

Company Policy

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(Supersedes Company Policy (Network) NW000-Y0045 Amendment No. 1)

NW000-Y0045 MANAGEMENT OF OVERHEAD PRIVATE AND SHARED MAINS

1.0 POLICY STATEMENT

The company is committed to maintaining a safe, reliable and affordable network of supply, and has a number of obligations with respect to the safety of its network. It is required under the *Electricity Supply (Safety and Network Management) Regulation 2014* to take all reasonable steps so that the design, construction, commissioning and operation of its network is safe, and to have in place an Electricity Network Safety Management System (ENSMS) that assists the company to achieve that objective.

The company's ENSMS must deal with, among other things, bush fire risk relating to electricity lines and other assets of the network operator's network and aerial consumers' mains on bush fire prone land that is private land. The company is required to mitigate identified safety risks through treatment and controls that reduce the risk to a level which is as low as reasonably practicable.

In light of these obligations, the company has considered the safety risks arising from customer installations in accordance with the company's Risk Management Framework and as a result has decided to implement this policy.

Some overhead consumers' mains have a similar safety risk profile as network assets. Consumers' mains are required to be inspected, tested and maintained in accordance with the Service and Installation Rules of NSW and AS/NZS 3000 Electrical Installations (Wiring Rules).

The company will periodically inspect overhead consumers' mains located within its network area where such inspections are required to comply with the company's network safety obligations. The inspection(s) will be conducted in accordance with the company's Network Technical Maintenance Plan (NTMP). All defects, corrective and replacement works identified on consumers' mains will be referred to the customer for rectification. Where a fault or defect in consumers' mains could make them become a potential cause of bush fire, the customer will be responsible for the costs of rectification. In all other circumstances where the defect poses a risk to the safety of the company's network, the customer will be responsible for the costs unless otherwise agreed.

The company has identified that some categories of consumers' mains may pose a higher risk to the safety of the network than others. The company may identify that certain consumers' mains within these categories pose an unacceptably high risk to the safety of the network. In those cases, the company intends to apply this policy to reduce the level of risk. This policy sets out the steps which the company will take with respect to particular consumers' mains and measures to be put in place to satisfy the company that the safety risk is managed. Where the consumers' mains pose an unacceptably high risk to the safety of the network, the company will undertake inspections. In

some circumstances, where necessary, the company will consult and negotiate with the customer(s) to transfer ownership and control of the relevant mains to the company.

2.0 PURPOSE

To provide a standard set of requirements to be applied across the company to the delineation of ownership of overhead consumers' mains and the allocation of responsibility between customers and the network businesses for private mains inspection, maintenance and/or replacement.

This policy is only applicable to aerial or overhead (not underground) consumers' mains.

3.0 REFERENCES

Internal

Board Policy (Governance) - Risk Management
Company Procedure (Governance) - Risk Management
Electricity Network Safety Management System (ENSMS) Manual
Network Technical Maintenance Plan (NTMP)
NS195 High Voltage Customer Connections (HVCS)

External

Electricity (Consumer Safety) Act 2004 (NSW)
Electricity (Consumer Safety) Regulation 2006 (NSW)
Electricity Supply (General) Regulation 2014 (NSW)
Electricity Supply (Safety and Network Management) Regulation 2014 (NSW)
Electricity Supply Act, 1995 (NSW)
National Energy Retail Law (NSW)
Work Health and Safety Act 2011 (NSW)
Work Health and Safety Regulation 2011 (NSW)
AS 5577-2013 Electricity Network Safety Management Systems
AS/NZS 2067 Substations and High Voltage Installations Exceeding 1kV A.C.
AS/NZS 3000 Electrical Installations (Wiring Rules)
Crossings of NSW Navigable Waters: Electricity Industry Code (the Code)
National Energy Retail Rules
Service and Installation Rules of NSW, August 2016

4.0 DEFINITIONS

Connection point

The point of delineation (ie junction) between the company owned overhead mains (eg distribution mains or service mains) and the consumer's mains.

Consumers' mains

The conductors between the connection point and main switchboard which form part of an electrical installation. Note that for the purposes of this policy only overhead (aerial) and not underground consumers' mains will be considered. These mains are owned and maintained by the customer. Consumers' mains may be private mains or shared mains.

