

<p>C</p> 	<p>Environment Committee</p> <p>14 March 2019</p>
<p style="text-align: right;">Title</p>	<p>Street Lighting Asset Improvement Project</p>
<p style="text-align: right;">Report of</p>	<p>Chairman of the Environment Committee</p>
<p style="text-align: right;">Wards</p>	<p>All</p>
<p style="text-align: right;">Status</p>	<p>Public</p>
<p style="text-align: right;">Urgent</p>	<p>No</p>
<p style="text-align: right;">Key</p>	<p>Yes</p>
<p style="text-align: right;">Enclosures</p>	<p>None</p>
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Summary

To seek authorisation to implement the proposed Street Lighting Improvement Project consisting of LED lantern and Central Management System (CMS) conversion utilising a single source supplier for the installation works under the Street Lighting Private Finance Initiative (PFI) Project Agreement and to authorise entering into and executing the associated contract deeds of variation.

Recommendations

1. That the Committee approves the progression of the proposed Street Lighting Improvements via the LED/CMS Conversion Project in accordance with the

process identified in this report using the existing Street Lighting PFI Project Agreement (Contract) Change Control procedure for the provision of the equipment installation via the PFI Service Provider as a single source supplier.

2. That the Committee authorises the Strategic Director of Environment to approve the required contract variations.

3. That the Authority enters into and executes the agreed deeds of variation as required by the Contract.

1. WHY THIS REPORT IS NEEDED

- 1.1 The Council currently operate a Private Finance Initiative Contract to deliver the Street Lighting Service. This followed the submission of a detailed Business Case to support a bid to the Department of Transport in 2004 for Private Finance Initiative support funding. Barnet's bid was selected from many competing bids as a project that provided a compelling Business Case that was worthy of funding support and therefore Barnet were fortunate to be awarded substantial funding (£55.9m) to allow the Street Lighting assets to be comprehensively improved.
- 1.2 A PFI Project involves an initial 5-year programme (which was completed in 2011) of column replacements with newly designed lighting schemes to meet recommended lighting standards. Within the initial five-year period 70% of the boroughs lighting assets were replaced, thereby delivering a substantial improvement in the quality of the street lighting on all classes of roads throughout Barnet with a column life expectancy of a minimum 35-year period, thereby providing a good degree of future proofing.
- 1.3 Enhancements were made in 2012/13 with the installation of a Central Management System CMS which allowed more flexibility in controlling the street lighting including the dimming of the lights to make them more energy efficient.
- 1.4 Since the previous positive investment in the street lighting assets there has been some major advancements in lighting and lighting control technology and this report identifies the positive changes that have already been implemented and the further proposed enhancements that are now proposed, which when implemented will ensure that Barnet's street lighting is at the cutting edge of technology whilst also providing control flexibility and efficiency savings.
- 1.5 The London Borough of Barnet's Street Lighting PFI Project commenced in April 2006 and runs for a term of 25 years and therefore has an end date of March 2031 (a further 12 years to run). The total unitary charge (Lump sum paid annually for the service) is currently approximately £6.520m, partially

indexed, per annum. The Authority receives a contribution of £2.285m annually towards the UC sum, in annual PFI credit payments, from the Department for Transport, with the balance of £4.265m being the Authority's financial contribution and the cost of maintaining the street lighting asset and electricity consumption costs.

