

# Public Lighting Management Plan

Issue No. 9



<b>Purpose</b>	Ausgrid’s Public Lighting Management outlines the asset management strategy for public lighting services provided to Customers, in accordance with the NSW Public Lighting Code 2018, Ausgrid’s Network Standards and internal policies and the Final Determination and Ancillary Network Services regulation by Australian Electricity Regulator (AER).
<b>Applies to</b>	Public Lighting Customers Members of the General Public Department of Planning, Industry & Environment Ausgrid Internal Departments Accredited Service Providers
<b>Does not apply to</b>	Security outdoor floodlights (Lighting Solutions – also known as EnergyLight)
<b>Introduction</b>	The majority of public lighting assets in New South Wales are owned and managed by Distribution Network Service Providers (DNSPs). Ausgrid is a DNSP which provides a Public Lighting Service in its distribution network area, that complies with all required regulations to meet the expectations of its customers.
<b>Effective Period</b>	This Plan applies to the period from 1 July 2019 to 30 June 2024.
<b>Key Principles</b>	<ul style="list-style-type: none"> <li>• Services</li> <li>• Responsibilities</li> <li>• Regulation</li> </ul>
<b>Performance Measurement</b>	Performance is measured against service standards and reporting requirements specified within <i>The NSW Public Lighting Code 2018</i> (the Code).
<b>Correspondence</b>	All correspondence should be directed to: Lighting Manager Ausgrid GPO Box 4009 SYDNEY NSW 2001 <a href="mailto:Publiclighting@ausgrid.com.au">Publiclighting@ausgrid.com.au</a>

## Scope of Document

This publication is Ausgrid's Public Lighting Management Plan which came into effect from 1 July 2019, as required by the *NSW Public Lighting Code 2018* (the Code).

## Warning

It is the responsibility of the user to ensure that they obtain and use the current version of this document. Ausgrid may amend this document at any time.

## Document & Amendment History

Issue No.	Date	Approved by	Summary of Changes
1	June 2006	General Manager - Network	Initial
2	June 2010	Manager – Street Lighting	Draft Plan, Consultation with all Councils
3	May 2011	General Manager – Distribution Operations and Reliability	Update of Plan following consultation with Councils and change to Ausgrid brand
4	July 2014	Manager – Street Lighting	Updated Region Contact List
5	August 2014	Street Lighting Engineering Manager	Updated Vegetation Management
6	November 2014	Street Lighting Engineering Manager	Updated Ausgrid phone number and titles. Updated Guaranteed Service Levels
7	March 2015	Street Lighting Engineering Manager	Updated Vegetation Management
8	January 2016	Street Lighting Engineering Manager	Updated Region Contacts
9 DR V1.0	July 2019	Amir Moayedzadeh – Lighting Manager	Updated to reflect the requirements of the NSW Public Lighting Code 2018
9 DR V2.0	November 2019	Amir Moayedzadeh – Lighting Manager	Updated to incorporate customer and stakeholder feedback
9 DR V3.0	January 2020	Amir Moayedzadeh – Lighting Manager	Issued for final customer consultation
9	April 2020	Amir Moayedzadeh – Lighting Manager	Issued for publication

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## Contents

1	OBJECTIVE.....	1
2	PUBLIC LIGHTING MANAGEMENT STRATEGIES.....	1
3	RESPONSIBILITIES.....	3
4	ASSET COMPONENTS, PRICING, AND TARIFF STRUCTURE.....	5
5	DESIGN AND CONSTRUCTION.....	7
6	EQUIPMENT SELECTION.....	12
7	PUBLIC LIGHTING MAINTENANCE PROGRAM.....	13
8	FAULT TYPES.....	15
9	DEFINITIONS.....	17
10	FORMS AND REFERENCES.....	19
11	APPENDICES.....	20

# 1 Objective

Ausgrid recognises how important it is to its customers, the community and other stakeholders to provide, through public lighting, a safe, secure and attractive visual environment for pedestrian and vehicular traffic during times of low natural light, taking into consideration energy efficiency, economic efficiency, environmental consequences, and appropriate technology choices.

The objective of this Management Plan is to familiarise Ausgrid's customers with the management framework, which ensures that Ausgrid's public lighting services meet the standards set by the NSW Government's Department of Planning, Industry & Environment and the needs of Ausgrid customers.

Ausgrid strives to work with its customers to provide them with the best possible service while meeting with the obligations of the *NSW Public Lighting Code*. Ausgrid is committed to ensuring the safe operation of its public lighting assets while giving safety the highest priority over all other aspects of network management. This Management Plan documents the objectives and strategies developed for the management of Ausgrid's public lighting assets. It does this by providing:

- A description of the maintenance strategies used to ensure public lighting assets continue to meet the required performance criteria
- A description of the processes for reporting, documenting, investigating and repairing faults associated with public lighting assets
- A description of public lighting design and construction services
- Details on how Ausgrid complies with the codes, standards, and guidelines specified by the NSW Government's *Department of Planning, Industry & Environment*, and the *Independent Pricing and Regulatory Tribunal (IPART)*

# 2 Public Lighting Management Strategies

Ausgrid's public lighting management strategies are designed to achieve compliance with the *NSW Public Lighting Code 2018 (the Code)*, published by the NSW *Department of Planning, Industry & Environment*. In this plan, the emphasis is placed on:

- Condition monitoring and maintenance planning
- Luminaire cleaning and inspection
- Bulk and spot lamp replacement and disposal as applicable
- Luminaire replacement and refurbishment practices
- Outage detection of Public Lighting Assets (for example inspection patrols), and service availability requirements
- Inspection, test, repair, and replacement of equipment including column/poles
- Making modifications to maintenance program as required
- Tree management strategies, including informing Customers of their responsibilities to manage vegetation to ensure effective lighting
- Maintaining records of maintenance and a process for recording maintenance activities of Public Lighting Assets
- Equipment selection and procurement programs

Ausgrid is committed to the initiatives outlined in this plan. Ausgrid also makes available to its customers and IPART:

- Progress reports on the actions under this plan
- Responses to inventory inquiries
- Provision of Network Standards and a list of the Standard Luminaires

## 3 Responsibilities

Ausgrid and its customers have responsibilities for compliance with codes, standards and guidelines which are in place where Ausgrid owns the public lighting assets.

### 3.1 Ausgrid's Responsibilities

Ausgrid is responsible for:

- Processing applications for Contestable projects as per the *ASP Scheme Rules*, Ausgrid's Network Standards (NS) and Electrical Supply Standards (ES).
- Delivering Minor Capital Works projects in compliance with the *NSW Public Lighting Code 2018*.
- Complying with all service levels specified in *NSW Public Lighting Code 2018*.
- Ensuring that the public lighting charges for the lighting assets are based on the prices approved by the Australian Electricity Regulator (AER).
- Providing this Management Plan and Network Standards, which are designed to avoid any non-compliances and inadequacies, on its website.
- Invoicing the cost of service to the customer for the maintenance and capital recovery of Ausgrid funded assets, as well as residual value charges related to Minor Capital Works and Contestable projects.

### 3.2 Compliance with codes, standards and guidelines

Ausgrid has various legal obligations as asset owner, employer, controller, electrical designer and supplier of work premises, plant and substances. These regulatory requirements and relevant standards and policies may include, but are not limited to, the following:

- Electricity Supply Act 1995 and regulations made under the Act
- The NSW Public Lighting Code 2018
- NSW Accredited Service Provider (ASP) Scheme Rules
- The Australian Energy Regulator's (AER) Final Decision – "Ausgrid distribution determination (2019-2024) – Alternative Control (Public Lighting) services".
- National Electricity Rules
- Ausgrid's Electricity Safety Rules (ESR)
- All relevant Ausgrid Network Standards
- Service and Installation Rules of NSW
- ENA Doc 001-2008 National Electricity Network Safety Code
- Electricity Transmission and Distribution Asset Management: Code of Practice
- SafeWork NSW – Codes of Practice
- National Energy Customer Framework
- ISSC 3 – Guideline for Managing Vegetation Near Powerlines
- ISSC 14 – Guide to electrical workers' safety equipment
- ISSC 28 – Guideline for Enclosed Spaces in NSW Electricity Networks
- ISSC 29 – Guideline for Pre-Climbing and Climbing Assessment of Poles
- ISSC 31 – Guideline for the Management of Private Overhead Lines
- ISSC 32 – Guide for Network Operators to Provide Information to the Construction Industry for the Use of Cable Covers
- ISSC 33 – Guideline for network configuration during high bush fire risk days
- All the relevant Australian Standards
- National Guidelines for Protecting Critical Infrastructure from Terrorism
- NSW Maritime Crossings of Navigable Waters

### 3.3 Ausgrid Contact Details

Nominated contact points at Ausgrid for matters related to public lighting service are shown in Table 1.

