



NSW Service & Installation Rules Aug 2016

Summary of changes from previous version

The August 2016 Rules

Disclaimer

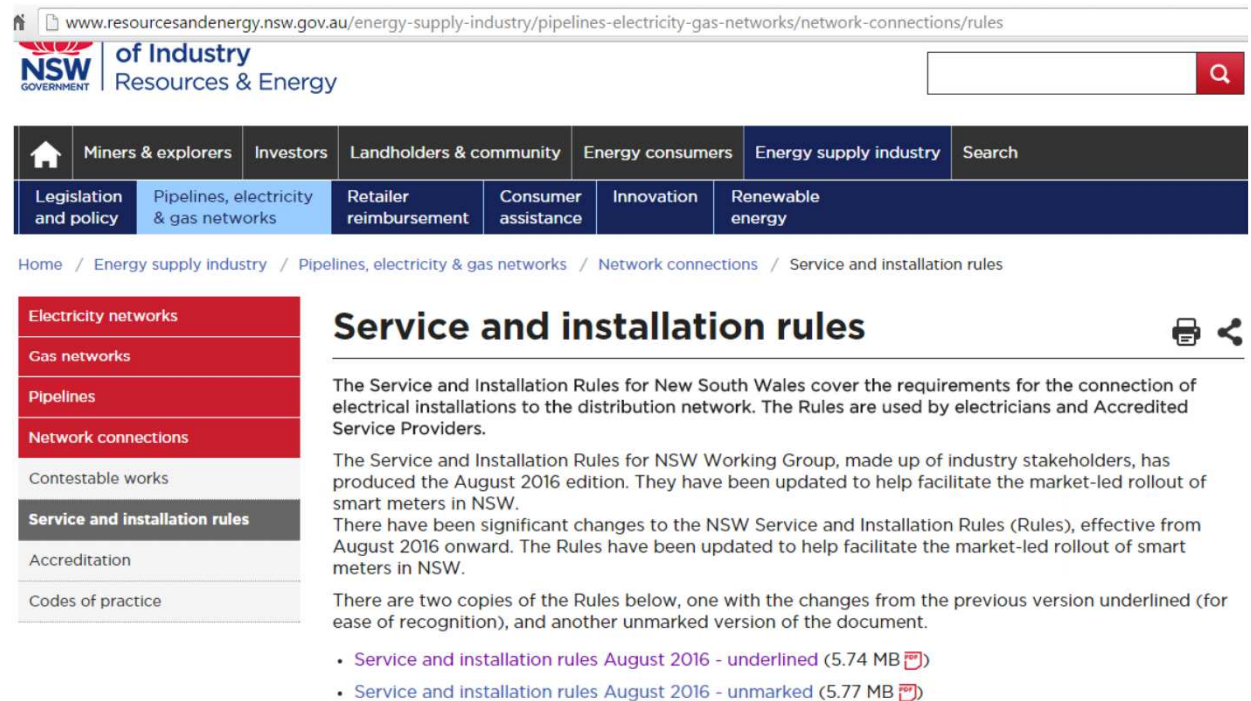
This presentation does not claim to cover every change from the previous rules to the August 2016 Rules.

Please ensure that you familiarise yourself with the current version of the rules asap

Google: NSW Service Rules

The Department's website has two versions of the Aug 2016 Rules available

Note that in the underlined version, not all changes are able to be highlighted, eg deleted text.



www.resourcesandenergy.nsw.gov.au/energy-supply-industry/pipelines-electricity-gas-networks/network-connections/rules

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Service and installation rules

The Service and Installation Rules for New South Wales cover the requirements for the connection of electrical installations to the distribution network. The Rules are used by electricians and Accredited Service Providers.

The Service and Installation Rules for NSW Working Group, made up of industry stakeholders, has produced the August 2016 edition. They have been updated to help facilitate the market-led rollout of smart meters in NSW.

There have been significant changes to the NSW Service and Installation Rules (Rules), effective from August 2016 onward. The Rules have been updated to help facilitate the market-led rollout of smart meters in NSW.

There are two copies of the Rules below, one with the changes from the previous version underlined (for ease of recognition), and another unmarked version of the document.

- [Service and installation rules August 2016 - underlined](#) (5.74 MB)
- [Service and installation rules August 2016 - unmarked](#) (5.77 MB)

The August 2016 Rules

Overview

- Managed by the “Service and Installation Rules for NSW” working group
 - Industry stakeholders
 - Chaired and owned by the NSW Gov’t via Department of Industry
- August 2016 revision has seen almost 12 months of review
 - updated to help facilitate the market-led rollout of smart meters in NSW
 - Reflects new role of Meter Providers
 - Addresses technical / safety issues with smart meters
 - Other points raised during normal time based review of Rules
 - Most emphasis on Chapter 1 (General Requirements) and Chapter 4 (Service and Metering Equipment)

