

Network Standard

NETWORK

Document No : NW000-S0052
Amendment No : 1
Approved By : Chief Engineer
Approval Date : 11/09/2015
Review Date : 26/06/2018

NW000-S0052

**NS102 WORKING ON POLES WITH MOBILE PHONE TRANSMITTER
INSTALLATIONS**



ISSUE

For issue to all Ausgrid and Accredited Service Providers' staff who carry out work on poles or street lighting columns, and is for reference by field, technical and engineering staff.

Ausgrid maintains a copy of this and other Network Standards together with updates and amendments on www.ausgrid.com.au.

Where this standard is issued as a controlled document replacing an earlier edition, remove and destroy the superseded document.

DISCLAIMER

As Ausgrid's standards are subject to ongoing review, the information contained in this document may be amended by Ausgrid at any time. It is possible that conflict may exist between standard documents. In this event, the most recent standard shall prevail.

This document has been developed using information available from field and other sources and is suitable for most situations encountered in Ausgrid. Particular conditions, projects or localities may require special or different practices. It is the responsibility of the local manager, supervisor, assured quality contractor and the individuals involved to make sure that a safe system of work is employed and that statutory requirements are met.

Ausgrid disclaims any and all liability to any person or persons for any procedure, process or any other thing done or not done, as a result of this Standard.

All design work, and the associated supply of materials and equipment, must be undertaken in accordance with and consideration of relevant legislative and regulatory requirements, latest revision of Ausgrid's Network Standards and specifications and Australian Standards. Designs submitted shall be declared as fit for purpose. Where the designer wishes to include a variation to a network standard or an alternative material or equipment to that currently approved the designer must obtain authorisation from the Network Standard owner before incorporating a variation to a Network Standard in a design.

External designers including those authorised as Accredited Service Providers will seek approval through the approved process as outlined in NS181 Approval of Materials and Equipment and Network Standard Variations. Seeking approval will ensure Network Standards are appropriately updated and that a consistent interpretation of the legislative framework is employed.

Notes: 1. Compliance with this Network Standard does not automatically satisfy the requirements of a Designer Safety Report. The designer must comply with the provisions of the Workplace Health and Safety Regulation 2011 (NSW - Part 6.2 Duties of designer of structure and person who commissions construction work) which requires the designer to provide a written safety report to the person who commissioned the design. This report must be provided to Ausgrid in all instances, including where the design was commissioned by or on behalf of a person who proposes to connect premises to Ausgrid's network, and will form part of the Designer Safety Report which must also be presented to Ausgrid. Further information is provided in Network Standard (NS) 212 Integrated Support Requirements for Ausgrid Network Assets.

2. Where the procedural requirements of this document conflict with contestable project procedures, the contestable project procedures shall take precedent for the whole project or part thereof which is classified as contestable. Any external contact with Ausgrid for contestable works projects is to be made via the Ausgrid officer responsible for facilitating the contestable project. The Contestable Ausgrid officer will liaise with Ausgrid internal departments and specialists as necessary to fulfil the requirements of this standard. All other technical aspects of this document which are not procedural in nature shall apply to contestable works projects.

INTERPRETATION

In the event that any user of this Standard considers that any of its provisions is uncertain, ambiguous or otherwise in need of interpretation, the user should request Ausgrid to clarify the provision. Ausgrid's interpretation shall then apply as though it was included in the Standard, and is final and binding. No correspondence will be entered into with any person disputing the meaning of the provision published in the Standard or the accuracy of Ausgrid's interpretation.