**Table 1 - Contact Points for Enquiries**

Description	Contact Details
General enquiries	<a href="mailto:publiclighting@ausgrid.com.au">publiclighting@ausgrid.com.au</a>
Ausgrid's public lighting representative	Lighting Manager <a href="mailto:publiclighting@ausgrid.com.au">publiclighting@ausgrid.com.au</a> GPO Box 4009 Sydney NSW 2001
Supply of data including data corrections, billing details, and inventory	<a href="mailto:publiclighting@ausgrid.com.au">publiclighting@ausgrid.com.au</a>
Vegetation management	13 13 65
Dispute resolution	Lighting Manager GPO Box 4009 Sydney, NSW 2001
Fallen electrical wires, power outage, electric shock or a life-threatening situation	13 13 88
Report a streetlight fault	1800044808 <a href="#">Report a streetlight fault - Ausgrid</a>

### 3.4 Customer rights and responsibilities

With respect to Ausgrid-owned lighting assets, each public lighting customer carries the following rights and responsibilities:

#### Strategic Alignment

- The Customer articulates and circulates material to keep the Ausgrid Lighting Manager fully informed of the strategic direction with regards to public lighting projects.
- The Customer provides early engagement on strategic decision making in relation to public lighting matters, including the opportunity to incorporate feedback into business plans.
- The Customer works in synchronisation with Ausgrid's annual budgeting process to communicate needs for the following financial year by April of the preceding financial year. This enables Ausgrid to plan resources and meet customer needs.
- The Customer reviews the public lighting price list<sup>1</sup> on an annual basis which Ausgrid will maintain updated on its website so that the Customer keeps updated of the annual charges for existing and new public lighting assets.

#### Consultation and Collaboration

- As per Clause A of the Code the Customer provides a single point of contact (with a delegated alternative) for coordination with Ausgrid on public lighting construction and maintenance activities.
- The Customer submits applications in full, accurately and in a timely fashion for new lighting installations and upgrades to existing lighting installations.
- Ausgrid and the Customer respond promptly to one another through the approvals process.
- The Customer is to decide whether public lighting is required for public roads in question and to ensure that appropriate lighting levels are determined as part of the planning process.
- The Road Authority must determine whether public lighting is required for state and regional roads
- Ausgrid and the Customer investigate and jointly action any issues that are brought to their attention by residents and other stakeholders including but not limited to faults, inadequate lighting, prohibitive problems such as obtrusive light (glare issue) and obstructions of public lights by vegetation.

<sup>1</sup> <https://www.ausgrid.com.au/-/media/Documents/Regulation/Pricing/PList/Ausgrid-public-lighting-price-list.pdf>



## Compliance

- The Customer is to ensure that contestable projects, as defined in section 5.3, comply with requirements of the AS/NZS1158 series (where applicable). This includes the Customer accepting risk and responsibility for the illumination design provided by its Accredited Service Providers.
- Prompt and in full payment of any invoiced residual values associated with the assets (initially funded by Ausgrid) which are removed before the end of an asset's economic life. Invoices are provided to the Customer towards the end of each financial year.

## 4 Asset Components, Pricing, and Tariff Structure

Once public lighting infrastructure is established, Ausgrid owns the asset and takes responsibility for the maintenance and ongoing replacement of that asset. Ausgrid levies charges on the relevant customer in accordance with the applicable determination by the Australian Energy Regulator (AER). These charges vary depending on whether Ausgrid was involved in constructing the asset or just accepted the ongoing maintenance and replacement of the asset following its construction by a customer (or by a developer) under Contestable arrangements.

Ausgrid only accepts ownership and maintenance of new public lighting assets that are designed and constructed as per the requirements of Ausgrid's Network Standards, including *NS119 – Ausgrid Public Lighting Design and Construction*.

### 4.1 Street Lighting Components

There are five components which make a typical public lighting installation:

1. Support
2. Bracket
3. Luminaire
4. Lamp
5. Connection

### 4.2 Public Lighting Tariffs

Customers are charged for the capital cost and maintenance of the public lighting assets. Capital charges are only applicable to Ausgrid funded components of the assets to enable Ausgrid to recover the cost of material and construction of the asset over the asset's economic life. Maintenance charges apply to all assets on Ausgrid's network to ensure public lights remain operative, irrespective of whether Ausgrid initially funded the assets or not.

Ausgrid issues the public lighting bills, which include the cost of both capital recovery and maintenance of assets at the beginning of each month. The bills contain details of the number and type of lights, and any other information reasonably necessary for the customer to verify the accuracy of an amount charged on the bill.

Each customer must pay for the bills by the due date shown on the tax invoice, which is typically not more than 30 days from the issue date.

Ausgrid's public lighting rate categories, which are shown in Table 2, are consistent with the tariff classes specified by the relevant Australian Energy Regulator's (AER's) Final Determination. These tariffs are developed to recover the cost of service from all customers. Ausgrid tariffs are:

- **Rate 1** is the rate for public lighting installations with all components funded by Ausgrid. Ausgrid funded the initial capital costs or renewal of the rate 1 installation. This rate generally applies to all public lighting installations on existing network distribution poles and dedicated columns, which are funded by Ausgrid.
- **Rate 2** is the rate for public lighting Installations which are gifted to Ausgrid where customers or developers funded the assets. These assets must be constructed as per Ausgrid's requirements, including Network Standard *NS119* and the Contestability framework.
- **Rate 3 (Obsolete)** applied to legacy lighting installations where the customer privately repairs a customer-funded asset. No components are billable on Rate 3 assets (other than energy

consumption). Ausgrid no longer offers this rate and does not take ownership of private lights. Any new private light must be privately metered, and the electrical connection should follow the Contestable connection process.

- **Rate 4** is the rate for situations where the council has asked Ausgrid to fund the replacement of a luminaire where the old luminaire (as well as the bracket and column) were previously funded by a council (or other 3rd parties) as Rate 2 assets. This rate is also applicable when Ausgrid replaces the old luminaire on a Rate 2 installation as part of maintenance activity. Using this rate, Ausgrid can recover the expenses in replacing the luminaire via the standard annuity model pricing while not charging for other capital components that were previously funded by the council (or other 3rd parties).
- **Rate 5** is the rate for situations where the council funds the replacement of a luminaire where Ausgrid previously funded the old luminaire (as well as the bracket and column) as Rate 1 assets. Using this rate, Ausgrid can continue to recover the expense of funding the original bracket and column via the standard annuity model pricing while not charging for the new luminaire being funded by the council. The Rate 5 charges only apply for assets installed under the Contestable framework and Ausgrid initiated rollout programs where Ausgrid owns and maintains the assets.

Ausgrid owns and maintains all the Rate 1, Rate 2, Rate 4 and Rate 5 assets. For Rate 1, 2, 3, 4 and 5, the same rate category applies to the entire suite of five components: support, bracket, luminaire, lamp, and connection. For instance, luminaires cannot be on Rate 1 while the corresponding support, bracket, and connection are on Rate 2 or vice versa.

Further details regarding tariffs and annual charges for various public lighting asset types are available on Ausgrid’s website<sup>2</sup>. Customers are advised to review the public lighting charges annually for new public lighting assets and determine if it is feasible to proceed before planning any public lighting project.

**Table 2 – Charges Associated with each Public Lighting Rate**

Rate	Lamp	Luminaire	Bracket	Support	Connection
1	✓	✓	✓	✓	✓
2	✓	✗	✗	✗	✓
3	✗	✗	✗	✗	✗
4	✓	✓	✗	✗	✓
5	✓	✗	✓	✓	✓

<sup>2</sup> <https://www.ausgrid.com.au/Industry/Regulation/Network-prices>

## 5 Design and Construction

The Public Lighting network is generally designed and constructed through one of the following paths:

- **Minor Capital Work:** is when Ausgrid funds and undertakes the initial construction of the asset. Ausgrid recovers the costs from the relevant customer through the tariff structure approved by the Australian Energy Regulator (AER).
- **Contestable project:** is when a customer funds the initial construction of the assets. Customers generally use external Accredited Service Providers (ASPs) to deliver the design and construction of Contestable projects.

