

To all Registered Electrical Contractors:

The aim of this *Tech Talk* is to remind you of some current work practices, and to advise you of some important impending changes.

This should assist yourself, your employees and Powercor to provide an improved service to our mutual customers.

Ken Greenway
CONNECTION STANDARDS MANAGER

Connection Standards Advice

As you were advised in the 7 January 2005 letter from Powercor's General Manager Customer Services, the process for provision of connection standards advice has changed.

You should now call 13 22 06 for all enquiries relating to metering, servicing, technical connection advice, and the Service and Installation Rules.

Your enquiry will be forwarded to a Licensed Electrical Inspector allocated to your geographical area.

2005 Service and Installation Rules

The revision of the 1999 edition of Victorian Service and Installation Rules (SIR) which incorporated November 2001 and October 2003 amendments is now complete.

The document is now titled the Victorian Service and Installation Rules (SIR) 2005. The Rules will be applied from 1 September 2005 with application of the current Rules remaining until that time. The SIR represents the "Reasonable Technical Requirements" referenced in the Electricity Distribution Code for AGL Electricity, CitiPower, Powercor Australia, TXU and United Energy Distribution.

The new Rules were prepared by these electricity Distributors and industry representatives during the period from July 2004 to April 2005. Public comment was solicited prior to commencement of the revision and for a 7 week period during January and February.

The resultant document is significantly different from the 1999 Rules. The contents and format have been changed with the aim of providing a more user friendly document with up to date information and requirements, and to remove obsolete and non essential information.

The appendices and detail of electrical installations construction not involving metering and servicing have been deleted as these are covered by the Electricity Safety Act and Regulations. Many new clauses are included, and all existing clauses have been reviewed and revised as appropriate. New clauses include: Dispute resolution, Application and Application Responsibilities, Equipment Acceptance, Subdivisions, Private Electric Lines and Installations on Public Land, Multiple Occupancies etc.

It is not expected the revised Rules will greatly affect current work as most new and revised rules are a reflection and documentation of current practices. However, Registered Electrical Contractors and Electricians need to be aware of changes such as new conditions for accessing points of attachment, labelling of meter panels with the appropriate street address, service protection devices required on all installations etc. To assist in an early appreciation of the changes, the document is being made available well in advance of its 1 September application for interested persons to access.

Arrangements are being made to have hardcopies available at the usual outlets from mid June (Information Victoria, various Electrical Wholesalers, Electrical Contracting and Inspection organisations), and for the document to be viewed on the new SIR Management Committee website www.victoriansir.org.au by the end of May. Publicity for the new document will include press releases for industry publications and newspapers, newspaper advertisements, a letter to Registered Electrical Contractors, a Training Package for RTOs, and an industry launch in June.

RECs are urged to access and read the new document, and to contact Powercor on 13 22 06 if they require any further information.

Service Raiser Brackets

With the introduction of service raiser brackets of significantly greater length than previous brackets to provide a satisfactory point of attachment (POA), it is important to ensure they are installed correctly.

To ensure any service bracket's integrity, it must be installed in accordance with the manufacturer's instructions. Due to the additional leverage and loads that are imposed on longer raiser brackets, the correct installation of the bracket becomes even more important.

In most cases this will require raiser brackets of 1.0m or a greater length to be correctly bolted to a secure structure with at least one supporting rod at approximately 90⁰ and two guy wires of 45⁰ at the rear of the bracket. Provision for access from a portable ladder includes provision for a solid footing at a distance of 25% of the POA height.

RECs are reminded that although they certify the bracket's installation, and in most cases this is also certified by an inspector, Powercor has the right to refuse to work on any bracket suspected of not being installed correctly, or which cannot be accessed safely.

Notification of Electrical Work

To best serve our mutual customers it is important the 1 June 2005 Powercor Notification of Electrical Work Processes as detailed on Page 3 is followed. These processes supersede the processes circulated with the 13 January 2002 Tech Talk.

Changes are minimal. The format has been changed to accommodate the additional "Abolishment" process. The key change is the requirement from 1 September 2005 for the Certificate of Electrical Safety (CES) to be submitted with the Electrical Work Request (EWR) for all new connections. This change is due to the number of CES being left on site but missing when the service truck arrives, and CES received that do not have matching EWR addresses.

Would you please note this change and ensure that from 1 September 2005 the EWR and CES is submitted together for new connections.

