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London Borough of Croydon

Street Lighting Policy

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**Quality Management / Revision Updates**

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## **Introduction**

This document sets out the London Borough of Croydon's policy for energy and carbon emission savings by the introduction of reduced street lighting light levels during off-peak / low use periods.

### Background Information

Since completion of a 5-year investment programme completed in 2016 all streetlights - approximately 23,500 – within the Borough are connected to a centrally managed control system, known as the Central Management System (CMS). The introduction of the CMS provides the authority with the ability to remotely monitor operation, switch and control the lighting.

The control function provided by the CMS allows the Authority to vary light levels on the highway network dependent on the level of night-time use, and any reduction in light levels results in reduced energy consumption, carbon emissions and the ongoing associated annual costs.

Since CMS completion in 2016 the Council has completed several variable light level trials within the borough. The studies and trials have included site investigations attended by Council Officers, elected Members and other key partners, The trial information garnered during the studies and trials – which included night-time crime and partner feedback - has allowed the Council to develop the policy introduced within this document.

### Policy Aims and Objectives

The key aims and objectives of this policy for the Authority are outlined below:

- Maintain lighting throughout the hours of darkness for all road users within the Borough.
- Minimise the environmental effects of the street lighting by reduced energy consumption and carbon emissions.
- Recognise that lighting can contribute towards crime reduction and a reduced fear of crime.
- Promote sustainable transport (public transport, cycling and walking).
- Provide safe night-time access to educational and leisure facilities.
- Consider night - time road traffic collision trends and data.
- Realise monetary savings by reduction of the energy consumed by street lighting.

## **Legal Considerations**

### Highway Act 1980

As the Highway Authority the Authority has a discretionary power under S.97 of the Highway Act 1980 to provide street lighting on roads for which it is responsible. However, in exercising its powers as to the extent, nature, maintenance, and operation of street lighting the Highway Authority must act reasonably and in the interests of road safety.

### Crime and Disorder Act 1998

Consideration has been given to the implications of Section 17 of the Crime and Disorder Act 1998 (as amended by Police and Justice Act 2006) and the potential impact on lower light levels on crime and disorder. Consultation specific to the variable light level trials and studies with the appropriate Council department has indicated that it will have no impact.

### Equalities Act 2010

Consideration has been given to the Council's equalities duties under the Equalities Act 2010 and consultation has been had with vulnerable groups that may be affected by this decision. This Equality Analysis was completed and reviewed in January 2021.

### Case Law

Case law suggests that a Highway Authority would not be negligent for accidents arising from a failure to light a highway unless an accident arises because the Council has failed to take reasonable steps to prevent a hazard it has placed or caused to be placed in or around the highway (for example signs, bus shelters, lighting columns) from becoming a danger to the public. It can therefore be concluded that it is within the Council's discretionary powers to modify the lighting levels on its streets.

### Lighting Design Standards

Where the Highway Authority chooses to exercise its power to light a highway, UK relevant standard BS EN 13201:2003 can be used as guidance for lighting class, or hours of operation.

## **Policy Development and Future Improvements**

The policy document has been developed by the Council and its nominated document owner in close consultation with the Council Officers, Members and other key partners, the Council will continue to develop the document in a manner that supports its ongoing commitment to setting standards, making decisions, minimise the environmental impacts and reporting performance.

### Commitment to Business Improvement & Future Improvements

The Council recognise that it is important for the service levels applied to street lighting to be aligned with the best and current UK practice(s). For this reason, the Council's has street lighting management team has formed a variable light level working group that will meet formally to investigate policy development and future improvements. The working group will consider the following:

- Crime information and partner feedback from the existing variable light level policy.
- Other variable light level switching regimes including turning lights off.
- Adjustment of switch on / off times (trimming) light levels.
- Future variable light level pilot studies and trials.
- Other UK local government organisation pilot studies and trials policy (especially other similar London boroughs).

The working group will work closely with Council Members and other key partners so experience and new ideas can be shared and considered when developing future policy.

### Annual Review and Update

The policy will be routinely reviewed and updated annually by the Council's nominated owner - for details see the version control section at front of the policy.

The document review and update will consider recommendation(s) made by the Council's Street lighting team and annual quality audits.

## **Variable Light Levels / Street Lighting Standards**

### Originally Designed Light Levels

The Councils existing street lighting was designed and installed to provide light levels compliant with the requirements of the relevant UK standards / guidance provided in UK relevant standard BS EN 13201:2003. The light levels provided by reference to the BS EN are provided at the same levels (i.e., highest determined traffic flow / road use) throughout the hours of darkness.

Street Lighting installations shall be the minimum standard for each class of road and designed in accordance with the recommendations contained in the prevailing version of BS:5489 and BS EN 13201-2 as detailed in Street Lighting Design Guide.