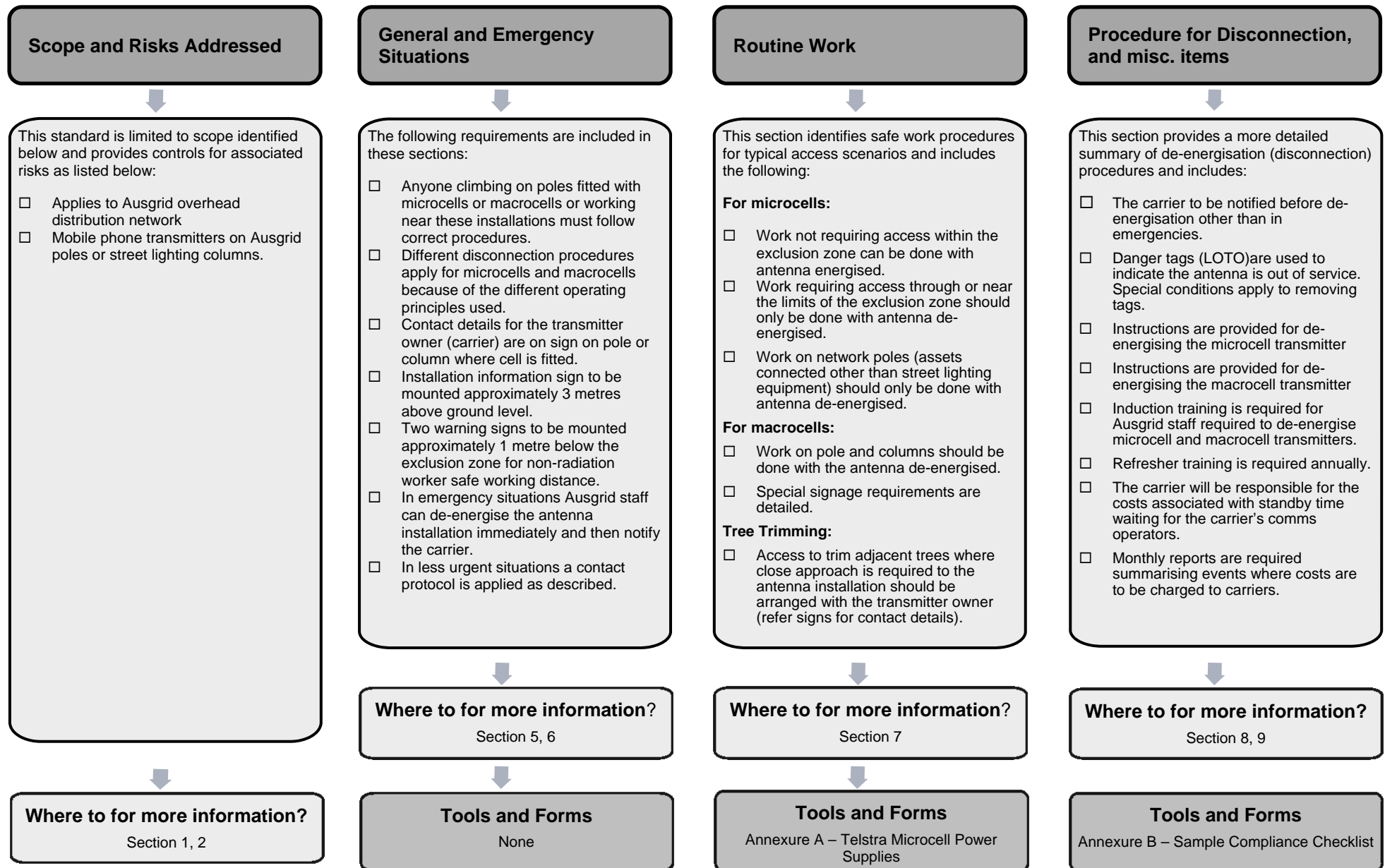
KEYPOINTS

This standard has a summary of content labelled "KEYPOINTS FOR THIS STANDARD". The inclusion or omission of items in this summary does not signify any specific importance or criticality to the items described. It is meant to simply provide the reader with a quick assessment of some of the major issues addressed by the standard. To fully appreciate the content and the requirements of the standard it must be read in its entirety.

AMENDMENTS TO THIS STANDARD

Where there are changes to this standard from the previously approved version, any previous shading is removed and the newly affected paragraphs are shaded with a grey background. Where the document changes exceed 25% of the document content, any grey background in the document is to be removed and the following words should be shown below the title block on the right hand side of the page in bold and italic, for example, Supersedes – document details (for example, "Supersedes Document Type (Category) Document No. Amendment No.>").

KEY POINTS OF THIS STANDARD



Network Standard
NS102
Working on Poles with Mobile Phone
Transmitter Installations

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1.0 PURPOSE

Network Standard NS102 details the correct procedures to ensure work may be completed safely and efficiently on Ausgrid poles or street lighting columns where mobile phone transmitter installations are installed.

2.0 SCOPE

Throughout Ausgrid overhead distribution network.

