

# 1. General

## 1.1 PURPOSE

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The purpose of this document is to provide the standard requirements to Electrical Contractors, Designers, Consultants, Switchboard manufacturers and Customers to assist them in the process of establishing a connection to Aurora's distribution network. Failure to comply with these rules may result in delays or refusal of connection.

## 1.2 PUBLICATION AND REVISION

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### 1.2.1 ADMINISTRATION

Aurora Network administers the development, revision, and publication of these rules.

### 1.2.2 PUBLICATION

This document is available by referencing the Aurora Energy website.

This edition of the Service and Installation Rules is applicable from October 1 2007 until superseded.

### 1.2.3 REVISION

Although regulations are usually the catalyst for revision, users and interested parties are invited to provide comment and suggestions for the development of the rules at any time. Correspondence for this purpose should be forwarded to [ServiceandInstallationRules@auroraenergy.com.au](mailto:ServiceandInstallationRules@auroraenergy.com.au)

Any revisions to the Rules will be published on the Aurora Energy website on the following dates each year:

- 1 January
- 1 April
- 1 July
- 1 October.

It is up to the user to ensure that they have a current copy of these rules. Hard copies and compact discs are uncontrolled, check the website to ensure you have the latest copy.

## 1.3 SCOPE

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This document covers:

- Connecting to Aurora's Distribution System
- Aurora's Low Voltage electricity supply
- Servicing arrangements
- Metering
- Aurora contact details
- Application forms.

It does not provide a detailed coverage of:

- A customer's installation beyond Aurora's Point of Supply
- Electrical licensing requirements
- Supply at High Voltage.

# 1. General

## 1.4 REFERENCE DOCUMENTS AND WEBSITES

The following references and recommended websites are referred to in this document. The websites contain or provide links to many of these reference documents:

ID No.	Title
AS 1026	Impregnated paper insulated cables for electricity supply at working voltages up to and including 33kV
AS 1033	High voltage fuses (for rated voltages exceeding 1000V)
AS 1074	Steel tubes and tubular for ordinary service
AS 1104	Informative symbols for use on electrical and electronic equipment
AS 1243	Voltage transformers for measurement and protection
AS 1329	Methods for the analysis of zinc and zinc alloys
AS 1359	Rotating electrical machines – general requirements
AS 1397	Steel sheet and strip – hot-dipped zinc-coated or aluminium/zinc-coated
AS 1429.1	Electric cables – polymeric insulated
AS 1554	Structural Steel Welding (known as the Structural Steel Welding Code)
AS 1554.1	Welding of steel structures
AS 1650	Hot-dipped galvanized coatings on ferrous articles
AS 1657	Fixed platforms, walkways, stairways and ladders – design, construction and installation
AS 1674	Safety in welding and allied processes
AS 1746	Conductors – bare overhead – hard – drawn copper
AS 1795	Sheets and boards for electrical purposes
AS 1824	Insulation coordination (phase to earth and phase to phase, above 1kV)
AS 1939	Degrees of protection provided by enclosures for equipment (IP Code)
AS 1966	Electric arc welding power sources
AS 1977	Flexible insulating sleeving for electrical purposes
AS 2005	Low voltage fuses – fuses with enclosed fuse-links
AS 2006	High voltage AC switchgear and control gear – circuit breakers for rated voltages above 1000V
AS 2053	Non-metallic conduits and fittings
AS 2067	Switchgear assemblies and ancillary equipment for alternating voltages above 1kV
AS 2086	High voltage AC switchgear and control gear – metal enclosed – rated voltages above 1kV up to and including 72.5kV
AS 2209	Timber poles for overhead lines
AS 2279	Disturbances in mains supply networks
AS 2374	Power transformers
AS 2430	Classification of hazardous areas
AS 2481	All-or-nothing electrical relays (instantaneous and timing relays)
AS/NZS 3000	Electrical installations – buildings, structures and premises (known as the wiring rules)
AS/NZS 3001	Electrical installations – movable premises (including caravans) and their site installations
AS/NZS 3010	Electrical installations – supply by generating set
AS/NZS 3012	Electrical installations – construction and demolition sites
AS/NZS 3017	Electrical installations – testing guidelines
AS 3100	Approval and test specification – general requirements for electrical equipment
AS 3116	Approval and test specification – electric cables – elastomer insulated – for working voltages up to and including 0.6/1kV
AS 3147	Approval and test specification – electric cables – thermoplastic insulated – for working voltages up to and including 0.6/1kV
AS 3155	Approval and test specification – neutral screened cables for working voltages of 0.6/1kV

