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People	
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# Street Lighting and Illuminated Signs Policy

## Policy Details

What is this policy for?	<p>The policy sets out the requirements and standards for all new or replacement external public highway lighting, as adopted by Dorset Council.</p> <p>It is written in order to assist the council meet its corporate aims.</p> <p>The council will be guided by the requirements set out in the policy but in some cases it will not be practicable or desirable to meet all of the current national standards and policy requirements.</p> <p>Dorset Council, as Highway Authority, is automatically a Lighting Authority. Town and Parish Councils can also be Lighting Authorities as well as those Social Housing Groups – previously part of historic councils – with powers to provide lighting on the highway with the consent of the Highway Authority</p>
Who does this policy affect?	<p>Road users</p> <p>Communities</p>
Keywords	<p>Street Lighting</p> <p>Illuminated Signs</p> <p>Safety</p> <p>Obtrusive light</p> <p>Skyglow</p> <p>Glare</p> <p>Light trespass</p> <p>Roads</p> <p>Highways</p>
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Does this policy relate to any laws?	<p>Health &amp; Safety at Work Act, 1974,</p> <p>Electricity at Work Regulations</p> <p>Code of Practice for Well-Managed Highway Infrastructure</p> <p>Electricity at Work Act,</p> <p>Health &amp; Safety Legislation</p> <p>Construction, design and management (CDM) regulations.</p>
Is this policy linked to any other Dorset Council policies?	<p>World Heritage site, Areas of Outstanding Natural Beauty</p> <p>Sites of Special Scientific Importance and other Dark Sky Areas or Reserves</p> <p>Road Safety</p>

	<p>Crime Reduction and Community Safety</p> <p>Climate and ecological emergency strategy</p>
Equality Impact Assessment (EqIA)	<p><a href="#">Equality impact assessment</a></p> <p>There were no significant changes to the revised policy so an EqIA was not required</p>
Other Impact Assessments	<p><a href="#">Financial Implications</a></p> <p>Provision of public lighting that is cost effective, taking into account energy conservation and sustainability.</p> <p><a href="#">Climate implications</a></p> <p>Minimise the adverse effect on the environment whilst still enhancing the night-time ambience.</p> <p><a href="#">Risk Assessment</a></p> <p>Non identified</p> <p><a href="#">Well-being and Health Implications</a></p> <p>To improve the night-time safety of road users and members of the community</p>

### Status and Approvals

Status	Live	Version	
Last review date	2019	Next review date	2022
Approved by (Senior Officer/Director)	John Sellgren Executive Director of Place	Date approved	June 2020
Member/ Partnership Board Approval	Councillor Ray Bryan Portfolio holder for Highways Travel & Parking Environment & Wellbeing	Date approved	June 2020

**Dorset Council**  
**Street Lighting and Illuminated Signs Policy**

**1.0 Introduction**

This policy sets out the requirements and standards for all new or replacement external public highway lighting, as adopted by Dorset Council. It is written in order to assist the council meet its corporate aims. The council will be guided by the requirements set out in this document but in some cases it will not be practicable or desirable to meet all of the current national standards and policy requirements.

Dorset Council, as Highway Authority, is automatically a Lighting Authority. Town and Parish Councils can also be Lighting Authorities as well as those Social Housing Groups – previously part of historic councils – with powers to provide lighting on the highway with the consent of the Highway Authority.

**2.0 Street Lighting Objectives**

The aim of this policy is to assist in ensuring that the following Street Lighting Objectives, listed in no particular order, are met:

- To improve the night-time safety of road users and members of the community.
- To reduce crime and the fear of crime during the hours of darkness.
- To provide public lighting that is cost effective, taking into account energy conservation and sustainability.
- To minimise the adverse effect on the environment whilst still enhancing the night-time ambience.
- To maintain the lighting asset so as to prevent premature structural failures

In conjunction with this policy the street lighting specification, as included in the council's own guidance for new streets, sets out the detailed requirements for developers to meet the standards of this Policy.

