

**Report of Director of City Development**

**Report to Executive Board**

**Date: 21 June 2017**

**Subject: Street Lighting Energy Saving Programme**

Are specific electoral wards affected? If yes, name(s) of ward(s):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are there implications for equality and diversity and cohesion and integration?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Is the decision eligible for call-in?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Does the report contain confidential or exempt information? If relevant, access to information procedure rule number: Appendix number:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

**Summary of main issues**

1. The street lighting energy saving programme supports the Council's ambition to be an efficient and enterprising council and delivers the best council outcomes of Low Carbon and effective Transport and Infrastructure.
2. Executive Board approved a programme of selective part-night operation of street lights in 2013. Since that time over 3,700 street lights have been converted to switch off at midnight and back on at around 5:30am. The majority of these are in residential streets.
3. The street lights to be converted to part-night operation are chosen against a list of exception criteria to avoid for example areas of above average crime or a history of night-time road accidents.
4. There is no evidence that the measures taken so far have had any adverse effect on crime or road accidents in Leeds. A national study of 62 local authorities that have undertaken similar or more extensive measures also shows no evidence of adverse effects.
5. The budget report approved by Executive Board on 8<sup>th</sup> February 2017 included a savings target from street lighting energy of a further £50,000 in 2017/18. Further savings in future years are also likely to be considered.
6. This report recommends exploring the most appropriate additional street lighting energy savings measures and seeks approval from Executive Board to consult with

stakeholders to inform a review of the exception criteria and potential further measures in order to formulate a proposal for additional energy savings.

## **Recommendations**

7. Executive Board is requested to:
  - i. Note the progress of the selective part-night street lighting contribution to energy savings;
  - ii. Approve the proposal to undertake public consultation to explore options for further energy saving measures; and
  - iii. To note the Chief Officer Highways and Transportation will be responsible for implementation.

## **1. Purpose of this report**

1.1 The purpose of this report is to:

- i. Update Executive Board on the progress made with street lighting energy saving.
- ii. Explore options for further energy saving measures
- iii. Seek approval to undertake public consultation on further measures.

## **2. Background information**

- 2.1 Leeds City Council has responsibility for around 92,000 street lights, which consume approximately £4.4m of energy per annum. The service is delivered through a Private Finance Initiative agreement with TVL lighting. TVL are responsible for the maintenance and replacement of street lights in Leeds over the 25 year period of July 2006 to July 2031.
- 2.2 Provision of lighting to a highway is a discretionary power. It is recognised as good practice to install lighting in appropriate areas. The street lighting PFI endorsed this concept and was predicated on delivering a number of benefits for the city. The outline business case approved by Executive Board in May 2004 set out specific outcomes to be achieved that included improved road safety and a reduction in the fear of crime. Any proposals to reduce energy requirements need to be balanced with the continuing ability of the lighting to meet these objectives.
- 2.3 The most favourable way to save energy was evaluated in 2013 as conversion to part-night lighting. At that time part-night operation had been trialled in a number of authorities across England. Where the measures have been implemented on an appropriate risk basis there has not appeared to be any overall adverse effect on road traffic accidents or crime. As these initiatives were in their early years the recommendation for Leeds at that time was to take a cautious approach and monitor the effects.
- 2.4 In June 2013, Executive Board approved a spend-to-save initiative to convert up to 8,000 street lights to part-night operation (turned off between midnight and 5:30am) where it was considered appropriate to do so. The initiative was estimated to cost up to £376,643 to implement with anticipated savings of £158,989 per annum subject to thorough assessment of the opportunities and ongoing community engagement. This report outlines the outcome of that programme to date and seeks approval to explore views on further energy saving measures.
- 2.5 Due to the extensive relighting programme since the PFI started in 2006 the street lighting in Leeds is already comparatively efficient compared to many other local authorities with ageing equipment. Many authorities are undertaking programmes to replace their old life expired inefficient lights with LED lighting taking the opportunity to replace lights that need replacing anyway with much more efficient units. The lights in Leeds are relatively new and do not yet need replacing. In addition they are more efficient than most authorities ageing lights. This combination makes it difficult to recommend investing in widespread LED replacement in Leeds although as the cost of energy rises and LED units become cheaper this option will continue to be reviewed.

### 3. Main issues

#### Current scheme

- 3.1 Since the previous report in 2013, 3,759 street lights have been converted to part-night operation at a cost to the council of £159,800, saving on average £136,000 per annum in energy costs. The programme is continuing with a further estimated 1,800 street lights being converted to part-night operation in 2017.
- 3.2 The residential areas where part-night switching has been implemented so far include only the occasional street light and some lighting remains on at all times in most streets.
- 3.3 The methodology for selecting street lights to be converted to part-night operation included a process of evaluating all 92,000 street lights across the district, discounting those that met any one of the criteria shown in figure 3.3 below.

