# **Amendments for 2023**

# Service and Installation Rules

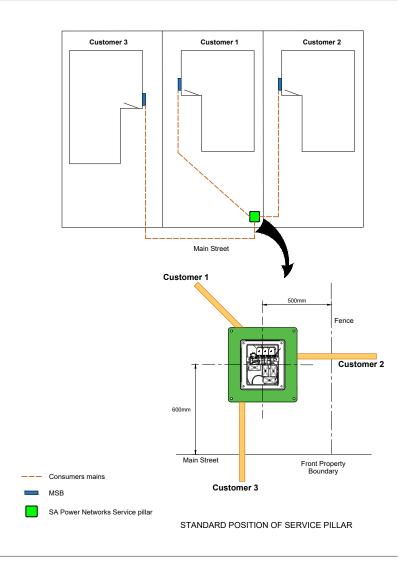


**Empowering South Australia** 

SIR Reference	Discussion	Amendment
Index	To help users find information more expediently the contents has been expanded to capture all headings.	Re- formatted the index to capture all the headings.
Figures	The numbers of the figures have changed as a new figure was added as Figure 1	
3.1	Added definitions for Firm and Flex connection points	Capacity is reserved for the customer (including in demand/constraint forecasting) when SA Power Networks doesnetwork planning. However, it is not "Guaranteed". Meaning that under different network scenarios capacity can still be curtailed to manage network requirements – normally during outage events.  Flex  Where the customer has agreed to dynamically adjust their import or export power profile to operate within network constraints.
3.1	Added definition for National Meter Identifier (NMI)	Every metering point connected to the Distribution Network is assigned a unique 11-digit National Meter Identifier (NMI). The NMI is used as a reference to clearly identify the connection in:  • national market transactions (e.g. between distributor and retailer including usage data and service orders) and  • customer requests to distributor (e.g. alteration requests) and  • retailer correspondence and requests (e.g. bills, changing retailer)  Where a single connection is used to supply multiple tenancies then a NMI is assigned to each separate metering installation corresponding to each separate tenancy.  Any reference to NMI in this document is referring to metering at the primary metering point that records flow from and to the grid only and does not refer to child or sub metering (NMIs) unless specifically stated.

SIR Reference	Discussion	Amendment
3.1	Changed the term Gateway meter to Parent meter	Descriptions remain the same
3.1	In the definition of embedded network, changed the term "gateway" to "parent"	Embedded networks are privately owned, and managed electricity networks connected to the distribution network through a single connection point, beyond the gateway parent meter.
3.1	Change the term "gateway" meter to "parent" meter.	<ul> <li>These Rules are not intended for:</li> <li>Embedded networks beyond the MSB gateway parent meter.</li> <li>Off-grid networks.</li> </ul>
3.4	Include Incremental Cost Shared Network (INCS) into the abbreviation table	ICSN Incremental Cost Shared Network – The connection applicant's augmentation charge, and where applicable, the equalisation cost of establishment of the high voltage distribution network for Real Estate developers.
4.2	Grammar – separated the word "controlgear" to "control gear"	AS/NZS IEC 60947.6.1 Low-voltage switchgear and <u>control gear</u>
5.2.6	Grammar – comma added after "procurement"	design, procurement, and service
5.3	Spelling in the third dot point – changed the word "dismantle" to "dismantling"	<del>Dismantle</del> <u>Dismantling</u> or detachment
5.4	Changed the word "should" to "shall" to align with the intent of the Rules	Electrical industry security seals should shall also be used to secure settings on local control devices.
5.5	Grammar – reference added	Table 1 on <u>Page 24</u>
5.5	Locking facilities. Clause 5.5 has been reviewed to highlight persons removing an industry lock without permission may face prosecution under the Electricity Act.	It is an offence for any persons or industry participant to remove any industry lock without the express permission of the agency or authority which installed the lock. Persons removing these locks without the permission are in breach of clause 5.3 and may face prosecution, refer clause 5.4.  For example, if the Office of the Technical Regulator has installed a lock, Metering Coordinators or persons acting on their behalf, are not allowed to remove this lock without the express permission of the Office of the Technical Regulator.

