

Meeting of:	Cabinet
Date of Meeting:	Monday, 23 March 2020
Relevant Scrutiny Committee:	Environment and Regeneration
Report Title:	Street Lighting Energy Reduction Strategy - Salix Project Update
Purpose of Report:	To advise Cabinet of the current position on the 'Street Lighting Energy Reduction Strategy' and programme for the Salix loan funding to convert main road street lighting to full LED
Report Owner:	Report of the Cabinet Member for Neighbourhood Services and Transport
Responsible Officer:	Miles Punter - Director of Environment and Housing Services
Elected Member and Officer Consultation:	<p>Accountant Environment and Housing Services</p> <p>Legal Services (Committee Reports)</p> <p>Energy Manager</p> <p>No Ward Member Consultation required</p>
Policy Framework:	This report is a matter for Executive Decision by Cabinet.
<p>Executive Summary:</p> <p>At its meeting of 20th October 2014 Cabinet approved a strategy to implement a full move to LED lighting as funding became available. Following the introduction of part-night lighting within the Vale from December 2015 to save energy cost and CO² emissions, the Council converted all standard conventional type residential street lanterns to LED in Summer 2018. To continue progress to full LED lighting, Cabinet approved submission of a Salix interest free loan application to convert all main road lighting to LED at its meeting on 22nd January 2018.</p> <p>The application to Salix Finance Ltd was submitted on 20th February 2018 based on replacing 3,895 standard conventional type main road street lighting lanterns with LED dimmed after 10pm and controlled by a CMS Central Management System (CMS), together with the replacement of 669 end of life columns (Option 1). The value of the loan was £1,916,079 to achieve an energy saving of £239,510 and 730 tonnes of CO² per annum. It was approved by Salix Finance on 28th February 2018 and an acceptance letter signed and returned on 1st March 2018.</p>	

The Council currently has a total 15,797 street lighting units with the number of lanterns currently converted to LED at some 10,735 or 68%. The Salix project originally identified a 24-month implementation programme with completion on 31st March 2020, however, resource was focused on conversion of residential street lights to LED in 2018. The commencement of the Salix project subsequently slipped to 2019 with the appointment of a specialist consultant to undertake the necessary LED lantern design completed in November 2019.

To address the delay to the original Salix programme, an extension to the project was agreed in May 2019 granting a 6-month delivery extension for the completion to September 2020 and a revised programme schedule has now been prepared and is attached at Appendix A. This revised programme to meet the revised completion date shows procurement of LED street lighting supplier in the first week in February 2020 and installation works commencing on-site at the beginning of June 2020 for a period of 16-weeks.

Recommendations

1. That Cabinet notes the current position on the 'Street Lighting Energy Reduction Strategy' and Salix loan funding, including the revised programme for conversion of main road street lighting to full LED as at Appendix 1.
2. That Cabinet approves an increase in the Street Lighting Energy Reduction Strategy scheme by £1,916,079 in the 2020/21 Capital Programme, to be funded by an interest free loan from Salix Finance Ltd and that the Managing Director be requested to utilise his Emergency Powers to include this scheme in the Capital Programme.
3. That delegated authority is granted to the Director of Environment and Housing Services in consultation with the Cabinet Member for Neighbourhood Services and Transport and the Head of Finance, to accept the most economically advantageous tender for the supply of LED lanterns.
4. That the use of Article 14.14.2 (ii) of the Council's Constitution (Urgent Decision Procedure) be authorised in respect of Recommendation (2) above.

Reasons for Recommendations

1. To obtain agreement on the current position of the 'Street Lighting Energy Reduction Strategy' and revised programme to complete the Salix project for conversion of main road street lighting to full LED.
2. To allow this scheme to proceed in the current and future financial years.
3. To enable the timely award of the contract for the supply of LED lanterns in accordance with the revised programme and ensure compliance with the Council's Contract Standing Orders and Financial Regulations.
4. To enable delivery of the project to meet the extended completion date at end of September 2020.