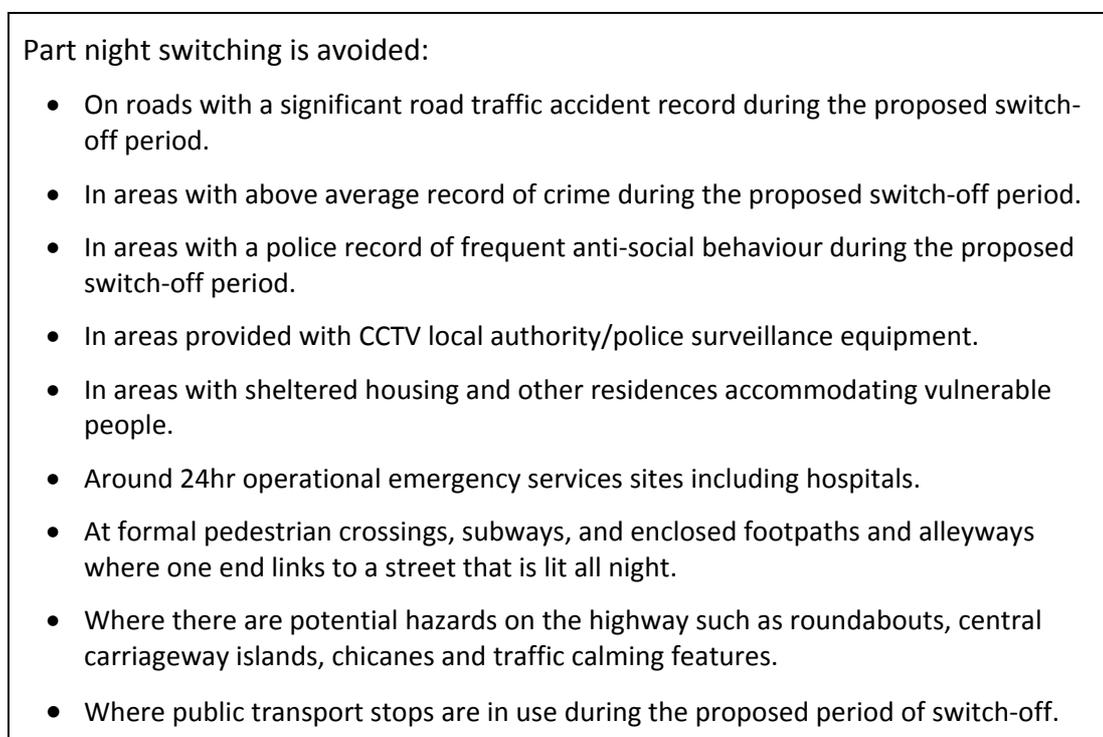


Figure 3.3 – part-night lighting exception criteria 2013

#### Effect on crime and road safety

- 3.4 The number of street lights now switching off at midnight and back on at 5:30am within the Leeds district is relatively low. There is no direct evidence of an increase in crime or an adverse effect on road safety in areas where street lights have been part-night switched.
- 3.5 During the implementation of the initial part-night lighting programme, Leeds participated in the Local Authority collaborators' National Evaluation of Reduced Night-time Streetlight (LANTERNS) project led by the London School of Hygiene and Tropical Medicine. The project evaluated the effect of reduced street lighting on road casualties and crime in 62 local authorities across England and Wales. The study concluded that there is little evidence of harmful effects of switch off, part-

night lighting, dimming or changes to LED lights on road collisions or crime in England and Wales. A summary of the LANTERNS report is included at Appendix A.

- 3.6 Leeds University undertook a study in 2015 that concluded that the programme so far in Leeds has had little impact on crime but that to reach a firm conclusion, greater detail is required over a longer period of time than can already be analysed.

### Public perception

- 3.7 In the 12 month period from March 2016 to April 2017 there have been approximately 130 public/Member complaints/enquiries about the selective part-night programme.

### Proposals

- 3.8 There are a number of measures that can be taken to save energy from street lights. Since the last report in 2013 energy prices have increased and the cost of low energy consumption LED lanterns has reduced. In considering further energy saving measures it is worth reviewing the options that were first considered in 2011.
- 3.9 Table 3.9 below shows the cost benefit of the various options to save energy at current prices.

