

Prosperous Overview and Scrutiny Committee – 11 January 2024

Lighting for Staffordshire Update and Energy Framework Proposal

Recommendations

We recommend that the Committee:

- a. Considers and scrutinises the update of the contract performance for the Lighting for Staffordshire Private Finance Initiative (PFI).
- b. Support the approach for procuring, awarding and entering into an Electricity and Associated Services contract through Crown Commercial Services (CCS) framework for the period of 1st April 2024 until 31st March 2028, with EDF Energy.

Local Member Interest:

N/A

Cabinet – 21st February 2024

Report of Councillor David Williams, Cabinet Member for Highways and Transport

Summary

What is the Overview and Scrutiny Committee being asked to do and why?

1. To consider and scrutinise operational performance on the long-term Lighting for Staffordshire PFI contract.
2. To establish support for the procurement direction and award of the supply of electricity, by utilising Crown Commercial Services' (CCS) energy framework and their flexible purchasing model to gain the best value possible and volume for the purchase of electricity, from the supplier EDF Energy. The contract will be for the supply of 100% renewable electricity product for the period 1 April 2024 until 31 March 2028.

Report

PART 1: LIGHTING FOR STAFFORDSHIRE CONTRACT UPDATE

Background – PFI Contract Summary

3. In May 2003, Lighting for Staffordshire (LFS) Ltd commenced delivery of the street lighting Private Finance Initiative (PFI) contract. The contract formerly commenced on the 19 May 2003 and will operate for a period of 25 years, ending in May 2028. LFS Ltd is a holding company commissioned to deliver the contract via an appointed Service provider. The appointed Service provider tasked with works delivery is E.ON Energy Solutions Ltd. E.ON UK Energy Services Ltd is the majority shareholder of LFS Ltd. The value of the contract at its commencement was £250 million and the Council receives a Revenue Support Grant of £1.54 million per annum to support delivery of the contract.

Reasons, Challenges and Aims

4. The primary reason for the PFI contract was to redress a continued lack of investment in street lighting assets to maintain the equipment at an appropriate condition level. Prior to contract commencement in 2003, 24% of Staffordshire's street lighting stock of 99,343 assets was at significant risk of catastrophic failure. The PFI procurement route was determined as the most appropriate solution to secure the additional funds required to bring the street lighting assets up to the required standards to maintain highway safety.
5. The majority of PFI contracts complete their asset renewal programme within the first five years of operation, with the remainder of the contract period, typically 20 years, focused upon asset maintenance. The Staffordshire Street Lighting PFI contract is fundamentally different in that we have a continuous programme of asset renewal throughout the full contract period. This approach prevents a big bang scenario in future years, when a large number of assets would potentially require renewal over a short period of time, demanding a significant peak in financial demands. This also allows the authority and the PFI contractor to continuously benefit from any technological advancements that would enhance service delivery.
6. Since the contract commenced back in 2003, the number of street lighting assets on the highway network has risen from 99,343 to 108,224 (as of September 2023), a growth of 8.9% over a 20-year period. This level of growth will continue proportionately; however, the growth in street lighting assets is stabilising, driven by lighting to current

standards, escalating energy costs, and a drive to minimise carbon emissions.

7. With less than five years remaining until the end of the contract, proactive measures are being taken to implement forward-looking strategies for expiry planning and envisioning the future of street lighting. In August 2022, the Infrastructure and Projects Authority (IPA) conducted a comprehensive seven-year health check on the contract, assigning it an 'amber' status (Appendix 1). This evaluation produced valuable recommendations aimed at ensuring alignment with the trajectory for contract expiry. The Council's Street Lighting Team is actively participating in PFI expiry networking events and forums. The team has built collaborative relationships with both the IPA and the expiry team at the Department for Transport (DfT), which is aiding recommended strategies as the contract approaches its termination.
8. One important aspect of contract governance that needs to be completed 27 months prior to the contract expiry date is the "Residual life of Apparatus Reversion Report" (the 'reversion report') required under the Project Agreement. The contract states that LfS Ltd must commission an independent engineering company to undertake a review of all the lighting assets and provide a fully costed technical report. The report will detail the condition of the assets, what work is required to ensure that the contract requirements are met by the contract expiry date, and the anticipated life of the assets following the contract expiry date. The report will provide valuable information that will help inform decision making regarding lighting assets following the end of the PFI contract. Officers are in discussion with E.ON regarding the production of the reversion report.

