



# NICC402

## Public Lighting - Ownership & Approval Process

Published 26 February 2021

## Revision Notice:

Date	Details	Author	Authorised
16 Dec 2016	Minor Update to Appendix C – Changed Tariff/Month to Tariff/Annum	A. Pradhan	J. Ali
03 May 2017	Updated Contacts Details of Customer Solution Area Managers in Section 5.	A. Pradhan	J. Ali
26 Feb 2021	<p>Updated following Sections/Appendix:</p> <p>2.1: Public Lighting Design Information Requirements</p> <p>2.2: Utilising SA Power Networks as the Designer</p> <p>3: Public Lighting - Tariffs Structure</p> <p>3.1: LED Tariff Structure</p> <p>3.2: Energy Only Tariff (Supply Connection Point Only)</p> <p>4: New Luminaire / Column - Request Procedure</p> <p>C: Council Authorisation Form</p> <p>Removed old Sections:</p> <ul style="list-style-type: none"> <li>• 'Non-LED Tariff Structure'</li> <li>• SA Power Networks Maintained Public Lighting</li> </ul> <p>Added following Sections/Appendix:</p> <p>5: Standard Equipment</p> <p>6: Emerging Smart Control Technologies</p> <p>A: Flow Chart for Public Lighting Request Procedure</p>	A. Pradhan	M. Napolitano

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## 1. Introduction

This document provides an overview of the SA Power Networks requirements for a public lighting extension or upgrade that will be connected to SA Power Networks distribution network.

More information on design of public lighting proposals can be found in [TS101](#): Public Lighting – Design and Installation.

## 2. Application Requirements

For public lighting which is to be connected to SA Power Networks distribution network, authorisation is required by SA Power Networks. A detailed flow chart highlighting the steps and requirements for a public lighting application to SA Power Networks is shown in Appendix A. Details of the specific steps are shown below.

Please contact SA Power Networks via email: [roadlighting@sapowernetworks.com.au](mailto:roadlighting@sapowernetworks.com.au), for more details.

### 2.1 Public Lighting Design Information Requirements

Certain information is required by SA Power Networks to evaluate a public lighting project, regardless of whether the company to be utilised for the design is SA Power Networks or an external company. The applicant must supply the following:

- The design to be signed off by the designer as compliant to the relevant road category in accordance with the requirements of AS/NZS 1158. Refer [TS101](#): Public Lighting- Design and Installation, for more details
- The tariffs applicable to the proposed design. Refer Section 3 for details of the available tariffs
- The completed 'Designer Authorisation Form'. Refer Appendix B
- The completed 'Council Authorisation Form' signed by the relevant authority (eg Council or Department for Transport and Infrastructure (DIT)). Refer Appendix C
- Where required, a registered easement is to be provided. The easements shown on the design shall reflect the easements that have been negotiated with, and agreed to, by property owners. Refer to [TS102](#): Easement Standard for Distribution Networks

### 2.2 Utilising SA Power Networks as the Designer

When the SA Power Networks is selected as the public lighting designer, they will produce a design that meets the requirements set out in [TS101](#): Public Lighting- Design and Installation and the specific requirements of AS/NZS 1158.

The applicant will need to supply SA Power Networks the following:

- The drawing showing the layout of area requiring public lighting
- The completed 'Council Authorisation Form' signed by the relevant authority (eg Council or Department for Infrastructure and Transport (DIT)). Refer Appendix C
- Details of the specific luminaire types and wattages
- Fee payable for the administration and evaluation of the public lighting proposal

SA Power Networks will provide concept drawings showing the number of columns and their approximate position, luminaire types and estimated installation cost.

Utilising SA Power Networks as the Installer

SA Power Networks shall be provided with copies of all approvals for the installation of the asset with the design.