In the interest of economy during the whole life of a street lighting installation designers shall be permitted to manage reasonable relaxations or departures from the recommendations contained in the prevailing version of BS 5489.

Street lighting associated electrical installations shall comply with the prevailing version of BS 7671, The Requirements for Electrical Installations.

### Variable Light Levels

The operating hours for street lighting, consideration is given to.

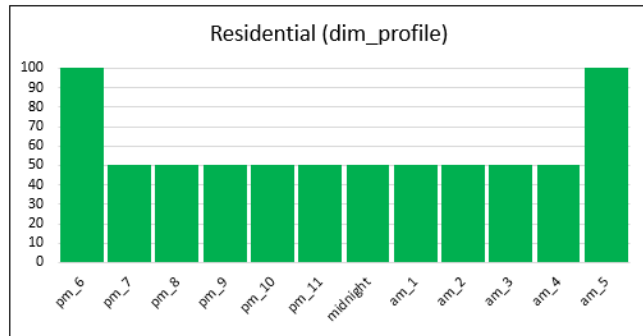
- All night lighting (dusk till dawn)
- Part night lighting - limiting night-time lighting to times
- Dusk and dawn - Trimming - reducing the operating hours of a streetlight
- Dimming – adjusting light levels (up or down)

The UK adjusts clocks between British Summertime and Greenwich Mean Time in the spring and autumn. The CMS has sensors that monitor the number of daylight hours, which is how they set their internal clock. This is then used to adjust for the change to British Summertime or Greenwich Mean Time.

The CMS allows the Council to vary light levels on the highway network, the Council has used this capability to vary light level when traffic flow / road use is lower during off peak hours. The variable light level option determined for both the residential roads and main / strategic roads across the borough is as detailed below of which the burning hours will be as follows:

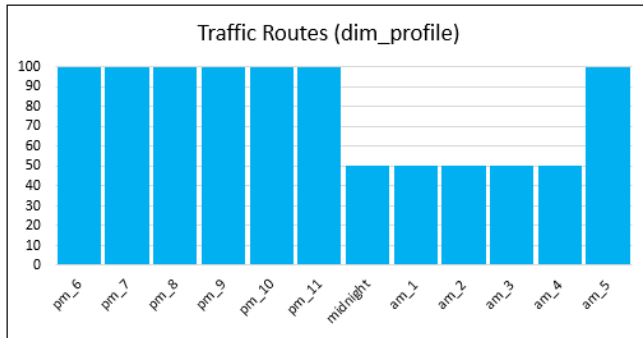
**RESIDENTIAL**

50% between 1900hrs and 0500hrs



**MAIN / STRATEGIC ROADS**

50% from midnight to switch-off (sunrise)



Note: the CMS allows the Council to vary light levels in three pre-defined steps below 100% - these are 75%, 50% and 0% (i.e., lights switched off). It should be noted that the lamp technology will not allow dimming below 50%. i.e., the next step below 50% is switch off (0% i.e., lights switched off).

The introduction of this policy will be applied to the entire highway network, subject to the exceptions criteria detailed in the Exception Criteria section below.

**Highway Network Types**

The reduced light level regimes applied to the highway network provided during off peak hours the hours of darkness use the relevant standard within BS5489-1, Road Lighting as a benchmark / set point. The network types are listed below.

Area	Highway Network Type
Residential	<ul style="list-style-type: none"> <li>Cul-de-sac's</li> <li>Cycle-tracks</li> <li>Local footpaths</li> <li>Rear Access/Back Street's</li> <li>Residential Access / Through Roads</li> </ul>



Main / Strategic	Link Roads Main distributors Secondary Distributors Strategic routes Mixed vehicular and pedestrian (town centres) Pedestrian only (town centres)
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Other Considerations

The CMS allows the Council to vary switch on / switch off times linked to ambient light levels; the Council has applied this capability to adjust the on / off times based on slightly different light levels.

## **Exception Criteria**

The Council will consider a variable light level regime exception with justification being based on the following criteria:

- Lights at major junctions/ roundabouts.
- In town centres where there is CCTV, high security businesses such as banks, and/or lots of people at night, for example near night clubs and train stations – in this situation light levels will not be varied before 0300hrs.
- Areas where streetlights are needed to reduce road accidents.
- Areas where there could be an increase in crime through reduced lighting, like pubs, clubs, and specific night-time use in residential areas.
- Remote alleys linking residential streets.
- Near traffic islands, pedestrian crossings, footbridges, subways or where the Council considers it has a specific duty of care.
- In public car parks adjacent to high night-time use amenity areas such as pubs, clubs, cinemas, or theatres.
- At bus stations and all-night stops.
- Adjacent to tram lines.
- At level crossings, speed humps, traffic lights.

The CMS provides functionality that will allow changes to be made to the variable light level regime instantaneously from a desk top application.