- 1.6 Of this sum, approximately £2.4m, (at Winter 2018/19 electricity unit rate), would be the total current annual cost of energy for the Authority's street lighting and illuminated street furniture electricity consumption. Electricity has virtually tripled in cost since the Project commenced in April 2006 and it is forecasted by our energy advisors Laser that energy will continue to rise annually far in excess of general and contract inflation.
- 1.7 Following earlier electricity price increases and a review of options in 2011 it was concluded that the installation of technology that allows the dimming of the street lighting assets, thereby reducing energy consumption, would be the most appropriate mitigating action.
- 1.8 A Business Case was produced which identified the cost benefit analysis of investing in this technology and a Salix loan was successfully secured to help fund the project. Salix Finance Ltd 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.
- 1.9 The Authority issued an Authority Change Notice as required by the PFI Contract Project Agreement to the PFI Service Provider, Barnet Lighting Services (BLS) and this led to a Project to install a Central Management System (CMS) being approved by DPR 1330 Street Lighting PFI Contract – Energy Saving Measures – 16th June 2011.
- 1.10 This change necessitated a contract Deed of Variation being agreed with the PFI Service Provider, Barnet Lighting Services (BLS), and this was completed and signed by both parties in July 2013.
- 1.11 Having implemented the CMS Project, the Authority has achieved a reduction of 33% of its energy consumption which equates to a reduction of approximately £630K in annual energy costs.
- 1.12 Since completing the installation of the CMS the Authority's financial position has continued to be under scrutiny with further savings being sought as part of Service Improvements reviews to support MTFS savings proposals.

- 1.13 The CMS has the ability to not only switch and dim the street lighting assets but also provides the ability to dynamically monitor the functionality of the lighting assets on an ongoing basis. This provides additional opportunities in terms of utilising this intelligence to more efficiently maintain the assets.
- 1.14 BLS initially had reservations in utilising this intelligence at the time the CMS project was originally agreed and therefore as part of the Deed of Variation only agreed the use of the CMS to switch and dim the lights, thereby allowing energy savings to be derived. However, following agreement to trial the use of the intelligence data produced by the CMS, BLS became more confident that the system was capable of providing continuous and accurate data, which could be put to better use.
- 1.15 A review of operational maintenance activities was undertaken in 2017 and this identified that a number of changes could be made in operational practices which would benefit both the Service Provider and the Council in terms of operational efficiency improvements whilst also lowering costs. The additional savings that were derived from this included; removing manual scouting of assets at night; changing routine maintenance frequencies and utilising the CMS to stop a wasteful bulk lamp change operation in favour of a predicted end of life lamp change.
- 1.16 These operational changes have been implemented, are operational and as such the associated service benefits and savings are being achieved by the Authority and the Service Provider. However, this needs to be represented within a further Contract Deed of Variation (DoV). The Service Provider BLS has provided a draft of the required DoV which addresses all of the agreed changes that have already been implemented and it now requires the Authority to sign the DoV.
- 1.17 Despite the positive changes that have already been implemented to assist in reducing costs there are still significant pressures on the Street Lighting budget due to the electricity costs continuing to rise annually far in excess of contract inflation. The last annual increase was over 12% in the unit rate, from October 2018 and Laser are now estimating that this trend will continue for at least the next five-year period and that local authorities should assume in forward budgets a potential average 11.7% increase in the next 5-year period.
- 1.18 A further detailed review of the street lighting service has been conducted, including reviewing methods that could be deployed that would improve the Street Lighting Service whilst at the same time reducing the ongoing costs of the service.
- 1.19 This review included investigating the technological advancements being achieved through the use of LED lighting. LED has advanced very rapidly in the last couple of years and is now fully capable of lighting the public highway

whilst significantly lowering operating costs. Due to these advantages LED technology is fast becoming the favoured light source for street lighting as it provides two significant advantages. Firstly, it is very energy efficient and provides positive environmental benefits and secondly it provides a very good quality of lighting as it provides white light that is more aligned with the environmental appearance achieved in daylight.

1.20 The Authority commissioned a Business Case to be produced by the PFI Service Provider to identify all of the potential benefits of converting all of the existing street lighting lanterns to LED technology.