ID No.	Title
AS 3187	Approval and test specification – mineral insulated metal sheathed cables
AS 3198	Approval and test specification – electric cables – XLPE insulated – for working voltages up to and including 0.6/1kV
AS 3439	Low Voltage Switchgear and control gear assemblies
AS 3560	Electric cables – XLPE insulated – aerial bundled – for working voltages up to and including 0.6/1kV
AS 3600	Concrete structures
AS 3608	Insulators – porcelain and glass, pin and shackle type – voltages not exceeding 1000V AC
AS 3609	Insulators – porcelain stay type – voltages greater than 1000V AC
AS 6002	Domestic electricity metering enclosures
AS 60044.1	Current transformers
AS/NZS 61000.3	Electromagnetic Compatibility (EMC) – limits

**Note:** The Australian Standards referred to shall be taken to be the latest revision, including amendments at the time of carrying out the installation.

Tasmanian Electricity Code	2006
Electricity Industry Safety and Administration Act	1997
Electricity Industry Safety and Administration Regulation	1999
Electricity Supply Industry Act	1995
Electricity Supply Industry (Price Control) Regulations	1998
Electricity Supply Industry Pricing Order	2002
Aurora Approved Electricity Prices	Current
Occupational Licensing Act	2005
Occupational Licensing (Electrical Work) Regulations	2007
Statutory Rules No 165 HEC Service and Installation Bylaws	1993
Statutory Rules No 110 HEC Bylaws	1994

**Office of Electricity Standards and Safety** [www.wst.tas.gov.au/electricity](http://www.wst.tas.gov.au/electricity)

**Aurora Energy** [www.auroraenergy.com.au](http://www.auroraenergy.com.au)

**Office of The Energy Regulator** [www.energyregulator.tas.gov.au](http://www.energyregulator.tas.gov.au)

**Wiring Rules, Frequently Asked Questions** [www.wiringrules.com.au](http://www.wiringrules.com.au)

**Energy Networks Association** [www.ena.asn.au](http://www.ena.asn.au)

**Standards Australia** [www.standards.org.au](http://www.standards.org.au)

**National Electricity Rules** [www.aemc.gov.au](http://www.aemc.gov.au)

## 1.5 DEFINITIONS

The definitions contained herein apply to these Service and Installation Rules and may vary from definitions contained in other documents.

Words or terms not specifically defined are to be given their commonly understood meaning.

**“AS/NZS3000”** means the Australian and New Zealand standard (titled as the “Wiring Rules”).

**“Aurora Network”** means the Network Division of Aurora Energy Pty Ltd (ABN 85 082 464 622) Level 2, 21 Kirksway Place, Hobart Tasmania.

**“Authorised Contractor”** means an electrical contractor authorised by Aurora Energy in writing to perform work on specified assets.

# 1. General

“**Consumer’s Mains**” means the customer’s mains wiring between Aurora Network’s *Point of Supply* and the customer’s main switch.

“**Customer’s Mains**” see Consumer’s Mains.

“**Customer**” is a person who engages in the activity of purchasing electricity supplied through a distribution system to a point of supply. For the purpose of these rules includes a developer.

“**Developer**” is a person other than Aurora who engages in the construction of electricity infrastructure.

“**Electrical Contractor**” is someone who holds an Electrical Contractor’s Licence.

“**Electrical Contractor’s Licence**” means a licence issued to an individual or company who meets the criteria of Electrical Standards & Safety and holds a current Tasmanian Electrical Technicians Licence and complies with the Electricity Industry & Administration Act 1997 Section 17.

“**EIN**” see “Electrical Installation Notice”

“**Electrical Installation Notice**” refers to the Electrical certificate of compliance that must be submitted to certify that work undertaken has been performed in accordance with relevant legislation and standards.

“**Electrical Work**” As defined in Electrical Industry Safety and Administration Act 1997.

“**Electrical Worker**” As defined in Electrical Industry Safety and Administration Act 1997.

