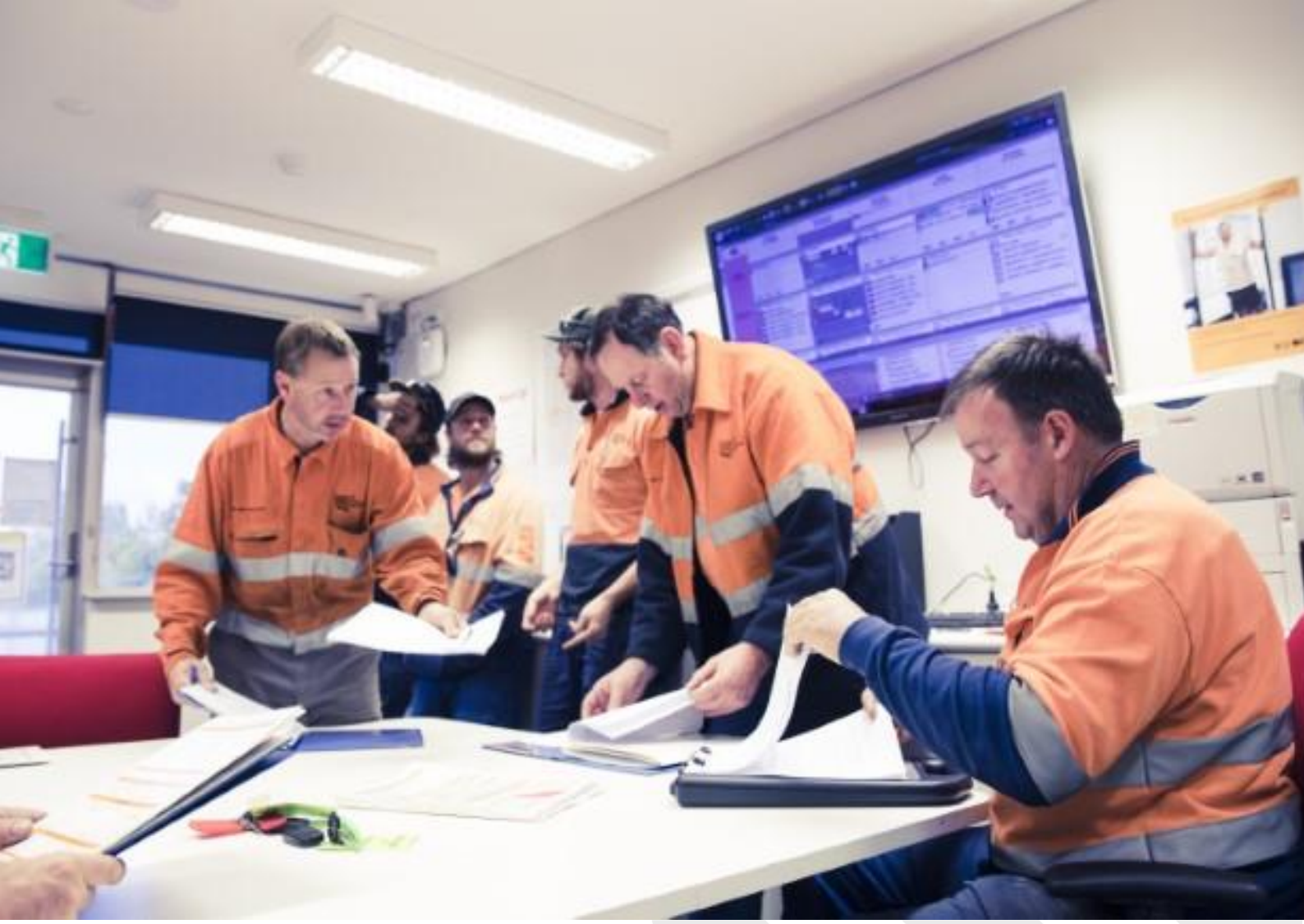

NICC401

Information on Network Design and Installation by an External Contractor

Published 24 Feb 2021

SA Power Networks

Empowering South Australia

Revision Notice:

Date	Details	Author	Authorised
16 June 2016	• Minor changes to Section 2.4. • Updated definition of 'Project Manager' and made changes where applicable.	A Pradhan	J. Ali
24 February 2021	Updated following Sections: 1. Introduction 3.3 Civil/Electrical Contractors 3.4 Customer Warranty (Performance Bond) 3.5 Public Risk and Indemnity 3.6.2. E-Drawings and Standard Design Templates 3.6.3. Technical Standards 4.1 Specification Information 5.1 Design and Specification Information 5.2 Authority to Proceed Request 8. Access to the SA Power Networks - Distribution Network Added following Sections: 2. Intellectual Property 10. Who You Should Talk To? Appendix A. New Contractor or Designer E-Drawings Access Registration Process	A Pradhan	M. Napolitano

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Contents

1. Introduction

This document provides an overview of the SA Power Networks requirements for an external design consultant and or a civil/electrical contractor to undertake work on an extension to the SA Power Networks electrical infrastructure for an applicant.

An applicant can have a proposed network extension that satisfies the SA Power Networks criteria designed and constructed by either SA Power Networks or an external designer and civil/electrical contractor. Refer to NICC400: 'Information for an Applicant undertaking a Contestable Extension' for detailed requirements.

This document should be read in conjunction with other relevant 'Network Information for Customer and Contractors (NICC series)', 'Technical Standards (TS series)' including 3302 - Construction Terms (Non-Contestable & Contestable), which are available on SA Power Networks website, click Resource Library, type document number (eg TS085, TS100, NICC404 etc) in search bar and download the required document.

2. Intellectual Property

If anyone wishes to utilise SA Power Networks specification for a design that is not being vested to SA Power Networks, then they must request written approval from SA Power Network - Network Standards Manager (NSM).

A charge may apply for the use of SA Power Networks drawings or templates for the design or construction of assets not intended to be vested to or constructed for SA Power Networks.

Contact via 'Standards and Equipment Team' via Hotline on (08) 8404 4200 or send an email to: networkstandards@sapowernetworks.com.au.

3. Endorsements

3.1 Project Management

Many projects require project management skills. The designer may undertake the role, or a specific project manager can be appointed.

3.2 Electrical Design

The company responsible for the design requires public liability insurance and professional indemnity insurance cover that is acceptable to SA Power Networks. Refer to Section 3.5: 'Public Risk and Indemnity' in this document for further information.

Some designs can be quite complex, involving engineering calculations, and designers need to ensure that they have the relevant expertise prior to accepting a design contract.

3.3 Civil/Electrical Contractors

The contractor engaged to complete civil/electrical works must hold (and be able to produce on request) appropriate license/permit and shall comply with requirements stated in TS105 (Forms) series, including any legislative/statutory requirements.

For appropriate license/permit registration requirements, visit SA Government and SafeWork SA websites:

1. Licence and Registration - SafeWork SA
2. Building work contractor's licence
3. Plumbing, gas fitting and electrical registration and contractors' licences

3.4 Customer Warranty (Performance Bond)

All projects require a two-year performance bond which can be established by either the applicant or the contractor. The performance bond can be established in several ways:

1. A financial guarantee, for a minimum of $10,000 or 10 percent (whichever is the greater) of the SA Power Networks estimate of the capital cost of the works to be vested.
2. A multiple project performance bond, in the form of a financial guarantee for the sum of $100,000. This is normally established by an electrical contractor undertaking multiple projects.
3. A Rolling Bond in the form of a financial guarantee for the sum of $25,000 for contractors undertaking lower value projects. At the time the cumulative capital cost of works exceeds $250,000 a contractor will need to upgrade to a Multiple Project Performance Bond or the relevant SA Power Networks Project Manager will need to be in receipt of an individual bond.

3.5 Public Risk and Indemnity

SA Power Networks will require confirmation of the following insurances prior to issuing a designer with a 'Specification Compliance' or a civil/electrical constructor with an 'Authority to Proceed - Construct':

3.5.1 Designer

- Certificate of Currency (Professional Indemnity Insurance - $5m), and
- Certificate of Currency (Public Liability - $20m). NB: Must acknowledge SA Power Networks as an 'Interested Party' on this certificate.

3.5.2 Civil/Electrical Contractor

- Certificate of Currency (Public Liability - $20m). NB: Must acknowledge SA Power Networks as an 'Interested Party' on this certificate.