A Figure has been included to 5.7 explain the access to a service pit which is on a third party's property.



SA Power Networks 5.9 are concerned over the maintenance of customers structures supporting our mains. The clause has been expanded to include the customer support pole.

> Changed the terminology to "private pole"

The customer is responsible for providing the necessary structure for the attachment of SA Power Networks assets. necessary for the connection, and must be maintained for the duration of the service. This includes service brackets, and customer installed riser brackets and customer supplied and installed private poles.

Wording changed to manage 5.13 flexible loads such as batteries and generation

### 5.13 Authorised Service Capacity and Agreed Maximum Demand

The Authorised Service Capacity is the total capacity agreed maximum demand of the connection point including both firm and flexible load components that the site must not exceed, as agreed with the customer.

The agreed maximum demand is the firm load for which the customer has paid (ICNS) incremental cost shared network charges and will be reserved for the customer.

SIR Reference	Discussion	Amendment
5.14	To assist SA Power Networks LV planning requirements, clause 5.14 Basic connection service has been amended to state services above 63A will need to be multi-phase,.	5.14 Basic connection service
		Typically, a Basic Connection Service type is a single phase, 63A supply, with an 80A SPD which is a HRC fuse. For services > 63A the installation shall be multi-phase (subject to network constraints).
		Other available Basic Connection Service Types (subject to network constraints) are 3 phase 80A and 3 phase 100A supplies with a 100A SPD HRC fuse.
5.15	Grammar – capital letter added to "Refer"	(Refer clause 5.2.6)
5.15.3	Removed the requirement to install a meter isolator and	5.15.3 Reconnection to the distribution network after 12 months (TIR)
	added text referencing the distribution network	For installations disconnected for greater than 12 months <u>from</u> the <u>distribution network</u> , a safety inspection in accordance with the requirements of AS/NZS 3000 and an associated eCoC for the installation shall be completed and <u>provided to SA Power Networks</u> before reconnection.
		A meter and/or panel isolator shall be installed as per clause 7.4.
7.1.2.1	Added a reference to clause 7.8	Refer to clause 7.8 for the requirements of un-metered submains.
7.1.3	Identification of multiple	7.1.3 Identification of multiple connection points (TIR)
	connection points (TIR)  Removed dot point 4 as it is not relevant in this section	A prominent warning sign, (refer to clause 5.18), provided and installed by the customer, alerting to the presence of multiple connection points shall be installed on the exterior of each MSB and all relevant sub boards and fire panels. This applies where;
		<ul> <li>more than one connection point is provided to a property, and/or</li> </ul>
		<ul> <li>more than one set of consumer mains are connected within a connection point to the same property.</li> </ul>
		The requirements for multiple connection points are;
		<ul> <li>site diagrams showing the location of the connection points, unmetered wiring, and additional metering points, and</li> </ul>
		<ul> <li>labelling and diagrams for supply changeover- arrangements, generator connections and multiple- metered installations, and</li> </ul>
		• The customer is responsible for the provision and maintenance of diagrams and labels to ensure they are permanent, legible, and current.
7.1.6	Grammar change	where metering is deemed to be impractical by SA Power Networks and the Retailer, <del>may</del> a customer may apply