This may include council and, if applicable, Department for Infrastructure and Transport (DIT) agreements to the following:

- The design for any public lighting change or installation. Refer to [TS101](#): Public Lighting – Design and Installation
- The SA Power Networks Designer Authorisation Form (Appendix B) is to be used to confirm that the lighting design is compliant to relevant standards
- The SA Power Networks Council Authorisation Form (Appendix C) is to be used for agreement of the design and tariff.
- Where required, a registered easement is to be provided. The easements shown on the design shall reflect the easements that have been negotiated with, and agreed to, by property owners. Refer to [TS102](#): Easement Standard for Distribution Networks

SA Power Networks will ensure all required documents are in place and the design meets specification requirements prior to issuing an Offer Letter for the construction of the public lighting proposal. Designs that do not meet specification requirements must be resubmitted and a specification re-compliance charge may be issued.

The SA Power Networks will prepare and return an offer for the installation of the public lighting within 20 days or by a mutually agreed time.

Please contact SA Power Networks via email: [roadlighting@sapowernetworks.com.au](mailto:roadlighting@sapowernetworks.com.au).

### 3. Public Lighting - Tariffs Structure

This section provides applicants with the various options that SA Power Networks offers when considering public road lighting. The options from SA Power Networks standard range can be utilised in either (1) New underground land developments or (2) Upgrading of existing road lighting systems where either overhead or underground mains exist or (3) reclassification of existing lighting assets.

Where a developer has installed a standard public light there will be a standard public light rebate applicable to each arrangement.

The road lighting application can be as follows:

1. **Category “P” installations:**
  - (a) Residential land developments
  - (b) Existing local streets and collector roads
2. **Category “V” installations:**
  - (a) Major traffic routes
  - (b) Industrial / Commercial land divisions
  - (c) Traffic control devices, such as roundabouts, medians, splitter islands, protuberances, etc.

#### 3.1 LED Tariff Structure

The tariffs applicable to LED lights on the SA Power Networks infrastructure are:

##### 3.1.1 SAPN LED Tariff (SA Power Networks Funded)

The ‘SAPN LED Tariff’ applies where SA Power Networks funds a luminaire upgrade or new installation. Volume upgrades are subject to SA Power Networks’ funding availability or approval.

Under the SAPN LED Tariff, SA Power Networks will fund the luminaire upgrade / installation, and will operate and maintain, repair and / or replace the luminaire and its supporting infrastructure during the term of the agreement.

### 3.1.2 TFI LED Tariff (Transferred Lighting Infrastructure)

The 'TFI LED Tariff' applies where public lighting infrastructure is transferred ('gifted' or 'vested') to SA Power Networks. It is also available to customers who wish to fund the initial cost of a luminaire upgrade or new installation but want SA Power Networks to be responsible for luminaire replacements.

Under the TFI LED Tariff, SA Power Networks will operate and maintain, repair and/or replace the LEDs and its supporting infrastructure during the term of the agreement.

### 3.1.3 PLC LED Tariff (Public Lighting Customer Funded)

The 'PLC LED Tariff' applies where the customer funds the cost of a luminaire upgrade or new installation and remains responsible for luminaire replacements not covered by warranty. SA Power Networks would procure and install the new luminaire, or install a new luminaire supplied by the Customer.

Under the PLC LED Tariff, SA Power Networks will operate, maintain, manage the warranty process, and repair the luminaire, and repair and/or replace its supporting infrastructure, during the term of the agreement.

### 3.1.4 CLER LED Tariff

The CLER Tariff applies where the customer owns the luminaire and the infrastructure supporting the luminaire and SA Power Networks provides certain specific maintenance services. The customer is responsible all activities and costs related to the luminaire and supporting infrastructure.

These services will be provided subject to a standard service level agreement. Service levels over and above those set out in the service level agreement would be separately agreed and priced. For further details, refer to [Public Lighting Tariff - Manual 21](#).

## 3.2 Energy Only Tariff (Supply Connection Point Only)

The Energy Only Tariff applies where SA Power Networks provides supply connection point only. SA Power Networks has no responsibility for any installation beyond the point of connection.