	Cost to install	Average annual energy saving (kWh per light)	Average annual energy saving (£ per light)	Payback period
<b>Convert single existing street light to part-night operation (isolated street lights)</b>				
High Illumination Traffic route	£41	313kWh	£32	1.3 yrs
Lower Illumination Residential street	£25	120kWh	£12	2.5 yrs
<b>Convert single street light to LED (recommend conversion of whole streets)</b>				
High Illumination Traffic route	£369	312kWh	£31	11.9 yrs
Lower illumination Residential street	£176	232kWh	£23	7.7 yrs
<b>Convert single street light to LED with part-night operation (recommend conversion of whole street to LED and selective part-night)</b>				
High Illumination Traffic route	£369	456kWh	£46	8.0 yrs
Lower illumination Residential street	£176	339kWh	£34	5.2 yrs

**Table 3.9 Cost benefit of energy saving options**

- 3.10 The table above and the studies into road safety and crime support the proposal to continue with part-night lighting but as LED lanterns become more affordable it is beginning to make conversion to LED a potentially viable investment. Both options will be further considered as part of the proposed consultation and review.
- 3.11 The current cautious approach to part-night lighting has seen some street lights left at full time operation in all streets. In order to achieve additional savings in the

region of £300,000 per annum for example, a further 25,000 street lights would require conversion to part-night operation which will see more widespread unlit areas between midnight and 5:30am in residential areas.

- 3.12 In order to facilitate the expansion of any further part-night lighting proposals the exception criteria in figure 3.3 would need to be reviewed. The greatest limiting factors within the criteria are:
- Areas with above average record of crime during the proposed switch-off period, and;
  - Where there are potential hazards on the highway such as roundabouts, central carriageway islands, chicanes and traffic calming features.
- 3.13 The proposals approved in 2013 were drafted after a period of consultation and engagement about the proposals and in particular the exception criteria. That consultation included elected members, road safety, crime and road user stakeholders. It is recommended that further consultation and engagement is undertaken to review the exception criteria.
- 3.14 The use of LED lanterns will continue to be expanded as cost benefit allows. LED lanterns are currently being installed on all new developments and in other areas where the lanterns are reaching the end of their useful life or where there is enhancement funding available. The Loop Road and Inner Ring Road Tunnel have both been converted to LED technology recently as part of a refurbishment programme. There are currently over 1,000 LED street lights in operation across Leeds. The consultation and review recommended within this report will also look at more widespread conversion to LED lighting.

## **4. Corporate considerations**

### **4.1 Consultation and engagement**

- 4.1.1 The Executive member for Regeneration, Transport and Planning has given support to explore further energy saving measures.
- 4.1.2 Elected Members have been kept informed of the proposals within their Ward to date and subject to approval of this report views on the extension of energy saving measures will be sought.
- 4.1.3 Full public consultation on the proposals to undertake selective part-night operation of street lighting was undertaken in 2013. The proposals were largely supported and have been implemented. This report seeks approval to undertake further consultation on the extension of the current measures and alternative options.

### **4.2 Equality and diversity / cohesion and integration**

- 4.2.1 An equality, diversity, cohesion and integration impact assessment was undertaken on the proposals on the 16<sup>th</sup> March 2011. The resulting actions from the assessment highlight the potential difficulties in applying energy saving measures within criteria that will create a different approach dependant on local conditions. The report recommends transparency of approach and sufficient consultation and communication to explain the process. As a result there has been significant engagement with stakeholders throughout the implementation, including briefing

sessions with Members and letters to affected residents. The effects on crime and road traffic accidents have been monitored by Safer Leeds and Transportation respectively and no pattern of adverse effects have been observed.

### **4.3 Council policies and best council plan**

- 4.3.1 The proposals support Leeds City Council's ambition to be an efficient and enterprising council.
- 4.3.2 The proposals support the best council outcomes of Low Carbon and Transport and Infrastructure, by reducing energy consumption and maintaining a safe and effective transport network.

### **4.4 Resources and value for money**

- 4.4.1 The energy saving spend to save programme has cost £159,800 in total since 2013 and is delivering savings of an estimated £136,000 per annum. An additional £50,000 savings target is included within the budget proposals for 2017/18.
- 4.4.2 The cost of proposals to undertake consultation on the extension of energy saving measures can be accommodated within the current selective part-night switching allocation.
- 4.4.3 There are no implications for staffing resources as a result of the recommendations within this report.

