

**To all Registered Electrical Contractors:**

**A large number of changes have occurred since the last edition of Tech Talk was issued in February 2002. As foreshadowed, significant changes are now being implemented for metering of customer connections to suit changes to Network and Retailer Tariffs.**

**It is extremely important for you and your employees to understand and install meter panels, wiring and equipment to the new arrangements described below, and to note and arrange your work to align with the other important information contained in this document.**

**Please contact the personnel listed below if further information is required on these or any other specifications pertaining to customer connection standards.**

**Ken Greenway**

**CONNECTION STANDARDS MANAGER**

## Contacts

### Customer's Retailer

- All new connection inquiries, eg, Retail tariff/s, submission of EWR & CES, connection time information.
- Existing customer installation's
  - alterations and additions involving metering or tariff changes.
  - change of customer inquiries

### Powercor

- Supply availability
- Connection standards advice – including servicing and metering
- Existing customer installation's
  - alterations and additions not involving metering or tariff changes
  - load increases
  - supply and/or metering faults

### Powercor Connection Standards Advice – ECA Inspectors

Head Office (Melton)  
Roy Sands 03 9747 3488  
0419 871 677

Altona  
Greg Carroll 0419 871 835

Ararat  
Bruce Paton 0418 568 497

Ballarat  
Peter McCutcheon 0409 359 093

Bendigo  
Les Hartland 0408 509 424  
Lindsay Walkington 0409 709 423

Colac  
Peter Bouchier 0419 543 044

Echuca  
Ken Davies 0408 832 370

Geelong  
Steve Harriott 0419 346 399  
Neville Hewitt 0419 346 397  
John Moloney 0419 346 398

Mildura  
Bob Spooner 0418 565 100  
Tony Williams 0418 565 373

Shepparton  
Rod Brown 0419 112 814  
Gordon Horgon 0419 873 157  
Sunshine  
Zbigniew Piorkowski 0419 873 804

Swan Hill  
Lindsay Rogers 0418 567 385

Warrnambool  
Wayne Rooke 0419 376 272

Werribee  
Colin Trethowan 0419 871 935

Powercor Service Difficulties & Faults 13 24 12 (24 hr)

Existing customer installation's supply and/or metering faults.

Powercor General Network Enquiries 13 22 06

Supply availability queries Supply Proposal Request Forms to request supply and advise load increases.

Powercor New Connections

Phone 1300 360 410 Facsimile 1800 062 242

Post Powercor New Connections, PO Box 185 Geelong 3220.

Existing customer installation's alterations and additions not involving metering or tariff changes. Eg, OH service point of attachment changes, meter relocations, and load increases. (alterations and additions involving metering or tariff changes are submitted to the customer's Retailer)

## Web Site Connection Information

The Victorian Service & Installation Rules, amendments, previous "Tech Talks" and other connection information such as making supply available and Supply Proposal Request forms are now available on the Powercor web site, [www.powercor.com.au](http://www.powercor.com.au).

You are urged to access this site to obtain up to date specifications for the connection of our mutual customers.

# Metering

## 1. Existing 2 Wire GD & Y Installations Provision of Electronic Meters

When performing meter board/panel works there has been an increasing practice of electricians installing a new (small) meter panel and wiring to accept an electronic meter in lieu of re-installing the existing GD & Y electro mechanical meters and time switch.

It is understood this practice has evolved as the existing meters have been presumed to be obsolete, and/or it has simply been assumed that if provision is made for an electronic meter instead of the existing meters this will take place at no additional cost.

This is not the case. Few meters are obsolete, and existing meters will almost always be reused, and provision must be made for their reuse, unless another arrangement is made with Powercor prior to their visit for metering work. This may be for Powercor to install an electronic meter in lieu of the existing GD & Y electro mechanical meters and time switch for a Low Voltage Meter Conversion charge of \$516.69.

Where an electronic meter is requested, and dependent on their Retailer, the Customer may have a choice of remaining on GD and Y or changing to Winner time of use tariff. If the change of tariff is required, it should be noted on the EWR requesting the meter work.

## 2. Meter Panel Alterations/Additions

Section 6 of the current Service & Installation Rules (SIRs) contain comprehensive specifications for metering facilities. The following information is intended to provide clarity to those requirements.

### Timber Meter Boards & Panels

SIR Clause 6.1.2 refers to alterations & additions to existing installations, and provides details for continued use of existing timber meter boards and panels.

Generally, Powercor will supply equipment and wiring for alterations or additions to timber boards and panels if they meet the conditions stated in that clause.

If there is any doubt as to whether alterations and/or additions can be accommodated on an existing timber panel, clarification should be sought.

### Customer Meter Panels

Customers have been responsible for the provision of suitable meter panels, their wiring and specified equipment since 1 December 1996.

For example, SIR Clause 6.6.2 states in part: "The customer shall provide sufficient length of cable attached to the metering panel and brought through suitable holes in the correct position ready for connection to the metering equipment."

Therefore where alterations and/or additions are made to existing customer supplied meter panels, the customer's electrician must supply and install specified equipment and perform as much work as possible to accommodate the alteration and/or addition.

The only exception to this is where an electrician is not involved in the initiation of the work, eg, tariff change, meter upgrade and maintenance work. This work will be performed by Powercor in the same manner as for timber meter boards and panels.

Powercor has no objection to a qualified electrician removing a panel retaining seal and accessing the rear of the panel for the purpose of metering preparation work. However, other seals such as active link and meter seals are not to be disturbed.