Customer

As per the Service and Installation Rules of NSW, a customer is "an individual or an entity who (either personally or through an agent) applies for or receives or makes use of a connection of an electrical installation to the company's distribution system".

Distribution mains

Any high or low voltage overhead mains belonging to the company, excluding service mains.

Distribution system

As per the Service and Installation Rules of NSW, a distribution system “is the electricity power lines, associated equipment and electricity structures that are used to convey and control the conveyance of electricity to or from the premises of customers or generators”. The Service and Installation Rules of NSW also stipulate that a distribution system does not include “any conduit, pole or other structure supporting protecting or enclosing electricity lines where those assets are part of an electrical installation”.

Document control

As a minimum requirement, controlled documents will be identified by a unique number, be signed or noted as approved by the appropriate approving officer, have the current amendment number and approval date clearly displayed.

Note: Employees who work with printed copies of document must check the Business Management System (BMS) regularly to monitor version control. Documents are considered “uncontrolled if printed”, as indicated in the footer.

Electricity Network Safety Management System (ENSMS)

An Electricity Network Safety Management System (ENSMS) is used to define how the company manages the safe design, construction, commissioning, operation, maintenance and decommissioning of its electricity network.

Executive Leadership Team

Chief Executive Officer, Chief Operating Officer, Chief Financial Officer, Company Secretary, General Manager Customer and Corporate Services, General Manager Safety Human Resources and Environment (SHRE), General Manager Asset Management, General Manager Network Services, and General Manager Business Improvement.

Geographic Information System (GIS)

The company’s internal electronic mapping system that stores spatial and connectivity information for all of the company’s distribution and transmission assets.

Installation Safety Management Plan (ISMP)

This plan is owned and developed by the high voltage installation responsible person (the high voltage customer) and considers the compliance requirements of the Service and Installation Rules of NSW, AS/NZS 2067, AS/NZS 3000, *Electricity (Consumer Safety) Act 2004 (NSW)*, *Electricity (Consumer Safety) Regulation 2006 (NSW)*, *Electricity Supply Act 1995 (NSW)*, *Electricity Supply (General) Regulation 2014 (NSW)*, *Electricity Supply (Safety and Network Management) Regulation 2014 (NSW)*, *Work Health and Safety Act 2011 (NSW)*, *Work Health and Safety Regulation 2011 (NSW)* as well as the company’s high voltage connection agreements and NS195 High Voltage Customer Connections (HVCS). It is the customer’s primary document relating to the electrical network within their high voltage electrical installation. It includes, but is not limited to site specific safety rules, switching instructions, maintenance procedures, commissioning and operating procedures.

Network Technical Maintenance Plan (NTMP)

A collection of documents that detail as a minimum:

- which items are to be maintained;
- what maintenance tasks are to be carried out, and
- when and where the maintenance tasks are to be performed.

Private mains

All consumers' mains on private property that extend beyond the connection point with the company's distribution mains, and which are not shared mains. Note that for the purposes of this policy private mains excludes sub-mains.

Review date

The review date displayed in the header of the document is the future date for review of a document which is one year for documents requiring annual review, two years for fraud control documents or the default period of three years from the date of approval. A review may be mandated at any time where a need is identified due to changes in legislation, organisational changes, restructures, occurrence of an incident or changes in technology or work practice.

Risk Management Framework

The set of foundation documents and organisational arrangements for designing, implementing, monitoring, reviewing and continually improving risk management throughout the company.

SAP

The company maintains an integrated Asset Management System (SAP) that records data in a database. It contains data related to the construction and maintenance of the company's network, including pole inspection and treatment.

Service Mains

The low voltage overhead mains belonging to the company between the company's distribution mains and the connection point.

Shared mains

Aerial consumers' mains which extend across and/or provide supply to more than one premises.

Sub-mains

Low voltage overhead mains belonging to a customer that extend beyond the main switchboard or metering unit.

5.0 KEY REQUIREMENTS**5.1 Assessment of consumers' mains**

Shared mains and private mains are each a type of consumers' mains, which means that they are owned and maintained by customers.

The company will assess particular consumers' mains on a case-by-case basis to determine whether they are shared mains or private mains. The following general principles apply to that determination.