“**Electrical Works Request Form**” is an Aurora Energy document that is used to recover accurate information from contractors listing work required to be performed by Aurora.

“**EWR**” see Electrical Works Request Form

“**High Voltage**” means electricity at a voltage exceeding Low Voltage

“**Low Voltage**” means a voltage greater than 50 volts AC, not exceeding 1000 volts AC.

“**Point of Attachment**” The point at which aerial conductors of a service line or aerial consumers mains are terminated on a consumer’s building, pole or structure.

“**Point of Supply**” The junction between Aurora Energy’s service mains and the consumer’s mains.

It is the point at which Aurora Energy’s asset responsibility ends. This excludes any metering assets owned by Aurora Energy past the point of supply. See Point of Supply in main text for more detail

“**Pole ID**” this is the unique 6-digit number on pole.

“**Property**” means a parcel of freehold or leasehold land, or Crown Land held under lease or licence, which may be traversed within its boundaries without crossing a public reserve (including road reserve) or land owned by or vested in a separate person or body.

“**Private Installation**” is electrical equipment used or intended to be used by a customer supplied from the distribution system.

“**Private Pole**” means a customer-owned consumer’s mains, aerial mains support or consumer’s mains line support. (This does not include a raiser bracket.)

“**Private Service Pole**” see “Private Pole”

“**Service**” means the first span of *low-voltage* conductor that crosses private property from Aurora Network’s mains. Where a transformer supplies a customer direct, the first span of *low-voltage* conductors from the transformer. (Except Aurora Network transformers on private consumer’s mains powerlines).

The service does not include the supporting pole or structure at the Point of Attachment of the service on the customer's property.

**“Service pole”** means a pole installed to provide an intermediate support for the service cable or to improve ground clearances.

**“Supply”** means the establishment of a *Point of Supply*.

## 1.6 AURORA'S CUSTOMER CHARTER

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Aurora Energy has certain obligations and commitments to its customers regarding its standard of service. These are outlined in Aurora Energy's Customer Charter that are available on Aurora's website, [www.auroraenergy.com.au](http://www.auroraenergy.com.au)

## 1.7 CONNECTION AGREEMENT

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Aurora Network cannot connect a customer to the Distribution Network without a formal agreement with an Electricity Retailer, further agreements with Aurora Network may be required depending on the connection requirements.

## 1.8 COMPLIANCE WITH REGULATION AND THESE RULES

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A customer's new installation or the portion of a customer's installation that has been added to or altered electrically, shall comply with the current Electricity Industry Safety and Administration Act and the Regulations and Codes of Practice under the jurisdiction of that Act and other relevant Standards.

An electrical installation will not be connected or remain connected to Aurora Network's distribution network if it is found not to comply with these Service and Installation Rules, Aurora Energy's Notices' to electrical workers, AS/NZS 3000 – Wiring Rules or the Tasmanian Electricity Code.

Aurora Network only carries out minimum inspection of the installation before connection. The “Electrical Certificate of Compliance” (EIN) issued by the installing electrician is used to determine if the installation complies. The connection of the installation should not be taken to imply that the installation complies in every respect with the Service and Installation Rules, Wiring Rules or other specification.

In order for Aurora Network to make a connection, the certificate of compliance (EIN) must be completed in accordance with the requirements of the AS/NZS3000 – Wiring Rules.

The work, any defects and test results must be adequately described on the EIN as well as registration and contractor details and signature.

## 1.9 NECESSITY TO EMPLOY A LICENSED PERSON

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The Electricity Supply Industry Safety and Administration Act 1997 requires that all electrical work carried out on installations connected to, or intended to be connected to Aurora Network's distribution network, subject to certain exemptions, will be performed by appropriately licensed Registered Electrical Worker(s).

## 1.10 OFFENCES

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A person, other than a suitably accredited person authorised by Aurora Energy to carry out such work, shall not insert or remove a fuse-link of a service protective device, make or break any connection (including seals or locks), dismantle any component part of Aurora Energy's equipment or detach such equipment from its fixing point.

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Obtaining electricity by fraud is theft. If a person is found guilty of an offence, it could result in the imposition of substantial fines together with an order for damages to compensate the Distributor for any loss and court costs and it may also cause that person to have a criminal record.