- 1.21 The Business Case identified that a significant Capital investment of £7.6M was required but, this would be repaid relatively quickly due to the positive implications this change would have on both energy charges (£650,000 per year) and operational maintenance charges (£200,000 per year).
- 1.22 As the Project can be demonstrated to deliver significant savings in energy and help to reduce the Authority's carbon footprint, it meets the criteria associated with the Salix Funding Scheme, which seeks to invest in Energy Efficiency Schemes. On that basis, a second funding application has been submitted to Salix and it has recently been confirmed that this application has been successful with the award of a £5.7M of interest free loan to support the project. The award of such a large sum of funding support demonstrates the positive energy and environmental benefits that the Project will realise.
- 1.23 In order to secure the remaining Capital funds a funding bid was made to the Council's Capital Board and this has been approved.
- 1.24 Following the securing of necessary funding for the Project, an Authority Contract Notice of Change was issued to the PFI Service Provider and their detailed response has recently been received. This response is broadly aligned to the initial details contained in the Business Case.
- 1.25 Clarification meetings have taken place with the Service Provider to ensure that appropriate due diligence has been undertaken to ascertain a full and comprehensive understanding of the proposal. This has included looking closely at the build-up of the £7.6M Project costs and determining that these are reasonable and therefore provide appropriate value for money, whilst also looking at the benefits that the Project will realise in terms of both energy and operational savings.
- 1.26 It is important to note the method by which the proposed energy savings of £678K has been derived. This has been based on a sample of roads being designed with the proposed energy efficient LED lantern and comparing the energy consumption of the LED design against the existing assets energy consumption. It has not been practical to do this extensively for the whole of Barnet's street lighting inventory due to the costs involved, so a sample of 14

roads has been selected. Within this sample there are the full range of road types that can be found within the borough. Each of the sample designs identified a specific energy reduction which varied between 36% and 81%, with an overall average energy reduction of 57% across all 14 schemes. This average energy reduction has been applied to the existing energy consumption figure and using the current electricity charge rate, the average saving has been calculated. Until all designs are undertaken it will not be possible to verify this figure, however, this method has been used on other similar projects that have already been carried out and has proven to be a fair estimation of the savings potential.

- 1.27 The new LED lanterns will be fitted with a new compatible CMS. The existing CMS needs to be replaced for two reasons. Firstly, the existing CMS would not be fully compatible with the LED technology and would require upgrading at the time of conversion at significant additional cost and secondly because the existing CMS provider Harvard has recently gone into administration and without a buyer, which at the time of drafting this report, looks highly unlikely, the product will no longer be supported or available. The plan is to purchase the new CMS from a large established provider to reduce the risk of insolvency problems.

The Preferred Option to deliver the Project

- 1.28 It is proposed that the process of procuring the LED project and CMS update will be completed under the terms of the current Street Lighting PFI Contract, with the Authority issuing an instruction that it accepts the Authority's Change Control response from the Service Provider and wishes the project to proceed.
- 1.29 Paragraphs 5.4.5 to 5.4.15 identify the reasons why this is the only viable way to deliver the project. It explains that where it has been possible to seek prices via a competitive process for the new LED lanterns and CMS this has been undertaken and where a competitive process has not been undertaken for the labour element of the project that appropriate due diligence has taken place to determine best value via a single source supplier arrangement under the Change Control procedure in the PFI Contract.
- 1.30 The LED/CMS Project is estimated to take a year to implement and complete. The Council's Priority Spending Review Plan has identified savings derived from the implementation of the project to commence during the 2019/20 financial year with the full impact of the savings being realised in the 2020/21 financial year. In addition to the need to start the project as quickly as possible to derive the required financial savings, it is also imperative that the project now progresses with all urgency due to the emerging high-level risks associated with the existing CMS providers Administration position. Paragraphs 5.5.5 and 5.5.6

in the Risk Management section identify potential significant financial implications. The implementation of this conversion project is a key element of the service provider's contingency plan to alleviate any adverse impacts of the Harvard Administration.