5.1.1 *General distinction between private mains and shared mains*

Private mains are all consumers' mains on private property that extend beyond the connection point with the company's distribution mains, and which are not shared mains. Note that for the purposes of this policy private mains excludes sub-mains.

Shared mains are all aerial consumers' mains which extend across and/or provide supply to more than one premises.

5.1.2 Rural Subsidy Schemes

The company will assess mains installed under the various rural subsidy schemes (operating between 1944 and 1983) on a case-by-case basis to determine whether they should be considered private mains or shared mains.

5.2 Assessment of risk relating to consumers' mains

The company has identified that some categories of consumers' mains may pose a higher risk to the safety of the network than others. The company may identify that certain consumers' mains within these categories pose an unacceptably high risk to the safety of the network. Where the safety risk posed by consumers' mains is unacceptably high, the company will undertake inspections of these consumers' mains.

Following inspection the company will further assess whether the safety risk would be materially reduced by the company taking steps to transfer the ownership and control of those consumers' mains to itself. The company will apply the principles set out in section 5.3 of this policy to determine whether those assets are eligible to be transferred to company ownership. If the assets are eligible to be transferred, the company will take the steps set out in section 5.4 of this policy.

Where the company considers that:

- the safety risk associated with particular identified consumers' mains remaining under customer ownership and control is not unacceptably high; and/or
- that risk would not be materially reduced by the company taking steps to transfer the ownership and control of the consumers' mains to itself, or the assets are not eligible to be transferred according to the assessment under section 5.3.

The company will apply the principles set out in section 5.6 of this policy.

5.3 Assessment of eligibility for transfer to company ownership

The company will assess whether particular consumers' mains should be transferred to company ownership using the following principles.

5.3.1 Consumers' mains which are not eligible for transfer

The following categories of consumers' mains are not eligible to be transferred to company ownership:

- (a) Electrical installations which were originally installed, or assumed to have been installed as shared mains, and where a legally binding instrument or agreement is in place between relevant customers recognising each affected party's obligations and responsibility for (as a minimum) ownership, inspection, maintenance, relocation, replacement and repair.
- (b) Instances where multiple low voltage electrical installations (ie multiple metering points) exist on a single Torrens Title lot.
- (c) Consumers' mains which have not been maintained in accordance with the AS/NZS 3000 Electrical Installations (Wiring Rules) and are not in a condition satisfactory to the company. While these mains may be considered to pose an unacceptably high risk to the safety of the network, the customer has an obligation to rectify defects prior to transfer;

Mains in the categories above are not eligible for transfer to company ownership, and will be treated in accordance with section 5.6 of this policy.

- (d) Electrical installations that are covered by a suitable Installation Safety Management Plan (ISMP). In this scenario the mains are not eligible for transfer to company ownership as all inspection, maintenance and/or replacement activities are the responsibility of the customer(s) and are covered in the Installation Safety Management Plan (ISMP).

5.3.2 Consumers' mains crossing navigable waterways

Existing consumers' mains that cross navigable waterways must comply with the Crossings of NSW Navigable Waters: Electricity Industry Code. The company considers that there is a high risk that, if those assets remain under customer ownership, they will not comply with the Code.

To reduce this risk, as a general principle, the company will seek to negotiate the transfer of such mains to company ownership following the procedure in section 5.4.2.

Existing waterway crossings that involve service mains shall be converted to distribution mains such that the poles on both sides of the waterway become the company's poles. In these scenarios, the first span of mains beyond the crossing shall become service mains, and any other poles and consumers' mains beyond them will be treated as described in section 5.6.

Any consumers' mains crossing navigable waters that do not fall within those scenarios described above will be assessed by the company on an individual case-by-case basis.

Whether the company shall seek to negotiate a transfer of ownership of such consumers' mains beyond any mains crossing navigable waterways will be assessed on a case-by-case basis.

5.4 Steps to be taken where an unacceptably high risk has been identified

5.4.1 Shared Mains risk mitigation

The company will take the following steps where it considers that the safety risk associated with particular identified shared mains remaining under customer ownership and control is unacceptably high, and the shared mains are eligible for transfer of ownership:

- (a) Where there is no legally binding instrument or agreement in place in respect of shared mains, and the company is satisfied that it is not necessary to negotiate the transfer of ownership or control of the shared mains to itself provided that adequate arrangements are put in place for customers to manage the safety risk posed by the shared mains, the company will communicate the following option to relevant customer(s).