3.6 SA Power Networks - Specifications

There are many specification documents that you may require. The documents listed below are the primary documents linked to any SA Power Networks specification and will assist a design and or construction being compliant. They include:

3.6.1 Specification Information Sheet

This is prepared by the relevant SA Power Networks Project Manager for the Applicant and provides specific information for the designer. Refer to Section 5.1: 'Specification Information'.

3.6.2 E-Drawings and Standard Design Templates

All current E-drawings and standard design templates are available at SA Power Networks secured website and can be accessed following approval as per Appendix A: 'New Contractor or Designer E-Drawings Access Registration Process'.

3.6.3 Technical Standards

The specification information sheet lists all technical standards.

The technical standards are available on the SA Power Networks website, click Resource Library, type document number (eg TS085, TS100 etc) in search bar and download the required document.

4. Procedure - Design Contractor

4.1 Specification Information

Certain information is required by the relevant SA Power Networks Project Manager to evaluate a Connection Service project, regardless of whether the design and construction is by SA Power Networks or an external company.

An applicant will need to submit a completed 'Connection Enquiry Pro Forma' signed by parties responsible for all obligations regarding the connection assets. (SA Power Networks Project Manager will issue this 'Pro Forma' with the Preliminary Letter).

Details in the 'Pro Forma' should include any information that will impact the specification and design of the new SAPN assets. Typically this information may include the number dwellings, electrical appliances to be connected, type of commercial developments, type of load, motor sizes, starting currents, power factors of motors etc. Project Manager can advise on details required for a specific connection type.

Fees will be applicable and advised by the Project Manager on receipt of the above information.

The relevant SA Power Networks Project Manager will prepare and return a Specification Information sheet within 10 working days of receiving this information or, for more complex projects, by an agreed date.

4.2 Design

The preliminary design needs to be submitted to the relevant SA Power Networks Project Manager for endorsement. The relevant SA Power Networks Project Manager will need to sight all approvals for the installation of the extension associated with the design. This will include, but is not limited to, Local Government authority and Department of Infrastructure and Transport (when applicable) approval for the installation of the electrical works. Refer to TS100 and TS110 for detailed design requirements.

The appropriate Government agency or Local Government authority will need to agree with the following:

1. Both the tariff and the design for any public lighting change or installation, and
2. The design of the electrical works regarding the installation of electrical works on public land.

Our Public Lighting Connection form NICC402 is available for Government agencies or Local Government authority notification and covers the confirmation of both the installation of electrical works and public lighting.

The easements shown on the design must reflect the easements that have been negotiated and agreed by property owners. The Deposited or Filed Plan may not have been completed and lodged at the time the Specification Compliance is required. An 'Agreement to Grant Easement' that reflects the easements on the design will need to be signed by the property owner(s) and submitted with the design to the Project Manager.

The relevant SA Power Networks Project Manager will need to sight a Deposited or Filed Plan with all easement requirements detailed that accurately reflect the installation prior to SA Power Networks undertaking the vesting and final connection.

The design should clearly show the extent of the works that the electrical contractor is responsible for. The relevant SA Power Networks Project Manager will ensure approvals are in place and the design meets the SA Power Networks specification requirements prior to issuing a Specification Compliance letter.

Designs that do not meet specification requirements will need to be resubmitted and a specification re-compliance charge will be issued. While SA Power Networks checks that the requirements as noted on the Specification Information sheet have been included in the design, the designer is responsible to ensure that the design meets all required codes as well as the SA Power Networks technical requirements.

Please note the relevant SA Power Networks Project Manager must have issued a Specification Compliance for the design prior to issuing 'Third Party Approval to Commence Contestable Construction (Form-008B)' to the electrical contractor. This ensures the design has been appropriately marked 'for construction' and represents the endorsed electrical requirements for the project.

4.3 Non-Standard Designs

If a design requires a non-standard E-drawing, the designer will need to submit a request and shall acquire a written approval from the SA Power Networks Network Standards Manager (NSM).

Contact your Network Project Manager or liaise directly with the 'Standards and Equipment Team' via Hotline on (08) 8404 4200, and or send an email to: networkstandards@sapowernetworks.com.au.

The request must be accompanied by an illustration of the proposal, ie reworked E-Drawing(s), sketches and or photographs of the proposed arrangement.

