energy costs which will put additional risk on the Council's financial strategy whereby proceeding with the project will ease the Council's long term financial issues.

6.7 The investment appraisal uses the DECC (Department for Energy and Climate Change) estimates for energy price increases over the next 10 years and a modest estimate of 3% thereafter. In order to assess the financial risk the proposal has been remodelled using different assumptions for energy inflation. The table below repeats the net savings from 6.4 above and compares them with the savings that would be achieved under varying inflation assumptions. Even if energy inflation is 0% over the entire period the financial case for investment remains positive.

Net Savings 2016/17 to 2020/21

	2016/17 £'000	2016/17 £'000	2016/17 £'000	2016/17 £'000	2016/17 £'000
DECC Inflation	111	218	60	95	122
0% Inflation	111	173	-22	-8	7
6% Inflation	111	205	35	76	118
8% Inflation	111	216	55	106	160

7 CONSULTATION

Principal Groups Consulted

7.1 None

Method of Consultation

7.2 Not applicable

Representations Received

7.3 Not applicable

Background Papers
Bracknell Forest Street Lighting CMS and LED Implementation Plan

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