### **4.5 Legal implications, access to information, and call-in**

- 4.5.1 This highway authority has a discretionary power under the provision of section 97 of the Highways Act 1980 to provide lighting for the purposes of any highway for which they are or will be the highway authority
- 4.5.2 All local authorities have a duty under Section 17 of the Crime and Disorder Act 1998 to do all they can to reasonably prevent crime, disorder and anti-social behaviour in their area. Reduction in street lighting services needs to consider the effects on crime and work in partnership with related organisations.
- 4.5.3 Proposals to reduce the lighting may mean that the recommended standards for road lighting are not met. It has been established by case law that Section 97 Highways Act 1980 - does not impose a duty on the authority to light a highway it is a discretionary power and there is no liability for accidents arising from a failure to light. (Shepherd -v- Glossop Corporation [1921] 3 KB 132 and Fisher -v- Ruislip-Northwood UDC [1945] KB 584) - If an authority has however done something to make a road dangerous, the creator of the danger will be liable in negligence or nuisance for injuries caused by that danger if he has not taken reasonable steps to eliminate the danger.
- 4.5.4 Under the current PFI agreement TVL have taken responsibility for all liabilities arising from the street lighting provision and apparatus. The proposal to alter the routine functioning of the lighting system will result in partial liabilities, as the organisation making the decision in 5.3 above, being returned to the council.

- 4.5.5 The energy saving cost estimates included within this report are based on energy charges at current tariff. All indications are that energy costs are likely to increase in future. The measures proposed are saving energy in the early hours of the morning where energy demand is at its lowest. As energy demand varies, it is possible that energy suppliers look to increase the tariff for the evening peak period which will reduce the benefit of these energy saving measures.
- 4.5.6 The decision of Executive Board in relation to the recommendations is subject to call-in.

## **4.6 Risk management**

- 4.6.1 The selection of street lights to be converted to part-night operation is controlled by selection criteria and on-site risk assessment to manage the potential impact on fear of crime and road safety.
- 4.6.2 The outcome of the measures so far taken has been monitored and to date there has been no direct evidence of any negative impact on crime and road safety.
- 4.6.3 The proposals within this report to review the methodology and to extend energy saving measures will also review the risks of doing so.
- 4.6.4 If the recommendations of this report are not be approved the aspiration to save energy from street lighting reduction measures will be restricted to the previously approved limited programme.

## **5. Conclusions**

- 5.1 In excess of 3,700 street lights have been converted to part-night operation since 2013 at a cost of £159,800, saving the council around £136,000 per annum. The street lights that have been converted were chosen against risk based criteria from the 92,000 street lights in operation across the city. There is no direct evidence of any adverse effects resulting from the reduction in lighting. This report recommends a review of energy saving measures. In order to reach a conclusion and make a recommendation to Executive Board about further street lighting energy saving measures, this report seeks approval to undertake consultation on the existing measures and how further energy savings may be achieved.

## **6. Recommendations**

- 6.1 Executive Board is requested to:
- i. Note the progress of the selective part-night street lighting contribution to energy savings;
  - ii. Approve the proposal to undertake public consultation to explore options for further energy saving measures; and
  - iii. To note the Chief Officer Highways and Transportation will be responsible for implementation.

## **7. Background documents<sup>1</sup>**

7.1 None.

---

<sup>1</sup> The background documents listed in this section are available to download from the Council's website, unless they contain confidential or exempt information. The list of background documents does not include published works.

### Switching off street lights at night does not increase car crashes and crime

Reduced street lighting in England and Wales is not associated with road traffic collisions or crime, according to research published in the *Journal of Epidemiology and Community Health*.

The study, led by researchers from the London School of Hygiene & Tropical Medicine in partnership with UCL, suggests that local authorities can safely reduce street lighting at night, saving energy costs and reducing carbon emissions.

Lead investigator Dr Phil Edwards of the London School of Hygiene & Tropical Medicine, said: "An estimated £300m is spent every year on street lights in the UK. At a time when local authorities need to make spending cuts, our findings show that by carefully assessing risks, street lighting can be reduced without an increase in car crashes and crime."

Researchers analysed 14 years of data from 62 local authorities across England and Wales who had implemented a range of reduced street light strategies, including switching lights off permanently, reducing the number of hours that lamps are switched on at night, dimming lights, and replacing traditional orange lamps with energy efficient white light LED lamps.

To assess road safety, the researchers looked at all roads in participating authorities, examining what type of street lighting was used and the number of traffic collisions that happened at night relative to the day during 2000-13. There was no evidence of an association between reduced street lighting and night-time collisions across England and Wales.

To assess crime, researchers looked at data from 2010-13<sup>[1]</sup> to analyse how many crimes took place in an area and what types of street lighting were used there. They focused on offences more likely to occur at night, including burglary, theft of or from a vehicle, robbery, violence and sexual assault. Overall, there was no evidence of an association between reduced street lighting and increased crime across England and Wales.<sup>[2]</sup>

Study co-author Professor Shane Johnson of UCL Security and Crime Science, said: "The study findings suggest that energy saving street lighting adaptations have not increased area level crime in the neighbourhoods studied. This is very encouraging but it is important to note that it does not mean that this will be the case under all conditions, and so changes to lighting should be managed carefully."