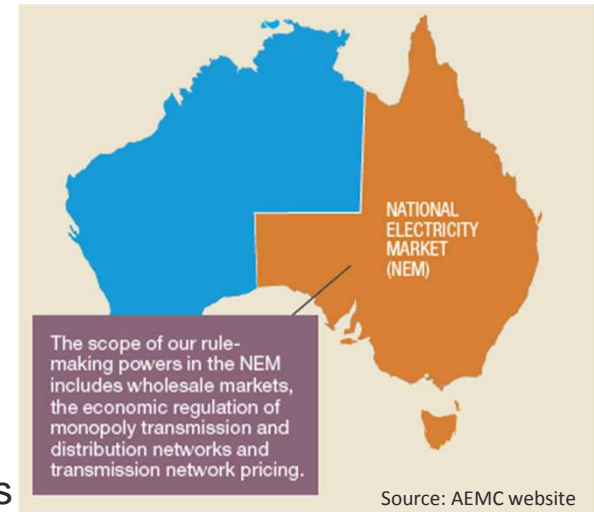
Background info: Metering in the National Electricity Market

AEMC's Power of Choice - 2012

NER Amending Rule 2015 No 12
Phase out of Basic metering post 1 Dec 17
intended to combat obstacles preventing deployment of smart meters and facilitate a competitive market-led rollout.

Smart / Advanced meters allow:

- key enabling technology
- remote meter reading
- remote disconnections & reconnections
- remote access to appliances
- cost-reflective pricing options
- Information to the consumer



Smart meters have the potential to provide a wide range of benefits to both electricity utilities and consumers, including empowering end users with the information to engage more actively with their energy consumption, and enabling innovative demand management initiatives and cost-reflective pricing options

Source: Utilitymagazine.com.au

Background info: NSW response to power of choice (also driven by the finalisation of the SBS Dec 16)

- Advanced Meters Bill 2016:
 - Delineates between Basic (5&6) and Advanced Meters (1-4)
 - Basic: remains with the NSW ASP scheme (until 1 Dec 2017)
 - Advanced: fits the National regime
 - Legislated SMSs for Metering Providers
 - Compliance with NSW Fair Trading
- Changes to the NSW Service and Installation rules

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Basics

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Administrative matters brought to front of Rules

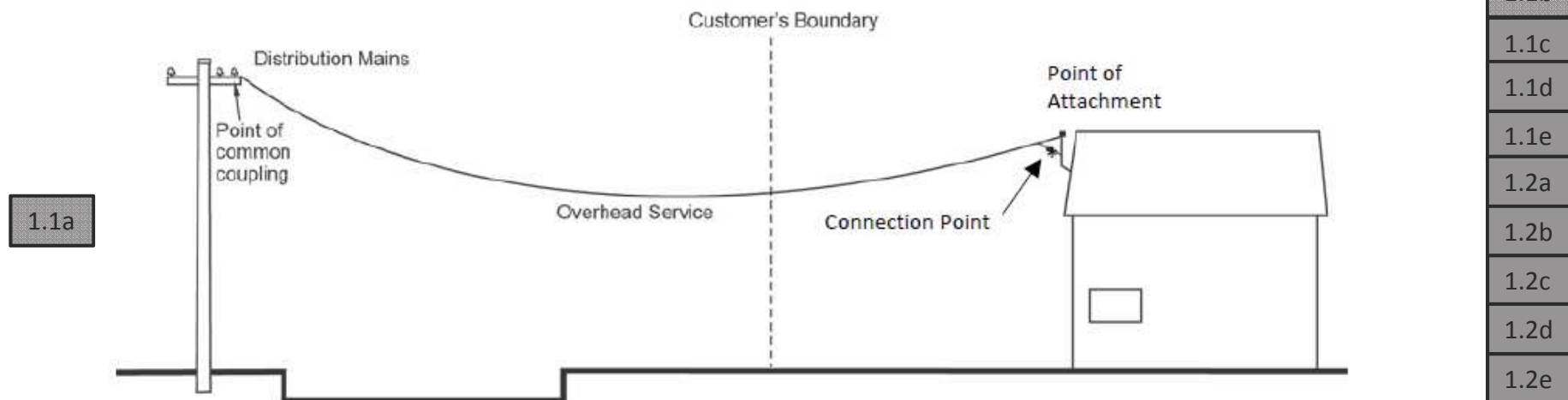
Definitions no longer numbered (in line with other regulatory formats)

Several new definitions added, some altered

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Connection Point

- The definition of Connection Point in these Rules fulfils the requirements of defining the Connection Point in the Electricity Supply Act
- Means the junction where the Distribution System is connected (by means of a Connection Device) to the Customers Installation

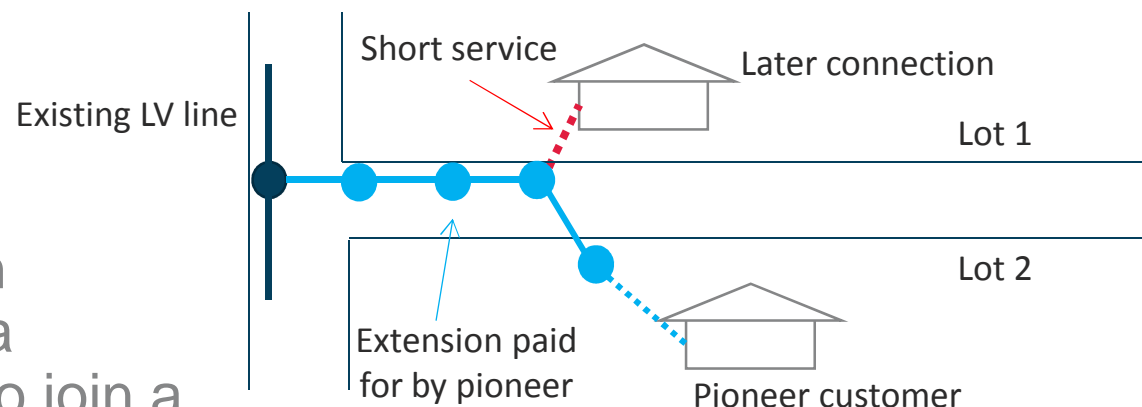


- A connection point can be deemed (for retrospectivity)