1. Background

- 1.1** As part of an ongoing initiative to reduce street lighting energy costs and reduce CO² emissions since 2011/12, Cabinet approved a 'Street Lighting Energy Reduction Strategy' at its meeting on 20th October 2014 (minute No. C2497). This strategy proposes a full move to LED lighting over time and as funding became available and an interim arrangement to implement part-night lighting for conventional street lighting in appropriate locations. LED lighting is currently identified as being exempt from the part-night lighting arrangement.
- 1.2** The Council subsequently introduced part-night lighting operation throughout the Vale of Glamorgan's local highway network from December 2015. This involved some 65% of Councils conventional lighting stock equating to some 6,819 units being switched off within residential streets and main roads between the hours of midnight and 6:00 am. The anticipated annual energy cost saving was £217k with a reduction in CO² emissions of 1042 tonnes.
- 1.3** In 2018, the Council substantially completed a project to convert all residential street lights to LED which were also to be dimmed at midnight. The original £1.2M budget to carry out the conversion of residential street lighting lanterns to LED was approved by Cabinet in 2016 (Minute number C3198) as part of the Council's ongoing 'Street Lighting Energy Reduction Strategy'.
- 1.4** The conversion of residential street lights to LED currently excludes many of the current stock of ornamental and bespoke lanterns throughout the Vale, such as those featured on the old Victorian lamp columns in Penarth. A proposed replacement for these Victorian columns which preserves the character and nature of the roads and streets in the Penarth Conservation area will be trialled initially along Cwrt y Vil Road in 2020 before commencing a further programme of replacement of the remaining unsafe Victorian cast iron columns throughout Penarth in 2020/21.
- 1.5** Thereafter, the conversion of ornamental and bespoke lanterns within residential areas throughout the Vale to complete the Street Lighting Energy Reduction programme in residential areas will be carried out on a case by case basis. This will involve consideration of the business cases to convert specific ornamental and bespoke lanterns to confirm and justify that conversion to LED is both cost effective and viable to achieve the necessary street lighting energy savings required at each individual location.
- 1.6** To continue the Council's aspiration to move towards full LED lighting in accordance with the 'Street Lighting Energy Reduction Strategy', Cabinet considered a report at its meeting on 22nd January 2018 (minute No. C207) for the submission of an interest free loan application to Salix Finance Ltd. for funding to convert main road lighting to LED with a Central Management System (CMS). At the meeting it was resolved to approve the submission of the Salix

application based on Option 1 as outlined in the report with delegated authority also being granted to the Director of Environment and Housing Services to implement and manage the proposed project. The Council has 15,797 street lights in total. 10,735 of these are already LED and the Salix loan application proposes a further 3,895 lights to be converted, giving 14,630 LED lights in total. This leaves 1,355 units where further work and business cases will be required before the units are changed to LED. This represents 92.5% of the total lighting stock.

2. Key Issues for Consideration

- 2.1** The Council submitted the formal application to Salix Finance Ltd on 20th February 2018 based on Option 1 financial model and funding bid. The application comprised a detailed application form and spread sheet providing financial modelling for the proposed project; and a risk and Issue log in accordance with the requirements of the funding application.
- 2.2** Option 1 includes for replacing 3,895 standard conventional type main road street lighting lanterns with LED lanterns, together with the replacement of some 669 end of life street lighting columns. The lanterns will be dimmed between 10pm and midnight by 25% and then from midnight to 6am dimmed by 50% and controlled by a CMS system. The application was for a total estimated project cost of £2,302,832 supported by a Salix loan of £1,916,079 to achieve an estimated energy saving of £239,510 per annum based on a 3% increase in energy cost each year over the eight-year payback period and a saving of some 730 tonnes of CO² per annum.
- 2.3** The loan application was subsequently confirmed on 28th February 2018 with loan funding to the full value of £1,916,079 for the project which had been technically assessed and received a score of 83%. An acceptance letter was subsequently signed by the Director of Environment and Housing Services following consultation with the relevant Cabinet Member and returned to Salix Finance Ltd on 1st March 2018. The project programme to implement the agreed works in Option 1 was identified as 24 months with an expected completion date of 31st March 2020.
- 2.4** The original programme identified for the implementation of the Salix project is provided at table 1 below and shows an original completion date of March 2020 which was identified in the acceptance letter returned to Salix Finance Ltd. Regrettably, due to the need to focus resource and priority on the delivery of the then ongoing capital project to convert all residential street lights to LED, little progress was able to be made on the implementation of the Salix project and the timeline for commencing the project design and tender subsequently slipped to 2019.

Table 1: Key Project Milestones

Steps taken / to be taken	Process	Start date	End date	Include no. of days Contingency
<u>Project Approval</u>	Estates/finance approval	N/A	N/A	
	Board/councillors approval		22/01/2018	
<u>Tender</u>	Project design time	01/04/2018	31/08/2018	30 days
	Project out to tender	31/08/2018	31/03/2019	30 days
	Contract awarded		31/03/2019	30 days
	Cool off period	31/03/2019	10/05/2019	30 days
<u>Order</u>	Order Placed		15/04/2019	
<u>Delivery</u>	Equipment Delivery		21/06/2019	
<u>Project on site</u>	Starting project installation	24/06/2019	20/12/2019	30 days
<u>Project completion</u>	Project complete onsite		20/12/2019	
	Commissioning	06/01/2020	31/03/2020	30 days
	Invoicing	29/07/2019	31/03/2020	
	Send completion certificate to Salix		31/03/2020	
	Returning loan agreement		31/03/2020	

