

PROTECTED



# Policy – Unmetered Supply

Standard Number: HPC-11DR-16-0001-2015

Original Issue Date: 1<sup>st</sup> June 2009

Document Number: 1396612

Print Date: 13/04/2023

Uncontrolled document when downloaded. Refer to Horizon Power's website for most current version.

© Horizon Power Corporation 2016

PROTECTED

Document Control		
<b>Author</b>	<b>Name:</b>	Paul Savig
	<b>Position:</b>	Senior Engineer Standards
<b>Reviewed By</b>	<b>Name:</b>	Andrew Nguyen
	<b>Position:</b>	Standards and Plant Engineer
<b>Endorsed By</b>	<b>Name:</b>	Johnathan Choi
	<b>Position:</b>	Standards and Plant Manager
<b>Approved By *</b>	<b>Name:</b>	Victor Cheng
	<b>Position:</b>	Manager Engineering and Project Services
<b>Date Created/Last Updated</b>	13 April 2023	
<b>Review Frequency **</b>	5 yearly	
<b>Next Review Date **</b>	13 April 2028	

\* This person will have the power to grant the process owner the authority and responsibility to manage the process from end to end.

\*\* Frequency period is dependent upon circumstances– maximum is 5 years from last issue, review, or revision whichever is the latest. If left blank, the default shall be 1 year unless otherwise specified.

Revision Control		
Revision	Date	Description
3	13/04/2023	Change Unmetered Fuse size from 10A to 20A and upline fuse to 25A
2	22/03/2023	Update reference links and terms used, positioning of pit and Consumers requirements
1	24/06/2015	First issue
0	01/06/2009	Initial Document

STAKEHOLDERS	
<i>The following positions shall be consulted if an update or review is required:</i>	
Manager Engineering & Project Services	Asset Managers
Manager Systems & Network Planning	Manager Assets Services
Senior Manager Safety, Health and Wellbeing	

**TABLE OF CONTENTS**

PROTECTED

<b>1</b>	<b>Purpose .....</b>	<b>4</b>
1.1	Standards .....	4
1.2	Standards .....	4
<b>2</b>	<b>Normative References .....</b>	<b>5</b>
2.1	Standards .....	5
2.1.1	Horizon Power Standards .....	5
2.1.2	Other References .....	5
2.2	Definitions and Abbreviations .....	5
<b>3</b>	<b>Requirements .....</b>	<b>6</b>
<b>4</b>	<b>Application .....</b>	<b>6</b>
<b>5</b>	<b>Connection to Network.....</b>	<b>7</b>
5.1	Connection .....	7
5.2	Connection .....	8
5.3	Labelling .....	8
5.4	Energisation .....	8
5.5	Electrical Isolation.....	9
<b>6</b>	<b>Removal of Unmetered Supply Assets .....</b>	<b>9</b>
Appendix A Revision Information .....		10

## 1 PURPOSE

### 1.1 Standards

This Unmetered Supply policy is to inform Horizon Power's consumers seeking to apply for an unmetered point of electricity supply (UMS) within Horizon Power's operational areas, commonly known as the Pilbara Grid (Pilbara region) and all the Microgrids (Esperance, Gascoyne/Mid West and Kimberley regions) of the impacts relating to request.

### 1.2 Standards

Unmetered Supply (Supplying Consumer's Asset on Public Land) shall only apply to:

- Local government parking ticket machines
- Local government Irrigation controllers
- Illuminated street signs
- Sewerage and drainage pipe alarms
- Pedestrian lighting (cycle-ways and underpasses)
- Curb-side furniture (illuminated bus stops and signage)
- Communication devices/transmitters sites
- Public phone boxes
- Streetlights
  - a) Streetlights (Consumer Asset)
    - i. Road/Street lighting - a Local Government asset in a public place
    - ii. Road/Street lighting - a Road Authority asset in a public place
    - iii. Traffic lights, rail crossing and pedestrian lighting - a Road or Rail authority asset in a public place
  - b) Streetlights (Horizon Power Asset)
    - i. Road/Street lighting in a public place paid for by Local Government
    - ii. Road/Street lighting in a public place paid for by Road Authorities
    - iii. Consumer's premises Security Lighting in a public place paid for by a consumer

Unmetered supplies are not available for loads in excess of 1.0 kW based on connected wattage and must be metered if they exceed 1.0 kW, except by agreement with Main Roads and Local Government Authorities.

Unmetered supply load subject to consumer controlled variations in durations of usage is not permitted (i.e. water pumping). No temporary unmetered supply will be made available (i.e. festival lighting and Christmas lighting), any such supply must be metered.