The company will request that the customer(s) introduce their own legally binding instrument or agreement recognising all affected parties' obligations and responsibility for (as a minimum) ownership, inspection, maintenance, relocation, replacement and repair of the assets.

Where necessary and appropriate, and at its discretion, the company will act as an intermediary to seek agreement from all affected customers.

If this option can be agreed upon and relevant assets registered against each property title then those shared mains will be treated as described in section 5.6.

- (b) Where the company is satisfied that it is necessary to negotiate the transfer of ownership and control of those shared mains to itself, including where the option above cannot be agreed

upon by affected customers within a reasonable time, the company will take the following steps:

- make arrangements for the customers to provide the company with suitable access, including requiring customers and/or landowners to grant satisfactory easements and rights of way;
- seek to negotiate the transfer of the shared mains to company ownership; and
- capture the shared mains data and number, and record in SAP and Geographic Information System (GIS).

Following transfer of ownership, the assets will become part of the company's distribution system and will no longer be consumers' mains. The company will manage the assets in accordance with section 5.5 of this policy.

5.4.2 Private Mains risk mitigation

The company will take the following steps where it considers that the safety risk associated with particular identified private mains remaining under customer ownership and control is unacceptably high, and the private mains are eligible for transfer of ownership:

- make arrangements for the customer to provide the company with suitable access, including requiring customer and/or landowners to grant satisfactory easements and rights of way;
- seek to negotiate the transfer of the private mains to company ownership; and
- the private mains are data captured, numbered and recorded in SAP and GIS.

Following transfer of ownership, the assets will become part of the company's distribution system. The company will manage the assets in accordance with section 5.5 of this policy.

5.5 Treatment of network assets

Where the company has transferred private mains or shared mains to company ownership, the assets will become network assets and part of the company's distribution system. The company will:

- inspect and maintain the assets in accordance with the company's Network Technical Maintenance Plan (NTMP);
- replace the assets (if required) in accordance with the company's relevant network standards; and
- carry out any relevant remedial works on the assets, based on inspection results.

5.6 Treatment of consumers' mains

5.6.1 General treatment of consumers' mains

Where the safety risk posed by consumers' mains is unacceptably high, the company will undertake inspections of these consumers' mains. All these consumers' mains, other than those transferred to company ownership in accordance with section 5.4.2, will:

- remain under customer ownership and be maintained by the customer;
- be allocated a unique identifier and recorded in the appropriate corporate system(s);
- be inspected in accordance with the company's NTMP;
- have the results of the inspection(s) recorded in the appropriate corporate system(s); and
- have any identified defect(s) referred to the customer for rectification or replacement in accordance with section 5.6.2.

5.6.2 Consumers' mains defect notices

All defects, corrective and replacement works identified on consumers' mains will be referred to the customer for rectification. Where a fault or defect in consumers' mains could make them become a potential cause of bush fire, the customer will be responsible for the cost of rectification. In all other circumstances where a defect in consumers' mains poses a risk to the safety of the company's network, rectification costs will be borne by the customer unless otherwise agreed.

These issues will be communicated by way of a defect notice issued to the customer that will specify an appropriate timeframe for rectification by the customer, given the type and nature of the defect.

The company will record and track these defects notices in the appropriate corporate system(s).

5.6.3 Disconnection for failure to rectify defects

If rectification works are not undertaken within the timeframe specified in a defect notice, and the company reasonably considers that an electrical installation on any premises is or is likely to become unsafe if one or more premises continue to be connected to the network, the company will, subject to its obligations under the principal energy laws relating to disconnection which are the *Electricity (Consumer Safety) Act 2004 (NSW)*, *Electricity (Consumer Safety) Regulation 2006 (NSW)*, *Electricity Supply Act 1995 (NSW)*, *Electricity Supply (General) Regulation 2014 (NSW)*, *Electricity Supply (Safety and Network Management) Regulation 2014 (NSW)*, *National Energy Retail Law (NSW)*, and the National Energy Retail Rules:

- if reasonable to do so, notify each customer in respect of the premises of its intention to disconnect the premises, and the steps (if any) that the customer can take to avoid the premises being disconnected; or
- if it reasonably considers that there is an immediate danger to life or property, or an immediate risk of starting a fire, immediately disconnect the premises without notice.

