



**HIGHWAYS AND TRANSPORT OVERVIEW AND SCRUTINY
COMMITTEE – 9 NOVEMBER 2023**

STREET LIGHTING REVIEW - PROPOSED CHANGES

REPORT OF THE DIRECTOR OF ENVIRONMENT AND TRANSPORT

Purpose of the Report

1. The purpose of this report is to:
 - a) Advise the Committee of the outcome of the Street Lighting public consultation and proposed next steps for the Street Lighting review.
 - b) Seek the views of the Committee in shaping the future Street Lighting offer prior to seeking approval from the Cabinet in December 2023.

Policy Framework and Previous Decisions

2. The Medium-Term Financial Strategy (MTFS) 2023/24 – 2026/27, which was agreed by the County Council in February 2023, identified savings of £500,000 to be achieved by 2026/27 from the Street Lighting service.
3. A reduction in street lighting will also support a reduction in carbon emissions (CO₂e) contributing to the Council's Strategic Plan 2022/26. Specifically, the Clean and Green strategic outcome and its action to Net Zero Carbon by 2030. This is achieved by reducing the demand for energy as part of the proposal to lower the lighting intensity to 30% from 20:00 hours across the lighting stock will support the reduction of 315 tonnes in CO₂e as previously reported.
4. The Cabinet agreed on 23 June 2023 that an engagement/consultation exercise on proposed changes to all streetlights should be conducted. The Cabinet agreed to pursue consultation on dimming all streetlights, including on traffic routes, to 30% from 20:00 hours across the County (currently dimming to 30% takes place at 22:00 hours for most residential streetlights).

Design Standards

5. The design of safe and appropriate street lighting is governed by relevant British Standards, specialist guidance notes and a Code of Practice (Well Managed Highway Infrastructure 2016). The key principle of this Code is that Highway Authorities will develop their own levels of service and the Code

therefore provides guidance for authorities to consider when developing their approach in accordance with local needs, priorities, and affordability.

6. One of the over-arching principles of the Code of Practice is the establishment of those local levels of service through risk-based assessment. For street lighting, the Code encourages ‘the delivery of the right quality and amount of light in the right place and at the right time’.
7. The option to dim to 30% intensity from 20:00 hours (currently 22:00 hours) moves away from compliance with current British Standards and is deemed a ‘Departure from Standards’ and will, therefore, require the Cabinet’s approval. Given that there is not a specific legal duty to provide lighting, it is presently considered the risk of a judicial review challenge would be low and in the event of a challenge likely to be unsuccessful.

Background

8. The duty to maintain the highway under Section 41 of the Highways Act 1980 does not imply a duty to provide street lighting. Rather, local authorities have a discretion about whether to provide streetlights (see Section 97 of the Highways Act 1980).
9. However, once street lighting is provided, the local authority has a duty to maintain the system in a safe condition. This is because local authorities can be held liable if they introduce a danger to the highway and fail to neutralise it (see *McCabe v Cheshire West and Chester Council* 2014).
10. The standards for street lighting are laid down in British Standard: BS.5489 and European Standard BS EN 13201.
11. Street lighting touches not only on the issue of preventing road accidents. Section 17 of the Crime and Disorder Act 1998 provides that it shall be the duty of each authority to exercise its responsibilities to do all that it reasonably can to prevent crime and disorder in its area.
12. The highway infrastructure asset in Leicestershire is the County Council’s greatest asset, valued at just under £10.57 billion, and forms a critical part of the social and economic infrastructure that supports the wellbeing of the County’s residents and businesses, as well as those in the wider regions. The asset is large and diverse, and includes carriageways and footways, bridges, street lighting, traffic signals and drainage. Maintaining such an asset requires significant funding and well-managed, co-ordinated operations to extract the greatest value for the funding invested.
13. In February 2023, the MTFs 2023/24 to 2026/27 was approved by the County Council. It identified that the Council was required to save £500,000 through street lighting. Any reduction in street lighting energy will also provide a reduction in the Council’s carbon emissions therefore contributing to its net zero commitments.