- 1.31 The Service Provider is currently responsible for all of the Council's street lighting assets under the PFI Contract and will retain all risk in the assets during and after the LED/CMS Project, up to and including the end of the Contract in 2031. However, it will be necessary to fully reflect the agreed changes associated with this project with a further Contract Deed of Variation which will amend the wording of various elements of the PFI Project Agreement, Specification and Method Statements to ensure that relevant provisions are updated to align with the changing asset type and changing operational practice and procedures which will deliver further positive improvements in the street lighting service which includes improved lighting quality and the ability to be more efficient in responding to issues and specifically defects as and when they arise.
- 1.32 It is important to note that although this is essentially a conversion project a full design process will be undertaken to ensure that the lighting levels achieved will be in accordance with the current Highway Lighting Code of Practice recommendations.
- 1.33 It is envisaged that the following positive benefits over and above the financial benefits will be derived from the implementation of this lighting improvement project: This is not an exhaustive list:
 - White light source that has significantly improved colour rendition ability. This means that the natural colours will be properly represented under the white light source. For example, green grass will appear brown under the existing high-pressure sodium (HPS) light source, whereas under a white light source it will be seen as its true colour; green. In addition, facial recognition is improved under a white light source
 - Due to the above the aesthetic appearance of the environment is improved
 - The human eye can function more efficiently under a white light source and therefore even though the lighting levels when measured with a light meter may not have been increased it appears that this is the case.
 - An LED light source delivers its maximum light output at the time it is switched on, whereas an HPS light source needs time to warm up before it reaches its full operational output
 - All light sources depreciate in light output (Lumen Output) with age. An LED light sources Lumen depreciation takes a longer time to start depleting in its lumen output and has much slower lumen depreciation than the existing HPS light source. This is important as with greater

lumen depreciation comes added costs of maintenance and progressively lower lighting levels (lighting quality).

- An LED light source operates for a significantly longer period than an HPS light source and therefore maintenance activity is reduced as there is no longer a need to change lamps on a 3-5 year cycle. Not only does this save money but also provides environment benefits in reduced maintenance visits with polluting plant and equipment but also is less obstructive to the free movement of traffic.
- Additional environment benefits are derived from end of operation disposal. As they last much longer there are less to dispose of and the LED light source does not have the same disposal concerns as a HPS light source that incorporates gas and sodium within the glass envelope
- The quality of street lighting has a significant role in reducing crime and in particular the fear of crime. There have been a number of studies that has shown that good quality street lighting reduces crime and fear of crime and this is also supported by the Police.
- Feedback provided from residents to other Authorities who have already introduced LED street lighting has been very positive.

2. REASONS FOR RECOMMENDATIONS

- 2.1 The project will provide an improvement in the Street Lighting Service in terms of better quality lighting and improved maintenance response times.
- 2.2 The Councils financial position requires close scrutiny of the cost effectiveness of the way in which services are currently delivered in order to secure the ongoing provision of sustainable services.
- 2.3 A review of the street lighting service has identified that there is a risk of a continuation of the escalating energy charges well above inflation and this requires action to mitigate this ongoing risk.
- 2.4 The review has included producing a business case to evaluate the method by which the energy charges can be reduced whilst also achieving other operational efficiency savings.
- 2.5 The Business Case has confirmed that whilst there is a significant Capital cost of converting all existing street lights to energy efficient LED technology, the relatively quick pay back on this investment makes it a viable project to implement.
- 2.6 The PFI contract has existing provisions that allows for variations to be instigated during the contract term. The changes that are proposed will also have a positive impact on maintenance operations, in addition to the energy savings delivered by the project. In order to benefit from this, it is necessary to

make amendments to various existing provisions contained within the PFI contract in the form of Deeds of Variation.

3. ALTERNATIVE OPTIONS CONSIDERED AND NOT RECOMMENDED

3.1 The termination of the existing PFI Contract.

This is not a viable proposition as the termination costs would be in the order of £14Million.

3.2 Continuing with the status quo, without instigating the LED Conversion Project.

With the knowledge that the energy charges will continue to escalate well above inflation there would be an escalating pressure on the Council future finances that would require a significant call on reserves in future years. This would not be a good use of Council resources especially as this can be mitigated by implementing the LED conversion project.

3.3 Requesting alternative service providers to provide competitive prices for undertaking the project.

This was not a viable option for a number of reasons as identified in this report. It was also highly likely that any alternative contractors would not have committed resources to pricing for the project on the basis that they would know the way in which the PFI Contract operates with the need to undertake a detailed approval process, which involves incurring costs, in order for the PFI Service Provider to determine that the installed equipment meets required standards. They would also have had to commit to providing an extended 14-year warranty to the PFI Service Provider all of which they would have needed to reflect in their pricing of the project. This warranty would be required as the PFI Service Provider would not accept ongoing risk/responsibility in the continued operation of the LED lanterns that they did not install and this is contrary to the principals of a PFI contract which requires the Service Provider to hold the risk in all assets for the duration of the contract.