Governance Arrangements

9. The governance arrangements for PFI contracts are generally undertaken by the appointed PFI contractor i.e., self-monitoring. However, as with most PFI contracts some degree of ancillary monitoring is undertaken by the authority to ensure contract compliance. For this particular contract, high level governance is provided by the LfS project board whose primary focus is to monitor the delivery of the project against their financial risks. Staffordshire's officers are invited to board meetings on an ad-hoc basis to provide input on specific elements e.g. council requested Contract Change Notices.
10. For day-to-day governance, the Council's officers liaise with the appointed service provider, E.ON Energy Solutions Ltd. Regular contract review meetings are held to monitor / review the delivery of the service against a series of Performance Standards 1-6 (PSI to PSVI). The service

provider submits a monthly report that summarises progress over the specific period (Appendix 2). The service provider is also required to produce an annual report that provides an overview of the project achievements for the year (Appendix 3).

11. In addition to the above an appointed Engineering Certifier undertakes a series of additional checks against the Performance Standards PSI to PSVI. Monthly audits conducted by Council officers ensure due diligence in this process. The IPA suggested that the Council prescribe this check, a recommendation that is now being implemented. Previously, the Engineering Certifier had the discretion to choose site locations, but the current approach ensures a more controlled and prescribed evaluation process. The Engineering Certifier also commissions annual external and internal audits of the asset management system. This to verify compliance with specific contract requirements.
12. Due to the high financial value of the contract the authorities own audit team audit the management and monitoring arrangements in place for the Street Lighting PFI contract. The last audit (2016/17) provided a level of 'Substantial' assurance for the management and monitoring arrangements applied to the contract.

Progress / Performance Summary

13. In terms of performance the PFI contract has two distinct elements: asset renewal programme; and general maintenance operations.

Asset Renewal

14. The asset renewal programme is delivered in 5 yearly blocks and can be broken down as detailed in Table 1.0.

Table 1.0 – Annual Asset Renewal Programme (AARP)

Block Period	Target Asset No.	Actual Asset No.
IARP - (2003 to 2008)	27,059	25,503
AARP-1 (2008 to 2013)	11,590	12,188
AARP-2 (2013 to 2018)	9,370	10,616
AARP-3 (2018 to 2023)	9,170	10,215
AARP-4 (2023 to 2028)	7,700	1,455
Total	64,889	55,467 (August 2021)

15. The asset renewal programme is continuously assessed to ensure that assets with a longer than expected life cycle are not replaced earlier than necessary. To verify this once a street lighting column reaches the age of either 25 or 35 years (depending upon construction) it is subject to a

structural testing regime to maximise the life of assets with a residual life and to identify assets that have degraded earlier than anticipated.

16. The discrepancies in Table 1.0 between the Target and Actual number of assets replaced is due to the mechanism used for the value of an asset. Each type of asset scores points between 1 and 4 and depending upon the type of asset renewed will generate a specific points claim. We are limited to a maximum permissible points claim per Block Period due to the payment mechanism contained within the contract. We believe that our approach when assessing which assets require renewal provides the most cost-effective solution to maximise the benefits of the PFI contract.
17. Within Annual Apparatus Renewal Programme (AARP) Block 3 (01/04/2018 to 31/03/2023), the service provider encountered challenges in meeting the targeted asset renewal figures, primarily attributable to the impact of COVID-19, staff attrition, and illnesses. However, they successfully addressed these issues and subsequently realigned themselves to meet the established targets.

General Maintenance

18. The PFI contract provides a consistency of funding which sustains asset condition at a manageable level. The benefits of this continuous investment with respect to general maintenance operations are significant and we consistently achieve the following outcomes from the contract:
 - a. When compared to the contract commencement year, the number of reported faults has reduced by almost 50%, with emergency fault reports down by the same value.
 - b. The number of lights lit at any point in time remains consistently high at over 99.3% against a performance target of 98%.
 - c. A customer satisfaction rating of over 98% has been consistently achieved since the completion of the first Block period of investment Initial Apparatus Renewal Programme (IARP) in May 2008.