Once agreement is obtained from Network Standards group, confirmation of the non-standard design will need to be supplied to the electrical contractor to ensure construction is in accordance with the non-standard design.

4.4 For Construction Drawing

On receipt of the Specification Compliance letter the designer can notate the drawing as being 'For Construction' assuming all Device Numbers have been issued by the relevant SA Power Networks Project Manager and are included on the 'For Construction' drawing.

If some device numbers are not available at this time, further correspondence will occur between the designer and the relevant SA Power Networks Project Manager to ensure a revision of the 'For Construction' drawing is completed once all device numbers are available.

The 'For Construction' drawing provides critical information for the Advanced Distribution Management System (ADMS) on which the energisation of the new equipment is dependant. Missing device numbers will prevent energisation getting scheduled and needs to be closely managed. Any changes to the design and drawing post compliance must be approved by the relevant SA Power Networks Project Manager.

4.5 As Constructed Drawing

Copies of the 'As Constructed' drawing are required by SA Power Networks prior to our acceptance of the SA Power Networks Certificate of Electrical Compliance. This ensures that the correct electrical layout is available to the personnel undertaking the final connection. The designer normally provides the 'As constructed' drawing.

4.6 Drawing Files

The SA Power Networks asset information is maintained in its Geographical Information System (GIS). To ensure that designs supplied by external designers are incorporated into the GIS as quickly as possible, designers need to supply an AutoCAD file format (ie layers, styles, and symbology) as stated in TS099.

5. Procedure - Construction Contractors

5.1 Design and Specification Information

Construction contractors may need the Specification Information sheet prepared by the relevant SA Power Networks Project Manager as well as the 'For Construction' design. This will ensure that a contractor has the appropriate SA Power Networks' information when quoting.

The extent and nature of the work undertaken by the contractor and SA Power Networks varies from project to project, and it may be necessary to clarify this with the relevant SA Power Networks Project Manager. Refer to TS085 and TS110 for detailed installation requirements.

Electrical contractors may be required to undertake the following work:

1. Construction of the extension assets.
2. Removal of existing equipment. (only once the equipment is tested, isolated and De-energised from the SA Power Networks networks and ownership transferred)

The SA Power Networks works may include:

1. Final connection to the SA Power Networks.
2. Installing/removing /changing equipment on the Distribution Network to accommodate the extension assets.

Contractors may need to arrange Network Access Permits. These are chargeable to the contractor and their cost should be allowed for as part of the contestable works. For more details refer to NICC404.

5.2 Authority to Proceed Request

This form is available from the relevant SA Power Networks Project Manager. On receipt, the relevant SA Power Networks Project Manager will verify that the necessary approvals are in place.

Constructors who proceed with construction prior to receiving a 'Third Party Approval to Commence Contestable Construction Form' do so at their own risk. The relevant SA Power Networks Project Manager will not issue a 'Third Party Approval to Commence Contestable Construction Form' if approvals from external parties are not in place.

Requests must be submitted at least 10 working days prior to the construction commencing. Construction contractors need to ensure that all materials that will be used for the project meet SA Power Networks specification requirements. Note that, if any material is sourced from any supplier other than SA Power Networks, you will need to provide confirmation that the material meets the SA Power Networks specification.

The materials and technical data must be listed on the Authority to Proceed Request. The materials will be endorsed on the 'Third-Party Approval to Commence Contestable Construction Form'. Failure to provide this information may delay the project for the Applicant.
SA Power Networks is not obligated to accept any asset and issue a confirmation of connection.

The Constructor must ensure that construction complies with SA Power Networks relevant technical standards. If part of the construction is non-standard, written verification that SA Power Networks will accept the construction must be obtained from SA Power Networks prior to work commencing.

The commencement and completion date of on-site works should be provided on the Authority to Proceed request. The connection date can be revised by the Contractor during the construction.

5.3 Authority to Proceed - Construction

Authority to Proceed - Construction is issued to a contractor on the proviso that we have confirmation of the following prerequisites:

1. Easement agreements being in place.
2. The relevant Local Government authority (and Department of Infrastructure and Transport for a road and footpath verge under their control) have provided written confirmation for any construction on a road reserve.
3. Lighting requirements (where relevant) having relevant Local Government authority approval.
4. Materials to be installed meet the SA Power Networks specification.
5. The design has been issued a Specification Compliance.