This document incorporates, wherever practicable, all relevant codes of practice and legislation, together with good industry practices and the national policies from the Institution of Lighting Professionals (ILP) and the UK Lighting Board.

### **3.0 Lighting Provision**

There are a number of environmental factors that need to be considered when contemplating installing exterior highway lighting schemes. Firstly, whether there is a real need to install lighting at all. If there is then the energy usage and light pollution have to be taken into consideration (with sensitivity, if practicable, toward the daytime appearance of equipment).

For the purposes of determining whether or not lighting should be provided at a particular location, or on a particular length of highway, Dorset is divided into an environmental zoning system. This comprises four different categories which are also used to define the standards and type of lights to be used. These are listed below with a brief indication of the approach to lighting provision in each case:

#### Environmental Zone 1

World Heritage site, Areas of Outstanding Natural Beauty, Sites of Special Scientific Importance and other Dark Sky Areas or Reserves - these are areas that currently have very low population densities and no, or intermittent, lighting.

Villages and settlements within this zone will generally only be provided with lighting when it is requested and funded by the Town or Parish Council, with support from the residents and interest groups. Such lighting will be limited to strategic locations such as telephone boxes, bus stops etc.

Apart from designated traffic routes all other lights may be operational for just part of the night, when levels of highway use are at their highest. Statutory and safety requirements may require that some lights remain in operation all night.

Lighting will generally only be installed outside of villages and settlements where there is a night-time safety issue that cannot be resolved by other means.

Careful design will ensure that, where possible, rural locations are not urbanised by the provision of a lighting scheme. Luminaries should be well controlled and restrict the upward light ratio to 0% with a Correlated Colour Temperature (CCT) which should ideally not exceed 3000K.

#### Environmental Zone 2

Areas of Low District Brightness (Rural locations outside Zone 1), these are areas that have low / medium population densities and some roads already lit.

Villages and settlements within this zone may not currently be lit and if they are, may not be lit to the current or an historic standard. Any new lighting schemes will be provided in accordance with the relevant current minimum standard applicable to the type and use of the highway.

Apart from designated traffic routes all other lights may be operational for just part of the night, when levels of highway use are at their highest. Statutory and safety requirements may require that some lights remain in operation all night.

Roads between villages and settlements in this zone will generally only be provided with lighting where there is a known safety issue during the hours of darkness that cannot be solved by other means.

Luminaries should be well controlled and restrict the upward light ratio to 0% with a CCT which should ideally not exceed 3000K.

### Environmental Zone 3

Areas of Medium District Brightness (Urban Location), these are areas that have medium / high population densities with most roads already lit.

Generally within an urban location all highways will be lit in accordance with the current or an historic standard, applicable to the type and category of the highway.

Apart from designated traffic routes all other lights may be operational for just part of the night, when levels of highway use are at their highest. Statutory and safety requirements may require that some lights remain in operation all night.

In areas of special environmental interest, dark landscape and ecologically sensitive areas such as parks and woodlands, individual assessments will be carried out.

Luminaries should be well controlled and restrict the upward light ratio to a maximum of 2.5% with a CCT which should ideally not exceed 4500K.

### Environmental Zone 4

Areas of High Brightness (Urban centres with high usage during the hours of darkness), these are areas that have high population densities where all roads should be lit to a current or an historic lighting standard, applicable to the type and category of the highway.

In urban centres with high vehicle or pedestrian use during hours of darkness, carefully designed lighting will not only provide adequate illumination for the motorist but also provide an interesting and attractive ambience for pedestrians. Luminaries should normally be well controlled and restrict the upward light ratio to a maximum of 15%, whilst also allowing illumination of building facades and with a CCT which should ideally not exceed 4500K.

## **4.0 Obtrusive Light**

Obtrusive light is light which falls outside of the area to be illuminated or causes annoyance, discomfort and distraction to the public. In extreme cases it reduces the ability to see. Obtrusive light can be divided into three categories:

Skyglow – caused by luminaries emitting light upwards or at high angles of elevation. This light is then scattered by dust particles and water droplets resulting in the familiar orange glow above urban areas.