Network Standard *NS119*<sup>3</sup> specifies Ausgrid's requirements for the design and construction of all public lighting assets that are to be owned and operated by Ausgrid. The provisions of this network standard shall apply throughout Ausgrid's supply area for all the contestable and non-contestable projects.

### 5.1 Online Application

Customers, who seek to modify public lighting installations, must submit their requests through [Ausgrid's Public Lighting On-Line Application Form](#).<sup>4</sup> This application form shall be used for both Contestable and Minor Capital Works projects in accordance with the "[Application User Guide](#)" available on the Ausgrid website.<sup>5</sup>

Applications for Minor Capital Works must be submitted by public lighting customers only (e.g. Council authorised officers). Applications for Contestable projects could be submitted by a public lighting customer or on its behalf by an ASP.

Upon submitting an application, a reference code is provided to the applicant, which should be recorded to be used for follow-up communications with Ausgrid regarding the application.

Ausgrid reviews each application in a timely fashion and refers the applications to its relevant divisions for administration and completion. Incomplete or incorrect applications may be rejected. In this case, the applicant may be asked to submit a new application which incurs an additional technical assessment fee.

### 5.2 Minor Capital Works

Applications for Minor Capital Works must be submitted online, as discussed in section 5.1. Ausgrid determines if a request from existing customers for modification or addition to its public lighting network can be classified as a Minor Capital Works project, based on the following criteria which are specified in the *NSW Public Lighting Code* (The Code):

1. Replacement of up to 10 existing luminaires on public lighting installations on Ausgrid network.
2. New installations of up to 10 brackets and luminaires on existing distribution poles with available Low Voltage overhead supply.

Ausgrid also considers requests from its customers for the provision of up to two new dedicated timber poles with an overhead connection, to help customers meet the required compliance level of the Australian Standard for road lighting. This is subject to the connection to an LV network can be achieved by installing no more than one span of overhead low voltage mains per pole. This may require extra preparations that wouldn't allow the project to be completed within the timeframes set by the Code.

As detailed in the Public Lighting Minor Capital Works Process in Appendix A, generally, there are two design services associated with any Minor Capital Works project:

- Illumination Design
- Electrical Connection Design

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<sup>3</sup> <https://www.ausgrid.com.au/-/media/Documents/Technical-Documentation/NS/NS119.pdf>

<sup>4</sup> <https://www.ausgrid.com.au/Connections/Get-connected/Apply-for-a-connection>

<sup>5</sup> <https://www.ausgrid.com.au/-/media/Documents/Connections/qrgs/SmartForm-Step-by-Step-Guide---Street-Lighting-Application.pdf?>

Apart from the cost of standard equipment and services which are captured and approved in the AER Determination for public lighting services for a relevant regulatory control period, Ausgrid recovers the cost of other material and service through Short Form Contracts (SFCs).

Ausgrid invoices relevant customers for the cost of these services based on the Ancillary Network Services (ANS) charges approved by the Australian Electricity Regulator (AER). The costs of Illumination and Electrical Connection designs are not captured in Ausgrid's regulated prices; therefore, the costs of these design services are estimated based on the complexity of each project and presented to the applicant for approval through a Short Form Contract (SFC). Ausgrid initiates the project upon receipt of the signed SFC from the customer.

Customers must also consider residual values, ongoing (annuity) capital recovery and maintenance charges when applying for a Minor Capital Works project. Residual value charges are the remaining amount of initial investment for the assets that are removed before the end of the asset's economic life. These residual value charges only apply where Ausgrid-funded assets are removed or relocated before the end of their economic life. Removing a fully operative lighting asset, before the end of the economic life, would not allow Ausgrid to recover its capital investment; hence, the AER's determination provides a method for calculation of residual value charges. In cases where the removal or relocation of the public lighting infrastructure occurs as part of a Minor Capital Works project, the customer must agree to pay the residual charges. Approval Form *AUSPL MCWAF* is an agreement that encompasses the residual value, the ongoing capital and maintenance charges of public lighting assets affected (removed or relocated) due to a customer-initiated project. The form must be signed by the customer and provided to Ausgrid before the construction permission can be obtained from Ausgrid. The residual value of any projects is invoiced to the customer at the end of each financial year for all projects that occurred from the previous 1<sup>st</sup> of April to 31<sup>st</sup> March of the relevant financial year.

The start date of the project is the date when Ausgrid receives a completed online application with adequate information.

Ausgrid has the following timeframes for Minor Capital Works projects:

- Provides design services in a timely fashion following the online request by a customer
- Provides construction services in no more than 90 business days from receipt of completed *AUSPL MCWAF Form* from the customer
- Notifies its customers of completion of works within 20 business days of completion of works; and
- Updates its public lighting inventory within 60 business days of completion of works

Where Ausgrid cannot meet the above timeframes, Ausgrid will notify the customer of the expected delay and give reason as to why delays are expected for particular works.

A full list of tasks carried out under Minor Capital Works (and Short Form Contract) process is provided in section 11.3 (Appendix C).

Note: Ausgrid reserves the right to upgrade its public lighting assets after consultation with its customers, for reasons such as enhanced technologies, safety considerations etc. Ausgrid may also consider requests from customers regarding large scale projects, such as accelerated rollout programs, which involve the like-for-like replacement of existing assets under a negotiated arrangement with the customers. Customers should contact Ausgrid's Lighting Manager to discuss such proposals.

### 5.2.1 Illumination Design

When completing an online application, the customer must choose whether an Illumination Design is required for the project or not, by selecting from the following options available in the application form:

1. Illumination Design is not required<sup>6</sup>:

Except for projects that involve the lighting of pedestrian crossings or roundabouts, a customer may decide that an Illumination Design is not required. This option may be used for the provision of infill

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<sup>6</sup> Ausgrid is not responsible for non-compliance with Australian Standards when a customer selects option 1.

lighting or to modify existing lights, e.g. when like-for-like replacement of an asset is needed, and the customer chooses not to have an assessment carried out to verify if this replacement will comply with AS/NZS1158. This option is also appropriate when the customer is aware that compliance with AS/NZS1158 series cannot be achieved for any reason.

2. Illumination Design required from Ausgrid to comply with AS/NZS1158 series:

This option means that the customer requests to use Ausgrid's Illumination Design service. Customers should note that Ausgrid's ability to undertake Illumination Design service is based on the availability of resources at the time of the request. Ausgrid assesses the extent of work and its resourcing availability and advises the customer whether it can offer the requested Illumination Design service. If Ausgrid is able to perform the illumination design service, Ausgrid provides an offer in the form of a Short Form Contract (SFC) which is invoiced, based on applicable labour rates from Ancillary Network Service (ANS) charges, for approval by the customer.

3. A third party other than Ausgrid has developed Illumination Design<sup>7</sup>:

Illumination Design is an Alternative Control Service (ACS) that is subject to the open market. Therefore, the customer can undertake the Illumination Design in-house or engage other lighting consultants. In this case, the lighting designer must provide the compliance certificate (confirming the level of compliance with AS/NZS1158 series) for the public lighting customer to attach to the online application.

### 5.2.2 Electrical Connection Design

Electrical Connection Designs are developed for connection of the proposed public lighting assets to Ausgrid's low voltage network. The Electrical Connection Design for a Minor Capital Works project is a non-Contestable service which must only be carried out by Ausgrid. Ausgrid provides the cost of service to the customer through a Short Form Contract (SFC).

### 5.3 Contestable Works

Project requests that don't meet the criteria for Minor Capital Works are deemed to be Contestable works. Customers initiate and fund the Contestable projects in accordance with Ausgrid's Network Standards, *ES1 – Premises Connection Requirements, Policy for ASP1 Premises Connections, Network Asset Relocation, and Undergrounding Policy Guidelines*.

Common examples of Contestable works are:

- Construction of new underground supplied public lights in new developments or among existing infrastructure,
- Removal or relocation of any components of a public light asset.
- Installation of more than 2 dedicated poles.
- Installation of more than 10 luminaires.

Refer to 11.3 (Appendix C) for a full list of tasks carried out under the Contestable process.