These covenants and the resultant 'Third Party Approval to Commence Contestable Construction Form' are designed to give some clarification to the Contractor that the requirements in the Terms that impact the design and construction have been addressed.

5.4 Inspection

The Contractor is required to inform the Compliance Coordinator 10 working days prior to commencing on site works. Cable tests also require 10 days' notice. A non-compliance charge may be made for failure to provide appropriate notice.

All notifications for audits and cable tests must be made through SA Power Networks Compliance Coordinator via email at Compliancegroup@sapowernetworks.com.au.

Contractors must ensure that the as-constructed connection is built to the SA Power Networks specification and the endorsed current design. Please refer to the Technical Standard TS105 for testing which is an essential component of the asset vesting process to SA Power Networks.

Conduits are a critical part of the electrical asset and any conduit installation in a trench and road crossing must be as per the SA Power Networks specification and approved design.

Civil Contractors must be conversant with TS085, TS100, TS105-A (Forms) and the Civil Works Compliance process. A non-compliance notice will be issued if the installation is not appropriate.

5.4.1 Works Compliance Fee

A Works Compliance fee is charged for all contestable projects. Any out of hours compliance request is subject to an additional fee.

5.4.2 Works Reinspection Fee

There is a Works Re-inspection Fee with a minimum charge for the first 3 hours of a site visit. This is charged on each job with a non-compliance. The Compliance Coordinator issues the account to the contractor.

5.5 Certificate of SA Power Networks - Electrical Compliance

When the Construction contractor has satisfactorily completed the on-site works, the SA Power Networks Certificate of Electrical Compliance will be signed off by the Compliance group if on-site compliance checks are deemed appropriate. The relevant SA Power Networks Project Manager will then arrange for the issue of an Authority to Energise form and schedule the connection to be completed.

In some instances, the SA Power Networks Certificate of Partial Electrical Compliance will be issued to the contractor which will highlight the extent and the conditions under which SA Power Networks will accept a portion of the asset.

Where on-site inspections have not been carried out in agreement with the Compliance Group, the contractor will need to complete all the test and asset information sheet contained in the Testing Standard TS105-A (Forms) and forwards them, along with the signed SA Power Networks Certificate of Electrical Compliance, via email at Compliancegroup@sapowernetworks.com.au

The Compliance Coordinator will assess the extent of on-site audits that may be required prior to accepting the SA Power Networks Certificate of Electrical Compliance.

6. Authority to Energise Extension Assets

SA Power Networks requires the following documentation from the applicant prior to programming the connection of an extension to the SA Power Networks Network:

1. Confirmation that the project has the SA Power Networks Certificate of Electrical Compliance that has been signed off by SA Power Networks.
2. Verification that the design and construction contractors have been paid for the work they have undertaken.
3. Verification that materials have been paid for.
4. Verification that easements have been lodged.

SA Power Networks requests that all contractors invoice for the work that is undertaken at the earliest opportunity to ensure the applicant can verify that all the Connection and Construction Terms have been satisfied.

7. Meters and The Connection Point

SA Power Networks will undertake the connection to the Connection Point and will invoice the applicant for this work.

The applicant will need to select an electricity retailer and ensure arrangements are in place for any metered connection that may be required after the extension is energised.

If a land development has public lighting that will not be under the control of SA Power Networks, ie. CLER or Metered supply, the electrical installation will need to be installed to AS/NZS 3000 requirements, a New Supply form lodged with the nominated retailer and an appointment made with the Builders and Contractors Line on 1300 650 014.

More information is available in TS101: 'Public Lighting Standard for Overhead and Underground Networks'.

8. Access to the SA Power Networks - Distribution Network

If a Contractor requires any work to be undertaken on or near SA Power Networks Distribution Network or requires access to any SA Power Networks equipment, a Request for Network Access (RNA) must be submitted.

RNA is required regardless of the contractor's level of endorsements for working on the SA Power Networks mains. For more details refer to NICC404.

The RNA can be obtained by visiting our website click here 'Apply for a Network Access Permit'.

