

From: Matthew Balfour, Cabinet Member for Environment & Transport

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To: **Environment and Transport Cabinet Committee – 8 July 2016**

Decision No: **TBC**

Subject: **Review of Streetlight Trial Switch-Off Sites**

Classification: **Unrestricted**

Future Pathway of Paper: **Cabinet Member Decision**

Electoral Division: **All**

Summary:

In August 2013, following a Cabinet Member decision in 2011, the Authority began implementing its Safe & Sensible Street Lighting (SSSL) project to reduce its energy and carbon consumption from street lighting across the County.

In March 2016, the Authority commenced the rollout of the LED Conversion Project which includes converting all street lights to LED lanterns. Additionally a Central Management System will be implemented to enable the Authority to control and manage its assets efficiently. Closure of the SSSL project is required prior to the start of the second phase of the LED Conversion project (Main Routes and Town Centres).

This paper details the review of Phase 1 – Trial Switch Off of Surplus Lights and presents recommendations for the closure of the SSSL project.

Recommendation:

The Cabinet Committee is asked to consider and recommend the Cabinet Member to proceed with Option 1 or Option 2 as detailed in section 8 of this paper.

1 Background

- 1.1 Kent County Council is one of the largest street lighting authorities in the UK and has 118,000 street lights and some 25,000 lit signs and bollards. The current annual cost of illuminating and maintaining the stock is over £9m, a cost that keeps rising.
- 1.2 In August 2013, following a Cabinet Member decision in 2011, the Authority began implementing its Safe & Sensible Street Lighting (SSSL) project to reduce its energy and carbon consumption across its street lighting estate to contribute towards the Council's savings targets.

1.3 SSSL comprised of two phases:

Phase 1 – Trial switch off of surplus lights;

Phase 2 – Conversion of approximately 60,000 lights to Part-Night operation.

- 1.4 Phase 1 comprised of switching off approximately 1,200 street lights for a trial period and Phase 2 included switching approximately 60,000 street lights (half of the stock). Both phases of SSSL were largely completed by autumn 2014 and have reduced annual energy costs by around £1m and carbon emissions by 5,000 tonnes.
- 1.5 During Phase 1, Members were invited to Joint Transportation Board (JTB) meetings to provide any information that should be considered when making the final decision on whether to proceed with the trial. This resulted in some lights being excluded from the trial and some others being amended from a full switch off to being included in Phase 2 – Part Night Lighting.
- 1.6 Details of the sites to be included in Phase 1, and the proposed hours of switch off and the exclusion criteria for Phase 2, were reported to Members at the spring 2013 cycle of JTB meetings.
- 1.7 For Phase 2, Members were asked to comment on the proposed hours of switch off which were 12.00 midnight to 05.30am Greenwich Mean Time (GMT) and 01.00am to 06.30am British Summer Time (BST). Members generally agreed with the proposals for Phase 2.
- 1.8 On 5 February, the Environment & Transport Cabinet Committee endorsed the decision to return to 'Optimised' All Night Lighting once individual street lights have been converted to LED and commissioned to the Central Management System. The remaining issue concerns the future of those lights included in the switch off of surplus lights
- 1.9 This paper outlines the results of each trial and recommends the resolution for the individual sites on whether they are to be removed or switched back on.

2 Phase 1 – Trial Switch Off

- 2.1 The sites selected for inclusion in the trial switch off were those where street lighting is present; however, if these roads were being designed and built today, it is most unlikely that street lighting would be provided.
- 2.2 The purpose of the trial was to establish if there would be any adverse impact on a site if the lights were switched off completely. If it was found that there was no adverse impact, it would be the Authority's intention to consider these lights for removal.
- 2.3 When originally presented to Members at the spring 2013 JTB meetings, approximately 133 sites across Kent totalling around 2,500 lights were identified as being potentially suitable for inclusion in the trial.
- 2.4 At the JTB meeting, Members were invited to consider three options for each site. The options were:

- a) The site should be included in the trial switch off.
- b) The site should be excluded from the trial but the lights converted to part-night operation
- c) The site should be withdrawn from the trial switch off and the lights left to operate without change.

2.5 Information provided by Members at the JTB meeting was later considered together with other factors such as crime and road safety. A recommendation was then made to the Director of Highways, Transportation & Waste, who made the final decision on whether to include each site within the trial.

