

Cabinet

21st October 2015

Street Lighting Energy Reduction Project - Update



Report of Corporate Management Team

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and Local Partnerships

Purpose of the Report

- 1 To provide Cabinet with an update on the Street Lighting Energy Reduction Project.

Background

- 2 Cabinet approved the business case for this 6 year “invest to save” project on 12 December 2012. The project involves:
 - Retrofit of existing street lights with more energy efficient LED street lights;
 - Removal of street lights not required by the Street Lighting Policy where it is safe to do so; and
 - De-illumination of signs where permitted under Department for Transport regulations.
- 3 The Street Lighting Policy which facilitates the removal of street lights was approved by Cabinet on 20 November 2013 following extensive public consultation. In that report it was stated that an annual update would be provided detailing performance and advising of any revisions to the scope of the project.

Progress to Date

- 4 The table below measures progress to date in terms of units completed compared to the business case to 31 March 2015:

Scope	Units Completed to 31 March 2015		
	Business Case	Actual	Difference
Street Lighting Retrofits	13,804	20,142	+6,338
Street Lighting Removals	2,334	322	-2,012
Bollard Retrofits	9	0	-9
Pedestrian Crossing Retrofits	11	0	-11
Traffic Signal Retrofits	997	0	-997
De-illumination of Signs	314	397	+83

- 5 All works are being delivered by the Council's in-house provider, Highway Services, with support from external sub-contractors.

Street Lighting Retrofits

- 6 Retrofits commenced in June 2013 and have been undertaken across the County. Progress is well ahead of schedule and works have been accelerated.
- 7 The Council has led the development of a regional four year procurement framework for the supply of LED street lights through the North East Highways Alliance. An annual mini-competition is undertaken to ensure that best value is achieved in terms of the cost and performance of LED street lights which continue to improve each year as technology advances.
- 8 The framework includes Thorn who have a factory at Spennymoor that manufactures LED street lights which are being used as part of the project.

Street Lighting Removals

- 9 Commencement of works was delayed by the need to update the Street Lighting Policy to facilitate removals. The updated Street Lighting Policy was subject to public consultation and approved by Cabinet approval on 20 November 2013.
- 10 The Council is only removing street lights that are not required by the Street Lighting Policy where it is safe to do so. The Council has commissioned independent Road Safety Auditors to carry out robust risk assessments.
- 11 The risk assessment identifies any potential hazards to highway users and considers if and how these can be mitigated. If the risk assessment identifies any significant road safety issues that cannot be mitigated then the Council does not proceed with the removal.
- 12 The robustness of the process is reinforced by the fact that approximately 20% of all proposed removals assessed to date have not progressed due to issues identified in the risk assessment by the independent Road Safety Auditors that cannot be mitigated.
- 13 Of the removal schemes that have progressed, some have met with opposition during the consultation process (with local Members, Town Councils and Parish Councils) and officers have attended meetings to discuss the concerns raised. However, in all cases to date the risk assessments have proved to be robust.
- 14 The Council has offered Town and Parish Councils a service level agreement to retain street lights in their areas on a fully funded basis where they have expressed concerns about their removal. The following Town and Parish Councils have agreed service level agreements to retain street lights in their areas:

- Great Aycliffe Town Council;
- Ferryhill Town Council;
- Chilton Town Council; and
- Stanhope Parish Council.

15 The risk assessment process and consultation are taking longer than originally envisaged in the Business Case due to the in depth work and extensive consultation required as described above. However, this is mitigated by the acceleration in retrofits.

De-illumination of Signs

16 The de-illumination of signs is progressing ahead of schedule.

Retrofit of Bollards, Pedestrian Crossings and Traffic Signals

17 These retrofits have not progressed because the detailed design process identified that additional works are required. The extra cost of these works means that these retrofits no longer meet the 'invest to save' criteria.

Financial Performance

18 The table below measures the cumulative financial performance of the project to date compared to the business case to 31 March 2015:

Description	Business Case	Actual
Capital Expenditure	£7,106,171	£7,140,942
Capital Repayments	£253,940	£205,519
Gross Revenue Saving	£707,548	£618,754
MTFP Saving	£224,355	£300,579

19 The additional retrofits and their better performance than originally assumed mitigates the slippage in removals to date.

20 This project is investing in the Council's highway infrastructure whilst contributing significant savings towards the Medium Term Financial Plan.

Energy and Carbon Reduction Performance

21 The table below measures progress to date in terms of energy and carbon reduction achieved compared to the business case to 31 March 2015:

Scope	To 31 March 2015	
	Business Case	Actual
Energy reduction (KwH)	4,602,871	4,425,298
Carbon reduction (CO2 tonnes)	2,503.96	2,407.36

- 22 It can be seen that actual energy and carbon reduction is very close to the business case target.
- 23 This project is making a major contribution to the Council's target of reducing its carbon emissions by 40%.

