

# Network Asset Technical Document

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## Un-metered Supply Policy

Requirements and conditions for the installation and removal of un-metered supplies within the South West Interconnected System.

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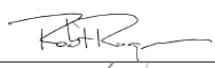

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# Document Control

## Endorsement/Approvals

	Name	Title	Signature
<b>Endorsed by</b>	Robert Rogerson	Distribution Standards and Policy Manager	
<b>Approved by</b>	Gavin Forrest	Branch Manager Standards Policy and Data Quality	

## Record of revisions

This document contains multiple formatting sections. When it is updated please ensure all section headers and footers have also been updated with correct version numbers and dates.

Edition	Revision no.	Date	DM Version	Revised by	Description
First		June 2004	1656281	G Roy	Original Issue
Second		Aug 2005	4070898	M Lee	Various amendments
Third		Dec 2005	2833928	G Pearce	Network version
Fourth		Feb 2009	4079034 v12	R Hale	Various amendments
Fifth		Dec 2010	4079034 v13	R Hale	Application process and web Links

## Documents referenced in this document

DM Version	Title of document
3747498 v3	Contractor Connect
3285499 v5	Service Connect
1667862 v2	Installation of Un-metered Supplies (PTS 242)
735237 v2	Network Standard NS01-2000 – Network Arrangements for un metered Electricity Supplies

## Other documents that reference this document

DM Version	Title of document
3384127 v8	Underground Distribution Schemes Manual
7159802 v1a	Western Australian Distribution Connections Manual

## Stakeholders

In the process of document update, the following stakeholders are to be consulted:

Internal	External
Connections and Energisation Manager	Synergy
Customer Service Centre Manager	
Distribution Design Engineering Manager	
Metering Services Manager	
Operational Technical Excellence (OTX) Manager	
Power Training Services Manager	
Primary Response Manager	



Notification List

When this document is updated, the following positions must be notified of any authorised change:

<b>Position/title</b>
Dial Before you Dig
Institute of Public Works Engineering Australia
National Electrical Communications Association (WA Chapter)
Stakeholders

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## 1 Purpose

The purpose of this document is to define the requirements for the installation and connection of an un-metered supply to Western Power's low voltage distribution network.

## 2 Application

This policy applies to all un-metered supplies connected to the electrical distribution network in Western Power's South West Interconnecting System (SWIS) including those supplies that are to be upgraded or altered after the date of application.

An un-metered connection and supply is available to all consumers subject to the conditions and requirements detailed in this document. The consumer is responsible for ensuring that all of Western Power's criterion is met and shall formally acknowledge compliance and acceptance of Western Power's terms and conditions as defined by this policy, the application form and the under pinning Network Standard.

### 2.1 Date of application

The requirements of this policy shall be applied to all new, upgraded or altered connections as of the date of publication of this document.

Where work on an installation was commenced or formal contracts to undertake electrical work were signed prior to the publication of this policy then Western Power may grant permission, on receipt of a formal application for exemption from the requirements. Where an exemption has been granted the installation shall be completed in accordance with the previously published requirements for un-metered supplies. Exemption will not be granted where there is a safety concern.

### 2.2 References

This policy should be read in conjunction with but not limited to the following:

<a href="#">State Law Publishers</a>	Electricity Industry Act 2004
<a href="#">UDSM</a>	Underground Distribution Schemes Manual
<a href="#">WADCM</a>	WA Distribution Connections Manual
<a href="#">WA Electrical Requirements</a>	Western Australian Electrical Requirements
<a href="#">Standards Australia</a>	Wiring Rules AS/NZS 3000

## 3 Definitions

**Applicant-** A government authority, utility, approved organisation or their nominated representative who has permission from the relevant authority to install a device, requiring an un-metered electrical connection in either a road reserve or public open space.

**Approved organisation-** An organisation whose primary business or function is the installation and maintenance of illuminated advertising equipment or telecommunication equipment/devices and which has the approval of the relevant Local Government Authority (LGA) and/or Main Roads WA to install such equipment/devices in either a road reserve or public open space.

**Authorised electrical contractor-** An electrical contractor who holds a current electrical contractors licence and has satisfied the training requirements as defined by:

- Western Power's '[Contractor Connect](#)' or '[Service Connect](#)' schemes where the connection is to be within a pillar;

or

- [Power Training Services](#) 'Un-metered Supplies Course' (PTS 242) where the connection is to be within a pit.

**Consumer (customer)-** A government authority, utility or approved organisation, who retains ownership of the asset in a public place and who is responsible for the payment of energy consumption and usage charges applying to that equipment/device.

**Network Standard-** References to the Network Standard within the body of this document shall mean a reference to Western Australian Distribution Connections Manual" and Western Power's Network Standard NS 01-2000 – Network Arrangements for un-metered Electricity Supplies.

**Point of supply-** The junction of Western Power's distribution network conductors with the customer's consumer mains which will normally be within a pillar or pit.