In addition, introducing a further third party into the equation imports unnecessary commercial risk with the potential for future legal wrangles which could arise when there is an equipment failure. Each party could potentially blame each other over who was responsible for the equipment failure and this would lead to delays in rectification works, additional administration, potential legal involvement and ultimately an adverse impact to the ongoing service quality.

4. POST DECISION IMPLEMENTATION

- 4.1 Instructions will be issued to the Street Lighting Service Provider to commence the mobilisation of the LED/CMS Conversion Project
- 4.2 Agreement of a detailed programme of works with the Service Provider with a view to achieving a mobilisation period of three months followed by an installation programme of 12 months.
- 4.3 Close monitoring of the mobilisation and delivery programme and monitoring of the savings derived as the programme progresses to a conclusion.
- 4.4 Finalising arrangements with Salix for the interest free loan funding to be made available.

5. IMPLICATIONS OF DECISION

5.1 Corporate Priorities and Performance

- 5.1.1 The Council wants to create successful places, achieve great outcomes, deliver quality services and develop resilient communities. However, it faces an increasingly difficult financial challenge, with funding decreasing, demand increasing and uncertainty about how services will be funded in the future.

- 5.1.2 The Council now faces an anticipated budget challenge of £69.9m to 2023/24 and to address that gap, the council will need to make some decisions about priorities and how limited funds are spent. This means that the Council need to do some things in different ways the LED conversion project is a good example of this.
- 5.1.3 The Council must now prioritise its limited resources effectively and develop plans for the next five years to deliver both statutory duties and ambitions for Barnet within these financial constraints. The council wants to ensure residents get a fair deal by maximising opportunities, sharing responsibilities with the community and partners, and working effectively and efficiently.
- 5.1.4 To ensure the council has a plan that reflects local priorities, as well as a financial strategy that will support a financially sustainable position, the development of the proposed Corporate Plan and MTFs have been aligned to cover the next five years (2019/20 to 2023/24). This will help to ensure we have a medium-term plan setting out how we will allocate our limited resources in line with what we want to achieve for the borough.
- 5.1.5 To support delivery of the outcomes in the proposed Corporate Plan, Barnet 2024, each Theme Committee is responsible for delivering any corporate priorities that fall within its remit, as well as any additional priorities that relate to matters the Committee is responsible for under its Terms of Reference. These priorities will inform an annual Theme Committee delivery plan which will set out the key activities, performance indicators/targets, and risks in relation to the corporate and committee priorities.
- 5.1.6 Barnet has been innovative in its approach to tackling the challenges local government faces. The council has been open to new ways of doing things and working closely with partners across the public, private and voluntary sectors. It is vitally important that Barnet continues this approach to ensure that it is well placed to meet current and future challenges, and continues to be a successful London borough.
- 5.1.7 The council will continue to focus on the best possible outcomes for Barnet, thus utilising a combination of internal, external, and shared service deliveries to achieve this. As part of meeting these strategic objectives, the council will ensure that all residents are treated equally, with understanding and respect, and will have access to quality services which provide value to the taxpayer. Our job is to work together and deliver:
- successful places
 - resilient communities
 - quality services

- great outcomes

5.1.8 The scale of the ongoing financial challenges means the way we deliver our services will need to change and there will be some difficult choices to make to ensure that savings are achieved, but not at the expense of delivering quality services and protecting our most vulnerable residents.

5.1.9 This Project supports the council's corporate priorities as expressed through the Proposed Corporate Plan for 2019-24 which sets out the vision and strategy for the next five years based on the core principles of fairness, responsibility and opportunity, to make sure Barnet is a place:

- A pleasant, well maintained borough that we protect and invest in
- Our residents live happy, healthy, independent lives with the most vulnerable protected
- Safe and strong communities where people get along well

5.2 Resources (Finance & Value for Money, Procurement, Staffing, IT, Property, Sustainability)

5.2.1 There are no significant resource implications associated with this proposal as the existing street lighting monitoring team will oversee the Project delivery.