3.0 REFERENCES

3.1 General

All work covered in this document shall conform to all relevant Legislation, Standards, Codes of Practice and Network Standards. Current Network Standards are available on Ausgrid's Internet site at www.ausgrid.com.au.

3.2 Ausgrid documents

- Bush Fire Risk Management Plan
- Company Form (Governance) - Network Document Endorsement and Approval
- Company Procedure (Governance) - Network Document Endorsement and Approval
- Company Procedure (Network) - Production / Review of Network Standards
- Customer Installation Safety Plan
- Electrical Safety Rules
- Electricity Network Safety Management System Manual
- NS181 Approval of Materials and Equipment and Network Standard Variations
- NS212 Integrated Support Requirements for Ausgrid Network Assets
- NS261 Requirement for Design Compliance Framework for Network Standards
- Public Electrical Safety Awareness Plan
- Public Lighting Management Plan
- Tree Safety Management Plan

3.3 Other standards and documents

- ENA Doc 001-2008 National Electricity Network Safety Code

3.4 Acts and Regulations

- Electricity Supply (General) Regulation 2014 (NSW)
- Electricity Supply (Safety and Network Management) Regulation 2014
- Work Health and Safety Act 2011 and Regulation 2011

4.0 DEFINITIONS

Accredited Service Provider (ASP)	An individual or entity accredited by the NSW Government Trade & Investment in accordance with the Electricity Supply (Safety and Network Management) Regulation 2014 (NSW).
Business Management System (BMS)	An Ausgrid internal integrated policy and procedure framework that contains the approved version of documents.
Document control	Ausgrid employees who work with printed copies of document must check the BMS regularly to monitor version control. Documents are considered "UNCONTROLLED IF PRINTED", as indicated in the footer.
Macrocell	A macrocell is a cell in a mobile phone network that provides radio coverage served by a high power cellular base station (tower). Macrocells are found in rural areas or along highways. Over a smaller cell area, a microcell is used in a densely populated urban area.
Microcell	A microcell is a cell in a mobile phone network served by a low power cellular base station (tower), covering a limited area such as a mall, a hotel, or a transportation hub.
Network Standard	A document, including Network Planning Standards, that describes the Company's minimum requirements for planning, design, construction, maintenance, technical specification, environmental, property and metering activities on the distribution and transmission network. These documents are stored in the Network Category of the BMS repository.
Review date	The review date displayed in the header of the document is the future date for review of a document. The default period is three years from the date of approval however a review may be mandated at any time where a need is identified. Potential needs for a review include changes in legislation, organisational changes, restructures, occurrence of an incident or changes in technology or work practice and/or identification of efficiency improvements.

5.0 GENERAL

Where mobile phone transmitter installations are installed on Ausgrid poles or street lighting columns, anyone required to climb or work near these installations must follow correct procedures to ensure work may be completed safely and efficiently.

A standard disconnection procedure is to be followed on all microcell type installations. A different procedure is required for use with macrocell installations, due to the different operating principles involved. With microcell installations, the procedure will involve de-energising the ac supply to the transmitter; while with macrocells it will involve de-energising the dc supply to the antenna installation at a panel on the base station kiosk.

Where a transmitter installation is to be de-energised by Ausgrid staff, they must contact the owner of this installation (the carrier) on the 24 hour phone number indicated on the sign on the pole or column. They will provide an equipment ID code, their mobile phone/contact number and any other reasonable information requested. All contact with carriers for emergency work or arranging appointments will be made using the 24 hour contact number.

A sign with information about the transmitter installation (information sign) will be installed approximately 3 metres above ground level. This sign shows the name of the carrier, the 24 hour contact number and the identification number of the installation. Two additional signs (warning signs) will be erected facing the road and the footpath respectively, approximately 1 metre below the non-radiation worker safe working distance (the exclusion zone). These signs again bear the name and phone number of the carrier, and also the size of the exclusion zone for the antenna installed at that site.

6.0 EMERGENCY SITUATIONS

In an emergency situation, the antenna installation will be de-energised immediately and the carrier advised as soon as possible afterward using the 24 hour phone number. Work requiring immediate de-energisation would include vehicle impact, trees contacting conductors, wires down or damage to pole top construction.