POWERCOR NOTIFICATION OF ELECTRICAL WORK PROCESSES		
1 June 2005		
To expedite connection work, it is important to submit notification of work in accordance with the following processes. Failure to do so may cause work delays and/or wasted truck visit fees.		
SUPPLY AVAILABILITY	NEW CONNECTIONS	ALTERATIONS & ADDITIONS
<ol style="list-style-type: none"> 1. Customer/REC contacts Powercor on 132206 to confirm and/or determine supply availability & costs. 2. Powercor sends Supply Proposal Request to customer if supply arrangements are to be made. 3. Customer returns completed Supply Proposal Request to the relevant Powercor address supplied on the form. 4. Powercor <ul style="list-style-type: none"> ▪ Determines supply arrangements & costs ▪ Contacts and advises customer 5. Customer advises action to be taken. 	<ol style="list-style-type: none"> 1. Customer/REC contacts selected Retailer. (Licence list of electricity Retailers - Essential Services Commission web site www.esc.vic.gov.au or information line 1300 134 575) 2. REC submits to selected Retailer: <ul style="list-style-type: none"> ▪ New Connection* - EWR & CES ▪ Alterations & additions EWR & CES - or CES availability arrangement 3. Retailer <ul style="list-style-type: none"> ▪ Organises tariffs and metering arrangements ▪ Submits connection request to Powercor 4. Powercor <ul style="list-style-type: none"> ▪ Contacts REC if an appointment is required and/or programs the work ▪ Performs work (Energisation only takes place if CES, where applicable, has been received*) ▪ Advises Retailer 5. Retailer bills Customer/REC for work. <p style="font-size: small;">*Note – New Connection – From 1 September 2005 a copy of the prescribed CES must be provided to the Retailer with the EWR.</p>	<ol style="list-style-type: none"> 1. REC contacts customer's Retailer <i>if meters or tariff change is included in the work to be performed</i> - follow the "New Connections" process. <p style="text-align: center;">OTHERWISE <i>If meters or tariff change is not included in the work to be performed -</i></p> <ol style="list-style-type: none"> 2. REC submits EWR & CES or CES availability arrangement* to Powercor: Facsimile 1800 062242 or PO Box 185 Geelong 3220 3. Powercor <ul style="list-style-type: none"> ▪ Contacts REC if an appointment is required and/or programs the work ▪ Performs work - Energisation may only take place if CES, where applicable, has been received* ▪ Bills REC for work unless a completed Field Works Order assigning cost to another party is received with EWR. <p style="font-size: small;">*Note - A copy of a prescribed CES may be provided with the EWR or to the Powercor personnel on site as appropriate to the work timing.</p>
FAULT WORK	OCCUPANCY CHANGE (Disconnection & Reconnection)	ABOLISHMENT (Removal of Supply Assets)
<ol style="list-style-type: none"> 1. Customer/REC contacts Powercor on 132412 and arranges for Powercor to attend. 2. Powercor <ul style="list-style-type: none"> ▪ Attends and performs required work. Where work has been performed on the customers installation, energisation only takes place if an EWR has been received*, ie: <ul style="list-style-type: none"> ▪ provided to the Powercor personnel on site; or ▪ left in a readily obtainable location such as behind the hinged meter panel or otherwise secured beside the metering; or ▪ if agreed, faxed to a nominated number prior to energisation. ▪ where applicable, bills person responsible for the customer's electricity account for work unless a completed Field Works Order assigning cost to another party is received with EWR. <p style="font-size: small;">Note - A copy of the prescribed CES may also be provided with the EWR where appropriate</p>	<ol style="list-style-type: none"> 1. Customer contacts their selected Retailer. 2. Retailer submits connection/disconnection request to Powercor. 3. Powercor <ul style="list-style-type: none"> ▪ connects/disconnects as requested ▪ advises Retailer 4. Retailer bills customer. 	<ol style="list-style-type: none"> 1. Applicant completes "Application for Abolishment of Electrical Supply" form and: <ol style="list-style-type: none"> a) If supply still connected the applicant submits form to Retailer <ol style="list-style-type: none"> i) Retailer submits abolishment request to Powercor ii) Powercor removes supply assets*, eg, meter and service and notifies Retailer iii) Retailer bills customer. b) If supply is not connected applicant submits form to Powercor. Facsimile 1800 062242 or PO Box 185 Geelong 3220 Powercor removes supply assets*, eg, meter and service. <p style="font-size: small;">*Note – Where customers wiring forms part of the supply abolishment, the work may be required to be co-ordinated with a Registered Electrical Contractor.</p>
<i>EWR – Electrical Work Request</i>		<i>CES – Certificate of Electrical Safety</i>

Interference with Powercor assets

Reports have indicated that a few REC's are continuing to interfere with Powercor assets. These include disconnection of service cables, removal of meters, and disconnection and reconnection of service fuses not covered by the LV Fuse Removal and Reinsertion Code of Practice.

In some cases there has been a breach of Regulations to which court action and penalties may be applied.

RECs are reminded that Powercor can only permit workers authorised by the company to work on Powercor assets and that interference by other than those personnel is an offence. Action will be taken where this is detected.

Meter Panel Wiring and Fixing

Meter panel wiring and equipment is required to comply with the Wiring Rules and Service & Installation Rules. The following incidents would have been prevented by using correct work practices and compliance with these Rules.