5.2.2 The Capital cost of the LED conversion Project £7.6M has been scrutinised by the Capital Board who have agreed to fund the Project with Capital funding.

5.2.3 A further funding source has been identified. SALIX, a government backed, interest free loan, instigated to encourage and assist local authorities with specific and innovative energy saving proposals.

5.2.4 An application has been made for a SALIX loan and based on their funding criteria the Council have been successful in being awarded a £5.7M loan to support the Project. This is an interest free loan which is repayable within a five-year period following the completion of the Project. The Capital Board have identified that the repayments of the SALIX loan will be funded from the Council's Capital resources.

5.2.5 A detailed Business Case has been produced to demonstrate that this capital investment will provide value for money through a relatively quick pay back due to a significant reduction in ongoing revenue charges. This is two-fold in reduced energy charges and savings in ongoing operational maintenance through the PFI Contract. These combined savings are estimated to be in the order of £850,000 per annum.

5.2.6 In terms of sustainability, the new CMS will have an inbuilt failsafe mode which ensures that the operation of the lights is maintained even in a fault state. This is a significant improvement from the current CMS which does not include the same safe guard (as identified in the risk section of this report).

5.3 **Social Value**

5.3.1 As well as the economic benefits highlighted in this report the Project will also provide benefits in reducing the Authority's Carbon footprint which provides environment benefits for all. It is also anticipated that the white light provided by the LED light source will be well received by residents as it is generally considered that lighting appears to be improved when utilising a white light source. This is due to its ability to truly represent colours when lit after dark, whereas the existing light source does not have good colour rendition qualities. It is often considered that this enhances the aesthetics of an area and is considered to provide a safer feel to an area.

5.4 **Legal and Constitutional References**

5.4.1 To address the budget gap identified between 2019-24, Theme Committees have been asked to consider a programme of savings for the five-year period 2019-24.

5.4.2 Under Article 7 of the Constitution the Theme Committee that is responsible for Highway functions, including Street Lighting, is the Environment Committee.

5.4.3 The Environment Committee have approved at their November 2018 meeting the LED Conversion Project as one of the Projects that will be included in their programme of savings.

5.4.4 The Council has a general duty to obtain Best Value as set out in section 3(1) of the LGA 1999 to make arrangements to secure continuous improvement in the way in which its functions are exercised, having regard to a combination of economy, efficiency and effectiveness. In relation to this general duty, the focus is not simply to achieve "best value", but also to strive for continuous improvement. The Best Value duty is owed to local people.

5.4.5 The PFI Contract contains provisions that allow for variations to be instigated during the contract term

5.4.6 Regulation 72 of the Public Contracts Regulations 2015 permits contract modifications where the modifications, irrespective of their monetary value, have been provided for in the initial procurement documents in clear, precise and unequivocal review clauses, which may include price revision clauses or options, provided that such clauses:

- i. state the scope and nature of possible modifications or options as well as the conditions under which they may be used, and
- ii. do not provide for modifications or options that would alter the overall nature of the contract or the framework agreement.

Regulation 72 also permits contract modifications for additional works, services or supplies by the original contractor that have become necessary and were not included in the initial procurement, where a change of contractor:

- i. cannot be made for economic or technical reasons such as requirements of interchangeability or interoperability with existing equipment, services or installations procured under the initial procurement, or
- ii. would cause significant inconvenience or substantial duplication of costs for the contracting authority,

provided that any increase in price does not exceed 50% of the value of the original contract;

The proposed contract modifications set out in this Report fall within these permitted modifications under public procurement rules.

5.4.7 This Project has arisen from the Council's future financial planning exercises which has included looking at innovative ways to reduce existing and future expenditure. Despite the significant Capital investment required to convert the street lights to low energy LED units the Projects Business Case demonstrates that this investment will repay itself within a seven-year period due to the annual savings of £850K on completion of the project and this saving will increase year on year as the project is also safeguarding against significant future energy charge increases. On that basis, this project is aligned with the Council's fiscal, Best Value duty.