For further specific information on the SA Power Networks public lighting customer tariff structure, please refer to the [Public Lighting Tariff - Manual 21](#)

## 4. New Luminaire / Column - Request Procedure

When a non-standard / non-catalogued luminaire or column is proposed, the requestor is required to submit to SA Power Networks, at the initial planning stage, the following:

1. Identify the project where the luminaires/column are to be used
2. Indicate the timing of this project
3. Advise the projected number of luminaires required in the project
4. Provide local Government's/DIT's "in principle" acceptance of proposed luminaires

SA Power Networks will provide initial feedback and the evaluation fee that will be charged for the assessment of the non-standard luminaire or column.

The proposed luminaire or column will be subject to technical evaluation in accordance with SA Power Networks' internal procedure Evaluation of New Equipment and the relevant Evaluation of Non-standard Equipment workflow.

Following a satisfactory technical evaluation SA Power Networks will provide a "Letter of acceptance for connection to the SA Power Networks network" of the proposed luminaire.

## 5. Standard Equipment

SA Power Networks will install, own, and maintain new public lighting installations that utilise only standard columns, brackets, outreach arms and luminaires. This enables SA Power Networks to be better placed to repair all reported faults in a cost effective and timely manner, in line with agreed guaranteed service levels. Wherever possible, SA Power Networks will encourage lighting customers to install standard range of lighting luminaires and equipment.

SA Power Networks periodically reviews the range of standard equipment that may be connected to the distribution network as Public Lighting, and is communicated via publication of technical standard [TS101](#): Public Lighting - Design and Installation.

SA Power Networks works in consultation with industry experts and its customer base and will give reasonable consideration of proposed new luminaires and equipment for technical evaluation.

Technical evaluation of standard equipment comprises of considerations such as cost, performance, energy efficiency, failure rate and environmental sustainability, followed by extensive field trials lasting up to several years depending on the type of equipment under consideration.

Where a customer wishes to install and own a non-standard luminaire or column that is to be maintained by SA Power Networks, it shall be the responsibility of the lighting customer or their supplier to demonstrate compliance with SA Power Networks lighting standards and a charge will be applicable for SA Power Networks evaluation. In addition, this may require a new tariff which will need to be approved by the Australian Energy Regulator. Any requirements of spare parts not stocked by SA Power Networks shall be provided free of charge by the customer on request and may incur a handling charge.

Where a customer wishes to own and maintain a new lighting installation that does not meet SA Power Networks requirements, the installation shall be wired and connected in accordance with SA Power Networks' Service and Installation rules and AS/NZS 3000.

## 6. Emerging Smart Control Technologies

Public lighting technology is continuing to evolve with the development of smart controls.

SA Power Networks are working with Smart City technology providers to develop a cost-effective Smart lighting/Smart City management platform that we can roll out in South Australia.

Smart street lighting includes the following:

- Lighting with remote monitoring that automatically reports failures, allowing faster resolution, more effective maintenance and reduced operational costs
- Smart control or sensor-based units that allow lights to be dimmed when streets are unused or enhanced brightness for events or safety reasons
- Remote sensors to provide environmental data and ongoing data about use of council assets such as parks and main streets to support decision making on lighting needs and management

A number of councils in South Australia are considering 'Smart City' opportunities and investigating technology to enable greater convenience and efficiencies in on demand smart lighting and energy conservation.

