Public lighting Policy

City of KINGSTON

Contents

1 Document Information

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RESPONSIBLE GENERAL MANAGER	General Manager City Assets and Environment
RESPONSIBLE MANAGER (Policy Owner)	Manager Infrastructure
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2 Purpose

The purpose of this Public Lighting Policy is to set out the general principles used by the City of Kingston to:

- provide street and public place lighting in the municipality to ensure safe movement of vehicles and pedestrians at night;
- assist pedestrians to orientate themselves;
- discourage illegal and anti-social activity;
- design new or replacement public lighting; and
- manage the provision of existing public lighting.

When Council receives a request (or identifies a need) for public lighting improvements this will be investigated and assessed against the general principles of this Policy.

3 Definitions

Approved non-standard fitting	A non-standard fitting approved by the Distributors for use on the unmetered supply but is not a standard fitting. Approved non-standard fittings are also called 'decorative fittings'. Council is responsible for the supply, provision, delivery, and replacement costs of all approved non-standard fittings on its public lighting. Though the initial installation is generally provided by a developer.
Category V lighting	Lighting that is applicable to roads on which the visual requirements of motorists are dominant e.g. traffic routes.
Category P Lighting	Lighting that is applicable to roads and other outdoor public spaces on which the visual requirements of pedestrians are dominant e.g. local roads, outdoor shopping precincts, and outdoor car parks.
Colour Temperature	Colour temperature is a characteristic of visible light and is measured in Kelvins. Colour temperature over 5000k are called 'cool' colours (bluish), while lower temperatures (2700-3000k) are called warm (yellowish). Blue colour temperature can impact on human health such as sleep. Colour temperature also has ecological consequences on the nocturnal patterns of wildlife.
Distributor	Supplier that holds a distribution licence under the Electricity Industry Act 2000 (VIC) for the distribution and supply of electricity. They are responsible for the safe connection of electricity, installation, operation, maintenance and replacement of Distributor operated lighting on the unmetered supply.
Luminaire	An apparatus that distributes the light from the lamps.
Metered supply	The power supply to lighting is metered to quantify energy consumption. Public lighting assets on metered supply are owned and maintained by Council.
Non-standard Fitting	A fitting other than a standard fitting. It is normally on a metered supply.
Public Lighting	Public lighting means external lighting located in a road reserve or on other public land.

Public Place	1. any bridge, footpath, court, laneway, pathway or thoroughfare open to or used by the public; or 2. any park, reserve or other place of public recreation; or 3. any open place to which the public has or is permitted to have access.
Retailer	Electricity retailers are responsible for billing electrical usage. Councils can choose the electricity retailer they use, subject to procurement requirements.
Road/Street	A road is a right of way between boundaries of adjoining property.
Standard Fitting	Standard fitting means a lamp, luminaire, mounting bracket, public lighting pole, supply cable or control equipment normally used by or approved by the Distributor. It is normally on an unmetered supply and the assets owned by the Distributor and therefore subject to the Public Lighting Code. The Distributor maintain and replace the stock of all approved standard fittings.
Unmetered Supply	An unmetered supply is a supply of electricity to an item of equipment that is connected to the Distribution network without a meter - examples include street lights. Unmetered supply is often also referred to a VESI public lighting scheme.

4 Scope

The Public Lighting Policy addresses public lighting requirements for street and public places in the following areas in the City of Kingston:

- street lighting in residential area;
- street lighting in commercial areas; industrial areas, and activity centres;
- street lighting in laneways;
- public place lighting in parks, reserves, and foreshores;
- public place feature lighting;
- external public place lighting of public buildings and Council car parks.

5 Policy Details

5.1 General

This Policy sets out the principles Council uses to determine:

- the standard of public lighting to be provided within the City of Kingston;
- where public lighting will be placed;
- when public lighting will be used; and
- when new lights will be provided.

All street and public place lighting will be provided in accordance with the lighting categories contained in Australian/ New Zealand Standard 1158 series – Lighting for roads and public spaces.

On the arterial road network, lighting is under the direct control of the Department of Transport (DOT) though Council contributes 40% of the tariff cost under a formal agreement.

For roads which the Council is the road authority, Council is responsible for the cost of street lighting, for the electricity consumed, and for the replacement of lamps and other luminaire parts (as required) in the form of an annual tariff calculated by the Distributor for unmetered electricity supply.

The cost of other public place lighting managed and controlled by the City of Kingston is at the cost of the Council.

Lighting is one of a suite of techniques used to improve safety, however, it may not always be the most appropriate solution. Council will therefore consider broader environmental design issues (such as having lots of people around, concealment, blocked escape routes and casual surveillance) before lighting changes are made to improve safety. Victoria Police may be consulted about the effectiveness of lighting in deterring or attracting illegal or anti-social activity at a specific location. Where lighting is considered necessary, Council will prioritise public safety for women, children, the elderly and people with a disability.

Public lighting is not provided for the security of private properties. It is not the role of Council to improve the level of safety within private properties through the provision of additional street lighting.