Any request for network access that the Network Operations Centre undertakes will be charged to the contractor. The charge may include costs for switching sheet preparation, customer notification, switching, mobile generator hires and any other costs that SA Power Networks consider appropriate associated with the isolation. The contractor is not to schedule any works until signed acceptance of the RNA has been received by SA Power Networks.

The work SA Power Networks has agreed to undertake will normally be detailed on the design. Any additional work SA Power Networks is requested to undertake will be charged at normal customer charge rates.

Once the SA Power Networks Certificate of Electrical Compliance or Partial Electrical Compliance is signed by the contractor, the Asset is deemed to be **Alive** and under the control of SA Power Networks. A contractor will need to submit a request for network access to undertake **any** further work on the asset.

9. Maintenance Period

There is a two-year maintenance period that begins when the asset is vested to SA Power Networks. After vesting, SA Power Networks may approach the applicant in the first instance to rectify faults, providing the fault is not impacting any SA Power Networks customers and provided it is safe to undertake the work.

If SA Power Networks undertakes repair works that are deemed necessary, the contractor will be invoiced for the work undertaken or the performance bond utilised to fund the repairs.

If repairs occur, the maintenance period will be extended for a two years period for any portion of the works that are defective.

10. Who You Should Talk To?

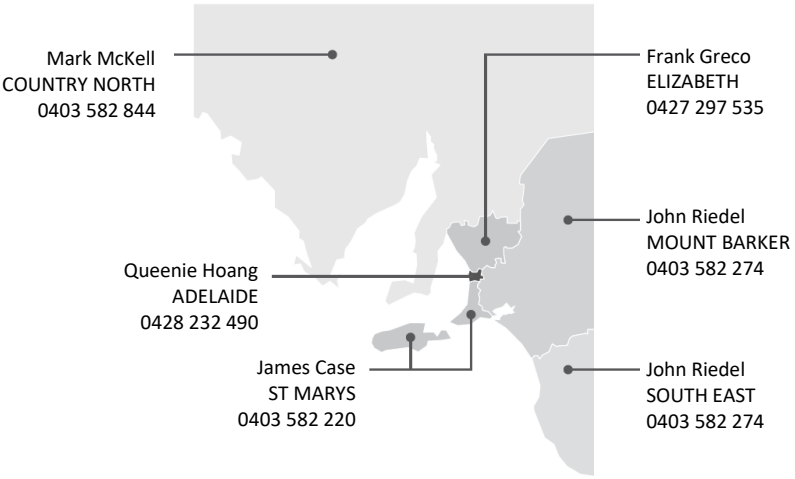
General Enquiries and Support: Please contact Builders and Electrical Contractors Service on 1300 650 014 (8am to 5pm, Mon to Fri) or Email: appointments@sapowernetworks.com.au

Faults and Emergencies: Please call our 24/7 phone line. 13 13 66.

Dial Before You Dig Enquiries: Visit website at www.1100.com.au

For Connection or Altering your Power: click here Basic Enhanced Connection Information

Contact our Customer Solutions Managers



SA Power Networks Managers / Officers	Area	Contact Number	Email Address
Network Access Officer (NAO)	Network Access Permit (NAP)	8404 5409	Nao@sapowernetworks.com.au
Compliance Coordinator (CC)	Contestable Project Works	--	Compliancegroup@sapowernetworks.com.au
Rick Niutta (Compliance Coordinator)	Regulated Project Works	0418 714 475	Rick.Niutta@sapowernetworks.com.au
James Kokkinos (Civil Engineer - Team Leader)	Civil Project Management	0427 580 070	James.Kokkinos@sapowernetworks.com.au
Anthoney Bird (Network Standards Manager)	Network Planning	0408 262 969	Anthoney.Bird@sapowernetworks.com.au

For Documentation Access or For Approval of Non-Standard Special Purpose E Drawings:

For E-Drawings, Non-Standard Special Purpose E Drawings (E-SP), AutoCAD standard templates and Instructional manuals, please contact 'Standards and Equipment Team' via Hotline on (08) 8404 4200 or send an email to: networkstandards@sapowernetworks.com.au

For 'Service & Installation Rules':

If your question relates to our 'Service & Installation Rules', you should contact our Network Connections Manager on (08) 8404 4898 or send an email to: appointments@sapowernetworks.com.au