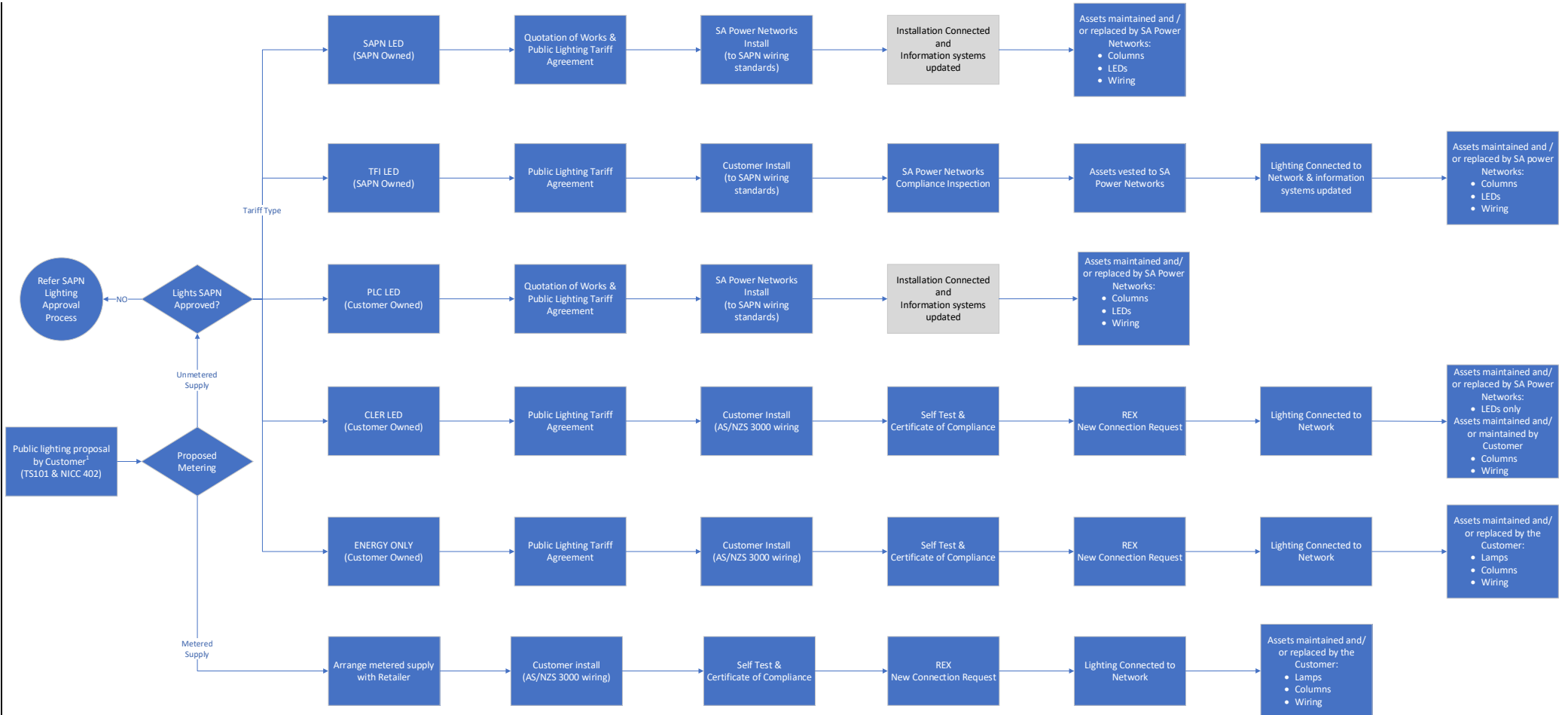
Smart lighting solutions will be developed in consultation with public lighting customers.

SA Power Networks will actively encourage public lighting customers to trial other devices and sensors to understand how easy they are to operate and to compare the cost of alternatives. For further information on smart control devices please contact SA Power Networks Asset Services Manager on 8404 5077.



## Appendices

### A. Flow Chart for Public Lighting Request Procedure



## B. Designer Authorisation Form

This is an agreement form for the 'Designer', abiding relevant designer to comply with public lighting installation requirements stipulated within relevant AS/NZS standards, SA Power Networks and associated authorities.

<b>Public Lighting Design Details</b>			
Subdivision / Public Lighting Proposal Details:			
SA Power Networks' Project No:		Development No:	
Location:			
<b>Public Lighting Category for Roads</b>			
Street Names: If all streets are the same category insert 'All'			Lighting Category
<b>SA Power Networks / Public Lighting Designer's Details</b>			
Company's Name:		ABN Number:	
Designer's Name:			
Company's Address:			
SA Power Networks' Drawing Reference No:		Revision No:	
<b>Does the submitted design satisfy AS/NZS 1158? Please circle 'Yes' or 'No'.</b>			<b>Yes</b> <b>No</b>
<b>Note:</b> If No, a letter of indemnity can be supplied by the SA Power Networks Officer for execution by Council / Department for Infrastructure and Transport (DIT). (Applicable only to public lighting not on SLUoS tariff.)			
<b>Signature of Authorised Design Officer:</b>		<b>Date:</b>	
<b>Authorised Design Officer's Name:</b>			
<b>Notes:</b>			

**Note:** Please fill in all details and forward email: [roadlighting@sapowernetworks.com.au](mailto:roadlighting@sapowernetworks.com.au).