For non emergency situations where the work still has a degree of urgency requiring immediate attention, such as where a streetlight fails in service and repairs involve climbing the pole, Ausgrid has an obligation to restore it to operation promptly. It is not usually possible to know in advance whether the pole or column has a microcell or macrocell installation. Where they are installed on the pole and the antenna must be de-energised for the work to be carried out, the carrier will be contacted and advised. If the carrier prefers, they may arrange to send their own field staff (comms operator) to de-energise and restore the installation. In this case, the carrier will pay the stand-by cost of staff from the time the number is called until the comms operator arrives on site and de-energises the antennae.

To avoid excessive disruption or delays to work programmes, the carrier should normally respond within a half hour of the call being placed. Where the carrier's staff have not attended within the half hour, a second call must be placed and a request made that they increase priority of the work. If no-one has attended within one hour of the initial call, then the carrier will be advised that the work will now proceed with Ausgrid staff completing the disconnection work. A charge for the one hour waiting time will still be made.

The carrier may agree to pay the cost of having Ausgrid staff return to complete the work out of normal hours, provided the work can be postponed to the extent requested. For urgent (non-emergency) work, agreement for the work to be deferred will normally only be given if the work is to be completed within 24 hours of the initial visit, and provided resources are available to carry out the work at the agreed time. The section supervisor responsible for the work will determine if a deferment of the work can be agreed to.

If urgent work requiring de-energisation of the antennae is to be carried out by contractors or other persons not employees of Ausgrid, then they will call the 24 hour phone number and wait for the comms operators to arrive on site and de-energise the antenna installation. The carrier will pay the cost of stand-by time from the time the number is called until the comms operator arrives on site. If the time to respond is considered excessive for the nature of the work, then the contractors will be advised to contact Ausgrid who will provide qualified staff to disconnect the antenna installation.

7.0 ROUTINE WORK

7.1 Microcells

Antenna installations on streetlight columns should normally remain energised while lamps or luminaires are replaced, or for most other non-emergency work. Workers on site must verify that the work will not require approaching close to the exclusion zone.

Antenna installations on streetlight poles (e.g. wood poles) should normally remain energised while lamps or luminaires are replaced. Any work requiring access to¹ or climbing on the pole close to the lower limit of the exclusion zone will require the antenna installation to be de-energised.

Routine work will be recorded and a planned outage arranged with the carrier. Where possible, 5 working days notice will be provided.

¹ "Access to" includes working from an EWP where the work requires close approach to the pole, so that it is possible that the *exclusion zone* may be inadvertently breached.

Planned work carried out by contractors or other persons not employees of Ausgrid and requiring de-energisation must be carried out after giving the carrier 5 days notice via the 24 hour phone number.

For antenna installations on network poles (these are poles carrying construction other than only street lighting equipment) all work requiring persons to climb higher than the warning signs must only be performed with the antenna installation de-energised. An appointment must be arranged, normally with 5 working days' notice. Most routine work will come from line inspector reports or involve the installation or modification of service mains. Persons recording this sort of work must indicate on their reports that the pole concerned has a mobile phone transmitter installation attached, and the equipment ID number and 24 hour phone number marked on the sign attached to the pole.

To permit climbing access on network or street lighting poles, all antenna installations of significant size (that is, significantly larger than an omni (whip) antenna) must be attached to the pole using an offset bracket. The bracket will be designed and positioned to permit authorised persons to erect ladders or pole platforms and to carry out work on all faces of the pole.

7.2 Macrocell/base station installations

Macrocell installations on street lighting columns. Where macrocell antennae are to be installed on street lighting columns, the large exclusion zone restricts the work that may be carried out on the column. All such installations must be de-energised before work will be carried out above the warning signs. Arrangements may be made for non-urgent work to be completed out of normal working hours, provided the carrier pays the cost of such work. Where possible, 5 days notice will be given. The warning signs attached to such columns must bear the words "Do not work above this sign unless the antennae are de-energised" as well as the carrier's name and 24 hour contact number.

Where macrocell installations are to be placed on top of the poles, they should be installed so as to minimise interference with Ausgrid assets on the pole. For example, they should be erected high enough to ensure the cabling to the antennae does not occupy significant space in the area of low voltage or street lighting mains on the pole. The antenna installation must be de-energised before work may be carried out on the pole top construction. Where the work is non-urgent, then 5 working days notice will be arranged. In other cases, the worker will call the 24 hour contact number and advise that the antenna installation is going to be de-energised.