The researchers caution that street light reductions need to be carefully planned by local authorities. In an accompanying study published in *Health & Place*, researchers from the London School of Hygiene & Tropical Medicine conducted interviews and surveys with 520 people and analysed data from eight local authorities in England and Wales with different street light strategies to assess public views. Although reduced lighting had gone largely unnoticed in many areas, and had little reported impact on safety or mobility, there were some strong concerns where lights had been switched off. Street light at night was found to be important to many urban and suburban residents, and some felt less safe in the dark. Switching off lights was also perceived as representing neglect of an area by the local authority who were removing a 'public good'.<sup>[3]</sup>

The researchers note their findings may be limited as they were only able to obtain useable data from 62 of 174 local authorities. The research was funded by the National Institute for Health Research (NIHR) Public Health Research programme.

<sup>[1]</sup> 2010 is the earliest date for which [Police.uk](http://www.police.uk) data was available from. Data was provided and analysed by area rather than by road to protect anonymity of victims.

<sup>[2]</sup> Estimates varied greatly between police forces in different areas, but the national figures found no association between street light reduction and crime overall. When specific offences were considered, there was some evidence that part-night lighting (reducing the number of hours that lamps are switched on at night) may be associated with an increase in robbery, and that dimming street lights may be associated with a decrease in violence.

<sup>[3]</sup> Judith Green, Chloe Perkins, Rebecca Steinbach, Phil Edwards. *Reduced street lighting at night and health: A rapid appraisal of public views in England and Wales. Health & Place*. DOI: 10.1016/j.healthplace.2015.05.011 Paper available online at: <http://www.sciencedirect.com/science/article/pii/S1353829215000775>

The findings come from the LANTERNS (Local Authority Collaborators' National Evaluation of Reduced Night-time Streetlight) project. A map of participating local authorities is available at: <http://lanterns.lshtm.ac.uk>

This article presents independent research funded by the National Institute for Health Research (NIHR). The views expressed are those of the author(s) and not necessarily those of the NHS, the NIHR or the Department of Health.

## Energy Saving Measures for Street Lighting

## Appendix B

### Consultation Outcome and Further Proposals

### Equality, Diversity, Cohesion and Integration Impact Assessment



As a public authority we need to ensure that all our strategies, policies, service and functions, both current and proposed have given proper consideration to equality, diversity, cohesion and integration. In all appropriate instances we will need to carry out an equality, diversity, cohesion and integration impact assessment.

This form:

- can be used to prompt discussion when carrying out your impact assessment
- should be completed either during the assessment process or following completion of the assessment
- should include a brief explanation where a section is not applicable

<b>Directorate: City Development</b>	<b>Service area: Highways &amp; Transportation</b>
<b>Lead person: Andrew Molyneux</b>	<b>Contact number: 0113 2475316</b>
<b>Date of the equality, diversity, cohesion and integration impact assessment: 16 March 2011</b>	

<b>1. Title:</b> <b>Proposal to invest in increased energy saving initiatives for Street Lighting</b>
Is this a: <input type="checkbox"/> Strategy <input type="checkbox"/> Policy <input checked="" type="checkbox"/> Service <input type="checkbox"/> Function <input type="checkbox"/> Other
Is this: <input type="checkbox"/> New/ proposed <input checked="" type="checkbox"/> Already exists and is being reviewed <input type="checkbox"/> Is changing (Please tick one of the above)

#### 2. Members of the assessment team:

<b>Name</b>	<b>Organisation</b>	<b>Role on assessment team e.g. service user, manager of service, specialist</b>
Andrew Molyneux	LCC Highways Asset Manager	Service Manager
Diane Zanre	LCC Technical Support	Project Support
Lisa Powell	LCC Performance & Improvement Team	Equality Lead

**3. Summary of strategy, policy, service or function that was assessed:**

Leeds City Council operates just over 92,000 street lights, which used approximately £3.4million of energy during 2010/11. The service is already providing significant efficiencies in energy consumption through the use of low energy lamps and new lantern technology however, due to recent increases in the financial and environmental cost of electrical energy and the need to seek efficiencies across the provision of all council services, an exploration of ways to further reduce street lighting energy is required.

This EIA assesses the impact of the proposals set out in the Report of the Director of City Development, entitled 'Proposal to invest in increased energy saving initiatives for street lighting', specifically, the 'stage 1' proposal for a part-night (midnight to 5am) switch-off of street lights on traffic routes and residential streets.