Appendices

A. New Contractor or Designer E-Drawings Access Registration Process

The new Contractor or the Design Consultant seeking to apply for access to the SA Power Networks E-Drawings register, shall first forward their expression of interest via an email to networkstandards@sapowernetworks.com.au and supply the following information:

1. Copy of Certificate of Currency (Professional Indemnity Insurance - $5m), Refer 3.5.1 above,
2. Copy of Certificate of Currency (Public Liability - $20m). Must acknowledge SA Power Networks as an 'Interested Party' on this certificate, Refer 3.5.2 above,
3. Business details (ABN/Address/Contact details etc),
4. Qualifications - proof of current (ie. Electrical Contractors Licence, skilled workers etc),
5. Relevant experience and skills (ie. Powerline or URD experience etc),
6. Contact details of 2 - 3 relevant referees,
7. Some detail on the type of SA Power Networks related work looking to undertake (this will be relevant to the type files/documentation given access to), and
8. Confirm that SA Power Networks drawings templates and E-Drawings are to be used for assets that will be vested back to SA Power Networks and not for any other construction or design activities.

If all documentation fulfils the above-mentioned criteria, then the applicant will be forwarded an email from the Standards Manual Officer (SMO) inviting them to agree/sign 'Terms and Conditions' to view the SA Power Networks drawings via the secure website.

B. Definitions

AC	Alternating current
AS/NZS	Stands for Australia and New Zealand Standards published by Standards Australia.
Bonding	Low resistance (impedance) electrical conductor joints that utilises long lifetime (> 30 years), pressure or welded bond point connection design.
Circuit	Any number of conductors connected for the purpose of carrying current.
CMEN	Means 'Common Multiple Earth Neutral', which has a neutral that is common to the HV (high voltage) and LV (low voltage) systems and is continuous back to the substation earth. Whereas **Local CMEN** system is only used in an isolated location, where the neutral is not connected back to the substation earth. Refer to TS109 for more information.
Cable System	The cable system includes components such as power cables, cable joints, cable terminations, cable accessories etc, which forms part of the SA Power Networks infrastructure, in connection with electrical sub-transmission and distribution network, and will form the underground portion between the locations as specified.
Cable Joint	Joints are used to join two cables. They are generally grouped by their type and are sized according to the voltage and cable size.
Cable Termination	Terminations are used to close off the end of a cable (underground). **Note:** Cable Termination (RAYCHEM type) specified in E-drawings E4053 series is only intended for use in emergency replacement applications. For any other applications, written approval from Network Standards Manager shall be obtained.
Conduit	Conduits are PVC or HDPE tubes the primary purpose of which is to protect an underground cable from physical or water damage.
Contractor	Means a third-party contractor and their sub-contractor who performs works (eg Design / Construction / Testing) on the SA Power Networks infrastructure.
DC	Direct current
Distribution Network	Any plant, equipment, structure, pole, building, conductor, cable, fixture, attachment, or other thing that comprises part of the infrastructure that SA Power Networks utilises to provide distribution connection services below 66kV.
DIT	Department of Infrastructure and Transport. Visit DIT Website for more details.
DTS	Distributed Temperature Sensing
Easement (Electricity)	An electricity easement is the right held by a DNSP to control the use of land near above-ground, underground power lines and substations. It always holds this right to ensure the landowner's safety and to allow DNSP staff access to work on the power assets.
ECC	Earth Continuity Conductor.

A1: Definitions (Continued)