## C. Council Authorisation Form

This is an agreement form for the 'Council', abiding relevant council to agree to meet SA Power Networks requirements in regard to lighting category, conditions, tariffs, and electrical infrastructure works for council-controlled locations, etc.

Council Lighting Tariff Agreement		SA Power Networks Project No:		
SA Power Networks Public Lighting Tariff (Types)	Public Lighting Category (P, V or Other)	Column, Luminaire, Colour	Nos.	Tariff / Annum
<b>SA Power Networks LED Tariff:</b> (SA Power Networks Funded – LEDs)				
<b>TFI LED Tariff:</b> (Transferred Lighting Infrastructure – LEDs)				
<b>PLC LED Tariff:</b> (Public Lighting Customer Funded – LEDs)				
<b>CLER LED Tariff:</b> (Customer Lantern Equipment Rate – LEDs)				
<b>SLUoS Tariff:</b> (Street Lighting Use of System) – Non-LEDs				
<b>CLER Tariff:</b> (Customer Lantern Equipment Rate – Non-LEDs)				
<b>Energy Only Tariff:</b> (Supply Connection Point Only)				
<b>Smart Lighting Control:</b> (Smart PE Cells)				
<b>Security or Flood Lighting:</b> (LEDs)				
<b>Other Items:</b> (Eg Long pipe bracket, CCTV)				
<b>Tariff Total</b>				<b>\$</b>
<b>Notes:</b> 1. Attach additional sheets if space provided is not sufficient. 2. Provide details of non-standard arrangements, eg colours and additional fittings (eg bollards) which are not the responsibility of SA Power Networks.				
<b>Conditions Associated with Design and Installation of Public Lighting:</b>				
1. Refer to TS101: 'Public Lighting Standard for Overhead and Underground Networks' and please note that only luminaire types and light fittings listed in TS101 are permissible for use.				
2. For CLER Tariff Lighting Schemes it is the responsibility of the Council / DIT to ensure that a maintenance program is in place to ensure the luminaire satisfies the capacity requirements of AS/NZS 1158.				
3. The commissioning of CLER Tariff Lighting Schemes is the responsibility of Council / DIT and is detailed in TS101.				
4. For standard SA Power Networks tariff lighting, the public lights will be commissioned by SA Power Networks at the time the subdivision is energised / when SA Power Networks scope of works is complete.				
5. SA Power Networks will not be responsible for the deterioration of the powder coated surfaces on columns / luminaires.				
6. Council / DIT agree to the Terms and Conditions contained in Supply of Works Contract (1501) and is aware of the relevant Technical Standards and NICC series.				
<b>Council / DIT:</b>				
<b>Address:</b>				
<b>Contact Name:</b>		<b>Phone Number:</b>		
I agree to the lighting category, conditions, tariff details and electrical infrastructure design that has been submitted for this development / public lighting proposal.				
<b>Signature of Authorised Council / DIT Officer:</b>		<b>Date:</b>		
<b>Name of Authorised Council / DIT Officer:</b>				
<b>Note:</b> Please fill in all details and forward this form to email: <a href="mailto:roadlighting@sapowernetworks.com.au">roadlighting@sapowernetworks.com.au</a> .				