**4. Scope of the equality, diversity, cohesion and integration impact assessment**

(complete - 4a. if you are assessing a strategy, policy or plan and 4b. if you are assessing a service, function or event)

**4a. Strategy, policy or plan**

(please tick the appropriate box below)

The vision and themes, objectives or outcomes	<input type="checkbox"/>
The vision and themes, objectives or outcomes and the supporting guidance	<input type="checkbox"/>
A specific section within the strategy, policy or plan	<input type="checkbox"/>

**Please provide detail:**

**4b. Service, function, event**

please tick the appropriate box below

The whole service (including service provision and employment)	<input type="checkbox"/>
A specific part of the service (including service provision or employment or a specific section of the service)	<input checked="" type="checkbox"/>
Procuring of a service (by contract or grant) (please see equality assurance in procurement)	<input type="checkbox"/>

**Please provide detail:**

The Street Lighting Team is proposing a series of changes to the service currently provided to reduce energy consumption. The first stage of this proposal involves a part-night switch-off of street lights between the hours of midnight and 5am. The impact of this proposal will be assessed. Further impact assessments may be required as the project progresses.

**5. Fact finding – what do we already know**

Make a note here of all information you will be using to carry out this assessment. This could include: previous consultation, involvement, research, results from perception surveys, equality monitoring and customer/ staff feedback.

(priority should be given to equality, diversity, cohesion and integration related information)

**Background Information**

*Leeds City Council operates approximately 92,000 street lights. The street lighting service in Leeds is delivered under a Private Finance Initiative (PFI) agreement with Tay Valley Lighting (TVL). This contractual arrangement began in July 2006 and will continue until July 2031.*

*Provision of street lighting is not a statutory requirement however, the council has a duty of care to road users and it is recognised as good practice to install lighting in appropriate areas to reduce the fear of crime and improve road safety.*

*The current energy bill for street equipment is around £4.3million. This is made up of approximately £3.4million for street lighting and £0.9million for other services such as traffic lights, bollards, signs and car parks.*

*Street lighting designs provide two distinct categories of lighting; traffic routes and residential streets. Requirements for lighting levels on traffic routes are much higher than for residential streets due to the number and speed of vehicles and the potential for pedestrian and vehicle conflict.*

**Research & Benchmarking**

*As part of the proposal development, a number of authorities across the country were contacted to establish how they have approached energy saving initiatives. In summary:*

- Part-night switch-off has been used, and will continue to be used in the following local authority areas; Cornwall, Essex, Gloucestershire, Leicestershire, Nottinghamshire, Poole, Wokingham, Devon and Oxfordshire.*
- A complete switch off (in specified areas) has been implemented in; Buckinghamshire, Leicestershire and Nottinghamshire.*
- Where a complete switch off was undertaken, the trials were considered a success and had no adverse impact on either crime or road safety.*
- Buckinghamshire and Leicestershire included a package of ‘enhancements’ to*

*minimise the risk of any adverse effects on road safety or crime*

*Unfortunately, no specific equality related information was made available to us.*

*In addition to this, the street lighting service discussed the proposals with TVL, utilising their expertise to ensure the best possible outcome.*

### **Customer Satisfaction & Equality within Leeds**

TVL perform annual customer satisfaction surveys in relation to the maintenance work they perform and the installation of new street lighting as part of the Core Investment programme (CIP). The following equality related information has been identified:

- *51% of males surveyed thought the installation of new street lights would deter crime.*
- *32% of females felt the new lights made no difference to feeling safe.*
- *69% of the Asian or British Asian residents reported that they felt safer due to the installation of the new lights*
- *62% of residents aged 65 years or over felt safer.*

*Satisfaction surveys are conducted annually by TVL, and we will work with them to try and use the surveys to monitor the impact of the proposals on these trends.*

### **Options**

*As a result of the benchmarking and discussions with street lighting professionals, a range of options have been considered (and in some cases trialled) as part of the development process. These include:*

- *White light – use of white light as oppose to ‘orange’ lights which provides a better level of lighting*
- *Switching or ‘trimming’ - turning the lights off to an appropriate level at dawn and dusk.*
- *Light Emitting Diodes (LED) – provides lower level lighting suitable for signs*
- *Dimming – dimming street lights at pre-determined times*
- *Removal of street lights (permanently or temporarily).*
- *Part-night switching – switching lights off throughout the city for part of the night between midnight and 5am.*
- *Part-night switching - traffic routes only*
- *Part-night switching - residential streets only.*
- *Applying measures to alternate lights*

### **Considerations**

*The measures adopted will vary across the City. An assessment of every street will need to be made. Factors which will be considered include:*

- Road traffic accidents statistics
- Crime statistics

Also, some areas will be exempt automatically. These include:

- Areas with CCTV local authority / police surveillance equipment
- Sheltered housing and other residences accommodating vulnerable people.
- 24hr operational emergency services sites including hospitals.
- At formal pedestrian crossings, subways, and enclosed footpaths and alleyways where one end links to a street that is lit all night.
- Where there are potential hazards on the highway such as roundabouts, central carriageway islands, chicanes and traffic calming features.
- Where there is an above average crime rate during the hours of darkness
- Where there is a history of accidents during the hours of darkness.