Electricity Infrastructure	Can mean any one or all the following: a) electricity generating plant; b) powerlines; c) substations for converting, transforming, or controlling electricity; d) equipment for metering, monitoring, or controlling electricity; e) any wires, equipment, or other things (including tunnels and cavities) used for, or in connection with, the generation, transmission, distribution, or supply of electricity; f) anything declared by regulation to form part of electricity infrastructure but does not include anything declared by regulation not to form part of electricity infrastructure.
GIS	Means 'Geographical Information System'.
HV (High voltage)	Electricity at a voltage exceeding 1,000 V alternating current (AC) or 1,500 Volts direct current (DC).
Joint Bay	An enlarged section of excavated trench, in which cables are jointed, and which is backfilled at the completion of the jointing work.
Landowner	The landowner is the person or entity that is the registered proprietor / owner of the land as recorded at the Lands Titles Office. All easement agreements shall be with the landowner.
LV (Low Voltage)	Exceeding 50 Volts AC or 50 Volts ripple free DC but not exceeding 1,000 Volts AC or 1,500 Volts DC
NSM	Stands for the SA Power Networks Network Standards Manager.
MEN	Multiple earthed neutral is also known in EIC 60364 as a TC-N-S earthing system. Part of the system used a combined PEN (protective earth – neutral) conductor, which is at some point split up into separate PE and N lines. The combined PEN conductor typically runs between the transformer/supply neutral and the entry point into the building and may be earthed at numerous points. The PEN conductor is only separated into distinct PE and N conductor at the installation switchboard. In the SA Power Networks MEN system, this LV earthing/neutral system is kept distinctly separate from the HV earthing systems.
Project Manager	Means the SA Power Networks Network Project Manager, Delivery Project Manager, Network Project Officer, Network Service Officer, Customer Service Officer, Strategic Project Manager, or any Officer / Supervisor who is ultimately responsible for the management of a project.
Shall	Means mandatory.
SVL	Means 'Sheath Voltage Limiter'.
Sub-Transmission Networks	Means 66kV lines in the case of SA Power Networks. Any plant, equipment, structure, pole, building, conductor, cable, fixture, attachment, or other thing that comprises part of the infrastructure that SA Power Networks utilises to provide 66kV connection services.

A1: Definitions (Continued)

Surge Arrestor	A surge arrestor is an equipment asset that is used to protect the network from higher-than-expected voltages caused by lightning. They are generally found within zone substations or on poles mounted equipment.
Terms and Conditions	Means the SA Power Networks publication Terms and Conditions for External Contractor Construction, as amended from time to time.
Works:	
Planned	The works, which has followed the normal planning process, prior to work commencing, ie where the worksite has been physically inspected and assessed, in advance of the work crew, arriving on site.
Unplanned	Any urgent works where there has not been a reasonable opportunity to follow normal planning processes prior to work commencing. This includes works where the supervisor has not physically inspected the workplace or where a work crew has come across a scope of work requiring action during the normal course of their duties.
Emergency	Where a crew is dispatched to the worksite, in response to an immediate threat/danger to an individual, the public, or the infrastructure.

C. References

The following listed documents are for additional information but may not be a conclusive list and other documentation may be required on a project specific basis. Refer to the following SA legislative acts and regulations, SA Electricity Code, the SA Power Networks publications, relevant AS/NZS standards, for more detail.

Please note: It is your responsibility to ensure you have complied with all relevant standards and you have used the latest version. For civil contractors conducting regular civil works for any the SA Power Networks installations, there are E Drawings Group: 40 - Civil Construction available on request, which detail many project specific aspects of civil works that may not be detailed in this document.

South Australian Legislations:

- Electricity Act 1996 and Electricity (General) Regulations 2012
- Electricity (Principles of Vegetation Clearance) Regulations 2010
- Environment Protection Act 1993 and Environment Protection Regulations 2009
- Development Act 1993 and Development Regulations 2008
- Work Health & Safety Act 2012 and Work Health & Safety Regulations 2012

Essential Services Commission of South Australia (ESCOSA) Codes:

- SA Electricity Distribution Code (EDC)
- SA Electricity Metering Code (EMTC)

Australian Energy Market Commission (AEMC) Publications:

- National Electricity Rules (NER)

The Department of Infrastructure and Transport. (DIT) Publications:

The Office of Technical Regulator (OTR) Publications:

SA Power Networks' Documents:

Manuals (for Examples):

Manual 14	Safety, Reliability, Maintenance & Technical Management Plan

Technical Standards & NICC Brochures (for Examples):

NICC400	Information for an applicant undertaking a contestable extension
NICC404	Working in the Vicinity of SA Power Networks Infrastructure - NAP Process
TS085	Trenching and Installation of Underground Conduits and Cables (up to & including 33kV)
TS099	Distribution and Sub-Transmission CAD Drafting Standards
TS100	Electrical Design Standards for Underground Distribution Cable Networks (up to & including 33kV)
TS109	Earthing of the Distribution Network

Relevant E Drawing Series