Glare – an intense blinding light, usually seen against a dark background, which reduces a person's visual performance. Poorly designed, installed and maintained lighting can cause glare that affects the vision of pedestrians, cyclists and drivers, creating a hazard rather than increasing safety.

Light Trespass - light that falls where it is not needed or wanted e.g. light shining into bedrooms hinders sleep and reduces privacy.

Although it is not possible to negate obtrusive light designs will try to minimise or mitigate their effects, where possible, in accordance with the environmental zoning system. In artificially lit areas some light spill and pollution must be expected by residents living nearby, similar to the noise and atmospheric pollution that must be expected from vehicles using the Highway. To this end a national publication by the ILP, 'Guidance notes for the reduction of obtrusive light' is used to determine the acceptable limits for obtrusive light into bedroom windows, according to the environmental zone, while still providing adequate lighting to the Highway.

## **5.0. Light sources**

The type of light source used on the highway has a significant effect on the night-time scene, due to the different appearances produced and is one of the key elements in assisting the highway user.

Although a variety of sources have been used historically, to maximise efficiency in the appropriate circumstances, Light Emitting Diodes (LED) will now normally be used in all situations. Existing lanterns, using traditional types of light sources, will remain in use until the energy savings generated will offset the cost and environmental impact of their replacement with LED.

The Correlated Colour Temperature (CCT) of LED sources can vary, with the warmest (yellower light) being the least efficient and the coldest (white/blue light) the most efficient. Dark Skies Org and the International Dark-Sky Association request a limit of 3000K be set in Dark Sky Reserves and their immediate surrounding area, hence the ideal limits set in zones 1 and 2; but in all other areas the more efficient 4500K will be used to reduce energy consumption.

## **6.0 Road Safety**

At night, traffic levels in Dorset reduce significantly when compared to daytime levels. However, a significant proportion of accidents occur during the hours of darkness. Street lighting may help to reduce the number of these accidents, but design guidance now requires a safety vs. lifetime cost evaluation to justify new or replacement lighting outside of urban areas. This may result in some rural highways having their lighting systems removed, instead of replaced.

## **7.0 Crime Reduction and Community Safety**

The Crime and Disorder Act places an obligation on the local authority to develop and implement safer community strategies. The provision of modern

public lighting, designed to the appropriate standard, is a tangible way in which the Authority's commitment to the provision of a safer and more attractive community can be demonstrated. This includes for an improvement in:

Personal Security - Lighting in areas of high pedestrian use helps reduce the risk of crime against the person.

Assisting the use of closed-circuit television - Installing lighting with good colour rendering increases the efficiency of the cameras in identifying suspects, colour of clothing and vehicles.

Crime against property, including car crime - Well-lit industrial, domestic and commercial areas aid the police in carrying out their duties and deterring the criminal.

Reduction of vandalism - Vandals are less likely to cause damage when they can be seen.

Increased 'feel good' factor (perception of safety) - Good lighting that creates the right ambience, increases the feel-good factor and also the perception of safety. This, in turn, facilitates improved pedestrian use of our towns during the hours of darkness.

## **8.0 Energy**

Energy is supplied via a competitively won contract. Both this tender process and continuing industry research into more energy efficient equipment, ensure best value in terms of energy consumption.

A term contract is in place with an external supplier to provide energy for street lighting assemblies, illuminated signs, lit bollards, beacons, subways, traffic signals, bus stop information displays and speed cameras.

## **9.0 Part Night Lighting**

A trial of part night lighting in selected rural communities was first introduced back in November 2008 but, in 2011 and faced with significant budget reductions, several options to save a significant percentage of the street lighting budget within a short period were considered. These options included dimming, temporary/permanent switching off units or part night lighting. Part night lighting was chosen as this approach ensures that the asset is appropriately used, balancing safe pedestrian and vehicular movements on the highway with the need to reduce costs.