5.2 Commitment to sustainability

This Public Lighting Policy supports Council's target to reduce Council's corporate emissions and achieve net zero by 2025 as set out in the draft Climate and Ecological Response Plan. Street and public lighting is the single largest consumer of electricity for Council. Street lighting is also the largest Greenhouse Gas (GHG) emitter for Council - in 2019/2020, approximately 25% of Council's GHG were attributed to street lighting, incurring significant social, environmental and economic costs.

Misdirected, excessive or obtrusive artificial light pollution not only wastes energy but can disrupt wildlife ecosystems, adversely affect human health, and reduce enjoyment of the night sky through artificial sky glow.

When managing existing lighting or planning new lighting, upgrades or replacements, Council will therefore consider:

- Australian Standards;
- The whole-of-life costs for public lighting (such as cost of installation, ongoing maintenance costs, operational costs, and asset life);
- minimising GHG emissions and other negative environmental impacts;
- reduce energy consumption for lighting through use of energy efficient, light emitting diode (LED) or solar lighting;
- purchase of energy for public lighting sourced from renewables and off-setting GHG attributable to lighting;
- avoiding energy waste from unnecessary light usage by reducing light pollution (spill), by changing the distribution of light, or through the strategic placement of lights;
- use of approved innovative lighting technology such as dimmers, timers, motion sensors, colour temperatures that can be controlled remotely so that appropriate lighting levels are available only when needed and integrated onto a single pole or luminaire to reduce street clutter;

- use of reliable and durable assets to support effective maintenance and asset longevity; and
- responsible waste management of decommissioned assets, including reuse and recycling where appropriate.

Council incurs significant replacement and maintenance cost in changing the luminaires to include a shield to control light spill or glare. Council will therefore adjust the distribution of light to reduce spill or glare through changing the mounting height or brackets, before replacing the luminaire to include a shield.

5.3 Street lighting in residential areas

In residential areas that front arterial, sub-arterial or principal roads, Australians Standards 1158 require Category V (vehicle traffic) lighting levels corresponding to operating characteristics set out in the Standards.

In local residential streets and collector roads, Australian Standards 1158 require lighting levels conform to Category P (pedestrian area) lighting. The distributor United Energy (UE) also specify spacing and mounting heights for new LED street lights compatible with Australian Category P lighting on minor roads. Additional lighting may also be required for local area traffic management devices, such as speed humps.

Developers are responsible for cost of designing and installing street lighting in new estates. Where the new street lights are to be connected to Council's unmetered power supply, the Distributor requires the installation of standard fittings or approved non-standard fittings, which must comply with all the Distributor's design and construction standards. Non-standard fittings on the unmetered supply (also referred to as decorative fittings) cannot be easily converted to the latest technology and Council can incur significant costs for replacing and maintaining the luminaires and poles. Council, therefore, will not support the installation of decorative fittings in new residential estate that will (or are expected to be) transferred by developers to the Council's unmetered supply i.e. only standard fittings approved by the Distributor should be used by developers of new estates planning to use Council's unmetered power supply. Where roads will be vested to Council, the street lighting levels in new estates should comply to Australian Standards 1158 series and (for LED's) in accordance with the spacing and mounting heights recommended by UE.

Council will replace existing non-standard decorative fittings with standard fittings in existing estates if they operate under the unmetered supply and need to be replaced by Council. Approved non-standard luminaires that require replacement, when the light pole still serviceable, will be replaced with a standard luminaire approved by the Distributor.

5.4 Street lighting in commercial, industrial areas and activity centres.

Council will ensure the provision of consistent illumination as prescribed by Australian Standards in these areas at night. An above standard lighting level may be appropriate where high night time pedestrian activity is anticipated.

In activity centres that include retail development, place gathering and civic centres, the preferred option is for approved non-standard fittings on the Distributor's network as distinct from separate metered supply. Non-standard fittings that provides opportunity for underground cabling may be considered.

Private properties will be encouraged to install their own security lighting as Council does not provide private security lighting.

Lighting levels in these areas is often a combination of Council's standard provision for street lighting and supplementary lighting from adjoining properties. Consequently, the overall lighting levels in these areas is often higher than street lighting levels required by Australian Standards. Council will therefore consider the overall lighting levels in these areas before upgrading the public lighting.

5.5 Street lighting in laneways

Laneways are often narrow trafficable roads where space is constrained, and residential housing nearby. Consequently, opportunities for lighting will be limited and light spill could be an issue. Street lighting will therefore generally be provided at each end or near the end of a laneway. Council will not illuminate the laneways itself unless special circumstances warrant additional lighting in the lane – such as high pedestrian or bicycle activity at night and where it is practical to do so. Where provided, Council recommends Category P3 lighting be adopted in laneways due to the more enclosed environment and slightly higher risk of crime than in a typical residential street.

5.6 Public place lighting in parks, reserves and foreshore areas.

Council will weigh up the following factors when assessing lighting in parks, reserves and foreshore.