- 2.5** In 2019, the design phase of the Salix project commenced and required the appointment of a specialist consultant to undertake the necessary design and specification of up to four typical LED lanterns to be used in conversion of main road street lights to LED which could be later used for the procurement of a suitable LED lantern supplier. The specialist consultant was procured and appointed in August 2019 through the Eastern Shires Purchasing Organisation (ESPO) framework in full compliance with the Council's financial Regulations.
- 2.6** As a consequence of the delay to the original programme explained above and following discussion with Salix Finance Ltd in a meeting during May 2019, it was confirmed that the project delivery had been delayed beyond the March 2020 timeframe and it was likely that a 6-month extension would be required to successfully complete the full extent of the project. Salix Finance Ltd subsequently confirmed that the Welsh Government who were funding the loan agreement had agreed to grant a delivery extension for the completion of the project to September 2020.
- 2.7** The design and specifications for the four typical LED lanterns was received from the appointed specialist contractor in November 2019 and has been used to prepare a detailed and robust tender document for the procurement of a LED lantern supplier. This tender documentation is substantially complete and is due to be issued to street lighting suppliers on Lot 10 of the National Procurement Service (NPS) framework contract for the 'Provision of Highway Lighting Materials' (Reference: NPS-CFM-0059-16) via the Sell-to-Wales website in February 2020.
- 2.8** A revised programme schedule showing the relevant implementation phases to completion of the Salix project has recently been prepared and is attached at Appendix A. This revised programme indicates a commencement date for installation works on-site at the beginning of June 2020 with a 16-week construction period. The revised programme has been submitted to Salix Finance Ltd in line with their requirements to provide regular updates on the expected

completion date for the project and will now form the future basis for monitoring and managing this Salix project. It is considered that this revised programme represents a practicable and feasible plan to deliver the project works within the agreed 6-month extension and meet the revised completion date at the end of September 2020.

3. How do proposals evidence the Five Ways of Working and contribute to our Well-being Objectives?

- 3.1** The proposals in this Report will enable the Council to continue to work towards the Well-being Outcome, An Environmentally Responsible and Prosperous Wales and, in particular, contributes towards the Council's corporate objective of promoting sustainable development and protecting our environment by reduce emissions from street lighting through the conversion of non-LED to LED lighting on main roads.
- 3.2** The effective management of the Council's street lighting network contributes towards the prevention agenda by assisting in improving accessibility and road safety thereby preventing or reducing risk of harm to residents in the local community and reducing impact on the environment. It also balances short-term needs to maintain and improve the street lighting infrastructure whilst contributing to the Council's carbon management plan and longer-term policy of promoting active travel to reduce unnecessary vehicle travel, road congestion and pollution.
- 3.3** The proposals outlined in this report evidence the Well-being of Future Generations Act and its Five Ways of Working by ensuring that through good asset management improving the condition and efficiency of the Council's street lighting network, life in the Vale is improved over the longer term for residents and visitors to the area. The improvements will reduce the maintenance requirements and failures or outages of street lighting lanterns and therefore assist to prevent concerns over community and highway safety in municipal and residential areas, especially those important to the night time economy thereby further improving the well-being of Vale citizens.
- 3.4** The proposed improvements to street lighting consider and assist to address resident anxiety and fear over crime and road safety throughout the Vale's local highway network, particularly in municipal and residential areas, and therefore are considered to deliver on the involvement agenda by addressing community and other stakeholder priorities ensuring that the Council can successfully continue to work towards the delivery of its identified Well-being Objectives.
- 3.5** The Well-being objectives identified above are fully compatible with the Council's corporate well-being goals and their objectives. This specifically includes Well-being Outcome 2, an environmentally responsible and prosperous Vale; Objective 3, promoting regeneration, economic growth and employment; and

Objective 4, promoting Sustainable development and protecting our environment.

4. Resources and Legal Considerations

Financial

- 4.1** The financial model for Option 1 when originally prepared in January 2018 identified a requirement for Council funding over an 8-year payback period with savings of circa £239,510 per annum based on energy and CO² reductions.
- 4.2** The total cost of this scheme is £2,302,832 of which £1,916,079 is funded by an interest free loan from Salix Finance Ltd. and £386,753 is Council match funding which has already been approved within the Capital Programme. This is profiled £37k in 2019/20 and £350k in 2020/21.
- 4.3** Due to recent increases in energy costs well above the previously projected 3% per year inflation and after review of the financial model, it is currently anticipated that the payback period will likely reduce to under 8 years making the investment more advantageous.
- 4.4** The drawdown schedule for the Salix Finance Ltd funding is to be agreed, however, Salix have confirmed that a purchase order is sufficient to initiate the first payment with invoices provided with 30 days of completion of the project. It is therefore anticipated that circa £1.4m could be drawn down before the end of March this year following award of the LED lantern supply contract reducing the risk to the project completion date at the end of September 2020.
- 4.5** The project is being managed internally with the supply of all necessary LED lanterns and installation works being tendered in accordance with the Council's Procurement rules.

Employment

- 4.6** The LED lanterns will be provided by a suitable external supplier and installed by a suitable external contractor appointed by competitive tender in accordance with the Council's strict Financial and Contract Procedure Rules.
- 4.7** The project management of the supply and installation contracts will be carried out in-house by existing staff within the Council's Neighbourhood Services.

Legal (Including Equalities)

- 4.8** The Council has a legal duty to protect users of the public highway and its liabilities in respect to the proposed Salix project will have to be carefully managed to avoid any additional third-party risks resulting from the lighting changes.

4.9 There are no human rights or equalities implications with regard to this report.

4.10 Any signage associated with these works will comply with the requirements contained within the Councils Welsh Language Scheme.

5. Background Papers

None.