Customer Feedback

- 24 Customer feedback to 31 March 2015 is summarised as follows:

Customer Feedback	Type
General queries/ requests for information	539
Formal Complaints	26
Compliments	10

- 25 The retrofits have affected 100,000 households to date. This level of customer feedback is typical of street lighting schemes nationwide. The number of formal complaints represents 0.026% of the affected households.

Street Lighting Retrofits

- 26 The new energy efficient LED street lights are a significant change from the old street lights that they replace. The main differences are:
- LEDs provide white light which provides better colour condition compared to the old yellow lights; and
 - LEDs have better control than the old yellow lights and therefore reduce light spillage onto homes and gardens.
- 27 It can take a few weeks for residents to get used to the new LED street lights but generally they have been well received by the public.
- 28 Most of the general queries / requests for further information have been in relation to the reduction of light spillage onto homes and gardens. Once it is explained that street lighting is only supposed to light the highway and the savings achieved from energy reduction most customers are accepting of this.
- 29 We have developed an escalation process for persistent complaints that involves desktop design checks and on site light meter testing. These checks have proved that the new LED street lights meet and exceed the relevant British Standard whereas in most cases the old lights did not.
- 30 Please see Appendix 2 for the information leaflet that is provided to households and businesses prior to retrofit works.

Street Lighting Removals

- 31 Only a small number of removals have been completed to date therefore only a small number of customer contacts have been received. However, as noted above the consultation process has generated a large amount of feedback from Councillors, Town Councils and Parish Councils.

Research

- 32 A recent study led by the London School of Hygiene & Tropical Medicine has concluded that there is no evidence of an association between reduced street lighting (i.e.: retrofits, removals and dimming) and:

- Increased crime; and
- Night time road traffic collisions.

- 33 This is in line with previous research commissioned by the Department for Transport and helps reinforce that the measures introduced as part of the Street Lighting Energy Reduction Project are safe.

Scope Review

- 34 The project scope has been reviewed and amended to reflect:

- Improvements in LED cost and performance;
- Revised estimate for street lighting removals based on detailed risk assessments; and
- Revised estimate for retrofit of Bollards, Pedestrian Crossings and Traffic Signals based on updated invest to save appraisal.

- 35 The revised scope is as follows:

Measure	Original Scope (Business Case)	Revised Scope	Change
Street Lighting Retrofits	41,412	55,000	+13,588
Street Lighting Removals	7,000	3,000	-4,000
Bollard Retrofits	28	0	-28
Pedestrian Crossing Retrofits	34	0	-34
Traffic Signal retrofits	2,991	0	-2,991
De-illumination of Signs	942	942	0

- 36 The revised scope remains within the approved capital budget and is forecast to deliver the same level of savings as the original business case.

Column Replacement

- 37 In addition to the Street Lighting Energy Reduction Project, the Council has a significant programme of replacing life expired columns.

Recommendations and Reasons

- 38 Cabinet are asked to note the content of the report and accept a further update in 12 months.

Appendices

- Appendix 1: Implications
- Appendix 2: Information Leaflet

Background Papers

- Cabinet Report : Street Lighting Energy Reduction Project dated 12 December 2012
- Cabinet Report : Street Lighting Policy dated 20 November 2013

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Appendix 1: Implications

Finance

Please see paragraph 18 of the report.

The project has achieved MTFP savings of £300,579 to 31 March 2015.

Staffing

The works are being delivered by the Council's in-house provider, Highway Services, supported by its supply chain of competitively procured sub-contractors.

Risk

Project risks are being managed by the project team.

Equality and Diversity / Public Sector Equality Duty

An Equality Impact Assessment (EIA) was completed for the street lighting policy and reviewed in line with the review of the policy. The recommendations of the EIA were incorporated into the project delivery process.

Accommodation

None

Crime and Disorder

None

Human Rights

None

Consultation

There was a public consultation on the updated Street Lighting Policy. A consultation exercise is also undertaken on every proposed street light removal with local Councillors, Town Councils and Parish Councils.

Procurement

LED street lights are being procured competitively via the regional framework established by Durham.

The works are being delivered by the Council's in-house provider, Highway Services, supported by its supply chain of competitively procured sub-contractors.

Disability Issues

An Equality Impact Assessment (EIA) was completed for the street lighting policy and reviewed in line with the review of the policy. The recommendations of the EIA were incorporated into the project delivery process.

Legal Implications

None