SIR Reference	Discussion	Amendment
7.1.7	Added reference to AS/NZS 3820.	must comply with AS/NZS 3000, AS/NZS 3010 and AS/NZS 3820.
Table 9	Rows 1, 2 and 3 stated	Delete 63 A fuses reference.
Rows 1,2,3, and 5	incorrect fuse sizes. Delete 63A fuses as they are not used.	Change 100A to 200A O/U.
	Row 5, Customer column 8, reference a 100A O/U. This should be a 200A O/U to align with Column 4 - Connection point /location.	
Table 9 Row 5	Reviewed fuse size and deleted 250A as only a 200A O/U	Deleted 250A fuse size
Table 9	Reviewed cables sizes and	Added text
Row 6	arrangements.	Up to two conductors /phase of copper or aluminium cables
	In column 3 deleted reference to Figure 21 as not the right	<u>95mm² ≤ 240mm²</u>
	figure for this application.	Also added a reference to Figure 22A.
	Added reference to Figure 23.  Spelling – Customer column changed "suite to suit.	<del>Figure 21 on page 90</del>
		Figure 23
Table 9 Row 7	A new arrangement for connections above 200A has been included. Table 9 has been changed to reflect Figure 24.	Text added to reference new Figure 24
Table 9 Row 9	Deleted PVC insulted cables as	PVC insulated
	does not comply with AS/NZS 3000	PVC Insulated/PVC Sheathed
Table 9 Row 11	A new arrangement has been added to include submersible fuses in pits	
Table 9 Row 13	Figure 24 provides for a 500kVA pole top transformer which provides for a 500kVA supply.	Other pole transformer arrangements < <del>400</del> <u>500kVA</u>
7.2.3	Clause <b>7.2.3 Converting</b> cable size and type added a reference to clause 7.9.	Where cables have been installed that are not suitable for the connection terminals, they need to shall be converted prior to being connected.
	Grammar – to align with intent	This can be achieved with;
	of Rules	inline crimp sleeves, or
		• the use of an enclosure suitable for the application.
		• For further information refer, (clause 7.9)

SIR Reference	Discussion	Amendment
7.2.7.1	Change the title to be more reflective	7.2.7.1 Customer support Private pole
	To ensure the customer is responsible for the maintenance for the customer support pole clause 5.9 is referenced.	A <del>customer support</del> <u>private pole</u> is a pole owned, supplied, <u>installed, and</u> maintained by the customer refer Figure 27 on page 101 and installed within the customer's property. All requirements for access shall comply with clauses 7.2.5.1 and 7.2.7. <u>Refer to clause 5.9 for maintenance responsibilities.</u>
7.4	Numbering of main switches. All main switches in an installation shall be labelled to identify the function of the main switch. i.e. GRID, SOLAR, etc. and the numbering sequence, i.e. 1-2, meaning, this is main switch one of two main switches within the installation.  Clause 7.4 – title changed to be more reflective, and the Note: has had text added.	7.4 Customer isolating devices (main switches, panel, and meter isolators)  Note: Turning off an a mains switch, or isolator may disrupt the communication
7.4.1.1	New clause added to support clause 7.4	7.4.1.1 Main switches
		Main Switches shall be located, arranged, and labelled (refer clause 5.17), to allow their effective operation in an emergency.
		Main Switches shall be labelled as follows:
		a) All Main Switches throughout the entire installation, shall have a permanent reference at the Main Switchboard e.g. inside the switchboard door, and
		b) Shall be numbered corresponding with the total amount of Main Switches on the installation
		Example:
		Main Switch for a single domestic installation shall be labelled as 'MAIN SWITCH 1 of 1'.
		The Main Switches for a single domestic installation with solar shall be labelled as
		• 'MAIN SWITCH 1 of 3 GRID'
		• <u>'MAIN SWITCH 2 of 3 SOLAR'</u>
		• 'MAIN SWITCH 3 of 3 BACK-UP SUPPLY'
		The labelling of Main Switches shall be updated for installation of alternative or supplementary supplies e.g. Solar/Battery/Generator. The installer of these supplies shall be responsible for these changes."