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Pioneer Scheme 1.11.2

- A customer who funds an extension or upgrade to a network may be eligible to join a pioneer scheme with a distributor (refer Ch5A National Electricity Rules*)
- If someone else connects to those assets funded by the original customer (pioneer) then likely* that new customer will have to repay the pioneer some of the costs originally incurred



1.11.2

- Do not connect a new service unless you know that any potential pioneer scheme reimbursements have been made. -Ask early-
- The distributor can disconnect if outstanding pioneer payments exist, and chase payment as required

* Refer to distributor connection contracts for details

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Clarification of roles.....

Distributor

- Uses these rules to have minimum standards in place before allowing connection to their system
- Accepts ownership of Services and service equipment on energisation of work
- Can defect work that is non compliant
- Is a Metering Provider for Basic metering

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Clarification of roles.....

Metering Provider

An entity registered by AEMO under the National Electricity Rules to install metering equipment.

Metering Provider

- Owns the meters
- Can determine location of meters (1.5.1.2)
- Can specify metering technical criteria
 - Eg: CT metering will be used where determined by the Metering Provider that installation is greater than 100A or rating of whole current meter (1.11.10.1)

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Compliance when work is only meter conversion

1.11.11

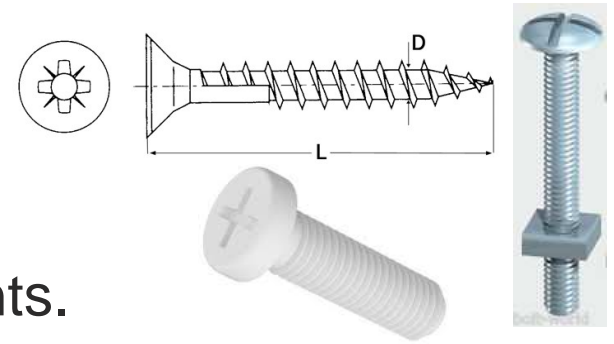
a changeover of physical devices in the conversion of metering from type 5 or 6 to type 4 does not constitute an alteration under these Rules.

this exception does not exclude the installer from meeting the intent of the Rules in matters relating to safety including but not limited to:

- *Meter Protection Devices, and,*
- *fire rated mounting.*

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Fixing service & metering equipment (4.5.9)



- To be secured using all available fixing points.
- For panels with a thickness of less than 20mm, bolts and nuts must be used to secure the equipment.
- Bolts must not protrude more than 5mm past the fixing nut, nor be capable of damaging any conductor insulation.
- Where screws are used, they must not protrude past the rear of the panel.
- Screws must utilise at least 75% of the panel thickness to secure any equipment.
- Where the head of any fixing device is exposed on the front of the panel, it must be suitably insulated.

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Chapter 4 Service and Metering Equipment

The majority of changes in this version exist in this chapter, particularly in clause 4.7 *Service Protection and Metering Protection Devices*

This kind of failure
can be avoided



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Clause 4.7 Service protection and Metering protection devices

There are substantial changes covering Service Protection Devices (SPD) and Meter Protection Devices (MPDs), including:

- The term "service fuse" has been replaced by SPD or Service Protection Fuse;
- Meter installations now require a MPD, usually a fuse, for each metered installation;
- Where an installation supplies only one metered customer, the SPD and MPD functions can be combined into one device.

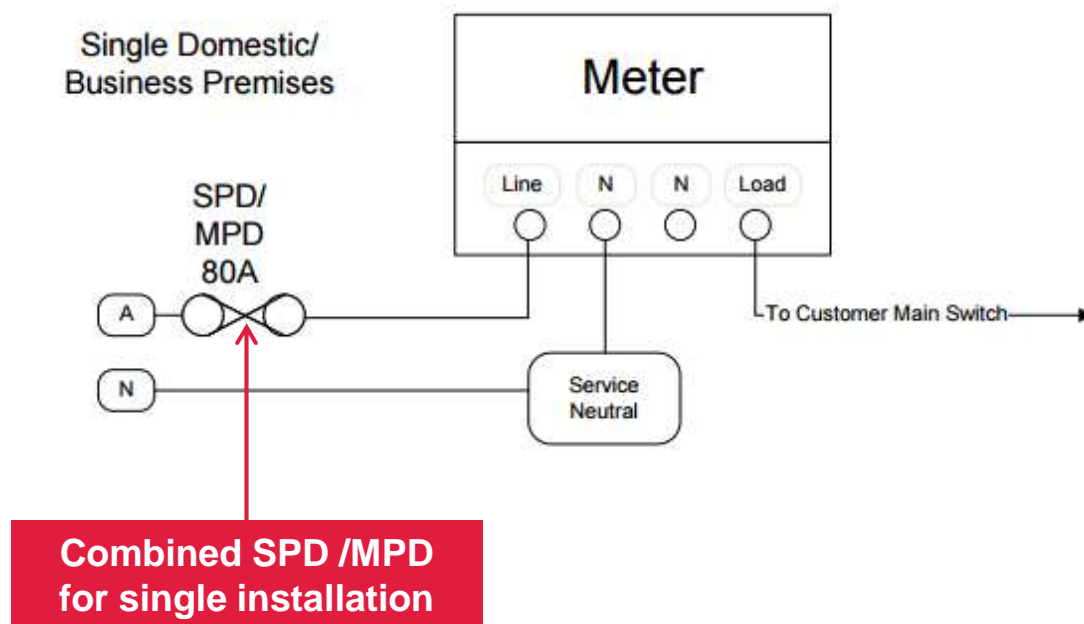
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Single customer installation