2.6 Following this process, 1,200 street lights of the originally proposed 2,500 were included in the trial switch-off at the following sites:

Ashford

- A20 Maidstone Road, Charing
- A20 Maidstone Road, Tutt Hill/Hothfield
- Charing Hill
- A20 Maidstone Road, Ashford
- Templer Way
- Trinity Road
- Romney Marsh Road.
- Ashford Road, Charing

Dartford

- Bob Dunn Way (West and Mid)
- Watling Street
- Barn End Lane
- Birchwood Road

Dover

- Whitfield Hill
- A257 Ash By-Pass – Sandwich Road
- Betteshanger Road
- Folkestone Road, Farthingloe

Gravesham

- Rochester Road, Gravesend
- Gravesend Road, Shorne

Maidstone

- A249 Sittingbourne Road
- A20 Ashford Road, Hollingbourne
- A20 Ashford Road, Harrietsham (East)

Sevenoaks

- Wheatsheaf Hill, Halstead
- Polhill/London Road
- Morants Court Road, Dunton Green

- A20 Maidstone Road, Swanley
- London Road, West Kingsdown
- Farningham Hill Road, Farningham
- Tonbridge Road, Sevenoaks
- Goldsel Road, Crockenhill

Shepway

- Ashford Road, Cheriton
- Churchill Avenue
- Dover Road, Capel-le-Ferne
- North Road, Folkestone
- Royal Military Avenue
- West Road/Hospital Hill, Folkestone/Hythe
- Marine Parade/Lower Sandgate Road, Folkestone
- Dymchurch Road, Hythe
- Dymchurch Road, Dymchurch
- Hythe Road
- Marine Parade, Littlestone
- Grand Parade, Littlestone
- The Parade, Greatstone
- Coast Drive, Greatstone
- Coast Drive, Lydd

Swale

- Sheppey Way
- Queenborough Road
- Whiteway Road
- Western Link, Ospringe
- A2 London Road, Ospringe
- Swale Way, Sittingbourne
- Barge Way, Sittingbourne
- Love Lane, Faversham
- Graveney Road, Faversham

Tunbridge Wells

- Hungershall Park, Tunbridge Wells
- Vauxhall Lane, Southborough
- Knights Way, Tunbridge Wells
- A262 Goudhurst Road, Cranbrook
- A229 Angley Road, Cranbrook
- Old Church Road, Pembury
- A26 London Road, Southborough

- 2.7 A key aspect of the trial switch off was to ensure the absence of lighting did not create an unsafe situation.
- 2.8 Prior to switching any street lights off, each site was inspected to establish the condition of the site and identify the need for any works to be undertaken to ensure that the safety of the site was not affected. The works required were

generally found to be carriageway markings, cleaning signs, and for some sites installing reflective road studs.

2.9 An additional safeguard included in these mitigation works was that strips of reflective material were fixed to individual street lights so they would be picked up by car headlights alerting drivers to the presence of the columns.

2.10 All mitigation works were undertaken before any street lights were switched off.

3 Monitoring during the switch off period

3.1 Throughout the period of the trial switch off, the sites were monitored for any adverse impacts that may have been due to the absence of street lighting. The monitoring included:

- a) Liaising regularly with Kent Police in respect of criminal activity.
- b) Reviewing any Road Traffic Collisions (RTCs) that occurred.
- c) Reviewing information received from others e.g. Members, the public, Parish and Town Councils, Emergency Services.

3.2 If any adverse impact was identified, then following consultation with the Cabinet Member for Environment and Transport, the street lights were switched back on.

3.3 In response to concerns raised by residents, lights in the following roads were switched back on and converted to part night operation:

Ashford

- Ashford Road, Charing

Shepway

- Dymchurch Road, Hythe
- Dymchurch Road, Dymchurch
- Hythe Road
- Marine Parade, Littlestone
- Grand Parade, Littlestone
- The Parade, Greatstone
- Coast Drive, Greatstone
- Coast Drive, Lydd

Sevenoaks

- Some streetlights in Tonbridge Road, Sevenoaks
- Goldsel Road, Crockenhill

Swale

- Whiteway Road

Tunbridge Wells

- A26 London Road, Southborough

- 3.4 Following the switch off, a number of enquiries about the trial were received. Most enquiries were received within a few weeks of the date of the switch off and have generally declined in number and frequency since then.
- 3.5 The enquiries were generally from customers who felt that the safety of the road would be reduced without lighting.
- 3.6 Each enquiry was considered and investigated when it was received and a response provided at the time. All enquiries received were considered again as part of the review of the trial switch off.