5.6.4 Failure to rectify defects for bushfire risk mitigation work on private land

If bush fire risk rectification works are not undertaken within the timeframe specified in a defect notice, the company may enter the property and carry out the required work and recover as a debt owed by the owner the reasonable cost of performing the work in accordance with the *Electricity Supply Act 1995 (NSW)*.

5.7 High Voltage Customer Requirements

The company will undertake the following as a reasonable step where it considers the risk posed to the safety of the network by high voltage customers is unacceptably high:

- for high voltage customers wishing to connect to the company's network confirm that their Installation Safety Management Plan (ISMP) covers maintenance for the full installation (including mains and equipment) taking into account risk(s) such as bush fire; and
- for high voltage customers already connected to the company's network with private overhead (aerial) network(s) located within bush fire prone areas undertake a formal periodic notification and verification process that seeks assurance that:
 - the high voltage customers comply with their ISMP; and
 - that the ISMP covers maintenance for the full installation (including mains and equipment) taking into account risk(s) such as bush fire in line with the *Electricity (Consumer Safety) Act 2004 (NSW)*, *Electricity (Consumer Safety) Regulation 2006 (NSW)*, *Electricity Supply Act 1995 (NSW)*, *Electricity Supply (General) Regulation 2014 (NSW)*, *Electricity Supply (Safety*

and Network Management) Regulation 2014 (NSW), Work Health and Safety Act 2011 (NSW), Work Health and Safety Regulation 2011 (NSW) as well as the company's high voltage connection agreements, the high voltage requirements of the Service and Installation Rules of NSW, AS/NZS 3000, AS/NZS 2067 and NS195 High Voltage Customer Connections (HVCS).

5.8 Cost allocations

5.8.1 Consumers' mains

All costs associated with any inspection of consumers' mains where the risk is unacceptably high will be borne by the company. In all other cases, all costs associated with the inspection of consumers' mains will be borne by the company unless agreed otherwise between the company and the customer.

Costs associated with the maintenance and replacement of consumers' mains will be borne by the company if the consumers' mains are transferred to company ownership (see sections 5.2 - 5.4).

Responsibility for the costs of rectification of defects, disconnection and reconnection fees, maintenance and/or replacement costs with respect to consumers' mains will be allocated as follows:

- where a fault or defect in the consumers' mains could make them become a potential cause of bush fire – the customer will be responsible for the costs; and
- in all other circumstances where the defect poses a risk to the safety of the company's network – the customer will be responsible for the costs unless otherwise agreed.

5.8.2 Costs of transfer and rectification

The company will bear all costs associated with transferring ownership and control of shared or private mains. These costs include:

- legal and other costs associated with establishing/negotiating suitable access, satisfactory easements and rights of way in favour of the company; and
- the material and labour costs associated with replacing the physical asset, but also the company incurred survey.

6.0 ACTIONS TO ACHIEVE IMPLEMENTATION OF THIS POLICY

The following high level actions are required to achieve successful implementation of the policy.

- develop and maintain a network standard for inspection;
- develop and maintain data capture and management plan;
- develop defect process and reporting documentation;
- communicate and engage with stakeholders;
- develop documentation for entry to private property;
- develop and conduct training to facilitate inspection and entry to private property;
- develop and implement a local customer management framework; and
- develop and implement high voltage customer requirements.

7.0 AUTHORITIES AND RESPONSIBILITIES

Chief Executive Officer has the authority and responsibility for approving this policy.

Executive Leadership Team has the authority and responsibility for endorsing this policy.

General Manager Asset Management has the authority and responsibility for maintaining policies and standards to support the application of this policy.

General Manager of Network Services has the authority and responsibility for:

- monitoring compliance with this policy; and
- delivering the required outcomes of this policy.

Manager Network Risk Management and Planning has the authority and responsibility for:

- developing and maintaining this policy; and
- delivering the required outcomes of this policy.

Manager Primary Systems has the authority and responsibility for:

- developing and maintaining this policy; and
- delivering the required outcomes of this policy.

8.0 DOCUMENT CONTROL

Branch Manager : Manager Network Risk Management and Planning

Content Coordinator : Manager Primary Systems