1. An incident involving damaged meter panel wiring resulted in damage to a meter enclosure. The incident was caused by failure of consumer mains joint insulation when it was pressed into the rear of a metal meter enclosure as the meter panel was being closed. Short circuit arcing occurred which resulted in a large hole being burnt in the enclosure. Insulation tape had been used to cover the joint and insufficient consideration given to ensure adequate clearances and to prevent the joint from having stress applied to it.

Ensuring that the joint was adequately insulated and was not compressed or stressed when the panel was opened and closed would have prevented this incident.

2. In other incidents persons have received an electric shock from screws retaining meter panel equipment penetrating the rear of meter panels and cable insulation. Screws with sharp points had been used and it appeared that no consideration had been given to the length of the screws.

Using compliant methods such as blunt screws which did not penetrate the rear of the panel, or spacing and fixing wiring away from screws that do penetrate the panel to a minimal extent would have prevented these incidents.

It is suggested that the electrician's and inspector's involved in these incidents were not as diligent as they should have been by certifying work that was clearly not compliant with the Rules. Apart from the inconvenience, hassles and expense caused by no supply and revisits to rectify the situation, it is fortunate these incidents did not result in more serious property damage and/or personal injury.

REC and electricians are reminded that they are required to follow correct work practices at all times. This includes performing work on metering facilities in accordance with Rules.

Off Peak Switching

RECs working on “off peak” equipment and appliances need to be aware that traditional “off peak” energisation times no longer apply.

In some areas of Powercor the traditional “off peak” times such as 11pm and 1am to 7am, and 1pm to 4pm have been changed with the agreement of the customer and Retailer to maximise load utilisation of the electricity network.

The changes of times have had no reported adverse impact on the performance of customer’s appliances. However, there is a major benefit in flattening the load on some network feeders, thus increasing their efficiency and enabling an improved quality of supply to customers.

As always, REC/Electricians should use proper precautions to ensure they do not work on energised equipment, and do not rely on equipment or an appliance connected to an “off peak” tariff not to be energised by a metering time switch at any particular time.

Trenching to Powercor poles

Several reports have been received of REC/Electricians damaging cables whilst digging trenches to Powercor substation poles. In each instance prior consultation with Powercor and proper precautions had not been taken.

Apart from the potential danger of serious injury and property damage, this practice is a breach of Regulations to which court action and penalties may be applied.

In July 2004 Worksafe Victoria, along with key asset owners, developed and released the "Framework for Undertaking Work Near Overhead and Underground Assets". These are an extension of the “No Go Zone” rules and apply to digging to a depth in excess of 300mm in the vicinity of Powercor poles.

Persons proposing to trench within a radius 10m from any pole supporting a transformer must consult with Powercor prior to excavating within that area. To minimise risk, the transformer may need to be isolated whilst trenching takes place. SWER system transformers always require isolation due to the risk of cutting the earthing system conductors and creating risk of contact with high voltage.

- Please ensure you have completed a Dial Before You Dig inquiry by phoning 1100 *prior* to contacting Powercor to request a site visit. This will enable identification of cable routes to take place, or arrangements to be made to isolate the supply whilst trenching takes place.
- Powercor should be contacted on 13 22 06 at the earliest opportunity where trenching in the vicinity of their poles is proposed.

For further information, you can log on to Powercor's web site:

www.powercor.com.au On Line Actions, Site Visits & High Loads, Safety

Incident involving a steel lattice type private pole

A Powercor line worker suffered an injured shoulder when he was lowering a service cable whilst ascending a ladder supported by a steel lattice type private pole and the structure collapsed.

It was fortunate the result was not a more serious injury. The Powercor "Safe to Climb" test had been performed prior to the work taking place. This test involves firmly locating the top of a ladder near the top of pole (usually against a piece of hardware) and progressively applying force by pushing the ladder. The test is immediately discontinued if the pole indicates failure to withstand the force of 2 persons pushing the ladder.

An additional precaution of observing the structure for excess rust and holes and the poles support is now being taken to assess the safety of tubular steel private poles prior to climbing them.

This information is provided by the Powercor Health and Safety and Works Practices section, and may assist RECs working on this type of private pole.

Tech Talk

Tech Talk is published on an as needs basis with the aim of providing relevant information for Registered Electrical Contractors and Powercor to provide industry best practice service to our mutual customers.

About 1900 copies of each edition are distributed and all editions are available on the Powercor website www.powercor.com.au

Please advise Cath Adams on Phone 03 9683 4276, Facsimile 03 9683 4899 or email cadams@powercor.com.au if:

- You are a Registered Electrical Contractor or associated industry participant who doesn't currently receive a copy of Tech Talk, but would like to;
- You currently receive Tech Talk and have changed your address;
- You would prefer to have your Tech Talk e-mailed to you.