SIR Reference	Discussion	Amendment
7.4.1.2	Changed text	Panel isolators are required on all whole current metering installations which have two or more Retailer revenue metered metering installations (NMIs).
7.4.1.3	Clause amended to support	7.4.1.3 Single panel of meters and labelling (TIR)
	clause 7.4	The panel isolator will also be regarded as the Main Switch for the installation and shall be labelled as "MAIN SWITCH <u>1-1</u> " and "PANEL ISOLATOR". <u>Additional labelling requirements are required if alternative or supplementary supplies are installed, refer clause 7.4.1.1.</u>
7.4.1.4	Clause amended to support	7.4.1.4 Two or more panels of meters and labelling (TIR)
	clause 7.4	Each panel of metering requires a dedicated panel isolator and shall be labelled as,
		"PANEL - A - ISOLATOR', "PANEL - B - ISOLATOR" etc.
		The Main switch in this case is a separate device that isolates the entire main switchboard from the distribution network.  Additional labelling requirements are required if alternative or supplementary supplies are installed, refer clause 7.4.1.1.
7.4.2.1	Dot point two has been	7.4.2.1 Requirements to Install a Meter Isolator (TIR)
	changed to clarify there is only a need to install a meter isolator if the Retailer revenue meter needs to be changed for the additional tariff.	A meter isolator with an accompanying sealable metering neutral link shall be installed:
		<ul> <li>For all new installations including whole current, CT and high voltage.</li> </ul>
	Deleted dot point six to align with the changes in clause 5.15.3	<ul> <li>To existing installations where an additional tariff is requested,</li> </ul>
		<ul> <li>Where metering configurations are changed due to changes in authorised service capacity.</li> </ul>
		<ul> <li>To existing installations where an alteration and/ or upgrade involving SA Power Networks has been requested.</li> </ul>
		To any additional tenancy or landlord meter.
		<ul> <li>For installations requiring reconnection to the distribution network after 12 months of being disconnected, clause 5.15.3.</li> </ul>
		<ul> <li>For installations requiring reconnection to the distribution network after being disconnected for safety reasons, clause 5.15.4.</li> </ul>
7.4.2.2	Clause amended to support	7.4.2.2 Single revenue meter installation and labelling (TIR)
	clause 7.4	The meter isolator will be the main switch and load control for the installation and shall be labelled as "MAIN SWITCH <u>1-1</u> " and "METER ISOLATOR", refer to Figure 6 on page 55.
		Additional labelling requirements are required if alternative or supplementary supplies are installed, refer clause 7.4.1.1.

SIR Reference	Discussion	Amendment
7.4.2.3	This has been changed to "shall" as this is a mandatory	7.4.2.3 Multiple revenue meter installations and labelling (TIR)
	requirement.  Text has been added "refer clause 7.4.1"	Each Retailer revenue meter o <u>r meters associated with a single NMI will need to shall</u> have a meter isolator, <u>refer (clause 7.4.1)</u> and labelled as "METER ISOLATOR" with a reference to the corresponding revenue metering. The meter isolator shall be located
Figure 6	The neutral for a VPP meter shall be wired to the consumer neutral link and not the metering neutral link. Wiring diagram has been changed.	From connection point (unfused)  Active  Main switch & meter isolator & load control  Neutral (PEN)  Note: The metering neutral for a VPP meter shall not be connected to the sealed metering neutral link.

SIR Reference	Discussion	Amendment
7.4.2.4	Deleted dot point 7, "reprogramming existing revenue meter for additional tariff".	reprogramming existing revenue meter for additional tariff.  Other works;
	Noting "reprogramming existing revenue meter for additional tariff" as an exception created a significant safety risk to homeowners.	
	Solar Installers electrician installed Meter Isolators on MSBs, to meet the requirements of Clause 7.4.2.1, Requirements to install a meter isolator.	
	A meter isolator with an accompanying sealable metering neutral link shall be installed:	
	<ul> <li>To existing installations where an additional tariff is requested, .</li> </ul>	
	Clause 7.4.2.4, dot point 7, provided an exception to this requirement for metering which just required reprogramming for the additional tariff.	consumer mains length is modified to suite suit a change in location
	As the reprogramming is completed remotely the wiring of the meter isolators was	

not completed. As these are labelled as "Meter Isolator" and "Main Switch" it created the false expectation they would isolate supply.

Spelling in dot point 9 – "suite"

replaced with "suit"

SIR Reference	Discussion	Amendment
7.5.1	The use of polymeric slabs is mentioned in the 7.5.1, which is the general requirements for consumer mains. The polymeric slabs are required specifically for our stobie poles. The text has been moved to a new clause	New clause added as 7.6.6  7.6.6 Protecting consumer mains at the base of an SA Power Networks pole (TIR)
	7.6.6 Protecting consumer mains at the base of an SA Power Networks pole	
7.5.1.2	There are no details specifying the requirements for mechanical protection of consumer mains under the MSB.  Appendix B – Customer's connection prompt sheet mentions "Mechanical protect of consumers mains under MSB".  Clause 7.5.1.2 has been added to provide direction.	7.5.1.2 Mechanical protection of consumer mains (TIR)  For consumer mains mechanical protection attached to a SA Power Networks pole refer to (clause 7.6.3).  For all other installations, in addition to AS/NZS 3000 wiring systems mechanical protection requirements, 3mm galvanised steel shall be installed over all exposed consumer mains wiring enclosures. To provide a degree of flexibility to connect into the SA Power Networks connection point, installed at a minimum height of 2.4 metres, mechanical protection is not required within 400mm of the connection point entry.