**Retailer-** A body holding retail licence or integrated regional licence to supply electricity as defined by the Electricity Industry Act 2004.

**Voltage-** As defined by AS/NZS 3000 being the Differences of potential normally existing between conductors and between conductors and earth as follows:

- **Extra-low voltage:** Not exceeding 50V ac or 120V ripple free dc.
- **Low voltage:** Exceeding extra-low voltage but not exceeding 1000V ac or 1500V dc.
- **High voltage:** Exceeding low voltage.

## 4 Policy

It is recognised that in some situations the installation of a metered supply may be impracticable. In such circumstances Western Power may allow the consumer's equipment/device to be connected via an un-metered supply.

### 4.1 Eligibility Criteria for an un-metered supply

An un-metered supply (UMS) may be provided for consumer's electrical equipment/device where all the following criterion are satisfied:

- The energy usage is consistent and can be readily estimated;
- The consumer's equipment/device requires a single phase connection where the maximum load does not exceed 4.8 kW;
- The load is not subject to consumer controlled variations (i.e. water pumping or air conditioning);
- The required supply is not of a short duration (i.e. fetes, fairs and festive lighting);
- The point of supply for the consumer's equipment/device is installed on public land or within a road reserve;
- The consumer's equipment/device is on the same side of the road, visible from and no more than 25 metres from the point of supply;
- The consumer's mains cable supplying the consumer's equipment/device is installed underground;
- Each un-metered supply is effectively labelled in accordance with the requirements of the WAER, AS/NZS 3000 and this policy;
- It is not physically practical or commercial viable to install a meter (optional).

### 4.2 Ineligible or unsuitable un-metered supply connections

Where an application for an un-metered supply does not satisfy one or more of the criteria identified at clause 4.1, the application will be deemed ineligible. Additionally Western Power reserves the right to refuse or remove a connection if it is deemed by Western Power to be either not appropriate or harmful to the network, a consumer or member(s) of the general public.

### 4.3 Installation and maintenance of un-metered supplies and associated equipment/devices

The consumer shall take full responsibility for the installation and maintenance of all equipment/devices installed downstream from the point of supply.

### 4.4 Change of configuration

Where the configuration of the connection has or requires modification due to either a change in supply demand and or duration or frequency of use, the consumer shall as soon as is practical, but not more than 5 business days from the date of the required change in supply configuration, formally advise in writing both the Retailer and Western Power of the nature of any change.

#### 4.5 Removal of un-metered supplies assets.

Unless prior written approval has been granted by Western Power, an un-metered supply not being utilised by the consumer or deemed to be commercially inactive by Western Power, for a period greater than 12 months will be removed at the consumer's expense.

Until such time as the un-metered supply is removed or the consumer advises in writing that the un-metered supply is no longer required, the consumer shall continue to pay all supply and usage charges.

To arrange disconnection and removal of an un-metered supply complete the relevant section of and submit an [Application for Unmetered Supply \(including street lights\)](#) form or contact Western Power's Customer Services Centre on 13 10 87 for further advice.

#### 4.6 Multiple connections to a single un-metered point of supply

Multiple consumer un-metered supplies may be connected to single un-metered point of supply within a pillar or pit where:

- All such connections are for the same consumer and with the same retailer account;
- The total load of all connections does not exceed the value stated at clause 4.1;
- Connection criteria for each supply satisfies the requirements identified at clause 4.1;
- The method of connection utilised shall be a multi-way termination device in accordance with the Network Standard.

### 5 Policy Detail

#### 5.1 Eligible un-metered connection categories

The following list is indicative of the types of systems eligible for connection to an un-metered supply. The load shall be determined as the total connected wattage (or name plate rating) of the un-metered supply at the point of supply.

##### 5.1.1 General classifications

- Parking ticket machines.
- Surveillance systems.
- Town clocks.
- Automated public toilets.
- Sewerage, drainage, water pressure and pipe alarms.
- Irrigation controllers.

##### 5.1.2 Communications

- Public telephone/communication sites.
- Communication devices. (i.e. Multiplexers, Small Capacity Distributions Systems)
- Transmitter sites and radio masts.
- Transport and communication shelter combinations.
- Pay TV systems.

### 5.1.3 Lighting

- Pedestrian lighting. (i.e. cycle-ways and underpasses)
- Aux/Decorative lighting. (i.e. flood lighting, council street lighting)
- Illuminated street signs.
- Curbside furniture. (i.e. illuminated bus stops and signage)
- Security lighting.

### 5.1.4 Traffic control

- Traffic lights.
- Railway crossings. (i.e. flashing lights and boom gates)
- Road or Rail Authority assets. (i.e. traffic information)

## 5.2 Method of application for an un-metered supply

Written approval shall be obtained from Western Power for each new application prior to the connection of an un-metered supply.

All applications for a new un-metered supply shall be made via an application form entitled [Application for Unmetered Supply \(including street lights\)](#) available from Western Power's public website. The completed application form together with the site plans and letters of approval from the relevant Local Government Authority or Council must be submitted to the Western Power Connections Manager at the address nominated on the application form.