4 Review of the trial

- 4.1 Each of the trial switch off sites was reviewed, with the following factors being considered:
 - a) Enquiries received
 - b) Feedback from Kent Police on crime
 - c) RTCs occurring during the trial switch off
 - d) Future requirements for street lights at the site.
- 4.2 These were reported to the appropriate JTB's between November 2015 and February 2016 where Members could provide further comments. These have been included within the individual reports before a final recommendation was proposed as detailed in the background documents.

5 Financial implications

- 5.1 One of SSSL's objectives was to reduce the cost to the Authority of providing street lighting, the savings being made principally from reduced energy consumption and reduced carbon emissions. In preparation for the LED conversion rollout, there are two additional savings that can be realised from the trial switch off sites: future maintenance costs would be eliminated, and the installation costs of new LED lanterns would be avoided.
- 5.2 In order to assess the financial implications of this element of the project, a comparison was made between the cost of removing the lights and the cost of retaining the lights.
- 5.3 The cost to remove a light is principally dependent on the nature of the road in which it is located and the extent of traffic management required. In all other respects the works involved are the same regardless of the location and would include disconnection, removal and disposal of the equipment and reinstatement of the highway surface.
- 5.4 The cost of retaining the light was assessed over a period of 15 years as this coincides with the duration of the new Street Lighting Term Services Contract. The costs of retaining the light included installation of a new LED luminaire, replacement of the column if this is likely to be needed within 15 years, energy costs and routine electrical and structural testing.

5.5 The comparison of costs shows that the costs of removal are lower than retaining a light over this period of time. A longer period would further increase the cost of retaining the light. Additionally if at some stage it was decided that the lights are no longer required the cost of removal would still be incurred.

5.6 Funds have been specifically allocated for the removal of lights associated with the trial switch off.

6 Legal implications

6.1 The Authority has no statutory duty to provide street lighting, but where it does so the lighting must be provided and maintained in accordance with industry good practice.

6.2 Power for the street lights is supplied by UK Power Networks (UKPN) and switching the lights off for a trial period is acceptable to UKPN, however UKPN will not allow the street lights to remain connected to their network indefinitely if they are not using the power.

6.3 If the power to the street lights is removed to satisfy UKPN's requirements the street lights would be considered to be a number of individual highway obstructions. If one of these 'obstructions' were struck, the Authority could be liable for any costs.

6.4 In order for the Authority to avoid any legal liability the street lights must be either turned back on or removed.

6.5 The presence of a system of street lights in a road restricts vehicle speeds in that road to a maximum speed of 30mph. Where a speed limit in a road with street lights exists that is more or less than 30mph that speed limit would have been made by the creation of a specific Speed Limit Order (SLO).

6.6 Where a SLO does not exist, the removal of street lights in a road would mean that the road becomes automatically subject to the national speed limit i.e. 60mph for a single carriageway road or 70mph for a dual carriageway.

6.7 If the removal of street lights led to the speed limit changing from 30mph to the national speed limit, a SLO would be made to restrict vehicle speeds to a maximum of 30mph.

7 Detailed proposal

7.1 Full details on the recommendations can be found in the background document that supports this paper. This provides details on each individual site that was assessed during the trial period and comments made by the individual JTB.

7.2 An overview of the recommendations has been provided below:

7.2.1 Sites to be switched back on immediately

- Charing Hill – Ashford
- Templer Way – Ashford

- Trinity Road – Ashford
- Romney Marsh Road – Ashford
- Betteshanger Road – Dover
- Rochester Road, Gravesend – Gravesham
- Gravesend Road, Shorne – Gravesham
- Tonbridge Road, Sevenoaks – Sevenoaks
- Marine Parade/Lower Sandgate Road, Folkestone – Shepway
- Hungershall Park, Tunbridge Wells – Tunbridge Wells

7.2.2 Sites where the trial should be extended

- Polhill/London Road – Sevenoaks

7.2.3 This site is affected by the Fort Halstead development and a decision cannot be made without further information. It is proposed to extend the trial and review the need for street lighting in this area during the LED Conversion Project once more information is made available.

7.2.4 Dover

- Whitfield Hill
- A257 Ash By-Pass – Sandwich Road
- Folkestone Road, Farthingloe

7.2.5 Following the Dover JTB in December 2015, Members highlighted that it was thought that the Trial Switch Off street lights were included within the Street Lighting Consultation that ended on 29 November 2015 and would be subject to the new street lighting policy that was to be agreed in February 2016.