Fusing: refer to table 4.1

Table 4.1: Examples of Suitable Service and Meter Protection Fuse element Combinations

Service type	Service Protection Device (SPD) Element Rating	Meter Protection Device (MPD) Element Rating	Comments
100A Single domestic	1 X 100A	1 x 80A	For single domestic installations the SPD and the MPD can be one device but must be rated at the lower current carrying capacity (80A).



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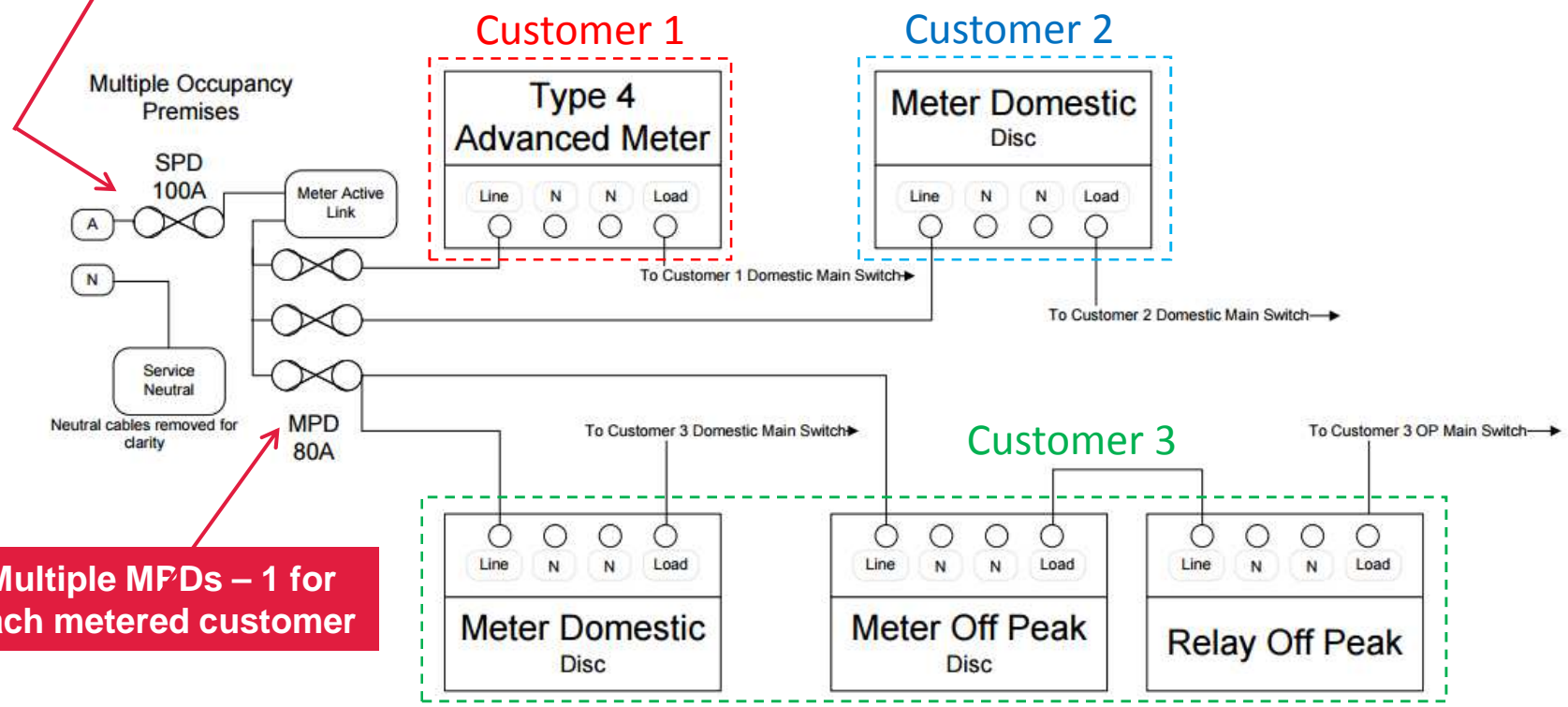
Multiple occupancy installation....