14. The Council currently maintains approximately 69,600 street lighting assets. The current street lighting strategy is split between residential routes and traffic routes, as follows:
- a) Residential routes:
 - i. All-Night Lighting – streets with highway hazards (crossings, speed cushions etc) and significant road junctions and town centres are lit all night.
 - ii. Part-Night Lighting – streets with low traffic flows have lighting switched off between 00:00 - 05:30 hours, except where specific All-Night Lighting is required (as above).
 - iii. Dimming – all streetlights are lit to a regime of 70%/50%/30%, gradually dimming throughout the night according to reducing traffic flows, all in accordance with current design standards.
 - b) Traffic Routes:
 - i. All-Night Lighting – routes with high traffic flows and conflict areas are lit all night.
 - ii. Part-Night Lighting – routes with lower traffic flows are switched off between 00:00 - 05:30 hours.
 - iii. Dimming – all streetlights are gradually dimmed according to traffic flows, with differing regimes according to the road category, all in accordance with current design standards.
15. Since 2010, the Street Lighting service has implemented significant changes to the lighting regime across the County to optimise, where possible, the amount of energy used and to minimise the amount of CO_{2e} produced. These measures include:
- a) Turning off unnecessary lighting.
 - b) Conversion to LED lighting.
 - c) Trimming the switch-on/switch-off times.
 - d) Dimming lighting levels commensurate with traffic flows throughout the hours of darkness.
16. As a result of these measures, energy consumption dropped from circa 27 million kWh in 2010/11 to circa 10 million kWh in 2018/19. Measured against a baseline energy usage of 9,217,000 kWh in 2019/20, the service has saved a further 512,000 kWh by implementing incremental changes based on continued compliance with the evolving design standards, including the recent change to reduce switch on/switch off ambient lighting levels to 5 Lux. This can be equated to the amount of light emitted by five candles 1 metre distance away from a squared metered area, where a light reading can be taken.

Public Consultation

17. A public consultation on the proposal to dim to 30% intensity from 20:00 hours commenced on 6 July 2023 and ran for four weeks until 3 August 2023. A

proportionate approach was adopted to consultation in line with proposals being considered and included:

- a) A “Have Your Say” online survey was published for members of the public to complete. Paper copies were available, but none were requested.
 - b) Social pinpoint – a mapping tool allowing members of the public to identify particular geographic areas of concern.
 - c) Engagement with interested stakeholders including the Leicestershire Equalities Challenge Group, Police, and emergency services.
 - d) An article in the July edition of the Council’s Parish Council Newsletter which is distributed to all town and parish councils.
 - e) Feedback from people who live or work in the County was encouraged through the Council’s “Have Your Say” webpage.
 - f) Engagement with local universities, responding to previous requests to engage for any such future proposals.
18. The feedback from the public consultation would support the further refinement of proposed service changes, based on a risk-based approach, and sought feedback on sites for which the proposal may not be suitable and therefore exemptions would be applied.

Public Consultation Findings

19. Detailed public consultation findings are available in Appendix A of this report. A total of 706 unique responses were received to the online survey providing 861 reasons for their views. Overall, 53% of respondents were against the proposals. The main reasons included fear of crime and personal safety. 43% of respondents were in favour of the proposals citing the need to support the environment, preventing light pollution and to help the Council to save money.
20. Of those who responded, 59% of the respondents identified as female and 39% of respondents identified as male. 48% of men were in favour of the proposals compared to 39% of women. People of non-white heritage were more likely to be against the proposals (though number of non-white heritage respondents were low). People with a long-standing illness or disability were more likely to disagree with the proposals (64%) compared to those not reporting a long-standing illness (50%). Parents or carers of people aged over 18 were more likely to disagree with the proposals (69%).
21. Women aged between 45 and 54 made up the highest percentage of respondents followed by women aged 55-64. The greatest number of responses, 28%, were from Charnwood followed by 17% from Harborough. The least number of responses were from Oadby and Wigston (5%). 92% of respondents were from a white background.
22. When asked if people would be affected by the proposals, the responses were as following:
- a) 29% said not at all or not very much.
 - b) 33% felt they would be impacted a great deal.