SIR Reference	Discussion	Amendment
7.5.2	Changed text to align with the intent of the SIR.  Reviewed the requirements for un-protected consumer mains	The length of the customers consumer mains shall be correctly sized;  • to operate SPD or customer SPD under short circuit conditions, (protected situations only), and  • to limit the voltage drop on the consumer mains to no greater than 2% of the maximum demand of the installation. (This is from the connection point which should shall include both un-protected and protected consumer mains). The rating of the meter isolator/ load control device circuit breaker as per clause 5.13.1 is shall be considered the maximum demand for this calculation.  Additional requirements for un-protected consumer mains, (no short circuit protection at the connection point)  • minimum cable size shall be 16mm², and  • cables shall be double insulated, as per AS/NZS 3000 requirements, and  • cable shall be installed;  • for services less than 100A – only on the customer's private property, and only extending to the SA Power Networks pit installed immediately adjacent the property boundary on road reserve/public land, or  • for services greater than 100A – the total cable route length shall not exceed 10 metres, without prior consultation with SA Power Networks Customer Solutions Manager.
7.5.4	Clarified the SIR is referencing "protected" consumer mains	The route length of <u>protected</u> consumer mains installed on road reserve shall be no more than 100m and meet the requirements of Manual 18 and clause 7.5.2.
7.6.2	Additional requirement has been added for consumer mains attached to SA Power Networks poles.	<ul> <li> consumer mains, and</li> <li>are installed without interfering with other third-party infrastructure.</li> </ul>

SIR Reference	Discussion	Amendment
7.6.3	Due to an increase incidence in the number of copper thefts the use of shear bolts and nuts is acceptable. Also added attachment method for wooden poles.	Attachment method:
		For mechanical protection without welded mounting tabs, saddles or clamps are acceptable methods of attachment. All mechanical protection shall have at least two attachment points using either.
	Removed the requirement to	• galvanised steel bolts, or
	use a standard tool to remove mechanical protection.	<ul> <li>explosive power tool (Ramset/Hilti Tool etc.) threaded studs, or</li> </ul>
	Clause <b>7.6.3 Mechanical protection</b> has been amended	• self-tapping screws, or
	protection has been amenaed	• anti-tamper nuts and bolts, or
		<ul> <li>Screws/bolts suitable for treated pine (wooden poles only).</li> </ul>
		able to be removed and reinstated with the use of a standard tool.
		The requirement for the use of a standard tool for removal is no longer required.
7.6.4	Added the use of explosive threaded studs for earthing the mechanical protection back into the SIR as it was removed	Clause now reads:
		The earth bonding of the mechanical protection to steel poles shall be;
	in error from previous SIR 2020	<ul> <li>with steel mounting tags or studs welded to the mechanical protection and attached in at least two positions by means of a minimum M8 galvanised steel bolts with nuts, or by explosive power tool M8 threaded stud or M8 threaded studs with tapped holes, or</li> </ul>
		<ul> <li>by a minimum bonding conductor of 25mm<sup>2</sup> attached to both the steel of the pole and mechanical protection by means of at least M8 galvanised steel bolts with nuts, tapped holes or threaded studs.</li> </ul>
7.6.5	Reference to new Figure 28	Added into clause 7.6.5
7.6.6 (New)	Text moved from clause 7.5.1. Clause 7.6.6 is a new clause.	7.6.6 Protecting consumer mains at the base of a SA Power Networks pole (TIR).
		Where the consumer mains transitions through a conduit bend to the vertical onto a pole, a polymeric slab shall be installed over the area of reduced cover, as shown in Figure 22

