



7 October 2024

Report of Councillor Rhys Baker
Cabinet Member for Environment and
Waste

Progress update on upgrade of District Council Streetlights to LED

Report Author

Serena Brown, Sustainability and Climate Change Manager

 Serena.brown@southkesteven.gov.uk

Purpose of Report

This report provides a progress update on the ongoing project to upgrade District Council operated streetlights to energy efficient LED units.

Recommendations

That the Committee:

1. Notes the updates regarding the upgrade programme of District Council streetlights to LED.

Decision Information

Does the report contain any exempt or confidential information not for publication? No

What are the relevant corporate priorities? Clean and sustainable environment

Which wards are impacted? All wards

1. Implications

Taking into consideration implications relating to finance and procurement, legal and governance, risk and mitigation, health and safety, diversity and inclusion, safeguarding, staffing, community safety, mental health and wellbeing and the impact on the Council's declaration of a climate change emergency, the following implications have been identified:

Finance and Procurement

- 1.1 The overall electricity spend for 2023/24 for streetlighting was £321k, a marked increase to previous years due to the rising cost of utilities. While a modest decrease of around 25% of the tariff cost of utilities is projected for the following year, the project to upgrade streetlights to LED will reduce the utility spend in the short term as well as reducing reactive maintenance costs. The funding for the replacement programme is being met from Council reserves in accordance with the Council decision on 28 September 2023.

Completed by: Richard Wyles, Deputy Chief Executive and s151 Officer

Legal and Governance

- 1.2 Councils do not have a duty to provide streetlighting, however once provided, the local authority does have a duty to maintain the system in a safe condition.

Completed by: Graham Watts, Monitoring Officer

Climate Change

- 1.3 The energy reduction potential of upgrading the Council's stock of lamps to LED is significant, with streetlighting being the single largest area of electricity consumption for the Council. Annual carbon savings are included within the report which will contribute towards the Council's carbon reduction target.

Completed by: Serena Brown, Sustainability and Climate Change Manager

2. Background to the Report

2.1 South Kesteven District Council is responsible for managing a total of 3,893 streetlights within the district all of which are funded from the Council's General Fund. These lights are predominantly for providing lighting to footways, as opposed to the separate and much more significant stock of streetlights provided for highways in the district, which are managed by Lincolnshire County Council.

2.2 The majority of lights operated by the Council are 35W (or 36W) low pressure sodium lamps. The total electricity consumption arising from the lamps result in just over 4% of the Council's total carbon emissions – the single largest category for electricity use of Council assets.

2.3 On 28 September 2023 Full Council approved a funding allocation of £1m to accelerate the replacement of the Council operated streetlights with LED energy efficient lamps.

2.4 A tender exercise was completed in early 2024 through the YPO Highways Electrical Installations framework, and EON Energy Solutions Ltd. were appointed as the successful contractor. The specification for the upgraded lamps included:

- Replacement dimmable LED luminaires, with dimming profile set from midnight to 6AM
- Photocell controllers to activate lamp automatically at dusk and switch off at dawn
- NEMA socket to facilitate future connection to a networked system if required

2.5 Following submission of information from the supplier, the expected energy saving from the new LEDs lamps with a dimming profile from midnight to 6am is 75% across the portfolio once all upgrades are completed. At current electricity costs, this results in a payback period of 3.7 years and an annual carbon emissions saving of 148 tonnes.

	kWh	Carbon emissions (scopes 2 and 3)	Electricity tariff per kWh (£)	Annual utility cost for streetlights (£)
Streetlighting pre- accelerated upgrade	848,940	191	0.38	321,196
Streetlighting following full replacement	212,235	48	0.28	60,224
Potential saving	(636,705)	(148)	-	(260,972)
Pay back				3.7 years

2.6 The luminaire included in the successful tender is also Dark Sky accredited, meaning that there is zero upwards light spill. Front and rear shields can also be fitted to lamps which can reduce any unwanted light spill and help to mitigate the wider effects of providing illumination to people and wildlife.

2.7 Following award of contract, upgrade work commenced in May 2024 which is in line with the project plan. It is expected that all existing streetlights will be upgraded within a maximum period of 18 months from the start of contract, which will ensure that the Council benefits from energy and utility cost savings as soon as possible. The upgrades are also covered by a 10 year warranty which should significantly reduce the maintenance costs.

2.8 Each upgraded streetlight is supplied with a full condition report advising the condition of the column, bracket, lantern, door & paint condition, along with an electrical test report. If required, the light is renumbered/identified.

2.9 At 30 August 2024 1,193 streetlights had been successfully upgraded via the current contract, which is in addition to the 810 streetlights which had previously been upgraded to LEDs. This equates to a current completion rate of 51.5% of the Council's existing General Fund stock.

Status		Number of streetlights upgraded
Additional work required	Completed with no additional work required	1137
	Column replacement	6
	Bracket replacement	43
	Inaccessible and requiring landowner correspondence	7
TOTAL		1193

2.10 The programme of streetlight upgrades are completed on a location by location basis which ensures that an efficient process is being followed. Upgraded locations to date include:

Aisby	Gelston	Marston
Ancaster	Graby	Morton
Barkston	Hanthorpe	Old Somerby
Carlton Scroop	Heydour	Stubton
Claypole	Honington	Syston
Deeping St James	Horbling	Tallington
Dowsby	Hougham	Uffington
Dry Doddington	Langtoft	Westborough
Dunsby	Lenton	West Deeping
Foston	Long Bennington	
Frognall	Market Deeping	

2.11 Following completion of the tender process and prices for specific upgrades being agreed, the expected overall spend is slightly below the original estimate of £1m, allowing for the inclusion of some additional advisory work. This work includes: proactive column upgrades; pole bracket upgrades; straightening columns and re-concreting, upgrading supply box and brackets.

3. Key Considerations

3.1 Current unit cost for electricity is at a historic high and there remains a strong case for accelerated upgrade of the council's stock of streetlights, to maximise savings on energy costs and return on investment.

4. Other Options Considered

4.1 The report is provided for information. Members are asked to take note of the update on the progress of the project to date.

5. Reasons for the Recommendations

5.1 The report is provided for information to note of the update on the progress of the project to date.

6. Background Papers

6.1 Finance and Economic Overview and Scrutiny Committee 22nd June 2023 - [Streetlights report.pdf \(southkesteven.gov.uk\)](#)

6.2 Environment Overview and Scrutiny Committee 11th July 2023 - [Environment Overview and Scrutiny Committee on 11th July 2023](#)

6.3 Cabinet 11th September 2023 - [Cabinet on 11th September 2023](#)

6.4 Council 28th September 2023 - [Council on 28th September 2023](#)