- c) 37% to some extent.
 - d) The main reasons respondents felt that they will be affected by the proposals was concern about lighting levels (20%) and concern about personal safety (19%).
 - e) 20% of respondents that strongly disagreed with the proposals cited concerns about personal safety as the primary impact on them of the proposals.
 - f) 34% of respondents that strongly agreed with the proposals but also felt reduced lighting levels would be the primary impact for them of the proposals.
 - g) 11% of respondents that disagreed with the proposals indicated they would change their behaviour in some way if the proposals were implemented, but only 1% who agreed felt this way.
 - h) Younger respondents were more likely to say they would be impacted by the proposals.
 - i) It is worth noting that some respondents supported the proposals due to the impression that this would replace the existing policy of turning off lights in certain areas.
23. Respondents were invited to use the Social PinPoint to highlight areas of concern on a map which resulted in 61 points being identified through this method from 46 unique respondents. A further 99 physical locations were identified by respondents as areas of concern. Respondents identified specific roads, junctions or in some instances highlighted concerns for a specific town or village.

Feedback from Key Stakeholders

24. No objections to the proposal have been raised by the Leicestershire Police, East Midlands Ambulance Service or Leicestershire Fire and Rescue Service.
25. Loughborough University has been contacted for its views, but its feedback is still awaited.
26. A presentation was delivered to the Leicestershire Equalities Challenge Group on 21 July 2023 with the following feedback being received:
- a) More consideration needs to be given for people with sight loss, potential hazards differ for different vision impairments.
 - b) Issues in rural areas particularly for people with dementia and mental health issues.
 - c) Safety issues for women, elderly, and vulnerable people.
 - d) More reassurance to reduce negative perceptions/impacts of increased thefts, hate crime and anti-social behaviours.

Summary findings

27. The results to the survey were analysed and the key conclusions were:

- a) There are mixed views on the proposed changes to the street lighting regime. Just over half were not supportive of the proposed changes.
- b) Those not supportive cited a fear of crime and overall personal safety.
- c) Those in agreement were due to the need to think about the environment and impact on the carbon agenda.
- d) Risk of personal safety and a fear of general crime were key themes reported across all cohorts.
- e) The next highest categories for disagreement were that some areas already have poor lighting, where a further reduction would cause more issues (fear of crime, anti-social behaviour, personal safety concern) and people were still out and about walking to and from events at 20:00 hours.
- f) A number of respondents suggested alternative regimes for street lighting (or wider changes to policy and approach).

Risk Assessment Process

28. The comments from both the consultation and the Social PinPoint returns directly fed into a risk assessment (detailed in Appendix B of this report) which determines where, if needed, mitigating measures could be applied. The risk assessment considers whether the proposals could worsen the following hazards for each location. The Council will work with the police for these locations and identify if lighting levels need to be amended.
29. The below list shows hazards where the proposal would not be suitable:
- a) Vertical traffic calming features, such as speed tables or bumps. The change in level is the important part;
 - b) Zebra crossings;
 - c) Town centres – extent to be determined by the Council;
 - d) Evidenced increases in nighttime vehicular accidents between 20:00 and 22:00 hours, specifically increases in accidents of greater severity at conflict areas, such as roundabouts or key junctions;
 - e) Evidenced increases in nighttime crime/anti-social behaviour between 20:00 and 22:00 hours;
 - f) Currently illuminated steps.
30. The following hazards will require ongoing monitoring and review:
- a) Increased interaction between pedestrians and street furniture;
 - b) Increased conflict between vehicles outside of conflict areas;
 - c) Increased conflict between vehicles, pedestrians, and cyclists outside of conflict areas.

Proposed Pilot Scheme

31. From the work undertaken to date on the risk assessment and consultation, current lighting levels will be retained for zebra crossings, vertical traffic calming features and town centres. The extent of the town centre area will be determined in due course. In addition, there may be further exemptions once comments have been received from the police regarding specific areas raised

as part of the consultation, it is worth noting that the police did not object to the proposals in principle and this relates to implementing the risk-based approach to the assessment. These exemptions would be in the form of reinstating the original lighting levels for a period of three months to aid the police investigation. These would then be reviewed, and if no longer required, dimmed back to 30% intensity.