SIR Reference	Discussion	Amendment
7.8	Provision for un-metered protected sub-mains.	The combined voltage drop of the un-metered submains and the consumer mains shall not exceed 2%, as specified in Clause
	To manage the impact of losses on all un-metered mains, the combined voltage drop of consumer mains and un-metered sub-mains shall not exceed 2%. Text has been added to clause 7.8 to consider the combined volt drop.	<u>7.5.2.</u>
7.9	Clause 7.9 title change to be more reflective of the clause.	7.9 Repairs <u>and joints</u> to consumer mains and un-metered sub-mains
7.9.1	Grammar – needs to align with the intent of the Rules. The	7.9.1 Repairs to consumer mains relating to size and capacity (less than 100A)
	clause states a meter isolator will need to be installed.	Where existing consumer mains are repaired by replacement with larger conductors, to meet modern standards, the work
	This has been changed to "shall" as it is a mandatory requirement	will be considered as a repair and not an upgrade. However, for safety reasons a load limiting device (meter isolator) will need to shall be installed in the customer's installation to the
	Also added text to prevent the upgrade of authorised service capacity being completed through the repair process	where an increase in authorised service capacity is required, the upgrade of consumer mains and/or load control device shall be through the alteration process.
8.4.2.4	Incorrect reference stated.	8.4.2.4 Meter panel wiring (TIR)
	The reference has been changed from 8.4.7.1 to 8.4.5.1	Meter panel wiring shall be wired in accordance with meter providers specifications and AS/NZS 3000. Where other wiring passes behind the meter
	Grammar – add in the word "with"	panel, it shall be located and secured in a manner which maintains the required clear metering panel space both front
	Added text re HV pole installations	and rear (refer clause <u>8.4.5.1</u> ).
		Where an existing meter box is located on a SA Power  Networks high voltage pole, all wiring within the meter box must be maintained as double insulated.
8.4.3.2	Meter Panel labelling needed to be clearer for Multi boards. Additional text added.	Each multiple occupancy meter panel shall be labelled with the correct street address for each occupancy, and to indicate the relationship of meters, meter isolators, fuses and other occupancy, supplied from the meter panel.
	Deleted text "supplied from the meter panel"	equipment. supplied from the meter panel.  The door of the MSB for the installation shall have a permanently marked diagram clearly showing the location of all sub-boards and the routes of the submains throughout the installation.
8.5.1	Spelling – added an "s" to pole	on <del>pole</del> <u>poles</u> that remain

SIR Reference	Discussion	Amendment
8.6	To improve the consistency of the materials used in clause 8.6, 6mm cement sheet has been included and deleted the text "or similar, suitable for the environment"	8.6 Main switchboard supported in a permanent location for building construction purpose(TIR)
		A MSB in a domestic application of less than 100A shall be located and secured as close as practical to its permanent position, refer Figure 17 below, and meet the requirements;
		<ul> <li>of these Rules, AS/NZS 3000 and AS/NZS 3012, and</li> </ul>
		<ul> <li>the IP rating of the MSB is appropriate for the location, and</li> </ul>
		<ul> <li>the MSB shall be fixed to the permanent framing, support or walling of the building, and</li> </ul>
		• supplied from underground consumer mains only, and
		<ul> <li>the consumer mains are installed in a HD flexible conduit properly secured to the MSB with adaptor and locknut and have sufficient length to reach the permanent MSB position, and</li> </ul>
		<ul> <li>the exposed HD flexible conduit below the MSB shall have additional protection, such as minimum 16 mm thick MDF sheet, or minimum 6mm cement sheet, or similar, suitable for the environment, attached to the internal and external facing framework, and</li> </ul>
		• to ensure the consumer mains conduit is not visible or subject to UV exposure, and
		<ul> <li>the main earth conductor shall be mechanically protected to prevent damage during construction.</li> </ul>
9.2.7	Grammar – deleted coma in the top line	compliant backup energy source, is connected distribution network supply.
	Clause 9.2.7 incorrectly refers to AS/NZS IEC 60947.6.1 for changeover device compliance; The scope of this standard excludes CTTS type devices, so applying this standard alone doesn't necessarily adequately address safety compliance in accordance with AS/NZS 3820.	CTTS shall be compliant with AS/NZS IEC 60947.6.1.
10.4.7	Grammar – comma added after fix,	connect, fix, and maintain

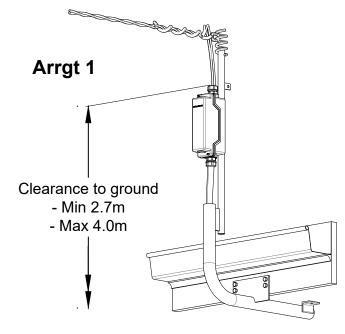
Figure 20

Incorrect drawing

Arrangement 1 shows old style bracket. Hence no clearance at bottom of service fuse box.