Fusing: refer to table 4.1

domestic			lower current carrying capacity (80A).
100A Multiple domestic	1 x 100A	multiple x 80A	For multiple domestic installations, there must be one SPD to provide overload protection to the service supplying the installation. A separate MPD must protect each separately metered installation, see note 4.
200A	1 x 200A	multiple x 80A	See Note 4

Single SPD for this multiple occupancy

Multiple MPDs – 1 for each metered customer



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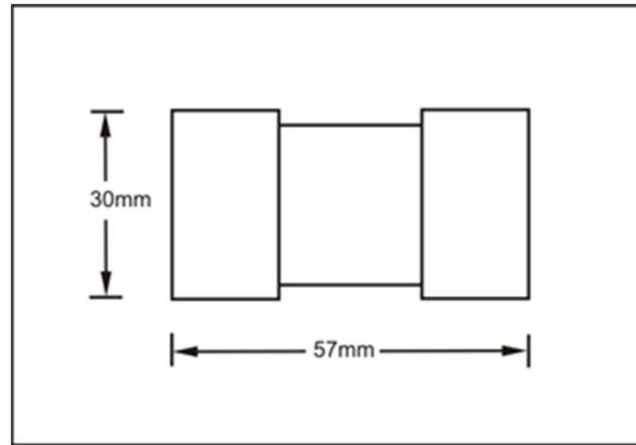
Service Protection Devices (SPD) Meter Protection Devices (MPD)

Substantial changes covering Service Protection Devices (SPD) and Meter Protection Devices (MPDs), including:

- MPD fuse base rating of 100Amp, with 80 Amp cartridge;
- Identification / labelling (4.7.11)
 - Each SPD & MPD clearly identified
 - Fuse element rating on board
- Remember, clause 4.7 has extensive changes and information!

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Service fuse links / cartridges – Asbestos risk



- All Service Protection and Meter Protection HRC fuse links have potential to contain friable asbestos materials.
- Exposure to the asbestos inside may occur through accidental or mechanical damage.
- As such, when fuse links are replaced they must be removed and disposed of as asbestos waste.
- More information can be found on the SafeWork NSW website.


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Timing of changes

The revised Rules should be implemented as soon as practicable but in any case:

- All metering work is to comply with chapter 4 of the Rules after 30 September 2016 (it is expected that fuse derating to 80 amps can occur immediately), and,
- All work is to comply with the new Rules after 30 November 2016.

question

/ˈkwɛstʃ(ə)n/ 

noun

1. a sentence worded or expressed so as to elicit information.
"we hope this leaflet has been helpful in answering your questions"
synonyms: enquiry, query; More
2. a matter requiring resolution or discussion.
"the question of local government funding worried ministers"

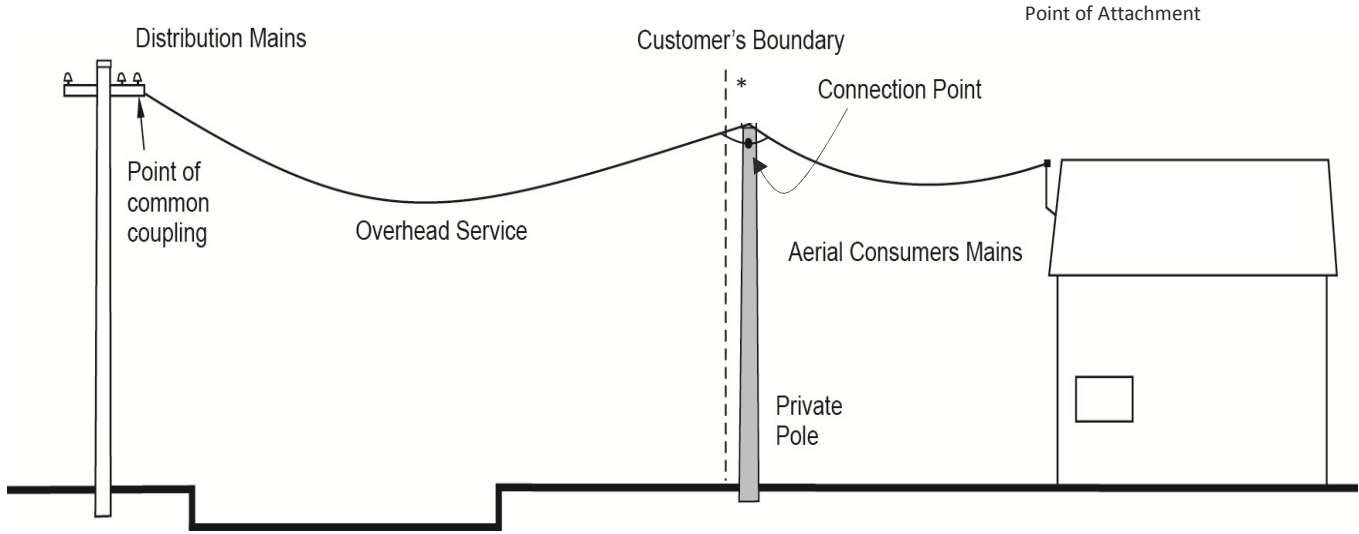
Any further questions can be forwarded to
service.rules@industry.nsw.gov.au