Applications for Contestable projects must also be made online as explained in section 5.1. This application could be made by public lighting customers or by ASPs on behalf of the customers.

Ausgrid charges a set fee for the technical assessment of each Contestable project. This fee is determined based on Ancillary Network Service (ANS) charges.

The relevant road authority should confirm the exact requirements of new public lighting projects. These may be detailed in a development approval issued by Council or by the Department of Planning, Industry and Environment or any other directive received from any other NSW government department or agency. The proposal should comply with all relevant Ausgrid policies, standards and related requirements.

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<sup>7</sup> Ausgrid is not responsible for non-compliance with Australian Standards when a customer selects option 3.

Upon receipt of a connection application, the Contestable design process is commenced under Ausgrid's established Contestable process, available in section 11.1. Form *AUSPL CON F01A* is made available to the customer or its representative (often the ASP) during the design stage.

The *AUSPL CON F01A* form provides essential information to Ausgrid and must be submitted to Ausgrid with the Electrical Connection Design package, to detail:

- the design of the electrical connection,
- the lighting level and illumination design requirements of the customer,
- payment of any residual charges and annual public lighting charges.

The customer or its ASP can engage a lighting designer to meet the technical illumination design requirements, and also involve an ASP3 to undertake the Contestable Electrical Connection Design required to fulfil the connection requirements.

### 5.3.1 Accredited Service Providers

There are three types of Contestable services for which ASPs require separate accreditation; information regarding this can be found at the *NSW Department of Planning and Environment and Fair Trading*.

**Table 3– Accredited Service Provider Levels**

Level	Description
ASP1	Level 1 Accredited Service Provider, involving the Contestable construction of transmission and distribution works such as the installation of high voltage and LV distribution cables and substations (i.e. Distribution Work).
ASP2	Level 2 Accredited Service Provider, involving the Contestable installation of overhead and underground service mains and metering equipment, the disconnection and reconnection of supply to carry out work on the installation and energising installations.
ASP3	Level 3 Accredited Service Provider, involving the design of electrical reticulation systems to be constructed as Contestable works.

Illumination design does not fall under the ASP scheme but must be prepared in coordination with the appointed ASP. A lighting consultant or lighting designer is responsible for:

- Ensuring that appropriate qualification, training and experience were gained to develop an Illumination design that complies with the requirements of *AS/NZ 1158* series.
- Complying with the instructions (and brief) given by the customer or ASP3.
- Ensuring that the design achieves the requested lighting levels and can be constructed on Ausgrid's existing or new network infrastructure.
- Certifying the compliance in Section 4 of Public Lighting Form *AUSPL CON F01A*.

ASP1 is responsible for:

- Providing connection services on behalf of the customer per the Ausgrid's Network Standards, *AS/NZS1158* series and Ausgrid's Electrical Supply Standards series as appropriate.
- Completing the necessary paperwork to enable Ausgrid to record details of new assets in its asset management system.

ASP3 is responsible for:

- Complying with the instructions (and brief) given by the customer,
- Completing section 3 of the Public Lighting Form *AUSPL CON F01A* and co-ordinating the Illumination Design and the Electrical Connection Design as requested.
- Engaging a qualified lighting designer if requested by the customer as part of its services or by engaging an independent lighting consultant to fulfil customer obligations mentioned above.
- Coordinating the acceptances and approvals from the relevant parties.

### 5.3.2 Conditions applicable to Contestable Works

The customer is also responsible for the full payment of residual values associated with the Ausgrid funded assets that are removed or relocated as part of a Contestable project, before the end of the economic life of the assets. The ASP3 must approach the customer to obtain required details and agreement (from the authorised personnel only) to ensure that Ausgrid is paid for the residual value charges related to the **existing** public lighting asset(s) being removed or relocated.<sup>8</sup> The agreement is obtained via the form *AUSPL CON F01A* at an early stage of the project, which allows Ausgrid to recover the residual value from the customer towards the end of the corresponding financial year.

Once the customer has approved a development, then it is deemed that the Council is in acceptance of its responsibility for public lighting and the lighting levels. Lighting levels are the responsibility of Councils in their local government area, irrespective of whether the lighting levels were specified in the Development Approvals.

The customer is solely responsible for ensuring that the public lighting infrastructure that becomes part of Ausgrid's distribution network is designed to meet the required illumination levels within relevant Australian Standards.

Once a customer establishes public lighting infrastructure through a Contestable project, Ausgrid generally takes responsibility for the maintenance and ongoing replacement of that infrastructure and imposes applicable charges to the customer in accordance with the AER Determination.

Other common conditions applicable to all Contestable Public Lighting Projects are:

- No equipment (electrical or non-electrical) other than luminaires should be connected to the supply circuit;
- The electrical supply to the public light cannot be used for any other purposes (e.g. socket outlets etc). If it is the intention to use the electricity supply for additional purposes, these new lighting assets either have to be connected to the network as a permanent unmetered supply (PUMS) as per Ausgrid's *ES1 – Premises Connection Requirements* or must be privately metered. In either case, this type of connection is out of the scope of the regulated public lighting service framework, and Ausgrid can not maintain the public lights because these cannot be assigned to any of public lighting tariffs specified in section 4.2 of this document.
- Installation must meet the requirement of *NS143 – Easements, Leases and Rights of Way*. Ausgrid must be provided with sufficient and continual access for a truck with an Elevating Work Platform (EWP) for maintenance purposes or to correct any unauthorised modifications to newly installed assets. EWP trucks used to maintain most of the public lights are generally 16 tonnes in weight, 9.3 metres in length, 2.5 metres in width and 4.0 metres in height. These trucks have a maximum outreach of 16m. Ausgrid is not able to maintain the public lighting assets if access to the assets is denied.
- The positioning of poles and lighting columns must comply with Ausgrid's *NS167 – Positioning of Poles and Lighting Columns*.
- Luminaires and all other public lighting assets **MUST** be selected from the Ausgrid's Standard List of Standard Assets as per the Ausgrid's *NS119 – Public Lighting Design and Construction*.
- Projects with alterations or additions to existing unmetered private lighting circuits (funded and maintained by the customer under the obsolete Rate 3) are considered private installations.
- New Multi-Function Poles are considered to be private installations and are subject to the open market where a licensed electrical contractor can be engaged. These poles are not owned or maintained by Ausgrid under the regulated public lighting framework.
- Ausgrid does not maintain decorative coatings on columns as part of the maintenance of public light. We may paint for corrosion protection at ground level. Customers could fund the painting of decorative

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<sup>8</sup> Sign off by the ASP1 or ASP3 or others on behalf of the customer in the customer Section 4 of the Agreement to Pay, in Form AUSPL CON F01A, cannot be accepted.

columns AFTER installation which could be carried out as per requirements of *NS119 – Ausgrid Public Lighting Design and Construction* and *NS183 – Installation of Private Attachments on Ausgrid Poles*.

- Customer is responsible for ensuring that connection services provided by the ASP1 are performed as per Ausgrid's Network Standards and Electrical Supply Standards as appropriate.

## 6 Equipment Selection

Ausgrid procures public lighting equipment through a competitive tender process to achieve the best commercial outcome for its customers, by leveraging volume purchase opportunities and medium-term period contracts.

Ausgrid consults with its customers on specifications for public lighting equipment before issuing any invitation to tender.

Ausgrid attempts to identify, select, and procure equipment that best meets the expectations of Ausgrid and customers.

### 6.1 List of Standard Luminaires

Ausgrid maintains a list of Standard Luminaires which provides the default options for all new and replacement installations.

Ausgrid's current List of Standard Luminaires is published in Network Standard *NS119 – Ausgrid Public Lighting Design and Construction*. The latest version of the Network Standards is available on the Ausgrid website.

Ausgrid consults with its customers on changes to the List of Standard Luminaires as per requirements of the *NSW Public Lighting Code*. Similarly, customers are welcome to make requests for consideration to add new luminaires to the current list on offer (or remove ones that they feel are obsolete). Trialling of new technologies is a matter of investment and customer interest with a net benefit to the community at large. However, Ausgrid has to consider the costs and performance of requested luminaires and technologies in the field over a reasonable time before adding the new product to the current list. Also, new luminaires and technological changes must conform to applicable standards as outlined in the *AS/NZS60598.1*, *AS/NZS60598.2.3* and *AS/NZS1158* series.