7.2.6 An additional report seeking further comments from Members with updated information was presented in June 2016. It was confirmed that these sites were not part of the Street Lighting Consultation, but it was unanimously agreed by the JTB that all sites within Dover should be switched back on.

7.2.7 However no further information was provided to support the decision to return these sites back on, thus it is still recommended to remove the columns within the three sites identified above.

7.2.8 Sites where it is proposed that columns should be removed

- A20 Maidstone Road, Charing – Ashford
- A20 Maidstone Road, Tutt Hill/Hothfield – Ashford
- A20 Maidstone Road, Ashford – Ashford
- Bob Dunn Way (West and Mid)* – Dartford
- Watling Street – Dartford
- Barn End Lane – Dartford
- Birchwood Road – Dartford
- A249 Sittingbourne Road – Maidstone
- A20 Ashford Road, Hollingbourne – Maidstone
- A20 Ashford Road, Harrietsham (East) – Maidstone

- Wheatsheaf Hill, Halstead – Sevenoaks
- Morants Court Road, Dunton Green – Sevenoaks
- A20 Maidstone Road, Swanley – Sevenoaks
- London Road, West Kingsdown – Sevenoaks
- Farningham Hill Road, Farningham – Sevenoaks
- Ashford Road, Cheriton – Shepway
- Churchill Avenue – Shepway
- Dover Road, Capel-le-Ferne – Shepway
- North Road, Folkestone – Shepway
- Royal Military Avenue – Shepway
- West Road/Hospital Hill, Folkestone/Hythe – Shepway
- Sheppey Way – Swale
- Queenborough Road – Swale
- Western Link, Ospringe – Swale
- A2 London Road, Ospringe – Swale
- Swale Way, Sittingbourne – Swale
- Barge Way, Sittingbourne – Swale
- Graveney Road, Faversham – Swale
- Love Lane, Faversham – Swale
- Vauxhall Lane, Southborough – Tunbridge Wells
- Knights Way, Tunbridge Wells – Tunbridge Wells
- A262 Goudhurst Road, Cranbrook – Tunbridge Wells
- A229 Angley Road, Cranbrook – Tunbridge Wells
- Old Church Road, Pembury – Tunbridge Wells

*This is dependent on whether a new cycle route is agreed which would result in the lighting remaining

8 Options

Option 1 – Action the recommendations detailed above (Preferred)

- 8.1 To maximise the savings as required by this project, the Authority could remove all columns recommended in this report. This will allow the Authority to reduce its maintenance liability of the street light estate that would not be provided if the roads were designed and built today.
- 8.2 All columns recommended to be switched back on will be completed as soon as possible and will be converted to LED in due course.

Option 2 – Action the recommendations detailed above but switch back on the Dover sites

- 8.3 This is similar to Option 1, but the sites in Dover will be switched back on and the columns will not be removed.

Option 3 – Switch all lights back on

- 8.4 The final option is to return the entire trial switch off sites in the County back on. This will result in no saving being achieved and will increase the Authority's

maintenance liability throughout its streetlight estate. Additionally the Authority will have to find budget for the replacement of these columns during the next few years as the majority are nearing the end of their structural life. This will also increase the Authority's energy and carbon consumption. For these reasons, this option is not being recommended.

9 Conclusions

- 9.1 For the majority of sites across Kent that were included in the trial, turning off the lights has not had an adverse effect.
- 9.2 There are a small number of sites where the absence of lighting has had an adverse effect and some of these were returned to lighting during the trial. The review has identified some other sites where the recommendation is that lighting is restored.
- 9.3 To avoid any legal liability the lights must be switched back on or removed.
- 9.4 The cost to the Authority of removing the lights will in every case be less than the cost of turning the lights back on and maintaining them into the future.
- 9.5 The switch off and removal of the lights will generate financial savings for the Authority.

10 Recommendation:

The Cabinet Committee is asked to consider and recommend the Cabinet Member to proceed to Option 1 or Option 2 as detailed in section 8 of this paper.

11 Background Documents

Ashford Phase 1 Review
Dartford Phase 1 Review
Dover Phase 1 Review
Gravesham Phase 1 Review
Maidstone Phase 1 Review
Sevenoaks Phase 1 Review
Shepway Phase 1 Review
Swale Phase 1 Review
Tunbridge Wells Phase 1 Review

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