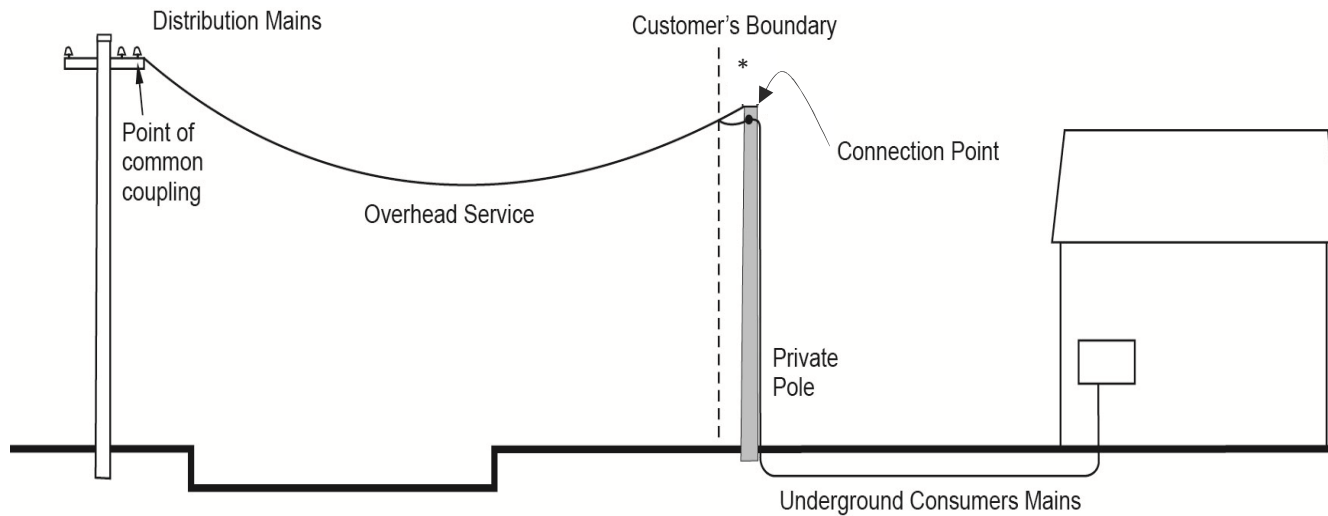
Questions

Thank you for your time

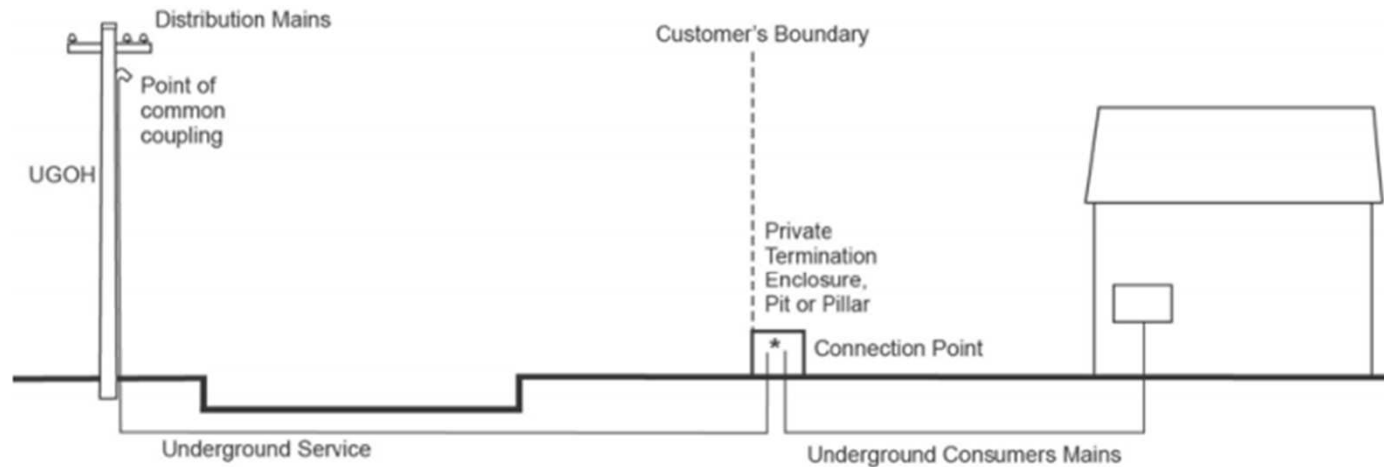
1.1b - Overhead Service and Aerial Consumers Mains



1.1c - Overhead Service and Underground Consumers Mains



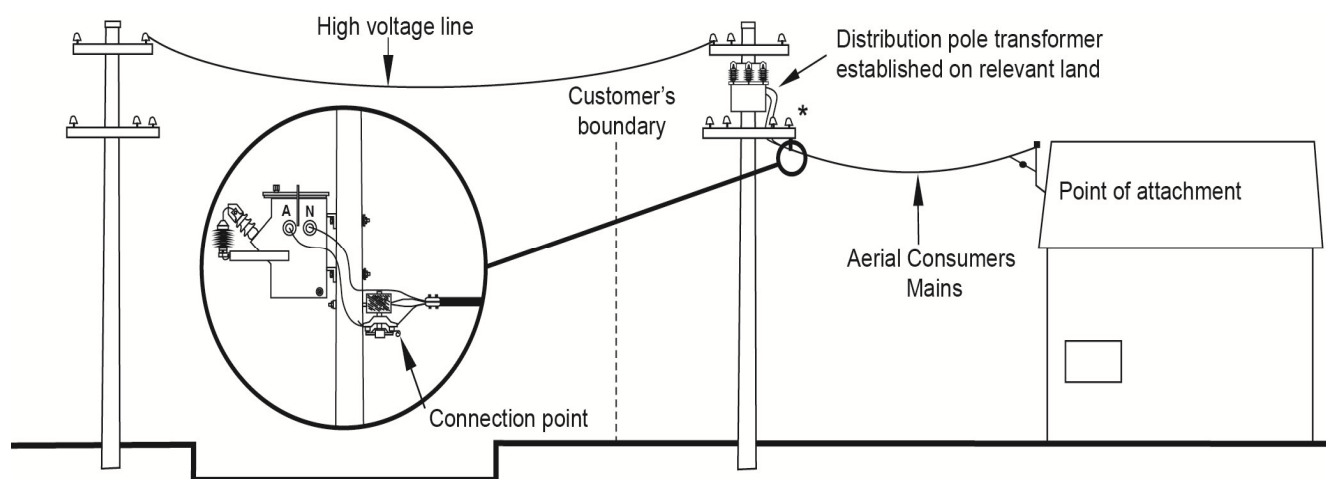
1.1d - Underground Service and Consumers Mains from overhead mains on electricity distributor's pole



