

***THIS REPORT MUST BE ACCOMPANIED BY THE
REPORT AUTHORISATION FORM 4.C.214***

**CITY OF CARDIFF COUNCIL
CYNGOR DINAS CAERDYDD**

CABINET MEETING: May 2019

LED STREET LIGHTING ON RESIDENTIAL HIGHWAY NETWORK

**STRATEGIC PLANNING AND TRANSPORT
(COUNCILLOR CARO WILD)**

AGENDA ITEM:

PORTFOLIO:

Reason for this Report

1. To seek Cabinet approval to procure a contract for the delivery of LED street lighting on the residential highway network.

Background

2. On 16th June 2016, Cabinet approved the procurement of LED street lighting on the strategic road network. The conclusion of this work was to successfully implement 13,600 LED street lights across Cardiff; achieving savings relating to the Medium Terms Financial Plan through energy reduction and a reduction in Council's operational CO2 emissions.
3. Following the initial work on LED and energy savings the service area developed a programme of improvements where we could demonstrate renewal of infrastructure in terms of LED technology would support a reduction in ongoing energy charges. The programme included work to lighting in underpasses and traffic signals / pedestrian crossing. The programme also identified a future proposal to implement LED street lighting on the residential highway network, if supported by a business case.
4. To support the development of a business case to implement LED street lighting on the residential highway network a pilot scheme was implemented in Radyr consisting of 1,250 LED street lights in a residential setting. This pilot supported both the business case in relation to confirming energy savings and provided a good indication of the acceptance of the change to LED street lighting by residents. Four complaints were received within the pilot area; however, these all related to the implementation of the lighting and were rectified as part of the contract.

Appendix 1

5. This contract is the final stage of the highway LED street lighting programme converting 23,750 residential streetlights to LED.
6. Implementing LED street lighting on the residential highway network will reduce energy costs by £423,800 per annum, if energy costs remain at current levels. This energy saving will support paying for installation, maintenance and financing of the project, estimated at £6,532,662, over the next 17 years. Appendix 1 shows the cost benefit analysis for a 17-year capital repayment period.
7. Cardiff Council has a commitment letter for interest-free Salix funding for £4,578,000 to optimise savings. This will be complimented with approximately £1,954,662 of Capital funding from the General Capital Fund (GCF). This funding will be repaid from the energy savings, including interest payments for the use of GCF funding.
8. The business case for the project has been scrutinised at the Investment Review Board to ensure the funding model is robust.
9. Due to the repayment of the investment funding in the project there are no identified savings in the Medium Term Financial Plan. However, the introduction of LED technology with a Central Management System will provide improvements in the management of street lighting including reducing resident complaints. There is also an opportunity to share the real-time street lighting information with C2C and the resident.
10. By implementing the proposal to provide LED street lighting on the residential network a total of 836.25 tonnes of CO₂ (using the 2018 UK GHG conversion factors) will be saved from Council operations. This will contribute positively to the Councils carbon reduction target of 26% in CO₂ emissions from key Council operations by 2020 (from 2005/06 baseline).
11. A Central Management System was introduced when LED street lighting was implemented on the strategic road network. The LED street lighting on the residential road network will also have a Central Management System and will synchronise with the existing system.
12. The Central Management System allows Officers to raise and lower lighting levels to support improving energy efficiency; whilst allowing the management of any concerns relating to lighting levels.
13. The Central Management System will allow integration with other technology in a SMART City approach to managing city infrastructure.
14. The project will be tendered via OJEU open procedure via 'Sell to Wales' as it was felt that the South East Wales Contractor framework did not offer the scope for competition for this specialist contract. The Council will utilise the Welsh Government SQUID pre-qualification document for the purposes of the selection process. Within the selection process (Part A) failure to meet the mandatory requirements, and achieve a minimum score of 37 out of 74 within sections B, C, D, E, F and G will result in bidders not being considered

Appendix 1

further. The attached Appendix B is the Selection stage questionnaire to be returned.