Ausgrid's decision to make a capital investment on new technologies and new public light products is also based on the following:

- The maturity of the technological product or scheme,
- Ausgrid's internal analysis to ensure that current rigorous maintenance practices can be met and further improved,
- Failure Modes, Effects and Criticality Analysis,
- A full understanding of the performance of the new assets in the field,
- Cost of capital investment and system(s) changes as appropriate,
- Cost of resourcing a control group for trials,
- Any other risks not experienced by the manufacturers,
- The need to confirm risks from trials and mitigation means before investment,
- Regulatory pricing approval of the annual charges for the new asset(s),
- Annuity prices for new standard equipment added between determinations is by agreement between Ausgrid and the Customer



## 6.2 Non-Standard Luminaires

Ausgrid continues to maintain all existing public lighting assets that are on the List of Standard Luminaires until the end of their useful economic life.

It must be noted that assets which are not owned by Ausgrid (Rate 3 assets) must be replaced and restored by the owner of those assets. Where a customer wishes to own and maintain a new lighting installation, this lighting installation must be constructed and connected to the network in accordance with the *NSW Service and Installation Rules* and the relevant Australian Standards, e.g. *AS/NZS 3000 Wiring Rules*. These installations must be funded, constructed and maintained by the road authority or owner of the infrastructure, which must also be connected to the network through a private meter.

## 7 Public Lighting Maintenance Program

Ausgrid owns and operates its public lighting assets, efficiently and effectively over the assets' economic life in accordance with 'in-service' values specified for 'Category V' and 'Category P' lighting as detailed in *AS/NZS1158* series of standards for the illumination of roads and public spaces.

Subject to its paramount commitment to safety, Ausgrid's network planning objective is to comply with the many legislative and regulatory obligations that apply to public lighting maintenance, including the *NSW Public Lighting Code*.

The public lighting maintenance plan determines the preventative maintenance requirements of both 'in service' and new assets, along with the identification of all corrective maintenance needs of the network. Ausgrid's public lighting maintenance plan falls into the following categories:

- Planned maintenance
- Unplanned maintenance
- Condition-based maintenance

Ausgrid manages public lighting assets during the useful life phase of the asset lifecycle using the maintenance strategy and associated maintenance standards which are developed from the analysis of failure modes, failure rates and consequences of asset failure. This analysis provides a valuable insight into the behaviour of the assets, which also provides input into the decision to refurbish, retire or replace assets.

Ausgrid performs planned and condition-based maintenance on public lighting assets as a method to reduce the number of required unplanned maintenance (ad-hoc repair works) while improving overall public lighting safety and reliability.

### 7.1 Condition Monitoring and Maintenance Analysis

Ausgrid evaluates and optimises equipment selection and maintenance intervals in an economically efficient manner, to meet the requirement for minimum light output from luminaires as the lamps age, referred to as a maintenance factor. Ausgrid uses a standardised Maintenance Requirements Analysis (MRA) process to develop system preventive maintenance requirements by analysing the application of Failure Modes, Effects and Criticality Analysis (FMECA).

The FMECA analysis is used to schedule lamp replacement and maintenance periods for poles and other standard equipment. Ausgrid adopts the scheduled lamp replacement interval which reflects standard industry practice, manufacturers' data, and FMECA study. Ausgrid may also modify equipment selection and procurement practices in line with maintenance analysis, as identified through field data or other sources of information, to avoid unacceptable failure rates.

### 7.2 Outage Detection and Service Availability

Ausgrid conducts quarterly night patrols on major V Category roads to ensure lights are operative. However, Ausgrid strives to provide customers and the community with readily accessible and easy to use methods for reporting faults associated with its public lighting service:

- 24-hour free call number: 1800 044 808
- Online: <https://www.ausgrid.com.au/In-your-community/Report-a-problem/Street-lights#!/map>

### 7.3 Lamp Replacement and Lamp Disposal

Ausgrid's lamp replacement program is designed to ensure that all lamps are replaced at an appropriate interval to achieve the desired maintenance factor and the performance requirements in the *Public Lighting Code*. Ausgrid currently schedules lamp replacement at an interval of 48 months for conventional technologies. Ausgrid inspects and cleans LEDs every 72 months. As technology improves and new lamp types become available, the lamp replacement intervals are adjusted.

Ausgrid undertakes an environmentally and economically appropriate recycling program for lamps and luminaires that are removed. Ausgrid is also signatory to the FluoroCycle scheme, which is a national scheme to encourage recycling of mercury-containing lamps.

### 7.4 Luminaire Cleaning and Inspection

Ausgrid endeavours to identify and rectify problems with public lighting installations before the issues progress to failure or affect lumen output. Whenever lamps are replaced, Ausgrid inspects each luminaire and rectifies:

- Lenses that are opaque or substantially discoloured, cracked, improperly secured, damaged or missing (Lenses and reflectors in serviceable condition are cleaned using appropriate cleaning compounds);
- Damaged or missing seals;
- Moisture within the luminaire;
- Damaged or corroded supports, luminaires, brackets or connections;
- Improperly aligned luminaire or brackets; and
- Other circumstances or defects which may affect the ongoing performance of the luminaire;

### 7.5 Vegetation Management

Ausgrid publishes a *Tree Safety Management Plan* to minimise the impact of vegetation on the management of public lighting assets. A copy of this plan can be obtained by calling 13 13 65 or through Ausgrid's website<sup>9</sup>.

The initiative helps to prevent bushfires from fallen wires and reduce supply interruptions caused by vegetation. The plan also provides advice on the most appropriate trees to plant near powerlines and highlights the importance of engaging only qualified tree trimmers to conduct any trimming work required.

Ausgrid undertakes to trim any vegetation that is encroaching on the clearance envelope, or that may infringe upon the clearance envelope during the next growing or inspection cycle, whichever is the shorter (typically 1 year).

It is the responsibility of the public lighting customers as the road authority to carry out further vegetation management (e.g. planting, and tree trimming) in the public spaces. Therefore, it is the responsibility of the customers to address issues such as obstruction of luminaires by tree branches or other forms of vegetation to ensure the lighting levels remain suitable.

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<sup>9</sup> <https://www.ausgrid.com.au/-/media/Documents/Technical-Documentation/Network-Reports-and-Safety-Plans/Tree-Safety-Management-Plan-February-2015>

## 8 Fault Types

Ausgrid carries out unplanned maintenance when receiving a fault report from its customers and members of the public. Ausgrid considers all reported outages as General (also known as Not-Held) fault, as defined in the Code, and plans to rectify each outage within 10 business days, from the day the fault report is received. Unless, after attending the fault, it is revealed that the reason for the outage is an underground cable fault or there is an access issue which requires road occupancy licence. Ausgrid classifies these public light outages that are likely to have longer than expected response times as Specific (also known as Held) faults.

In the restoration of General faults, Ausgrid endeavours to reach an average of repair time of less than 8 business days over the total number of lights for each customer. While for Specific faults, Ausgrid carries out maintenance within 20 business days which is calculated through a stop clock mechanism which excludes the delays, associated with gaining access or finding the location of an underground fault, that prevent Ausgrid's crew from completing the maintenance – refer to Table 4.

It should be noted that maintenance activities, for both General and Specific faults, are prioritised for the outage of pedestrian crossing floodlights, and outage of a group of three or more consecutive lights on major (Category V) roads. For these priority faults, Ausgrid as soon as reasonably possible, takes the following steps:

- notifies the road authority about the outage,
- informs the road authority of the expected timeframe for repairs,
- informs the road authority when the repair is completed.

**Table 4 - Minimum Service Level**

Fault Type	Individual Fault Standard	Average Fault standard
General faults	Within 10 business days	Within 8 business days on average
Specific faults	No standard applicable	Within 20 business days on average (This service level is mandatory as of 1 <sup>st</sup> July 2020)

Ausgrid recognises three specific causes which are associated with access issue or locating an underground fault, in classifying reported outages as a Specific fault, see Table 5:

**Table 5 - Specific Fault Categories**

Status	Description	Example of Impact
ATR	Access Traffic Issue	Obtaining a site-specific Road Occupancy Licence (ROL) or other specific authority for road occupancy.
NAT R	Access Non-Traffic Issue	Obtaining access to a private or gated property
		Any notice periods that must be given to third parties as required by the Regulatory Requirements or otherwise.
UNC	Underground Cable Fault	Underground Cable fault in underground public light circuit or LV distributor

The time taken to source parts for Non-Stock items, i.e. decorative fittings or non-standard luminaries, is also excluded from Ausgrid service level.