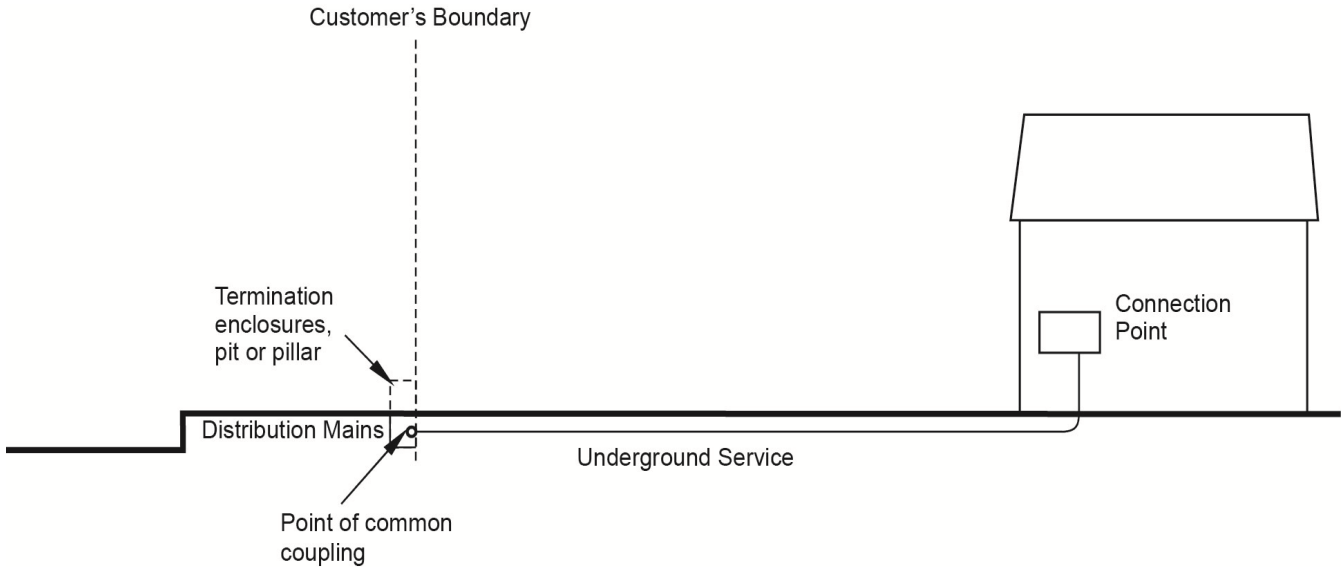
(d) **Underground Service and Consumers Mains from overhead mains on electricity distributor's pole**



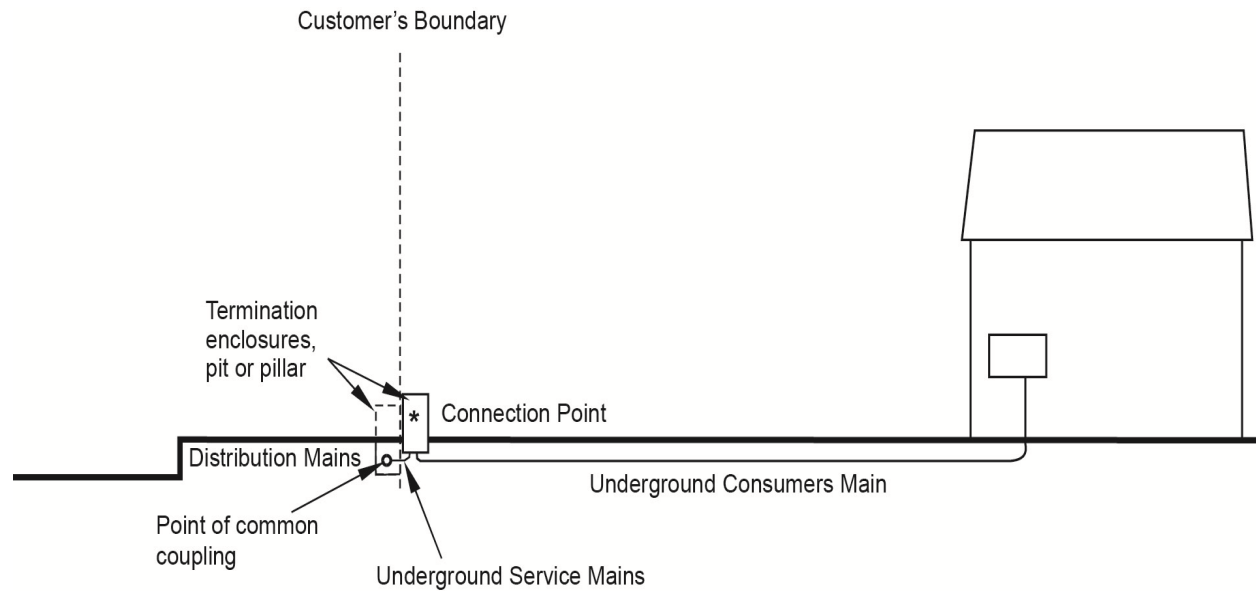
1.1e - Overhead Service from substation on relevant land