### **Proposal**

*Based on this information, an options appraisal was performed. Details may be seen in the Executive Board report dated 18<sup>th</sup> May 2011, entitled 'Proposal to invest in increased energy saving initiatives for street lighting'.*

*Having assessed the energy saving measures available, the first proposed step in this programme is to switch off an estimated 8,000 (8.7% of the lighting network) lights between 12 midnight and 5am, 7 days a week.*

If the proposals are a success there may be the potential, subject to funding, to expand to larger numbers of street lights to achieve greater energy savings.

### **Are there any gaps in equality and diversity information**

**Please provide detail:**

None.

The street lighting service is provided across the city and benefits all residents and visitors.

### **Action required:**

None

**6. Wider involvement – have you involved groups of people who are most likely to be affected or interested**

Yes

No

**Please provide detail:**

Key stakeholders who have been involved in the development of these proposals include:

- Community Safety CCTV
- Community safety team
- West Yorkshire Police
- West Yorkshire Fire and Rescue Service
- Ambulance Service

The Executive Member for City Development and Regeneration has also been consulted on the proposals and has requested that a report be prepared for discussion at Executive Board. If approval is granted a formal consultation plan will be developed.

Other stake holders who will be involved in consultation will include:

- Ward members – Ward Members will be informed of any proposals to reduce the street lighting service in their ward and asked for comment on the local conditions that have been applied to the selection criteria within this report.
- Residents & Businesses - Residents and businesses will be informed of any proposals to reduce the street lighting provision within 50m of their premises and asked for observations on the local conditions that have been applied to the selection criteria within this report. Notification will include advice from community safety representatives on how to limit the fear of crime in the location.

**Action required:**

Consider the formal approach to consultation

**7. Who may be affected by this activity?**

please tick all relevant and significant equality characteristics, stakeholders and barriers that apply to your strategy, policy, service or function

**Equality characteristics**

- |  |  |  |
|--|--|--|
| <input checked="" type="checkbox"/> Age                  | <input type="checkbox"/> Carers                        | <input checked="" type="checkbox"/> Disability         |
| <input type="checkbox"/> Gender reassignment             | <input checked="" type="checkbox"/> Race               | <input checked="" type="checkbox"/> Religion or Belief |
| <input checked="" type="checkbox"/> Sex (male or female) | <input checked="" type="checkbox"/> Sexual orientation |  |
| <input checked="" type="checkbox"/> Other                |  |  |

(for example – marriage and civil partnership, pregnancy and maternity, social class, income, unemployment, residential location or family background, education or skills level)

**Please specify:**

Race/older people/women/disabled - The proposals affect all residents and visitors to Leeds however, it is recognised that community/personal safety fears are more acute within certain groups. The service will use equality monitoring on feedback to gauge the effect on these groups.

Socio-economic background – Low income people who work shifts and may walk/cycle to work may be adversely affected by the proposals

**Stakeholders**

- |  |   |   |
|--|---|---|
| <input checked="" type="checkbox"/> Services users | <input type="checkbox"/> Employees          | <input type="checkbox"/> Trade Unions         |
| <input checked="" type="checkbox"/> Partners       | <input checked="" type="checkbox"/> Members | <input checked="" type="checkbox"/> Suppliers |
| <input type="checkbox"/> Other please specify      |   |   |

**Potential barriers.**

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Built environment                                    | <input checked="" type="checkbox"/> Location of premises and services |
| <input checked="" type="checkbox"/> Information and communication                        | <input type="checkbox"/> Customer care                                |
| <input type="checkbox"/> Timing  | <input type="checkbox"/> Stereotypes and assumptions                  |
| <input type="checkbox"/> Cost  | <input checked="" type="checkbox"/> Consultation and involvement      |
| <input type="checkbox"/> specific barriers to the strategy, policy, services or function |   |

**Please specify**

Built Environment / Location of Premises and Services – The built environment and location of premises and services will be factors in determining what measures are adopted.

Information, Consultation & Involvement – these proposals are ‘sensitive’ due to the community safety fears. Consultation and communication will be essential in ensuring buy-in from residents and businesses.