If an applicant requires assistance in determining the commercial feasibility of installing a un-meter supply, on receipt of a formal request, Western Power will provide a free desk-top estimate of the costs. The estimated value is a non-binding, indicative figure only, to assist in the planning and decision making processes relating to the proposed project.

Alternatively the applicant may elect to by pass the estimate stage and request a formal quotation which may require the forward payment of Western Power's standard non refundable design fee together with the submission of the UMS application and supporting documentation.

Where the applicant elects to proceed with the UMS project, full payment of the quoted connection costs, less the original design fee payment is required and must be accompanied by a 'Preliminary Notice', from the electrical contractor contracted by the applicant to complete the works. Western Power will not formally approve a UMS connection or commence any associated works until both of these requirements have been fulfilled.

The applicant is responsible for ensuring that the supplied information and application is accurate and complete. Western Power reserves the right to reject any incorrect or incomplete application.

## 5.3 Connection and installation requirements

### 5.3.1 Compliance

Installation of both Western Power's and the consumer's equipment/device shall comply with this Guide, the Network Standard and all relevant statutory Acts, Regulations and Rules.

Where required by the Network Standard, the consumer shall ensure that un-metered supply equipment/devices together with the consumer's mains cable is mapped and recorded, for the life of that installation, by a registered and practicing member of Dial Before You Dig WA Ltd. Full details of the requirements can be obtained from Dial Before You Dig WA's website <http://www.dialbeforeyoudig.com.au/> or by phoning 1100 during normal business hours.

### 5.3.2 Electricity account

The consumer shall make separate arrangements with an appropriate Retailer for an electricity account. The consumer shall confirm payment of all Western Power's fees /charges and establishment of an un-metered supply account with an electricity Retailer.

### 5.3.3 Installation of an un-metered point of supply

Western Power shall arrange for either the installation of or shall grant access to an appropriate point of supply. The preferred method of supply will be via a Western Power pillar utilising an internally mounted 'un-metered supply fuse'.

However Western Power acknowledges that in certain circumstances the use of a pillar may in itself present or introduce a hazard either to pedestrians or traffic therefore in such cases Western Power may choose to install an un-metered supply (UMS) pit as long as the criteria identified at clause 4.1 is satisfied.

### 5.3.4 Equipment/device connection

The consumer shall engage the services of an authorised electrical contractor to complete their electrical installation, including connection of the consumer mains to the 'un-metered supply fuse' and 'neutral connector' provided by Western Power in the pillar or pit.

The consumer mains cable size shall be a minimum of 2.5mm and a maximum of 16mm, installed underground in a 25mm heavy-duty orange PVC conduit, to a minimum depth of 750 mm, with an over laid orange PVC marker tape located 300mm above the cable.

A consumer's switchboard; main earth and stake and MEN connection shall be established prior to, or at the consumer's equipment/device unless the un-metered electrical installation is double-insulated throughout. The consumer's un-metered supply and installation shall be earthed in accordance with the requirements of AS/NZS 3000.

The electrical contractor shall verify the completion of their portion of the works via the transmission of a 'Completion Notice' to Western Power and provide to the consumer a 'Certificate of Compliance' commonly known as a 'Safety Certificate'.

The electrical contractor shall complete an Installation Test Certificate as supplied by Energy Safety and secure the completed Certificate to the consumer mains cable as close as possible to the 'un-metered supply fuse' located within the pillar or pit. Western Power will not energise an un-metered supply that has not been correctly certified and labelled.

On authentication of the above Western Power will initially energise the consumer mains for an un-metered supply for which an energisation fee may be charged. Where the electrical contractor is authorised as a part of Western Power's 'Contractor Connect Scheme' the electrical contractor may initially energise the consumer mains. In this instance the electrical contractor shall ensure that the consumer has a valid account with a Retailer and shall submit account details with the installation 'Completion Notice'.

#### 5.3.5 Electrical isolation

The electrical contractor, prior to commencing any work, shall ensure the installation is made safe by electrical isolating the installation and shall fit appropriate locking mechanisms and service/danger tags to secure the installation in a de-energised state.

##### 5.3.5.1 Equipment/device

The consumer shall ensure that all equipment/devices connected by means of an un-metered supply have an appropriate and effective method of electrical isolation for their equipment/device from the un-metered supply. This method of isolation shall be in addition to the 'un-metered supply fuse' located in the pillar or pit and shall comply with the requirements of the appropriate industry standard for that equipment/device or AS/NZS 3000 which ever is the more stringent.

##### 5.3.5.2 Consumer mains

Subsequent to the initial energisation of the consumer mains for an un-metered supply, an electrical contractor may remove and replace the fuse cartridge in the 'un-metered supply fuse' for the purposes of service, repair or isolation, to ensure the safety of operational staff, consumer's personnel or members of the public.

**Document end**