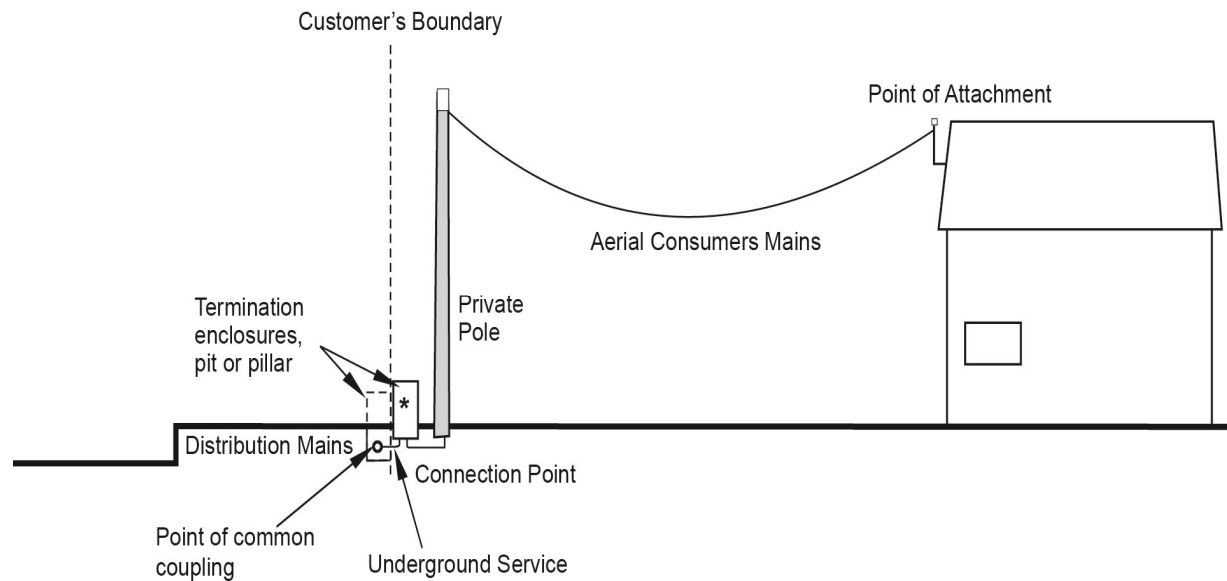
1.2a - Underground Service



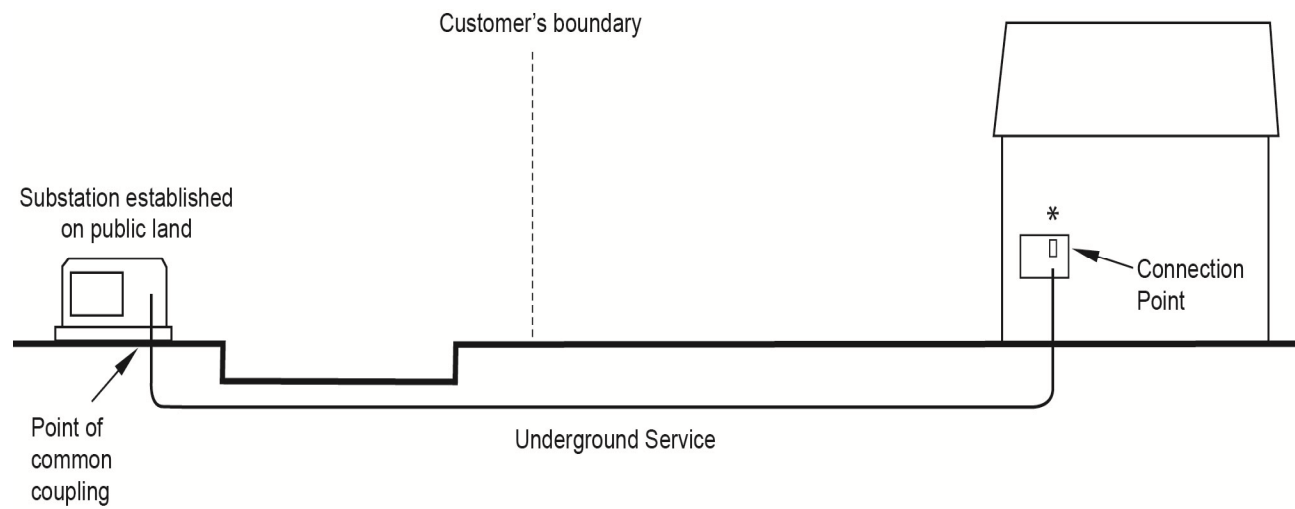
1.2b - Underground Service and Underground Consumers Mains



1.2c - Underground Service and Aerial Consumers Mains



1.2d - Underground Services from Substation on public land



1.2e - Underground Services from Substation on relevant land