For urgent (non emergency) work, the carrier may choose to arrange for a comms operator to attend and de-energise the antenna installation, in which case they shall pay the cost of staff standing by from the time the call is made until the antenna installation is de-energised.

No additional Ausgrid attachments will be made to the pole above the highest existing attachment once a macrocell installation has been approved.

7.3 Tree trimming

Normally, the microcell or macrocell installation will be installed where there are few or no trees nearby. Tree trimming is normally carried out annually on all trees growing close to Ausgrid's network. Where trees are close by, and tree trimming is required which may involve close approach to the antenna installation, then the tree trimming contractor will be advised to call the carrier and arrange a comms operator to attend the site and de-energise the antenna before work commences. The carrier will pay the cost of stand-by from the time the call is placed until the comms operator arrives on site and de-energises the antenna installation. If the work is non-urgent, the carrier may prefer to arrange for the work to be carried out at a later date, or out of normal hours, at their expense.

8.0 PROCEDURE FOR DISCONNECTION OF ANTENNA SUPPLY BY AUSGRID STAFF

8.1 General

The following sections describe how Ausgrid staff are to undertake work to de-energise a microcell or macrocell installation.

8.2 Common procedures

With both microcells and macrocells, except in an emergency, the carrier must first be contacted and advised that power is to be disconnected. They will then arrange for data flow to be transferred away from the unit and will give the person in charge for the work a verbal clearance. The electrical power may then be disconnected as described below. Once power is disconnected, a **Personal Danger** tag (see Figure 2) will be fitted to indicate that the antenna installation is out of service, and this tag must NOT be removed by anyone other than the person placing it there, or someone delegated by that person. If it is necessary to leave the work site temporarily, then the power should be restored and the **Personal Danger** tag removed prior to leaving.

Where the work is such that the site will be left de-energised for some time (eg pole on ground or leaning excessively), then another person may remove the **Personal Danger** tag at a later time, only after ensuring that no-one is working on the antenna installation restored, and after making reasonable attempts to contact the person who originally attached the **Personal Danger** tag to advise them it is being removed.

If for any reason a person who installed a **Personal Danger** tag leaves the site and on return, finds the **Personal Danger** tag missing, then no further work will proceed until the power is confirmed to be disconnected, and a new **Personal Danger** tag attached. The carrier should again be contacted on the 24 hour phone number if the power has been restored and is to be disconnected again.

The carrier must be notified when work is completed and power for any work involving the disconnection of power to a transmitter installation.

8.3 Microcell installations

Microcells are normally supplied from the LV network, with power feeding into a power supply box attached to the pole or street lighting column installed approximately 3 metres above ground level. While individual installations may vary slightly, they will generally be similar to Figure 1. Photographs of the various installations are included in Annexure A.



Figure 1 Microcell installation

In all cases, a circuit breaker switch is installed under a weatherproof cover, and has a flexible cable connecting the power supply to the transmitter. The flexible cable has a weatherproof removable plug at one or both ends. If the microcell is to be de-energised, the person in charge of the work must first contact the carrier as described above, and advise them of the need to de-energise the antenna installation. For non-emergency work, the carrier will then arrange to turn off data remotely and advise the Ausgrid officer. The weatherproof cover is then lifted, and the circuit breaker switch moved to the OFF position. The weatherproof plug cover is then unscrewed and the plug removed from the socket, creating a physical break. A Personal Danger tag (see Figure 2) is then installed on the weatherproof cover over the circuit breaker.

Work may now proceed on the pole. When work is completed, the Personal Danger tag should be removed, the plug reconnected to the socket and the switch restored to the ON position. The carrier should be contacted on the 24 hour phone number, and advised that work is completed and the power restored.