Modified Figure 20 Arrqt 1. To show clearance between end of steel tube and the bottom of the 17 Box.

## No.17 Service Fuse Box



**Riser Bracket** 

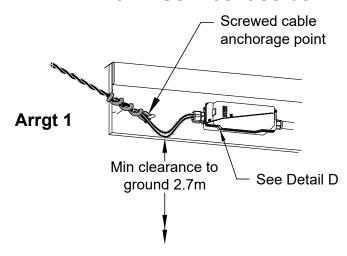
Figure 21

Drawing modification

Arrangement 1

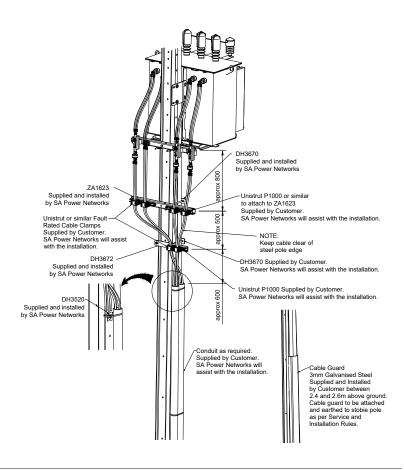
Modified Figure 21 "Screwed service bracket" has been changed to Screwed cable anchorage point.

# No.17 Service fuse box



Discussion

Figure 24 New Figure has been added for greater than 200A service from a stobie pole.

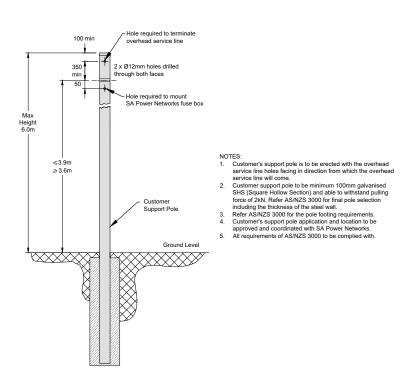


Drawing modification Figure 27

Figure 27 asks for 3 x 18mm holes. Should only be 2 x 18mm holes.

Added text to Note 2 regarding wall thickness of customer support pole

### Modified Figure 27

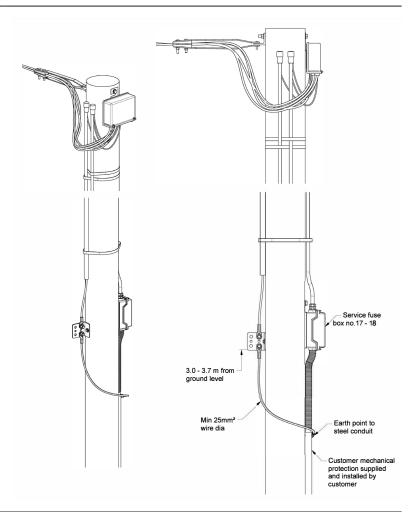


Note 2. Customer support pole to be a minimum of 100mm galvanised SHS (Square Hollow Section) and be able to withstand a pulling force of 2kN. Refer to AS/NZS 3000 for final pole selection including the thickness of the steel wall.

#### Amendment

Figure 28

Added a new Figure 28 for earthing arrangement for wooden poles



Appendix B

Mechanical protection subcategory talks about "bollards to protect MSB/group meter boards and enclosures." The term bollard is not mentioned in the SIR.

Clause 8.1, dot point 7 states "be protected by location or by barriers from vehicles,"

Changed Appendix B to align with clause 8.1.

Added the term SPD.

Bollards to protect Protection of MSB/group meter boards and SPD enclosures.