## D. Definitions

<b>Applicant:</b>	The applicant is the person who has applied for a connection or extension. This may be a direct customer, developer, consultant or other third party.
<b>CLER:</b>	Means the Customer Lantern Equipment Rate
<b>Connection Point:</b>	Has the meaning given to that term in the current Electricity (General) Regulations, namely a connection point to a transmission or distribution network. For this document connection point also has the same meaning as Point of Supply as defined in <a href="#">AS/NZS 3000</a> .
<b>Council</b>	Means the local government authority for the site of the Development.
<b>DIT:</b>	Stands for the Department for Infrastructure and Transport (previously known as DPTI).
<b>Extension:</b>	Means works (outside the boundaries of the SA Power Networks' distribution network (as it existed before the construction of any new connection or extension assets)) requested by the customer in accordance with the Electricity (General) Regulations 2012.
<b>HID</b>	Means 'High Intensity Discharge'.
<b>LED:</b>	Means the 'Light Emitting Diode' Luminaire.
<b>Project Manager:</b>	Means the SA Power Networks Project Manager, Network Project Officer, Network Service Officer, Customer Service Officer, Strategic Project Manager, or any Officer/Supervisor who is ultimately responsible for the project management.
<b>SAPN Tariff:</b>	SA Power Networks Tariff. SAPN Tariff is the standard tariff for LED type luminaires.
<b>Shall or Must:</b>	Is to be understood as mandatory.
<b>SLUoS:</b>	Stands for the Street Light Use of System. This is known as the standard SA Power Networks tariff for HID type luminaires.
<b>Vested Asset:</b>	An asset that is constructed on behalf of the customer where ownership is transferred to SA Power Networks.
<b>Works:</b>	Means the term Works as defined in the Works Agreement.
<b>Works Agreement:</b>	Means the Agreement for the Design, Construction and Testing of Electrical Services entered into by SA Power Networks and the Applicant for the Development of the Land.

## E. References

The following listed documents are for additional information but may not be a conclusive list and other documentation may be required on a project specific basis. Refer to the following SA legislative acts and regulations, SA Electricity Code, the SA Power Networks publications, relevant AS/NZS standards, for more detail. Please note: It is your responsibility to ensure you have complied with all relevant standards and you have used the latest version.

### South Australian Legislations:

- Electricity Act 1996 and Electricity (General) Regulations 2012
- Electricity (Principles of Vegetation Clearance) Regulations 2010
- Environment Protection Act 1993 and Environment Protection Regulations 2009
- Development Act 1993 and Development Regulations 2008
- Work Health & Safety Act 2012 and Work Health & Safety Regulations 2012

### Essential Services Commission of South Australia (ESCOSA) Codes:

- SA Electricity Distribution Code (EDC)
- SA Electricity Metering Code (EMTC)

### Australian Energy Market Commission (AEMC) Publications:

- National Electricity Rules (NER)

### The Department of Infrastructure and Transport. (DIT) Publications

### The Office of Technical Regulator (OTR) Publications

### SA Power Networks' Documents:

Manual 14	Safety, Reliability, Maintenance & Technical Management Plan
Manual 32	Service and Installation Rules
3304	Construction terms (non-contestable & contestable)

### Technical Standards & NICC Brochures (for Examples):

NICC400	Information for an applicant undertaking a contestable extension
NICC404	Working in the Vicinity of SA Power Networks Infrastructure - NAP Process
TS085	Trenching and Installation of Underground Conduits and Cables (up to & including 33kV)
TS099	Distribution and Sub-Transmission CAD Drafting Standards
TS100	Electrical Design Standards for Underground Distribution Cable Networks (up to & including 33kV)
TS101	Public Lighting - Design and Installation
TS109	Earthing of the Distribution Network

### Relevant E Drawing Series

### Standards Australia Publications:

<a href="#">AS/NZS 1158 Set</a>	Lighting for Roads and Public Spaces Set
<a href="#">AS/NZS 3000</a>	Electrical Installations (known as the AS/NZ Wiring Rules)
<a href="#">AS/NZS 3017</a>	Electrical Installations - (LV Earthing System) Verification Guidelines
<a href="#">AS/NZS 3019</a>	Electrical Installations - (LV Supply System) Periodic Verification
<a href="#">AS 4026</a>	Electric Cables - For Underground Residential Distribution Systems
<a href="#">AS 4282</a>	Control of the Obtrusive Effects of Outdoor Lighting
<a href="#">AS 4506</a>	Metal Finishing - Thermoset Powder Coatings