Part night lighting now operates in all quiet and residential roads but the lighting service is maintained all night in town centres, high crime areas, designated traffic routes, areas with road humps, roundabouts and other high risk locations.

Anyone using roads when the lights are switched off needs to make their own assessment of the possible risks, taking their own appropriate actions to mitigate those risks down to a level acceptable to them



Part night lighting is carried out by an “intelligent” photocell which turns off each lantern between approximately true midnight (halfway between dusk and dawn) and 05.30 GMT (or approx. 01.00 and 06.30 BST in summer). True midnight can vary from clock midnight by a changing margin over the year so the indicated operating times are not exact.

High crime areas were determined from the [www.police.uk](http://www.police.uk) website using ‘all crime’ data. The high crime designation is compiled using data from similar policing areas in England and Wales.

Areas to remain lit all night were identified by survey using the Ordnance Survey mapping, highway data, aerial photography and Google Street View. This is supplemented with limited site surveys to clarify areas of uncertainty. There are insufficient resources to undertake a full risk assessment of every road and footpath.

No arrangements exist for modifying the areas subject to part night lighting, nor are resources available to monitor changes in crime rates. If statistical evidence of a significant change in crime levels in a particular area is brought to the attention of officers the circumstances will be investigated and, if required, funding will be sought to make any changes, so ensuring that the policy guidelines are met.

If the public highway is modified, for example by a scheme that installs road humps, the cost of converting the street lighting back to all night lighting will be met by the scheme promoter.

All new estate roads offered for adoption will be subject to the part lighting policy before being maintained at the public expense.

## **10.0 Street lighting Maintenance**

This Street Lighting Policy and its related specification standards seeks to comply with recommendations set out in the Code of Practice for Well-Managed Highway Infrastructure, the statutory Electricity at Work Act, Health & Safety Legislation and CDM regulations.

To ensure that streetlights and illuminated signs are maintained to a satisfactory standard Dorset Council employs a service provider via a Private Finance Initiative (PFI) contract, let in 2006. In general, this contract covers all aspects of the service including areas such as routine maintenance, electrical testing, night scouting, non-routine repairs, random repairs, new works, structural maintenance and emergency cover.

A small team of Dorset Council staff administers the contract; assists and advises local people, local parish and town councils, housing associations and also deals with enquiries made by our own members and MPs.

To maintain a high standard of service provision across Dorset every streetlight and illuminated sign is cleaned, serviced and inspected in accordance with its designed parameters and good industry practice.

Electrical testing of each unit is undertaken in line with national regulations. Structural inspection and testing is carried out at recommended intervals.

To identify faulty lights, night inspections are carried out by patrol at regular intervals.

Dependent upon the situation there is a defined target response time for the service provider to repair any fault, including where the replacement of equipment is necessary. In general emergency calls are attended within 2 hours with almost all straightforward repairs carried out within 5 working days. If a fault is due to a power failure or unit replacement then this could take up to three weeks to rectify.

### **11.0 Street Lighting Replacement**

The current PFI contract is for twenty-five years and during the first five years it required the replacement of nearly 28,000 units with a further limited replacement program completed in 2019, resulting in nearly all of our asset stock being replaced prior to the end of the contract. The replaced units have a design life of at least 50 years, with minimal routine maintenance required to achieve this target.

Where replacements are required designs are carried out by the service provider, who seeks to achieve a British Standard for Lighting which is appropriate to the highway use and Dorset Council's own environmental policy. This results in the alteration of some historic column positions, where efficiencies in the design process have been achieved or additional positions are required to meet modern standards. Most residential roads and traffic routes also see an increase in column height, further increasing efficiency and minimising the number of additional positions required to meet today's lighting standards.

Advances in technology mean that lanterns designed today can be more energy efficient and better reduce light pollution. The installation of more modern equipment assists in reducing energy consumption.

Lantern replacements are carried out at the same time as column replacements. Lanterns on units not being replaced may also be replaced under maintenance. The type of light source and lantern shall be in line with this policy.