Additional Achievements

19. Following the credit crunch in 2008/2009, high value contracts, such as the street lighting PFI contract were re-assessed for their value, and to ascertain if costs could be reduced. To assist with this evaluation, Ernst & Young were commissioned to independently review several of the council's high value contracts. Just prior to this commission, officers entered into negotiations with the PFI contractor with a view to achieving increased value against the requirements of the contract. Ernst & Young confirmed the officers' approach and outcomes from the negotiation

process to achieve maximum results on behalf of the council. A contract modernisation exercise was completed in December 2012.

20. The total cumulative savings against each of the relevant headings applied from January 2013 to the end of September 2023 are summarised as follows:

a. Modernisation of service specification	£2,793,323.12
b. Insurance Savings	£650,247
c. Asset Renewal High Efficiency Lanterns	3,321,672 kWh/annum*
d. Asset Renewal Dimming	768,115 kWh/annum*
e. Retro Fit Dimming	3,829,314 kWh/annum

(*For reference items c and d are subject to an agreed gain share mechanism.)

21. Converting the energy savings per annum to a fiscal value generated savings of £2.2 million over the period April 2013 to September 2023. The total savings to the end of September 2023 due to contract modernisation is £5.6 million.

LED Investment Programme

22. As part of the contract modernisation, the core specification was amended so the authority could benefit from the advancements in the LED street lighting market. Since January 2013 the price of LED street lights has gradually declined and they are now the standard product to be procured for illuminating the highway. In August 2020 we had over 17,000 energy saving LED luminaires installed across the highway network. This was great news; however, with ever increasing energy prices and a more than acceptable payback period against investments, the development of an LED Invest to Save Phase 1 project was progressed for implementation whilst maintaining the overarching benefits of the PFI contract.

23. Following a detailed assessment and discussions with the PFI contractor and Council's legal team, a programme to replace over 47,000 lanterns with energy efficient LED equivalents commenced in April 2021.

24. Funding for the project is in the form of an interest free loan from Salix. Salix provides interest-free Government funding to the public sector to improve their energy efficiency. Following an in-depth review of the street lighting inventory with the PFI contractor and the submission of a detailed business case to Salix, the authority secured an interest free loan of £8.8 million to convert over 47,000 street lights to energy efficient LED lanterns. Within the initial set up of the funding this generated energy savings of £1.6 million per annum. Due to the increase in energy prices this has now saved £2.4 million per annum.

The project commenced in March 2021, and we are now over three years into a four-year delivery programme. The service provider is due to finish in June 2024. As of September 2023, 38,278 lanterns had been upgraded to LED units generating savings of £2 million per annum in reduced energy costs, with 1,417 tonnes of carbon dioxide emissions saved each year.

25. Following the success of the Invest to Save Phase 1 project, a second phase has been approved. Implementing Phase 2 of the Invest to Save initiative involves the conversion of approximately 13,900 replacement lighting columns. The anticipated cost for this project is £4.6 million, with a projected payback period of 4 years. The implementation of Phase 2 of the project will follow on directly from Phase 1 in June 2024.

PART 2: Energy framework procurement proposal

26. A further objective of the report is to seek the committee's views on the proposed procurement route of utilising the Crown Commercial Services (CCS) energy framework and their flexible purchasing model to gain the best value for the purchase of electricity, from the supplier EDF Energy for energy supply for the street lighting and Intelligent Transport Systems (ITS) for the period 1 April 2024 until 31 March 2028.
27. Within the public-sector arena, energy procurement has been a focus for central purchasing bodies (referred to as consortiums or public sector buying organisations) throughout the UK. These bodies offer aggregated volume based flexible pricing procurement routes and are Public Contract Regulations (PCR) 2015 compliant. There has also been a strong drive by from the UK Government Energy Project board to utilise such Central Purchasing Bodies (CPBs) such as Eastern Shire Purchasing Organisation, and others all of which were reviewed as part of market research. Energy market conditions have presented several challenges regards the supply and delivery of these contracts.
28. The annual value of the electricity usage for the Council's street lighting (91% of the total usage) and ITS (9% of the total usage) assets is currently an estimated £6.9 million per annum. This is a high-profile category for the Council due to the financial impact.
29. Regarding renewable electricity provision, CCS will ask members for their green requirements once new contracts are signed and will return to the market to ascertain the volume price increase. Currently (at the time of writing , 20/11/2023), prices are £9.25 per megawatt hour (mwh) that would equate to an additional 1p per kilowatt hour (kwh) for green electricity provision.