## 1.11 ACCESS TO CUSTOMER'S PREMISES

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The customer must allow authorised persons safe, convenient and unhindered access to the customer's supply address (in accordance with ESI act and EISA act) for the purposes to:

- a) Read the customer's meter(s),
- b) Connect or disconnect supply,
- c) Inspect or test the electrical installation,
- d) Undertake repairs, testing or maintenance of the Aurora Network distribution system.

## 1.12 CONTACT DETAILS

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The following list of contacts details designated areas within Aurora Energy that can be used to discuss servicing issues.

### 1.12.1 AURORA ENERGY'S WEBSITE

[www.auroraenergy.com.au](http://www.auroraenergy.com.au)

### 1.12.2 EMERGENCY AND FAULTS

*For faults and emergencies only*

Phone: 13 2004

### 1.12.3 GENERAL NEW SERVICE CONNECTION ENQUIRIES

*For enquiries about new connections not requiring system augmentation only*

Residential: 1300 13 7008

Business: 1300 13 7008

### 1.12.4 CONFIRMATION OF CUSTOMER'S AUTHORISATION FOR POWER CONNECTION

*To confirm if a customer has an agreement with the retailer for supply of power*

Residential: 1300 13 2003

Business: 1300 13 2045

### 1.12.5 SERVICE CONNECTION AND METERING

*Where no cross-over pole or Aurora Network design work is required*

Residential: 1300 13 2003

Business: 1300 13 2045

### 1.12.6 TEE-UPS

'Tee-up' is a commonly used term, where an electrical contractor requires an Aurora presence on site to discuss or perform specific tasks.

Because Tee-ups are resource intensive, it is in the interest of electrical contractors, consumers and Aurora Energy that Tee-ups are only requested for the following key functions (only if necessary):

- a) Alterations to fascia connections
- b) Replacing consumer's mains
- c) Relocating meters
- d) Consumer's mains terminations into turrets or cabinets

- e) Point of attachment issues
- f) Tee-ups are to be requested by submitting an EWR and ticking the box marked 'Arrange an on site Tee-up'
- g) An arranged tee-up becomes an agreed date under the Customer Charter.

#### **1.12.7 RECONNECTION AFTER LONG-TERM DISCONNECTION (6 MONTHS OR GREATER) (AFTER INSPECTION BY ELECTRICAL CONTRACTOR)**

Residential: 1300 13 2003

Business: 1300 13 2045

#### **1.12.8 DISCONNECT, RECONNECTION OR CONNECTION TO AN EXISTING AURORA NETWORK OVERHEAD OR UNDERGROUND SERVICE**

*For enquiries about reconnections or disconnections of an existing supply only*

Residential: 1300 13 2003

Business: 1300 13 2045

#### **1.12.9 COMPLEX CONNECTIONS WHERE INFRASTRUCTURE/DESIGN WORK IS REQUIRED (INCLUDING CROSS-OVER POLES)**

*For enquiries about new connections requiring system augmentation only*

Phone: 1300 13 7008

Postal Address: PO Box 419, Launceston, TAS 7250

Email: [networkcustomersupply@auroraenergy.com.au](mailto:networkcustomersupply@auroraenergy.com.au)

#### **1.12.10 TECHNICAL ADVICE – AS/NZS 3000: WIRING RULES AND FAULT CURRENT LEVELS**

*Only to be used if the information is not available in the standard documentation available to all contractors.*

Phone: 1300 13 2003

Contact: Electrical Compliance Team Manager

#### **1.12.11 TECHNICAL ADVICE – METERING AND SERVICE INSTALLATION RULES**

*Only to be used if the information is not available in the standard documentation available to all contractors.*

Phone: 1300 13 2003

Contact: Technical Officer – Compliance and Audit Team

#### **1.12.12 TECHNICAL ADVICE – POWER QUALITY (DESIGN)**

*Power quality matters are referred to Aurora Network. Enquiries can be made by calling 1300 13 2003.*

#### **1.12.13 TECHNICAL ADVICE – PUBLIC AND PRIVATE LIGHTING**

*For enquiries regarding new or existing lighting. Not for faults.*

Phone: 1300 13 7008

Contact: Network Customer Supply