There are two other occasions when the service levels do not apply, see Table 6. In these cases, Ausgrid endeavours to rectify the issue as soon as practicable.

**Table 6 – Cases when Minimum Service Level is not applicable**

Status	Description	Example of Impact
MNI	Major Network Incident	Force Majeure Event
		Major Storm Event
PC	Pole Condemned	Condemned Steel Street light pole
		Damage by Third Party, i.e. car hit a pole, made safe and awaiting installation of replacement with Standard Street light

## 8.1 Glare Complaint (Obtrusive light)

It is the responsibility of the public lighting customer to investigate any glare complaint raised by the residents or the public in its area. Hence, Ausgrid advises residents to contact the relevant customer of the light regarding any glare issue. The customer may choose to request that Ausgrid provide available options to address the glare issue or provide Ausgrid with a solution from an accredited lighting designer under a Contestable project. By approving a glare reduction measure, the customer acknowledges and accepts consequences of potential non-compliance with the Australian public lighting Standards caused by any modification to luminaires, such as the installation of glare shields. It should also be noted that the customer bears the costs associated with the material (e.g. glare shield), design and construction required to address glare issues.

## 8.2 Guaranteed Service Levels

In keeping with the practices outlined in Australian Standard *AS/NZS1158.1.3*, Ausgrid undertakes its record-keeping and reporting related to equipment populations and failures in a manner that is sufficient to evaluate and optimise equipment selection and maintenance intervals.

Ausgrid aims to repair public light faults reported by its customers and the general public within the Code's defined restoration targets. In circumstances where this is not achieved, a customer can apply for the service guarantee payment process.

If Ausgrid exceeds the 10 business days restoration target for an individual General fault, it pays \$25 to the first person who made the fault report if that person is:

- the owner or occupier of a premise that abuts the part of the street that, but for the fault, would ordinarily be illuminated by the public lighting asset or
- a customer of the Ausgrid for the relevant public lighting asset.

If Ausgrid exceeds the average 8 business days to repair General faults for the relevant financial year, Ausgrid credits the relevant customer's account with 0.25% of the total annual maintenance charge for that customer for that year.

If Ausgrid exceeds the average 20 business days restoration target for Specific faults for the relevant financial year, Ausgrid credits the relevant customer's account with 0.25% of the total annual maintenance charge for that customer for that year.

Each applicant is eligible once (every financial year) to apply for a payment under Guaranteed Service Levels (GSL) scheme.

The Guaranteed Service Levels (GSL) do not apply where:

- Compliance with those Service Standards is affected by a Force Majeure Event, or the fault requires replacement of the electricity distribution pole; or
- Where there is no applicable Service Standard for a Public Lighting Service provided by Ausgrid.

A customer may require Ausgrid to provide a level of service beyond the requirements of the Code. In these instances, customer needs to negotiate a Service Level Agreement at variance with the Code. Ausgrid is open to arranging these services; however, additional services may entail additional costs for the customer.

Further information regarding GSL payments is available at Definitions <https://www.ausgrid.com.au/Contact-Us/Claims/Claims-Help>

## 9 Definitions

Term	Description	Link
AER	Australian Energy Regulator	<a href="https://www.aer.gov.au/">https://www.aer.gov.au/</a>
ASP	Accredited Service Provider	n/a
ASP1	Accredited Service Provider, Level 1 - Accreditation: involving the Contestable construction of transmission and distribution works such as the installation of high voltage and LV distribution cables and substations (i.e. Distribution Work).	n/a
ASP2	Accredited Service Provider, Level 2 - Accreditation: involving the Contestable installation of overhead and underground service mains and metering equipment, the disconnection and reconnection of supply to carry out work on the installation and energising installations.	n/a
ASP3	Accredited Service Provider, Level 3 - Accreditation: involving the design of electrical reticulation systems to be constructed as Contestable works.	n/a
AS/NZS1158	Australian Standard 1158, Lighting for roads and public spaces series	<a href="https://www.saiglobal.com/">https://www.saiglobal.com/</a>
Code	NSW Public Lighting Code 2018	<a href="#">NSW Public Lighting Code 2018</a>
Contestable	Contestability is a scheme that accredits service providers that undertake Contestable work on the electricity network (the Accredited Service Providers (ASP) Scheme).	n/a
Customer	Customer as per the meaning in the NSW Public Lighting Code 2018	<a href="#">NSW Public Lighting Code 2018</a>
Distribution Network Service Provider (DNSP)	DNSP has the meaning given to that term in the Electricity Supply Act 1995.	n/a
Electrical Connection Design	Electrical connection design to Ausgrid network standards to connect new or modified lighting assets required by the Illumination Design	n/a
ES	Ausgrid's Electrical Supply Standards.	<a href="https://www.ausgrid.com.au/-/media/Documents/Technical-Documents/ES/ES1-Premises-Connection-requirement">https://www.ausgrid.com.au/-/media/Documents/Technical-Documents/ES/ES1-Premises-Connection-requirement</a>
Fault	A luminaire that is not producing light or whose light output is either materially lower than the normal operation or is ineffective.	n/a
Fault Report	An instance of the Public Lighting Service Provider receiving a report of a Fault via its call centre or website.	n/a
Illumination Design	Lighting design that is generally to a specific sub-category of lighting under AS/NZS1158 as nominated by the road authority	n/a
Luminaire	An apparatus that distributes, filters or transforms the light transmitted from one or more lamps and includes, other than the lamps themselves, all the parts necessary for fixing and protecting the lamps and where necessary circuit auxiliaries together with the means for connecting them to the distribution system.	n/a
MCW	Minor Capital Works – Installation of up to ten Luminaires.	n/a