**8. Positive and negative impact**

Think about what you are assessing (scope), the fact finding information, the potential positive and negative impact on equality characteristics, stakeholders and the effect of the barriers

**8a. Positive impact:**

**Environmental Impact**

- Reduction in the amount of energy consumed
- Reduced light pollution

**Financial Impact**

- Reduction in the annual energy costs to the authority allowing funds to be diverted elsewhere
- Greater value for money for taxpayers

**Action required:**

Communication of the benefits of this initiative

**8b. Negative impact:**

**Fear of crime**

**Characteristics Effected: Age (older and younger people), Race, Sex, Disabled, Socially disadvantaged poorer areas**

When reducing the lighting in residential areas it is appreciated that residents will be concerned about the fear of crime in their immediate environment. It is also recognised that all local authorities have a duty under Section 17 of the Crime and Disorder Act 1998 to do all they can to reasonably prevent crime, disorder and anti-social behaviour. As such the effect of the removal of street lighting will need to be assessed in terms of this.

**Road Safety**

**Characteristics Effected: Age (older and younger people) and Disabled**

Street lighting illuminates areas giving better visibility. A reduction in visibility may lead to an increased number of accidents.

**Action required:**

**Fear of crime**

The street assessment performed will consider issues surrounding community safety for a particular area. The Community Safety Team will provide information on crime statistics and local issues which will determine the suitability of a street for the switch off.

The Street Lighting Team will work with Safer Leeds to provide advice and support to worried communities about precautions that can be taken to protect individuals and property during the hours of darkness. On-site assessments could be undertaken where there is a significant concern. In order to facilitate this partnership consideration of funding of around £12,000 to Safer Leeds will be sought in the first year of the proposed change.

**Road Safety**

The switching off of lights at any time during the night or removal of lighting will require an assessment of the adequacy of road markings and signing. There are formal industry standards which determine the road markings and signing required. The site assessments will review this and if required, the road markings/signs/reflecting road studs will be upgraded.

Also, in areas subjected to part-night switching it is reasonable as part of our duty of care for road users to expect to be able to tell which street lights are to go off and at what times. It is proposed to erect signs at the start and end of part-night switching zones warning road users of the times of switching. Warning signs should also reduce the incidence of the reports of faulty lights during the period when they are deliberately turned off.

To manage these concerns, a monitoring system will be developed to assess the overall impact of the proposals.

**9. Will this activity promote strong and positive relationships between the groups/communities identified?**

Yes

No

**Please provide detail:**

Potential for one community to feel that they are being put at a disadvantage compared to neighbouring communities. May lead to conflict between local people.

**Action required:**

Effective communication of the decisions made and transparency of the decision making process.

**10. Does this activity bring groups/communities into increased contact with each other (e.g. in schools, neighbourhood, workplace)?**

Yes

No

**Please provide detail:**

**Action required:**

N/A

**11. Could this activity be perceived as benefiting one group at the expense of another?**

Yes

No

**Please provide detail:**

Potential for one community to feel that they are being put at a disadvantage compared to neighbouring communities. May lead to conflict between local people.

May lead to crime 'hot-spots' moving from one community to another.

**Action required:**

Effective communication of the decisions made and transparency of the decision making process.

Monitoring of crime statistics.

Enter into a partnership agreement with Safer Leeds to provide support and advice to residents

**12. Equality, diversity, cohesion and integration action plan**

(insert all your actions from your assessment here, set timescales, measures and identify a lead person for each action)

<b>Action</b>	<b>Timescale</b>	<b>Measure</b>	<b>Lead person</b>
Consider developing a formal approach to consultation and communication which includes transparency of the decision making process	May 2011	Number of complaints received	Ian Moore
Work with partners including Safer Leeds to develop a monitoring system which tracks the impact of the changes including crime statistics and killed and seriously injured (KSI) stats	May 2011	Number of KSI in affected areas during hours of switch-off.  Number of crimes committed in affected areas during hours of switch-off.  Results of annual TVL satisfaction survey	Ian Moore
Enter into a partnership agreement with Safer Leeds to provide support and advice to residents	May 2011	Funding requested within project approval.  Partnership agreement in place	Ian Moore

**13. Governance, ownership and approval**

State here who has approved the actions and outcomes from the equality, diversity, cohesion and integration impact assessment

Name	Job Title	Date
Helen Franklin	Head of Highways Services	21 April 2011

**14. Monitoring progress for equality, diversity, cohesion and integration actions**  
(please tick)

As part of Service Planning performance monitoring

As part of Project monitoring

**15. Publishing**

<b>Date sent to Equality Team</b>	
<b>Date published</b>	<b>21 April 2011</b>