

LED Street Lighting on the Strategic Road Network

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Current position & future strategy



Lighting stock of 39,154 units / lanterns

- Circa 24,000 residential street lights dimmed between midnight and 6am and fitted with streetwise lamps – completion June 2016.
- **13,608 LED lanterns fitted on strategic highway routes – support from Cabinet to deliver Sept 2016 – Sept 2018.**
- Delivery of LED to lit signs and bollards – Trial taking place on Western avenue May 2016 – July 2016.
- Delivery of LED on traffic signals – New maintenance contract July 2016 – progress business plans and investment.
- Residential street lighting to LED – 2024 - 2026

Savings from LED street lighting on strategic road network



- Energy savings have been calculated at **£791,416** per annum giving a **6.14** year payback. The scheme will cost in the region of **£4.858M**.
- Interest free loan from SALIX applied for and accepted in principle to maximise savings from scheme.
- Investment Review Board supported a 12-year pay back of costs which allows the scheme to support savings of **£150k in 16/17, £100k in 17/18 and £50k in 18/19** shown in the Medium Term Financial Plan.
- Other savings identified but not included in payback are Carbon reduction commitment £63,100, reduction in maintenance costs £35,000, faults and failure prediction £20,000, option of trimming £26,600, option of dimming £47,900. **Totalling a potential further £192,600 savings per annum.**

What is being delivered



- A Central Management System (CMS) will be delivered with the new LED street lighting. This allows the opportunity to have direct control and information from the street lights which will enable the further savings identified to be realised. The CMS will also enable integration of street lighting to other technology in any future 'Smart-City' project.



What the citizens will see & managing risks

- A trial of different LED lantern manufacturers has been completed in the Civic Centre behind City Hall and associated testing and stakeholder feedback exercises have taken place. The specification has been defined to the preferred supplier that provided the best results.
- The exercise undertaken showed a preference away from white / blue light (5000 Kelvin) to a warmer light (3000 Kelvin). By utilising 3000 kelvin LED lights the light will match the streetwise lanterns placed during the dimming contract. This will provide a unified light colour & temperature across the City.
- The Central Management System will allow light levels to be managed (turned up and down) depending on feedback and concerns

Summary



- No Permanent Capital Investment required.
- Delivers savings required in the Medium Term Financial Plan.
- Trial undertaken to ensure stakeholders are engaged, including stakeholders that have raised concerns about the provision of LED lighting.
- LED light will be 3000 kelvin which is the same level as the new residential street lighting.
- Officers are currently specifying LED lighting at 3000 kelvin and CMS with regards the new S278/38 developments.

Next steps



Formal Cabinet Report presented 16th June 2016.

- Recommendation to support the signing of SALIX loan agreement with accountancy as signatory.
- Recommendation to proceed and procure the contract to deliver LED street lighting on the strategic road network via open OJEU process.
- Recommendation to delegate authority to award the contract by the Director of City Operations if the costs are over £5M, subject to the updated business case being supported by accountancy.

Reason: to allow the contract to be delivered promptly by an appropriate procurement route and negate further Cabinet reports.