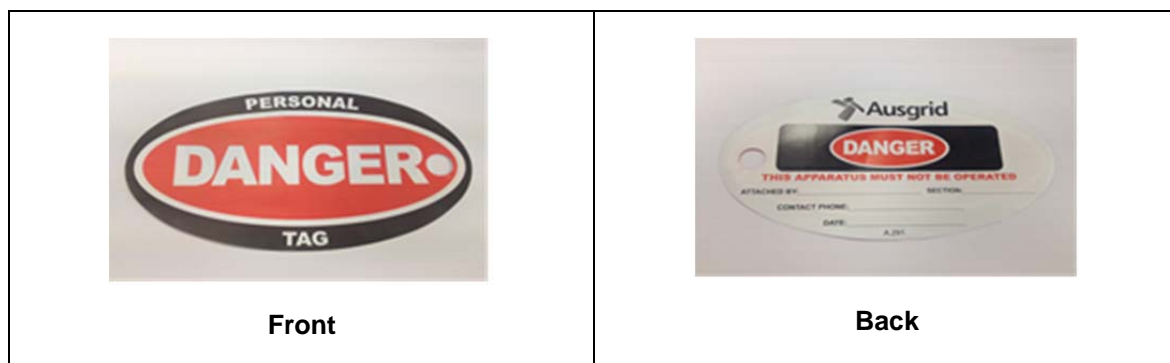


Figure 2: Personal Danger tag

For a number of CBD streetlights, the power supply is via a Telstra Payphone pit with “Electricity” marked on the lid (see Figure 3). The lid may be removed with a normal pit key.

The water sealed circuit breaker is inside this pit, and may be operated as usual to isolate the LV supply. The weatherproof plug is then removed from the socket up the street lighting column and a Danger tag fitted as described above. These installations are likely to be phased out as the City Council of Sydney (CC of S) introduces the Multi function poles (MFPs) throughout the CBD area.



Figure 3 Telstra Electricity Pit

The newer type pit installations associated with the MFPs will initially belong to the CC of S, but Ausgrid may be called upon to assist with emergency isolation. The pit lid requires a “Gatic” key type device to open it (the same device that is required for Ausgrid LV pits in the same areas), after which the procedures are the same as described above – that is, open the circuit breaker and then remove the plug from the socket. However, as CC of S do not allow boxes on their MFPs for

aesthetic reasons, the power box and transmitter are both in the pit, with only the antenna on the pole.

8.4 Macrocell installations

With macrocells, a battery backup is often provided, so that disconnecting the incoming ac supply will not effectively de-energise the antenna installation. In this case, the antenna installation may be de-energised by operating a set of ganged circuit breakers switching off the dc power supply. Isolation may then be ensured by opening a set of “red spot” fuse links fitted with solid links. The switch and links are mounted in a small meter type panel on the base station unit near the pole or street lighting column on which the antenna installation is fitted (see Figure 4). The sign on the pole or column will indicate where the base station is located relative to the pole. The panel (and any gates) is accessed by a PLN key. The panel has a sign on its cover, marked “Emergency Antenna Isolation Only”. A label inside the panel says “Ensure switch is open before operating links”.

Once the switch has been operated, links adjacent to the switch are removed and left in the panel to provide a physical break in the circuit. Again, a Danger tag must be fitted to the switch once the power has been disconnected.



Figure 4: Red Spot Fuse Base

9.0 TRAINING

Ausgrid staff required to de-energise microcells or macrocells must receive induction training prior to taking up duties involving such work. This would include Lineworkers, Emergency Service Officers and District Operators. They shall receive annual refresher training, such as a tool box talk to revise their understanding and to incorporate any changes to the equipment or techniques involved. Completion of the refresher training should be recorded and forwarded to the Electrical Safety and Authorisations unit which will hold these records for at least 2 years.

Ausgrid staff required to work on or near microcells or macrocells will receive induction training prior to commencing duties, and annual refresher training in identification of microcells and macrocells and procedures for working on or near them. Completion of the refresher training should be recorded and forwarded to the Electrical Safety and Authorisations unit which will hold these records for at least 2 years.

Line Inspectors shall be trained in the recognition of microcell and macrocell installations, and the need to include relevant details when reporting work on poles with them attached.

Ausgrid contractors working on or near Ausgrid's network shall receive induction training in identification of microcells and macrocells, and procedures for working near them. This would include street lighting bulk lamp replacement contractors and tree trimming contractors. They shall

also receive annual refresher training as described for Ausgrid staff working near microcells or macrocells.

Other persons whose duties require them to work on or near Ausgrid poles or street lighting columns will be made aware of procedures for working near microcells and macrocells through the publication of a CIA covering these procedures. They will also be made aware of the need to take adequate precautions and follow correct procedures as part of their induction before becoming accredited service providers.

A list of locations where microcells and macrocells are installed is held by Network Facilities Access Manager, and will be circulated to affected groups periodically.