5.4.8 The existing Street Lighting Contract is provided through a long term (25 year) PFI Contract. The contract commenced in 2006 and therefore runs until 2031. Under a PFI arrangement there is a significant risk transfer to the Service Provider in that the Council has transferred all risks in the street lighting assets to the Service Provider. This means that the Service Provider is fully responsible for the street lighting assets throughout the 25-year period, with the annual sum paid being fixed no matter what extent of work is required

within the 25-year term. This includes accident and vandalism damage. On that basis, the contract includes some protections for the Service Provider in that the Service Provider has control of an approvals process for any attachments that may be required to be added to the lighting column assets, which could be deemed to adversely impact on the Service Providers ongoing liabilities.

- 5.4.9 This risk and protection mechanism makes it unviable to seek competitive tenders for an alternative contractor to undertake the labour element of converting the existing lanterns. This is due to the process and costs of following the inspection and approvals process and the fact that the existing Service Provider would not be willing to take on the ongoing liability of the new lanterns for the remaining duration of the contract (12 years).
- 5.4.10 Due to the above issues officers have utilised the PFI Contract's Change Control provisions to request the PFI Service Provider to identify the costs involved to carry out the LED Conversion Project. In making this request the Authority have given clear instructions that the provision of the equipment; Lanterns and Central Management System must be subject to a formal competitive tender process to ensure that good value for money is achieved for this element of the project. It is important to note that the equipment cost accounts for approximately 65% of the overall project costs.
- 5.4.11 On that basis, the Service Provider invited the market, including all companies with the necessary capabilities and financial stability to provide the necessary technology and manufacturing processes to fulfil the project requirements and timescales. The Service Providers procurement process ensured all companies who may be interested in providing the LED and CMS equipment, and who have the necessary technical capability and financial stability, could be included in the process. The procurement exercise was monitored and overseen by the Authority's Street Lighting Monitoring Team at all stages and the evaluation of bids received was conducted in accordance with the Council's specific requirements for the LED Project.
- 5.4.12 In addition, there was an opportunity for the Service Provider to obtain an improved price from equipment suppliers by combining quantities with another one of their clients (London Borough of Enfield) who are also pursuing an LED/CMS Conversion Project. The outcome of the tender exercise has identified that the price will be slightly reduced for both Authorities if both projects proceed.

5.4.13 Furthermore the Authority has requested a full and detailed breakdown of the costs attributable to the installation works (contract management, labour, plant, traffic management, facilities management and profit). This has allowed officers to review these costs and determine whether they compare favourably with a competitive process. This has determined that the costs are extremely reasonable. An example of how this can be demonstrated is that there have been no costs attributed to ordering, handling and storage of the significant quantity of materials that will be used on the Project (26,000 lanterns and Control equipment).

5.4.14 The above demonstrates the reasons why the labour element of this Project is required to be delivered via a single source supplier and that all reasonable efforts have been made to ensure that where a competitive process could be conducted it has been undertaken and appropriate due diligence has been undertaken on all other elements of the Projects costs.

5.4.15 The Authority's Procurement Manager was consulted on the proposed method to procure this project and advised that the method undertaken, as described in this report, was the most appropriate.

5.4.16 Concurrence has been sought from and granted by the Commercial Director in accordance with the Authority's Contract Procedure Rule 6.1 to confirm the single source supply for provision of the equipment installation for the LED/CMS conversion. Accordingly, it is confirmed that the Commercial Director has been consulted and has given his approval.

5.5 Risk Management

5.5.1 The overarching aims of the Council's risk management framework are to improve the organisation's ability to deliver its strategic objectives by managing risk; creating a risk culture that adds value to operational activities; and achieving sustained benefit across the portfolio of activities.

5.5.2 The Council's medium term financial strategy is designed to meet the challenges ahead and provide some flexibility to deal with varying service pressures, which may arise.

5.5.3 It has been identified that the Council has a significant risk in managing the ongoing street lighting budget and has therefore identified this as a risk within the Service Risk Register. This is due to the significant above inflation energy charge increases that have occurred in recent years and are estimated to continue to rise significantly in the future.