15. The proposed procurement timetable is shown below. This is intended as a guide.

Stage	Date(s)/time
Issue of Invitation to Tender	Thursday 1 st August, 2019
Closing date for the downloading of documents and for requests for information.	23:00:00, Thursday 29 th August, 2019.
Final Issue of clarification responses	By Tuesday, 3 rd September 2019
Closing date for submission of Tenders	12:00:00, Noon on Friday 13 th September 2019.
Evaluation of Tenders	By Friday 20 th September 2019.
Notification of result of evaluation	By Friday 27 th September 2019.
Standstill period	Friday 27 th September to Monday 5 th September, 2019.
Expected date of award of Contract	Monday 7 th October 2019.
Contract Start Date	28 th October 2019.

16. The term of contract will be NEC Engineering and Construction Contract Option B – Priced Contract with Bill of Quantities. The proposed commencement date for the contract will be October 2019 and it is estimated the contract duration will be 18 months.

Issues

17. Street lighting in Parks and on Housing Land is out of scope as the Service Areas do not hold any asset data with regards their street lighting asset. These street lights could be brought within scope during the delivery of the contract if timescales permit. If timescale do not permit subsequent smaller contracts or Direct Labour Operatives in Highways could undertake the work based on the funding from the Service Areas.
18. Prior to the introduction of LED lighting on the strategic network, a trial of LED street lighting lanterns took place and included consultation with vulnerable users, the night sky group and an individual who has legally challenged another local authority in relation to street lighting.
19. The specification for residential streets will match that of the strategic network which is a white light of 3000 kelvins. This is a warmer light colour

that matches the existing white light already located in residential areas so the effect on individuals should be minimum as the apparent change will be minor. To date very few complaints have been received related to LED installation and any issues reported have been efficiently managed through minor adjustments and the CMS system.

20. There is no legislation or specific guidance with respect to the specification of LED street lighting kelvin levels but Street Lighting Officers have set the specification at 3000 Kelvins by reviewing literature and the issues encountered by other Local Authorities.

Local Member consultation (where appropriate)

21. Whilst formal Member consultation is not required an information pack and programme will be developed and circulated prior to commencement of the contract. This will contain frequently asked questions to ensure that Local Members are fully informed and are able to engage and correspond directly with constituents as required.

Reason for Recommendations

22. To give authority to procure a contract for the delivery of LED street lighting on the residential highway network.
23. The LED street lighting programme supports Cardiff's Capital Ambition by improving the sustainability of the city both financially and environmentally, by reducing the operation energy requirements for lighting and associated CO2 emissions. Furthermore, the LED street lighting technology adopts Smart City approaches to managing infrastructure by the introduction of a Central Management System.

Financial Implications

Legal Implications

HR Implications

RECOMMENDATIONS

The recommended decision is that: -

Cabinet approves;

Appendix 1

- i. the procurement process to award a (Works) contract to deliver LED street lighting for the residential highway network as set out in the body of the report;
- ii. the issuing of the OJEU notice to formally commence the procurement process; and
- iii. to delegate authority to the Director of Planning, Transport and Engineering, subject to consultation with the Cabinet Member Corporate Services & Performance and the Cabinet Member Transport, Planning & Sustainability to deal with all aspects of the procurement process and ancillary matters up to and including contract award. Provided that the overall cost of the contract does not exceed a value of £7 million, in which case matters will be referred back to Cabinet for consideration.

ANDREW GREGORY

Director Planning, Transport and Engineering

24th April 2019

The following appendices are attached:

Appendix 1 – Cost benefit analysis for LED with Central Management System – 17 years

Appendix 2 – Equality Impact Assessment

The following background papers have been taken into account

Business Case – Highway Infrastructure Energy Programme – Residential LED Street Lighting Network (presented to investment review board on 15th February 2019)

Cabinet Report. LED Street Lighting on Strategic Highway Routes. Cabinet Meeting 16 June 2016.