10.0 PAYMENT FOR STANDBY TIME

All charges for standby time waiting for comms operators or for work completed outside normal working hours at the request of the carrier shall be charged to a standing job number raised by Network Facilities Access Manager, who will arrange to pass on these costs to the relevant carrier. Consequently, a report must be provided at the end of each month where such charges were incurred, indicating the time involved, the carrier responsible for the installation, and the reason for the expenditure.

11.0 RECORDKEEPING

The table below identifies the types of records relating to the process, their storage location and retention period.

Table 1 – Recordkeeping

Type of Record	Storage Location	Retention Period*
Approved copy of the network standard	BMS Network sub process Standard – Company	Unlimited
Draft Copies of the network standard during amendment/creation	TRIM Work Folder for Network Standards (Trim ref. 2014/21250/97)	Unlimited
Working documents (emails, memos, impact assessment reports, etc.)	TRIM Work Folder for Network Standards (Trim ref. 2014/21250/97)	Unlimited

* The following retention periods are subject to change eg if the records are required for legal matters or legislative changes. Before disposal, retention periods should be checked and authorised by the Records Manager.

12.0 AUTHORITIES AND RESPONSIBILITIES

For this network standard the authorities and responsibilities of Ausgrid employees and managers in relation to content, management and document control of this network standard can be obtained from the Company Procedure (Network) – Production/Review of Network Standards. The responsibilities of persons for the design or construction work detailed in this network standard are identified throughout this standard in the context of the requirements to which they apply.

13.0 DOCUMENT CONTROL

Content Coordinator : Transmission and Distribution Mains Engineering Manager
Distribution Coordinator : Engineering Information and Services Manager

Annexure A – Telstra Microcell Power Supplies

First generation unit – 26 sites in Sydney CBD

A waterproof (sealed) circuit breaker as used with a Telstra Payphone mounted in a Telstra '2' pit with "Electricity" lid. The pole mounted microcell is powered using a flexible lead with plugs on either end. The supply side is connected using a 3 pin, side entry plug into a standard GPO, mounted behind the left hand side top cover, in a weatherproof box on the pole directly under the microcell. See Figures A1 and A2.

Second generation unit Sydney CBD and metropolitan sites

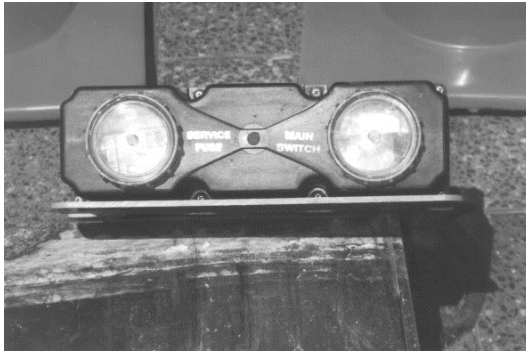


Figure A1: Telstra Pit Mounted Power supply

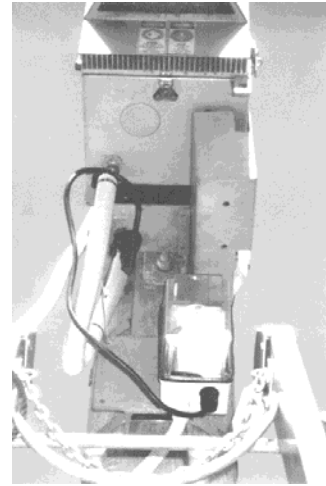


Figure A2: Telstra Pit Fed Column microcell
Note removable plug in bottom of transmitter box

A 3 section box containing a GPO and a circuit breaker is mounted on the pole. The pole mounted microcell is powered using a flexible lead with a plug on either end. The supply side is connected using a 3 pin, side entry plug into a standard GPO mounted behind the top, blank weatherproof cover of the box mounted on the pole directly under the microcell. Isolate power by removing the black plug on the end of the lead where it screws into the microcell. See Figure A3.