- 5.5.4 This Project is aimed at meeting this challenge as the conversion to low energy LED lanterns will significantly reduce the energy consumption of the street lighting assets. The new LED lanterns will also have an inbuilt intelligent Central Management System (CMS) which will enable the Council to have better control on the lighting assets as the CMS provides the capability to further reduce energy consumption by dimming the lighting at appropriate times.
- 5.5.5 A further significant risk has arisen with the news that the current CMS technology provider Harvard has gone into administration thereby requiring the existing CMS to be replaced urgently to ensure that the street lighting assets are appropriately controlled and hence operational at night and that the energy consumption can be minimised. This latest development has also been included within the Service Risk Register with a risk rating of 20.
- 5.5.6 The key mitigating action has been identified as a fast track implementation of the LED/CMS Conversion Project. Any delay in addressing this risk will lead to significant increases in the future energy bills. In a worst-case scenario, this increase could treble the current £1.2M energy bill and as such cause a significant pressure on the Council's budgets.

5.6 Equalities and Diversity

- 5.6.1 The 2010 Equality Act outlines the provisions of the Public Sector Equalities Duty which requires Public Bodies **to have due regard** to the need to:
- eliminate unlawful discrimination, harassment and victimisation and other conduct prohibited by the Equality Act 2010
 - advance equality of opportunity between people from different groups
 - foster good relations between people from different groups
- 5.6.2 The broad purpose of this duty is to integrate considerations of equality into day business and keep them under review in decision making, the design of policies and the delivery of services.
- 5.6.3 The changes that are being proposed to the street lighting service are considered to provide benefits for all service users, whilst also delivering efficiency savings.
- 5.6.4 An initial Equalities Impact Assessment has been undertaken and this has identified that there are no significant equalities and diversity issues associated with this proposal.
- 5.6.5 It is envisaged that this EIA will be reviewed and updated as the Project progresses, especially as the designs are produced as it is this stage of the Project when any adverse impacts may become apparent, although this is anticipated to be highly unlikely.

5.7 Consultation and Engagement

- 5.7.1 The outcomes achieved from this project will be to enhance the existing street lighting quality, whilst also delivering savings.
- 5.7.2 There will be a detailed lighting design process undertaken to determine that the outcome of the project maintains compliance with the British Standard Code of Practice recommendations for lighting the public highway.
- 5.7.3 This is a lantern conversion project and as such there will be no changes in the locations of lighting columns. It is envisaged that the project will deliver the required level of lighting compliance without the need to consider any relocation of existing columns. If there are a limited number of occasions where a design cannot achieve reasonable compliance it may at that point be necessary to consider relocating existing lighting columns. As and when this is deemed necessary residents will be advised of the planned changes in column locations via being provided with a plan showing the proposed repositioning of lighting columns. This will provide residents with the opportunity to comment on the proposal prior to finalising the designs on these streets.

5.8 Insight

- 5.8.1 The proposals contained in this report have been derived from research and a Business Case has been produced to identify the opportunities and benefits that can be derived from the proposed project.
- 5.8.2 The Street Lighting PFI Service Provider has extensive experience of having completed similar projects for other clients and therefore experience and useful intelligence has been obtained from these projects. This has provided some additional assurance in terms of assumptions made on the energy consumption reductions that may be achievable as these principals have been tested on previous projects.
- 5.8.3 In addition feedback provided by Authorities who have already undertaken LED conversion projects has been very positive with such projects being very well received by residents.

6. BACKGROUND PAPERS

- 6.1. Business Case for the LED Conversion Project
- 6.2 Authority Change Notice under the Street Lighting PFI Contract
- 6.3 Service Providers response to the Authority Change Notice
- 6.4 Service Providers Tender evaluation for the supply of the lanterns and CMS.

- 6.5 SEELS (SALIX Energy Efficiency Loans Scheme) Business Case and Application
- 6.6 DPR 1330 Street Lighting PFI Contract – Energy Saving Measures – 16th June 2011.
- 6.7 Initial Equalities Impact Assessment