## 2 NORMATIVE REFERENCES

### 2.1 Standards

#### 2.1.1 Horizon Power Standards

- [1]. *Horizon Power Pricing Policy*, [DM# 1889349](#), available from Horizon Power
- [2]. *Horizon Power Pricing Rules*, [DM# 1811759](#), available from Horizon Power
- [3]. *Underground Distribution Schemes Manual*, DM# 1586848, available at <https://www.horizonpower.com.au/contractors-installers/manuals-standards/> under the Standards and then Manuals tabs
- [4]. *Unmetered supply application form (including streetlights)*, available at <https://www.horizonpower.com.au/utilities/forms/> under the Connections, supply upgrades & modifications tab
- [5]. *Network Contractor Authorisation*, available at <https://www.horizonpower.com.au/contractors-installers/contractor-authorisation/> under the Network contractor authorisation tab

#### 2.1.2 Other References

- [6]. *AS/NZS 3000, Electrical Installations (known as Australian/New Zealand Wiring Rules)*, Standards Australia, 2018 (Amdt 2:2021) available at <http://www.saiglobal.com>
- [7]. *Utility Providers Code of Practice (UPCoP)* available at <https://www.horizonpower.com.au/contractors-installers/manuals-standards/> under the Industry resources tab
- [8]. *Western Australian Service and Installation Requirements (WASIR)*, available at <https://www.horizonpower.com.au/contractors-installers/manuals-standards/> under the Manuals and then Distribution Design tab
- [9]. *WA Electrical Requirements (WAER)*, WA Government-DMIRS re-issued 2019 [waer\\_2019.pdf \(commerce.wa.gov.au\)](#)

### 2.2 Definitions and Abbreviations

For the purposes of this policy, the following definitions shall apply.

**Applicant:** A government authority, utility, electrical contractor or individual who has permission from the relevant authority to establish a device, requiring an unmetered electrical connection in a public place

**Authorised Person:** An individual with the skills, qualifications and certifications as prescribed by both, The Electricity Act 1945 and Horizon Power, subsequently endorsed by the latter to undertake un-metered supply/connections installations and connections to the network operator's distribution network.

## PROTECTED

**Consumer:** Any Government Authority, Local Government Authority (LGA), utility (e.g. Main Roads) or other authorized organizations who retains ownership of the asset requiring an electrical supply in a public place and who will be responsible for the payment of the energy consumption charges that apply for that asset energy use.

**Electrical Contractor:** Electrical Contractor who holds a current Electrical Contractors License and has satisfied the training requirements as defined by Horizon Power's 'Network Contractor Authorisation' [5].

**Single Phase Power:** Power which is supplied as a single source of alternating current, between two conductors consisting of 'active' and 'neutral'.

### 3 REQUIREMENTS

This document shall be read in conjunction with the Underground Distribution Scheme Manual [3], the Utilities Code of Practice [7], the Western Australia Service and Installation Requirements [8] and the Western Australia Electrical Requirements [9].

This document does not cover financial or commercial requirements, which are covered by the Horizon Power Pricing Policy [1] and the Horizon Power Pricing Rules [2].

### 4 APPLICATION

Unmetered supplies (UMS) are arranged for electrical equipment that is installed on public land and have the following characteristics:

- 1) A maximum load of 1 kW single-phase, where the energy used can be readily estimated and where it is not practical to install a meter.
- 2) The load is to be based on the total connected wattage (name plate rating) of the unmetered supply at the supply point.
- 3) Streetlights, traffic lights, rail crossings, pedestrian and advertising lighting with a maximum connected load at the point of supply of 4.8 kW single phase. (by agreement with Main Roads and Local Government Authorities).

The applicant shall be responsible for ensuring that all the information on the form is correctly filled out and that all the criteria stated within the policy are met. Horizon Power reserves the right to reject any incomplete or unsuitable application.

For new supplies the applicant is responsible for identifying the applicable billing account and if none exists then the applicant must apply to create a Billing Account. All applications for new or upgraded unmetered supplies will be made on the Horizon Power form "Unmetered supply application form (including streetlights)" [4] and transmitted to the respective Horizon Power office as directed at the bottom of the form.

Written approval shall be obtained from Horizon Power for each new application prior to installation of the unmetered supply.

## PROTECTED

Horizon Power must always initially energize the consumer mains for an unmetered supply, unless an electrical contractor registered in Horizon Power's 'Network Contractor Authorisation' for unmetered supply connections is used.