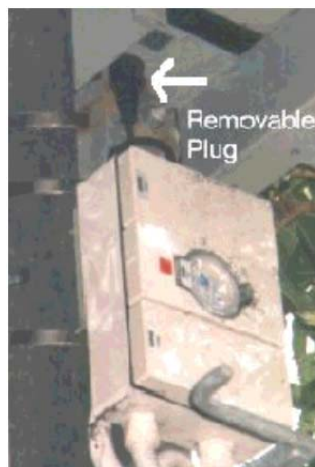


Figure A3: 2nd Generation PS on pole

Third generation units Sydney CBD and metropolitan sites under construction and proposed

A tall, slim pole mounted box containing a circuit breaker and a GPO. The pole mounted microcell is powered using a flexible lead with plugs on either end. The supply side is connected using a plug with a screwed retaining collar in the bottom of the weatherproof box mounted on the pole adjacent to the microcell. Once the breaker is switched off, the power can be isolated by removing the black plug on the end of the lead at the base of the microcell. See Figure A4.



Figure A4: Third Generation Telstra PS on column

Optus Microcell Power supplies.

Only one model exists – as shown in Figure A5. The lower weatherproof cover protects the circuit breaker switch, while the upper clear cover houses the socket into which the weatherproof plug is inserted.



Figure A5: Optus power supply

Annexure B – Sample Compliance Checklist



Network Standard Checklist Form

NS102 Working on poles with mobile phone transmitter installations

Project Identification:	
Prepared by: <Name & Position Title>	Date:

This checklist is for internal Ausgrid use only and does not apply to ASPs or contractors who have specific compliance requirements in relation to Contestable project works. The checklist is unique for each network standard and is available within BALIN and the BMS as a separate form that can be amended as required, completed and saved in TRIM with the other project documentation.

This section is used to identify compliance checks that when applied to the work associated with this Network Standard will satisfy an audit process to establish that the requirements of the standard have been followed. It is expected that applicable items would normally be checked as Comply (Yes) as non-compliance is generally not tolerated.

Where non-compliance is the result of specific site conditions or design decisions this needs to be identified in the notes section of the form for each non-compliance and approval sought from an appropriately authorised Ausgrid manager responsible for design approval per NS261 Compliance Framework for Network Standards.

Should additional information be available to document non-compliance decisions, these can be attached to the checklist form. The checklist and any attached explanatory notes should be saved in the project document repository.

Item	Description	Refer Clause	Completed/ Actioned
	Scope		
	Working on Ausgrid poles or street lighting columns where mobile phone transmitters have been installed.		
	General & Emergency Situations		
1	An information sign and two warnings signs have been installed at a specific mobile phone transmitter site	5.0	Yes/No/NA
2	Exclusion zone indicating non-radiation worker safe working distance has been determined.	5.0	Yes/No/NA
3	Contact information for carrier is present on signs at mobile transmitter location.	5.0	Yes/No/NA
4	For emergency situations the antenna is de-energised immediately.	6.0	Yes/No/NA
5	For non-urgent situations carrier was advised of need to de-energise transmitter and has made appropriate response.	6.0	Yes/No/NA
6	Any standby costs associated with waiting for the carrier or the carrier’s staff is borne by the carrier.	6.0	Yes/No/NA
	Routine Work		
7	For Microcells the antenna may remain energised where work on street light columns does not require approaching close to or passing through the exclusion zone.	7.1	Yes/No/NA

Item	Description	Refer Clause	Completed/ Actioned
8	For Microcells the antenna may remain energised where work on street lighting wood poles does not require approaching close to or passing through the exclusion zone.	7.1	Yes/No/NA
9	For Microcells the antenna must be de-energised where work on wood poles with network assets other than street light are attached.	7.1	Yes/No/NA
10	Antenna installations of significant size must be mounted using an offset bracket so that ladders, and pole platforms, can be erected on any side of the pole.	7.1	Yes/No/NA
16	For both microcell and macrocell transmitters notice to the carrier of minimum 5-days is given for non-urgent work.	7.1	Yes/No/NA
17	For macrocells the exclusion zone is much larger greatly restricting the allowable work that can be done with the antenna energised. Work on the pole top must be done de-energised.	7.2	Yes/No/NA
18	Tree trimming near or within the microcell or macrocell exclusion zone must be done with the antenna de-energised	7.2	Yes/No/NA
19	For both microcell and macrocell transmitters notice to the carrier of minimum 5-days is given for non-urgent tree trimming work.	7.3	Yes/No/NA
	Procedure for Disconnection and misc. items		
20	No additional requirements from above.		Yes/No/NA

Notes:

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The signatures panel of this document has been removed for privacy considerations. The remainder of the document is unchanged.