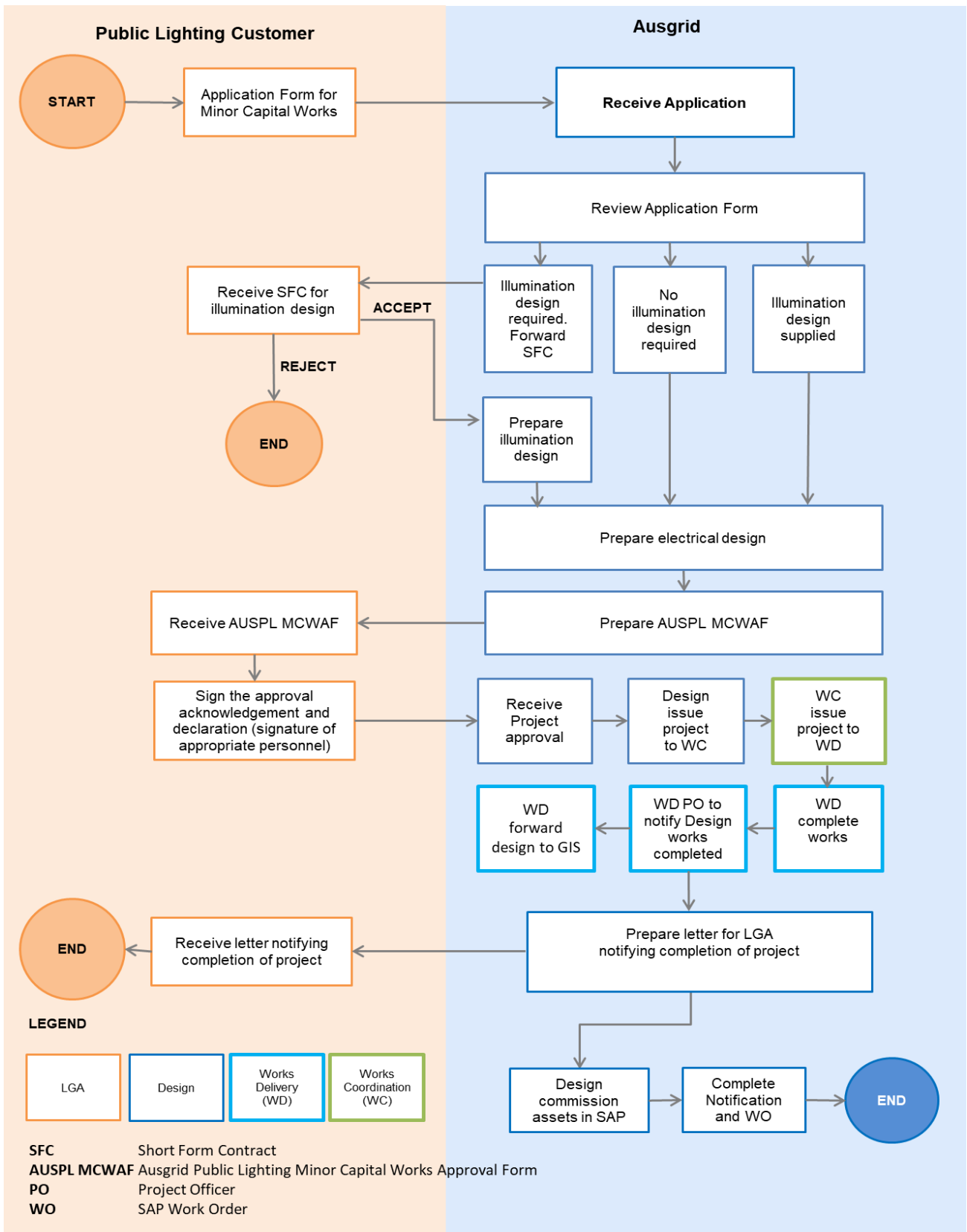
Term	Description	Link
MFP	Multi-Function Poles	n/a
Non-Standard Luminaire	A Luminaire (fitting) other than those appearing on a Public Lighting Service Provider's List of Standard Luminaires.	n/a
NS	Ausgrid's Network Standards	<a href="https://www.ausgrid.com.au/ASPs-and-Contractors/Technical-documentation/Network-Standards">https://www.ausgrid.com.au/ASPs-and-Contractors/Technical-documentation/Network-Standards</a>
NS119	Ausgrid Public Lighting Design and Construction Network Standard	<a href="https://www.ausgrid.com.au/-/media/Documents/Technical-Documentation/NS/NS119.pdf">https://www.ausgrid.com.au/-/media/Documents/Technical-Documentation/NS/NS119.pdf</a>
Public Lighting	<p>The term Public Lighting is used throughout this plan and the Public Lighting Code to cover lighting schemes for the generality of roads and outdoor public areas (e.g., parks, reserves, pedestrian zones, footpaths, cycle paths, car parks and other public areas) that are managed by or on behalf of a customer.</p> <p>As the primary aim of a public lighting scheme is that of safe movement of people, the AS/NZS1158 Lighting for Roads and Public Spaces series of standards divide road lighting into the following broad categories:</p> <ul style="list-style-type: none"> <li>• 'Category V' lighting means lighting that applies to roads on which the visual requirements of motorists are dominant, for example, traffic routes.</li> <li>• 'Category P' lighting means lighting that applies to roads on which the visual requirements of pedestrians are dominant, for example, local roads and outdoor public areas.</li> </ul>	n/a
Public Lighting Assets	All assets of the Public Lighting Service that are dedicated to the provision of public lighting, including lamps, luminaires, mounting brackets and supports on which the fixtures are mounted, supply cables and control equipment (for example, photoelectric cells and control circuitry) but not including the Public Lighting Service Provider's protection equipment (for example, fuses and circuit breakers).	n/a
Public Lighting Services	<p>Any of the following services that may be provided for public lighting:</p> <ul style="list-style-type: none"> <li>• operation of Public Lighting Assets, including handling enquiries and complaints about public lighting, and dispatching crews to repair Public Lighting Assets;</li> <li>• maintenance, repair, alteration, relocation and replacement of Public Lighting Assets;</li> <li>• design of new Public Lighting Assets; and</li> <li>• installation of new Public Lighting Assets.</li> </ul>	n/a
Public Lighting Service Provider	A Distribution Network Service Provider (DNSP) providing Public Lighting Services	n/a

## 10 Forms and References

Term	Description	Link
Application Form	Online Application Form (for new or altered public lighting)	<a href="https://idoportal.ausgrid.com.au/#/streetlighting/location/new/0">https://idoportal.ausgrid.com.au/#/streetlighting/location/new/0</a>
Public Lighting Application User Guide	Online Application Form (for new or altered Public Lighting) Instruction	<a href="https://www.ausgrid.com.au/-/media/Documents/Connections/qrgs/SmartForm-Step-by-Step-Guide---Street-Lighting-Application.pdf?la=en&amp;hash=1342C5A422A93213C7489E2B5233831987B69C5F">https://www.ausgrid.com.au/-/media/Documents/Connections/qrgs/SmartForm-Step-by-Step-Guide---Street-Lighting-Application.pdf?la=en&amp;hash=1342C5A422A93213C7489E2B5233831987B69C5F</a>
Contestable Process Flowchart	Step by Step Process	<a href="https://www.ausgrid.com.au/-/media/Documents/ASP/Design/Contestable-Connections-Process-Flowchart.pdf">https://www.ausgrid.com.au/-/media/Documents/ASP/Design/Contestable-Connections-Process-Flowchart.pdf</a>
Ausgrid Public Lighting Price List	List of Annuity Charges	<a href="https://www.ausgrid.com.au/-/media/Documents/Regulation/Pricing/PList/Ausgrid-public-lighting-price-list.pdf">https://www.ausgrid.com.au/-/media/Documents/Regulation/Pricing/PList/Ausgrid-public-lighting-price-list.pdf</a>

# 11 Appendices

## 11.1 Appendix A: Public Lighting Minor Capital Works Process





## 11.2 Appendix B: Public Lighting Contestable Process

Refer to the following link: <https://www.ausgrid.com.au/-/media/Documents/ASP/Design/Contestable-Connections-Process-Flowchart.pdf>

### 11.3 Appendix C: Guide to applicable processes to common Public Lighting tasks

Task	Rate Prior to Task	New Rate After the Task Completed	Process	Notes
<b>(A) Instigated by streetlighting customer request</b>				
<b>LUMINAIRE REPLACEMENT</b>				
Replacement of Cat P/V luminaire with different luminaire (Qty: 10 or less) - O/H or U/G supplied	Rate 1	Rate 1	MCW	
	Rate 2	Rate 4		
	Rate 4	Rate 4		
	Rate 5	Rate 1		
Replacement of Cat P/V luminaire with different luminaire (Qty: 11 or more) - O/H or U/G supplied	Rate 1	Rate 5	Contestable	
	Rate 2	Rate 2		
	Rate 4	Rate 2		
	Rate 5	Rate 5		
Replacement of Cat P/V luminaire with LED luminaire with glare shield (Qty: 10 or less) - O/H or U/G supplied	Rate 1	Rate 1	MCW + SFC	MCW only covers:
	Rate 2	Rate 4		<ul style="list-style-type: none"> <li>Luminaire cost and Installation fee</li> </ul>
	Rate 4	Rate 4		SFC to cover:
	Rate 5	Rate 1		<ul style="list-style-type: none"> <li>Cost of material (Glare Shield Visor) and ANS Fee (Design and Installation)</li> </ul>
Replacement of Cat P/V luminaire with LED luminaire with glare shield (Qty: 11 or more) - O/H or U/G supplied	Rate 1	Rate 5	Contestable	
	Rate 2	Rate 2		
	Rate 4	Rate 2		
	Rate 5	Rate 5		
Replacement of a visor with glare shield visor on existing Cat P/V LED luminaire - O/H or U/G supplied	Rate 1	Rate 1	SFC	SFC to cover:
	Rate 2	Rate 2		<ul style="list-style-type: none"> <li>Cost of material (Glare Shield Visor)</li> </ul>
	Rate 4	Rate 4		<ul style="list-style-type: none"> <li>ANS Fee (Design and Installation)</li> </ul>
	Rate 5	Rate 5		