## 5 CONNECTION TO NETWORK

Unmetered Supplies (UMS) [4] are connected to Horizon Power's networks by means of a Below Ground Service Pits (BGSP):

- 1) placed within the road reserve in the cable alignment or on public land as close as possible to the road reserve (see UPCoP [6]),
- 2) within 30 m of the consumer switchboard,
- 3) via a single core 16 mm<sup>2</sup> copper cable, neutral screened, XLPE insulated from either a Mini or Uni-Pillar
- 4) via a 25 A fuse at the Pillar and 20 A fuse in the BGSP

The supply to the BGSP may be from a MPS transformer if:

- a) the Unmetered supply point is close to the MPS transformer, and
- b) the MPS PENDA switchgear has the necessary fuse-switch for a 25 A fuse and connection of a single core 16 mm<sup>2</sup> copper cable, neutral screened, XLPE insulated.

### 5.1 Connection

The consumer shall engage the services of an authorised person (contractor) or electrical contractor to complete their portion of the electrical installation inclusive of the consumer's equipment and mains cable.

**Note:** Where the electrical contractor is not authorised, the consumer mains cable and conduit tail shall be located alongside the pit with enough length to enable the wiring system to be correctly positioned and terminated, by an authorised person, into the pit with the connection made to the load side 'un-metered supply fuse' and 'neutral connector'.

The consumer mains cable size shall be a minimum of 2.5 mm<sup>2</sup> and a maximum of 16 mm<sup>2</sup>, installed underground in an appropriately sized heavy-duty orange PVC conduit (maximum of 40 mm<sup>2</sup>) to a minimum depth of 750 mm, with an overlaid orange PVC marker tape located 300 mm above the cable.

Where required a consumer's switchboard; main earth 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 [6].

## 5.2 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.

The method of isolation shall be in addition to the 'un-metered supply fuse' located within the network equipment and shall comply with the requirements of the appropriate industry standard for that equipment/device and AS/NZS 3000 [6] whichever is the more stringent.

## 5.3 Labelling

The consumer shall ensure that all equipment/devices/cables are labelled in accordance with the WA Electrical Requirements [9], applicable Australian standards including but not limited to AS/NZS 3000 [6] and the network technical/connection requirements.

In addition to the above, each fuse shall identify the equipment owner, type of load and the location of the consumer point of isolation/equipment/device supplied (Section 5.1).

## 5.4 Energisation

The authorised person (contractor) and electrical contractor shall verify the completion of their portion of the works via the transmission of a 'Completion Notice' (NoC) to Horizon Power and provide the consumer with a 'Certificate of Compliance' commonly known as a 'Safety Certificate'.

The authorised person (contractor) or electrical contractor must verify that the installation is ready for energisation in accordance with the notification requirements as prescribed by The Electricity Act 1945 and the Terms and Conditions as specified by Horizon Power's Service Request (UMS application) [4].

On authentication of the above, Horizon Power or a network authorised person, will energise the consumer's un-metered supply installation and consumer mains cable. (Fees may apply).

The authorised person (contractor) shall record the date of initial energisation of the installation (refer to AS/NZS 3000 [6] clause 8.4) at the site and on the test report. The onsite energisation date must be located in a clearly visible position within the equipment enclosure, not obscured or obstructed, be legible and permanent for the life of the installation.

In all instances the consumer and their agent shall ensure that the consumer's un-metered supply/connection has a valid account with Horizon Power and shall submit account details with the Service Request and Notice of Completion.



## PROTECTED

Subsequent to the initial energisation of the consumer mains cable for an un-metered supply, only Horizon Power, an authorised person (contractor) or the consumer's electrical contractor who is the holder of a current, may remove and replace an un-metered supply fuse cartridge located within a network pit for the purposes of service, repair or isolation, to ensure the safety of operational staff, consumer's personnel or members of the public.

Connection and disconnection of an un-metered supply originating from a network 'un-metered approved fuse' within a pit (or pillar) may only be completed by network personnel or a person authorised by Horizon Power.

### **5.5 Electrical Isolation**

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

## **6 REMOVAL OF UNMETERED SUPPLY ASSETS**

For the removal of unmetered supply assets:

- 1) If an unmetered supply becomes inactive, it must be removed unless the consumer chooses to continue paying the supply and usage charges.
- 2) To arrange disconnection and removal of an unmetered supply, please contact our Customer Service Representatives on 1800 267 926 (residential) or 1800 737 036 (business) to arrange for a quotation for removal.

PROTECTED

## APPENDIX A REVISION INFORMATION

(Informative) Horizon Power has endeavoured to provide standards of the highest quality and would appreciate notification of errors or queries.

Each Standard makes use of its own comment sheet which is maintained throughout the life of the standard, which lists all comments made by stakeholders regarding the standard.

A comment sheet found in **DM# 3333956** can be used to record any errors or queries found in or pertaining to this standard. This comment sheet will be referred to each time the standard is updated.

Date	Rev No.	Notes
01/06/2009	0	First Issue
24/06/2015	1	Re-format
22/03/2023	2	Update reference links and terms used, positioning of pit and Consumers requirements