30. The amount of electricity purchased is based on data showing previous demand, but there is no contractual obligation to a set volume purchase. CCS have a dedicated account management team who review and monitor the market and liaise with the supplier (EDF Energy) to identify the optimal purchasing window. Volume is then purchased in varying amounts across the basket period creating a consistent pricing approach for all customers. This allows CCS to take advantage of minor movement in current markets and pass these benefits on to customers, but also protects customers from spikes in electricity volume trading. It is noted however that current trading conditions are still extremely volatile, and purchases are primarily made to secure volume where possible whilst this volatility continues.
31. To provide an example (at the time of writing: 20/11/2023)* the typical CCS Framework Electricity Rate has recently changed to 28.0p per kwh, if the Council were to move onto a standard non-contracted deemed tariff, then this would rise to 45.92p per kwh, with suppliers able to change this at any given moment. This would represent a significant cost increase.
- a. *Rates are currently fluctuating daily, and market volatility continues to impact on unit rates significantly.
32. Following a framework comparison, it is the recommendation of the Council's Commercial team and Entrust's Energy Management team that the Council continue with the current provider CCS Energy Flexible purchasing framework for the period 1 April 2024 until 31 March 2028.

Legal implications

33. The tendering process completed by CCS complies with the PCR 2015 and was advertised and awarded in accordance with the regulations.

Resource and value for money implications

34. Current energy market trading conditions are extremely volatile, and purchases are made to secure volume where possible whilst this volatility continues. Prices increased by around 300 – 400% from winter 2022 to spring 2023. However, the trend has now started to decrease significantly, and markets have continued to stabilise.
35. There are projections which are provided by EDF Energy for their records and for CCS, along with market trend information from the Office of Gas and Electricity Markets (OFGEM). Our current purchasing strategy has shifted from securing unit rate and volume discounts to a necessity to secure volume to ensure supply. In addition, CCS have developed

(following recent world events) an extremely robust risk profiling model for the purchasing of energy to ensure any trades meet a series of purchasing markers prior to the volume being committed.

Climate change implications

36. Having consulted with the Sustainability & Climate Change Team, areas for consideration within this procurement should be the conservation of renewable fuel and power. This contract will use 100% green electricity and upon the signature of the contract and securing of volume a Renewable Energy Guarantees of Origin (REGO) certificate will be provided to the Sustainability & Climate Change Team from EDF Energy for their records.

Links to Strategic Plan

37. Reducing carbon emissions through the Invest to Save Phase 1 and Phase 2 LED upgrade programmes, and by using a 100% renewable energy framework.

a. Tackle climate change, enhance our environment, and make Staffordshire more sustainable:

i. The county council's carbon emissions are reduced.

38. Ongoing asset replacement and maintenance of the highway lighting assets through the PFI contract.

a. Fix more roads, and improve transport and digital connections:

i. Achieve value for money in all spend on our roads and footpaths.

ii. Improvement in the condition of our highways.

39. Ongoing investment in, and value for money for, the highway lighting assets through the PFI contract.

40. Reducing energy costs by upgrading lanterns to LED through the Invest to Save Phase 1 and Phase 2 programmes.

41. Sourcing the best energy framework to ensure certainty of supply and value for money.

a. Our approach to financial planning has six strands:

i. Reduce costs to live within our means.

ii. Use our assets wisely to gain the best return for the council.

[Our Council - Strategic Plan 2022-26.pdf - All Documents \(sharepoint.com\)](#)

Link to Other Overview and Scrutiny Activity

N/A

Community Impact

N/A

List of Background Documents/Appendices:

Appendix 1 – Staffordshire Street Lighting PFI 7-year Health check
Appendix 2 – Service providers Progress Report 245 September 2023
Appendix 3 – Staffordshire PFI Annual Report 2023

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