- the health benefits of night time use of these areas;
- safety considerations - where public safety is a significant issue;
- high passive night time use (such as dog walking) or potential use;
- Australian Standards of lighting;
- the whole-of-life costs of providing lighting (such as installation, ongoing maintenance costs, operational costs) and asset life;
- access to an affordable power supply;
- impacts on wild life.

Where lighting is considered appropriate, roads, footpaths and cycle paths will typically be lit, rather than the whole park, reserve, foreshore, or other areas set aside to protect nature. Use of innovative lighting technology (such as dimmers, timers, motion sensors, colour temperatures, as well as solar lighting) will be considered so that appropriate lighting levels are provided.

If considered necessary, public lighting in these areas may include security lighting on electricity supply poles.

Residential amenity will be considered in designing the lighting.

Council sports ground lighting installed in open space set aside for formal active outdoor sports at night will be illuminated in accordance with the range of standards set out in Australian Standard 2560 series, Council requirements and the relevant sporting body. The designs will also comply with requirements of AS/NZS 4282 to control obtrusive effects of outdoor lighting. Where appropriate, the infrastructure used for lighting the active sports facility may also be used at other times for passive night time use of these sports areas.

5.7 Public place feature lighting

Non-standard 'feature' lighting can significantly enhance the amenity of public places and highlight prominent features. Feature lighting for bridges, urban markers, public art, public places, war memorials etc. will be considered on a project-by-project basis, with priority given to higher profile sites.

It is a Federal Government requirement that the Australian Flag be illuminated if it is flown at night.

5.8 External public place lighting of public buildings and Council car parks

Skilful use of external lighting is an important consideration in the design of public buildings that can enhance architectural details at night. However, excessive lighting can have unfavourable outcomes. When providing external lighting on public buildings Council will therefore consider lighting that accentuates key architectural features, supplement sources of light in public spaces, and uses appropriate colour and intensity. Council will also seek to avoid excessive illumination, glare and spill, and the indiscriminate use of floodlighting. Council will also take responsible approach to energy consumption and environmental issues for example through use of timers or dimmers. External building lighting is generally metered lighting and the responsibility of the building manager.

Council will weigh up the following factors when assessing lighting in car parks;

- night time vehicle or pedestrian movements;
- night time occupancy rates;
- risk of crime;
- Australian Standards;
- the whole-of-life costs of providing lighting (such as installation, ongoing maintenance costs, operational costs) and asset life;
- priority of available funding;
- access to an affordable power supply.

Non-standard fittings for public car parks in commercial areas of special heritage significance may be considered. The preferred option is for approved non-standard fittings that can be installed on the Distributors unmetered network. In other car parks the preference is for metered lights.

Public lighting on public building and car parks may include security lighting on electricity supply poles, if considered necessary.

Residential amenity will be considered in designing the lighting.

6 Delegation authority and decision guidelines

Council officers will make decisions on the installation of public lighting with reference to the Scope and Policy Details listed in Sections 4 and 5 of this Policy, along with any obligations under various legislation listed below.

6.1 Delegations/Authorisations

Delegations under the Local Government Act 2020 and Road Management Act 2004 apply to this Policy.

6.2 Exemptions

There are no exemptions to this Policy except where provided under the Road Management Act 2004.

6.3 Human rights charter

This policy has been reviewed against and complies with the Charter of Human Rights and Responsibilities Act 2006.

7 Related documents and resources

Legislation

This policy refers to the following State legislation and standards –

- Local Government Act 2020
- Road Management Act 2004
- Public Lighting Code (Essential Services Commission) 2015

City of Kingston documents

- Council Plan 2017-2021 – Our Roadmap
- Prevention of Family Violence Action Plan 2019-2021
- Climate and Ecological Emergency Response Plan (Draft) 2021

Resources / external documents

- Australian/New Zealand Standard AS/NZS 1158: Road Lighting Standards
- Australian/New Zealand Standard AS/NZS 1158: Sports lighting
- Australian/New Zealand Standard AS/NZS 4282: Control of the obtrusive effects of outdoor lighting.
- Australian/New Zealand Standard AS/NZS 3771: Road lighting luminaires with integral control gear.
- United Energy - Distribution Plant Bulletin 0053 LED Street lights 12 February 2015
- United Energy - Notice to Councils 22 May 2019.
- United Energy – Public Lighting Policy and Technical Standard v26.
- City of Kingston - Laneway Lighting Standards - PowerPlant – October 2019
- National Light Pollution Guidelines for Wildlife January 2020.
- Protocols for the appropriate use and flying of the flag: Part 2

8 Transition arrangements

New estates shall use standard street light fittings approved by the Distributor if they are to be connected to the Council's unmetered supply. However, some approved non-standard decorative fittings will be permitted in transition areas between an existing estate to the new estate. The transition area will be defined by a boundary such as significant intersection, road or open space. Estates under development with an existing permit approval will be allowed to complete the specific approved stages under the previous policy arrangements.