32. Initial work on the risk assessment has found that full year savings will be reduced by £120,000 due to initial exemptions to the proposal for town centres, zebra crossings and vertical traffic calming features. Additionally, this reduction will also reduce anticipated energy savings by approximately 238,160 kWh per year and 53.2Tonnes of carbon dioxide (CO₂).
33. Therefore, the revised anticipated annual savings will be in the region of £380,000 and 261.8Tonnes of CO₂.
34. It is worth noting that actual in-year savings could fluctuate year on year as a result of the risk assessment process and in cases, whereby lighting levels may need to be increased temporarily while the police and emergency services undertake investigations. Similarly, if we identify high severity road traffic accidents are increasing, lighting levels may need to be increased to aid road safety.
35. The results from the consultation indicate a perceived increase in crime. Perception of crime is very hard to measure and therefore the service is proposing to trial any changes for an 18-month period, working with the police and emergency services to understand the impact of changes on actual crime statistics. The pilot will also allow the testing of mitigation identified through the risk assessment process.
36. The risk assessment will be implemented initially as a desktop exercise using known asset data. It is not intended for risk assessments to be completed on each individual lighting assets. The base assumption is to proceed with the reduced dimming levels and risk assessments used to identify exemptions which would mean lighting levels remain the same as current levels. This will be reviewed periodically as part of the trial using data collected over the trial period and adjustments made accordingly.
37. The County Council will work with the Police and emergency services to define the parameters of the pilot and develop clear reporting parameters for the progress of the pilot. Gateways or review meetings will be held every three months to assess impact, and should it be identified that the pilot needs to be paused and changes made from any particular review, it will be done within a 4-week period of that meeting (this is the time taken to re-programme the lighting system). A report will be submitted to the Cabinet at the end of the trial period, to consider results and whether the trial should be made permanent.

Resource Implications

38. The street lighting service is required to deliver £500,000 savings by 2024/25, due to exemptions following further detailed works, it is estimated that the anticipated savings will be £380,000. Other service reductions may need to be revisited to manage the savings gap. Year one savings of £150,000 need to be delivered by March 2024, however, following the risk assessment process the exceptions will reduce this to approximately £120,000. Delays to delivery will cost the Council approximately £32,000 per month. There will also be a reduction in the carbon savings that will be achieved.
39. Once a decision is made on the future lighting regime, programming of the system takes approximately one calendar month.
40. The Director of Law and Governance and the Director of Corporate Resources have been consulted on the content of this report.

Timetable for Decisions

41. The results of the street lighting consultation and risk assessment outcome will be presented to the Cabinet on 19 December 2023.

Conclusions

42. It is recommended that the Committee notes the results of the public consultation as provided above and detailed in Appendix A of this report and provides any final views on the risk assessment process detailed in Appendix B of this report.

Background papers

Energy Reduction for Street Lighting Project – Report to the Cabinet – 15 December 2009 - <https://bit.ly/3VSnRDk>

Future Provision of Street Lighting – Report to the Cabinet - 9 July 2015 - <https://bit.ly/42pAdoR>

Environment Strategy – Report to the Cabinet - 6 July 2018 - <https://bit.ly/3o4cQSU>

Strategic Plan (May 2022) - <https://bit.ly/3Wggd64>

Provisional Medium Term Financial Strategy 2023/24 - 2026/27 – Report to the Cabinet - 10 February 2023 - <https://bit.ly/3pCHzXA>

Absence of Street Lighting May Prevent Vehicle Crime, but Spatial and Temporal Displacement Remains a Concern (January 2022) - <https://bit.ly/3lgwx0W>

Street Lighting proposed service changes – Report to Cabinet 23 June 2023 - <https://politics.leics.gov.uk/ieListDocuments.aspx?CId=135&MID=7077#A175374>

Circulation under the Local Issues Alert Procedure

43. A copy of this report will be circulated to all members.

Equality Implications

44. An Equality Impact Assessment (EIA) was undertaken and found that the proposal may impact several protected characteristics in terms of their ability to navigate the network, their perceived increases in crime and vulnerability and may change their current behaviour.
45. Work on the risk assessment is currently being undertaken and will directly feed into the EIA which is being reviewed and will be appended to the Cabinet report in December 2023.

Human Rights Implications

46. There are no human rights implications arising from the recommendations in this report.

Appendices

Appendix A: Consultation Findings

Appendix B: Dimming LED streetlights to 30% intensity between 20:00 and 22:00 hours Risk Assessment

Officers to Contact

Ann Carruthers
Director of Environment and Transport
Email: Ann.Carruthers@leics.gov.uk
Tel: 0116 305 7000

Pat Clarke
Assistant Director for Highways and Transport Operations
Email: Pat.Clarke@leics.gov.uk
Tel: 0116 305 4244

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