Task	Rate Prior to Task	New Rate After the Task Completed	Process	Notes
<b>GLARE SHIELD INSTALLATION</b>				
Replacement of visor with glare shield visor on existing Cat P/V LED luminaire – regardless of being part of a LED rollout program- O/H or U/G supplied.	Rate 1	Rate 1	SFC	SFC to cover:
	Rate 2	Rate 2		• Cost of material (Glare Shield Visor)
	Rate 4	Rate 4		• ANS Fee (Design and Installation)
	Rate 5	Rate 5		
<b>BRACKET REPLACEMENT OR MODIFICATION</b>				
Replacement of bracket with different bracket type (Qty: 10 or less) - O/H or U/G supplied	Rate 1	Rate 1	MCW	
	Rate 2	Rate 2	SFC	SFC to cover:
	Rate 4	Rate 4		• Cost of material (Bracket) and ANS Fee (Design and Installation)
	Rate 5	Rate 5	MCW	
Replacement of bracket with different bracket type (Qty: 11 or more) - O/H or U/G supplied	Rate 1	Rate 2	Contestable	Customer must additionally pay the Residual Value of Column and Luminaire
	Rate 2	Rate 2	Contestable	
	Rate 4	Rate 4	Contestable	
	Rate 5	Rate 2	Contestable	Customer must additionally pay the Residual Value of Column
Replacement of an existing <b>defective</b> visor with a new visor (without changing Luminaire itself) - O/H or U/G supplied	Rate 1	Rate 1	Routine Maintenance	
	Rate 2	Rate 2		
	Rate 4	Rate 4		
	Rate 5	Rate 5		
Replacement of suspended luminaire with pole-mounted bracket and standard luminaire	Rate 1	Rate 1	MCW	
	Rate 2	Rate 4		

Task	Rate Prior to Task	New Rate After the Task Completed	Process	Notes
Lower or raise the height of existing bracket and streetlight (without replacing the luminaire or bracket) - O/H or U/G supplied	Rate 1	Rate 1	SFC	SFC to cover:
	Rate 2	Rate 2		<ul style="list-style-type: none"> <li>• Cost of material (any accessories required to carry out the job)</li> </ul>
	Rate 4	Rate 4		<ul style="list-style-type: none"> <li>• ANS Fee (Design and Installation)</li> </ul>
	Rate 5	Rate 5		
<b>POLE REPLACEMENT OR RELOCATION</b>				
Replacement/relocation of dedicated timber pole to suit specific lighting position requirements - O/H supplied	Rate 1	Rate 2	Contestable	
	Rate 2	Rate 2		
	Rate 4	Rate 2		
	Rate 5	Rate 2		
Replacement/relocation of non-dedicated timber pole to suit specific lighting position requirements - O/H supplied	Rate 1	Rate 2	Contestable	
	Rate 2	Rate 2		
	Rate 4	Rate 2		
	Rate 5	Rate 2		
Replacement of existing timber pole due to insufficient strength to support new bracket and streetlight - O/H supplied (e.g. nailed pole or <200mm diameter pole)	Rate 1	Rate 2	Contestable	
	Rate 2	Rate 2		
	Rate 4	Rate 2		
	Rate 5	Rate 2		
Re-aiming or re-orientation of existing streetlight and/or bracket from its initial position- O/H supplied	Rate 1	Rate 1	SFC	SFC to cover:
	Rate 2	Rate 2		<ul style="list-style-type: none"> <li>• Cost of material (any accessories required to carry out the job)</li> </ul>
	Rate 4	Rate 4		<ul style="list-style-type: none"> <li>• ANS Fee (Design and Installation)</li> </ul>
	Rate 5	Rate 5		Note: This job could be carried out as part of Ausgrid's routine Maintenance Program if the re-aiming is to bring the bracket/streetlight back to the initial/correct position.

Task	Rate Prior to Task	New Rate After the Task Completed	Process	Notes
<b>ASSET REMOVAL</b>				
Removal of streetlight, bracket and dedicated pole - O/H supplied	Rate 1	N/A	Contestable	
	Rate 2	N/A		
	Rate 4	N/A		
	Rate 5	N/A		
Removal of streetlight and bracket with a non-dedicated pole to remain - O/H supplied	Rate 1	N/A	Contestable	
	Rate 2	N/A		
	Rate 4	N/A		
	Rate 5	N/A		
Removal of streetlight and column (either decorative or standard) - U/G supplied	Rate 1	N/A	Contestable	
	Rate 2	N/A		
	Rate 4	N/A		
	Rate 5	N/A		
<b>LUMINAIRE INSTALLATION</b>				
Installation of up to 10 new standard luminaires on existing timber poles and/or installation of up to 2 new dedicated timber poles to support new standard luminaires - O/H supplied	N/A	Rate 1	MCW	
Installation of more than 10 new standard luminaires on existing timber poles and/or installation of more than 2 new dedicated timber poles to support new standard luminaires- O/H supplied	N/A	Rate 2	Contestable	

<b>Task</b>	<b>Rate Prior to Task</b>	<b>New Rate After the Task Completed</b>	<b>Process</b>	<b>Notes</b>
Installation of up to 10 new standard luminaires on existing timber poles and/or installation new non-dedicated timber poles to support new standard luminaires - O/H – U/G supplied	N/A	Rate 2	Contestable	
Installation of more than 10 new standard luminaires on existing timber poles and/or installation new non-dedicated timber poles to support new standard luminaires- O/H supplied	N/A	Rate 2	Contestable	
Installation of new galvanised streetlight standard/s - U/G supplied	N/A	Rate 2	Contestable	
Installation of new decorative streetlight column/s - U/G supplied	N/A	Rate 2	Contestable	
<b>MISCELLANEOUS TASKS</b>				
Illumination designs	N/A	N/A	SFC	SFC to cover:
				<ul style="list-style-type: none"> <li>• ANS Fee (Design)</li> </ul>

**(B) Instigated from Ausgrid projects or routine maintenance works**

**LUMINAIRE REPLACEMENT**

Replacement of defective/non-repairable standard luminaire with current equivalent - O/H supplied	Rate 1	Rate 1	Routine Maintenance	
	Rate 2	Rate 4		
	Rate 4	rate 4		
	Rate 5	Rate 1		
Replacement of defective/non-repairable standard luminaire with current equivalent - U/G supplied	Rate 1	Rate 1	Routine Maintenance	
	Rate 2	Rate 4		
	Rate 4	Rate 4		
	Rate 5	Rate 1		
Replacement of defective/non-repairable decorative luminaire with standard luminaire	Rate 1	Rate 1	Routine Maintenance	<p>If the defective decorative luminaire is non-standard, the job must be placed on hold, and RTO and WS statuses must be selected in SAP notification. Until the relevant customer decides on the available options below:</p> <ol style="list-style-type: none"> <li>1) Ausgrid to replace the luminaire with the most suitable standard replacement, if possible</li> <li>2) Ausgrid to replace the decorative installation with a standard side entry streetlight along with a new standard column)</li> <li>3) Council to source the parts and pay the cost of Design and Installation under the SFC</li> </ol>
	Rate 2	Rate 4		
	Rate 4	Rate 4		
	Rate 5	Rate 1		
Replacement of defective/non-repairable decorative luminaire with a decorative luminaire that Ausgrid still offers	Rate 1	Rate 1	Routine Maintenance	
	Rate 2	Rate 4		
	Rate 4	Rate 4		
	Rate 5	Rate 1		

<b>COLUMN REPLACEMENT</b>				
Replacement of damaged/corroded/defective galvanised streetlight column with galvanised streetlight standard column	Rate 1	Rate 1	Routine Maintenance	
	Rate 2	Rate 1		
	Rate 4	Rate 1		
	Rate 5	Rate 5		
Replacement of damaged/corroded/defective decorative streetlight column with a galvanised streetlight standard column	Rate 1	Rate 1	Routine Maintenance	
	Rate 2	Rate 1		
	Rate 4	Rate 1		
	Rate 5	Rate 5		
Replacement of damaged/corroded/defective decorative streetlight column with decorative streetlight column that Ausgrid still offers	Rate 1	Rate 1	Routine Maintenance	
	Rate 2	Rate 1		
	Rate 4	Rate 1		
	Rate 5	Rate 5		
<b>BRACKET REPLACEMENT</b>				
Replacement of bracket with different bracket type to address electrical clearance violation	Rate 1	Rate 1	Routine Maintenance	
	Rate 2	Rate 2		
	Rate 4	Rate 4		
	Rate 5	Rate 5		

**Notes:**

**ANS** stands for Ancillary Network Service

**Cat P** stands for Category P Lighting

**Cat V** stands for Category V Lighting

**MCW** stands for Minor Capital Works

**O/H** stands for Overhead fed

**SFC** stands for Short Form Contract

**U/G** stands for Underground fed