### **12.0 Design**

The Policy for design and approval of lighting schemes is based on the principles listed in Section 2.0. In this way Dorset Council's Street Lighting Policy is having a positive direct impact on the nature of Dorset's local environment.

The consequence of designing street lighting to produce zero upward light pollution will usually result in additional units being installed with subsequent

increases in the energy consumed and future maintenance costs if the applicable lighting standards are to still be met. A careful balance is therefore being struck between using minimal resources, both locally and globally, and achieving minimal light pollution.

In addition to a quality-based maintenance programme Dorset Council also has a policy to take a proactive lead role in providing guidance to local developers, parish and town councils and housing associations to ensure high quality design for new or replacement street lighting. In order to ensure the appropriate lighting standard, relevant to the “Zone” Dorset Council designs most of the new street lighting itself using national design standards. It also checks all third-party designs, offering advice to ensure that Dorset Council’s own Street Lighting Policy and Specification are met.

In new developments, lanterns can be affixed to buildings, particularly where footways are narrow and subject to considerable pedestrian traffic. Wayleave Agreements will be required in these circumstances.

To ensure that public funds are used to best effect Dorset Council also requires a commuted sum to cover all additional costs of non-standard street lighting furniture installed by developers. Only if approved in terms of its design and suitability shall such equipment then be authorized for subsequent installation. The commuted sum shall cover the full cost of both installation and subsequent maintenance, the latter including for any additional energy related running costs over the costs for a standard unit.

### **13.0 Attachments on Street Lighting Columns**

Lighting columns are not designed to take the additional load of any type of attachment, other than small traffic signs. As an inappropriate attachment could result in damage or structural failure any proposed attachment must first receive written authority in principle from the Street Lighting Team. Each and every application is considered with public safety in mind and weighed against any potential merits put forward for such an attachment.

If any third party wishes to attach a sign, festive light or local advertising etc to a street column it may be possible provided that the column has been specially designed to safely hold the required attachment. Alternatively, a replacement street lighting unit to an appropriate standard may be installed, if the full costs of doing so are met by the third party.

No cross road spans of catenary lights, cables, bunting or other similar attachments are to be fixed to lighting columns, as it is not always possible to ensure the minimum 5.8m (7.5m on abnormal load routes) height clearance in the middle of the span and the high risk of traffic then contacting with the span.

A considerable number of lighting columns already have traffic signs attached to them even though they have not been specially designed for such. This has largely come about through past pressures to keep the highway environment as uncluttered as possible by utilising lighting columns as sign posts. Although it will be permissible to fix smaller traffic signs to lamp columns that have been

specially designed to withstand the additional loading, fixing signs totalling more than 0.6 sq. metres to standard columns will no longer be permitted. The Street Lighting Specification, for standard columns, allows for the attachment of signs at 2.5m from the ground and up to a total of 0.6 sq. metres installed per lighting column.

If the written authority of the Street Lighting Principal Engineer is obtained a license, to erect equipment within the highway, must also be obtained from the relevant highway authority and permission to attach the load obtained from the PFI street lighting service provider. As all risk in the asset rest with them, this permission will be dependent upon the agreed detail of loads, fixings, insurances, use of approved contractors etc and can only be obtained from the PFI service provider.

Some types of attachments may involve planning issues, with the impact on the environment may be seen to be detrimental, in such cases approval from the local planning authority must first be obtained.

#### **14.0 Public Interface and Complaints Procedure**

The PFI contract covers all aspects of the service, including service user's contacts and complaints. The service provider is required to respond to any concerns within 5 working days and act in a reasonable manner when resolving them.

Where concerns relate to backward light spill into bedroom windows the service provider has an established procedure for determining whether a shield can and should be fitted. If a shield or other adjustment is reasonably required then this is carried out by the service provider at no cost to the resident.

Queries relating to Dorset Council's policy and the PFI contract are dealt with by the in-house Dorset Council team.