However, it is important the work is performed in a manner so as not to compromise the safety of the installation or the person.

In most cases it is considered additional holes may be made and the wiring may be installed safely without a truck appointment. Disconnecting eligible premise's in accordance with the Code Of Practice for Low Voltage (LV) Service Fuse Removal & Reinsertion By "Electrician" And "L" & "G" Inspector Licence Holders, or arranging disconnection by Powercor may assist.

To leave the installation safe, connections to energise active conductors should generally be left for Powercor personnel to connect when the meters are installed.

In all cases sufficient wiring and equipment should be installed, and as much preparation performed for the altered or additional metering as it is possible to achieve without compromising safely.

Where this cannot be accomplished without Powercor personnel, a truck appointment must take place.

### 3. Changed Tariffs

The 2003 Powercor Network Tariffs have been accepted by the Essential Services Commission and are applicable from 1 January 2003.

Some Retailer Tariffs for 2003 have also been accepted and have varying implementation dates early in 2003.

Customers and RECs should check available Retail tariffs with the customers Retailer.

These changes have significant effects on the metering of Powercor customers as foreshadowed in previous "Tech Talks" and advised in Powercor memo of 1 September 2002.

### 4. Changed Tariffs - Effects On Metering

The recent tariff changes include the following effects on domestic customers metering unless a Retailer offers some other tariff combination:

- Network Tariff DD1 (Retailer Maximum Uniform Tariffs <sup>(MUT)</sup> Y8, Y6, YT, Hot Water and J6, J/J8 and JT Space Heating/Hot Water) has sunsetted but remains available to existing customers who have these tariffs.
- Off Peak 1am – 7am Hot Water/load control  $\leq$  30Amp single phase and top element boost is now only available with Network Tariff D2 (Retailer <sup>(MUT)</sup> Tariff GH/GL "Winner"). (Note – Some Retailers may not permit off peak top element boost)
- New domestic Hot Water and Space Heating customers will need to request the time of use Network Tariff D2 (Retailer <sup>(MUT)</sup> Tariff GH/GL "Winner") to gain the benefit of "off peak" rates and/or 1am – 7am  $\leq$  30Amp single phase Hot Water/load control, and top element boost (where permitted by the Retailer).
- New domestic connections metering needs to be prepared for either of 2 options:
  1. Network Tariff D1 (Retailer <sup>(MUT)</sup> Tariff GD); or
  2. Network Tariff D2 (Retailer <sup>(MUT)</sup> Tariff GH/GL "Winner")
- Existing domestic connections on Network Tariff D1 (Retailer <sup>(MUT)</sup> GD) installing a new hot water system or storage heating will need to convert to Network Tariff D2 (Retailer <sup>(MUT)</sup> Tariff GH/GL "Winner") to gain the benefit of "off peak" rates and/or 1am – 7am  $\leq$  30Amp single phase Hot Water/load control and top element boost (where permitted by the Retailer).
- ClimateSaver tariff is now available to both new and existing domestic connections and may be combined with either Network Tariff D1 (Retailer <sup>(MUT)</sup> Tariff GD) or Network Tariff D2 (Retailer <sup>(MUT)</sup> Tariff GH/GL "Winner"). A \$100 fee applies in addition to any other charges.

### 5. Metering To Suit Changed Tariffs

Metering for all new connections and alterations and additions to existing connections will need to be installed to suit the changed Network tariffs from 1 January 2003 where the customer's Retailer offers a matching tariff.

Metering details must be obtained from the customer's Retailer where they do not offer a matching tariff.

Subject to the customer's Retailer's agreement, exceptions may be made where connections were metered before 1 January, but not completed until after that date, eg, Builder Supply Permanent Position.

The attached metering table details tariff and metering arrangements for new connections that are connected to the Powercor network from 1 January where the customer's Retailer has a matching tariff.

The connection standards advice contacts listed should be contacted for metering alteration and/or addition details and where any clarification is required. The customer's Retailer should be contacted if they do not offer a matching tariff.

# NEW CONNECTIONS - METERING SPECIFICATIONS

## To Suit Powercor Network Tariffs & Retailer Matching Tariffs

JANUARY 2003

Contact Powercor Connection Standards Advisers for other applications & Customer's Retailer where the Retailer does not offer a tariff matching a Powercor network tariff

Network Tariff	Application	Retail Tariff	Phases	Meter Equipment	Meter Code	Use Rating (Amps)	SIR Specification
<b>Tariff D1</b> Customer Type - Domestic Standing Charge - Fixed Energy Charge 24hr, 7 Day single rate	Domestic without significant Off Peak Load, eg, Hot Water.	GD/GR	1  2  3	WHR Electro Mechanical Single Rate.  a) WHR Electro Mechanical, Single Rate or b) WHR Electro Mechanical, Single Rate.  a) WHR Electro Mechanical, Single Rate or b) WHR Electro Mechanical, Single Rate.	185/6  221/6 or 222/6  223/6 or 224/6	≤ 100  ≤60 >60 ≤100  ≤60 >60 ≤100	Page 6-22 Figure 6.6  Page 6-25 Figure 6.9
<b>Tariff D2.</b> Customer Type - Domestic Standing Charge - Fixed Energy Charge Peak - 7am to 11pm Monday to Friday Off Peak - 11pm to 7am Monday to Friday and 11pm Friday to 7am Monday. <b>Off Peak Hot Waters</b> ≤30 amp switch for eligible single and/or twin element Hot Water loads; and Off peak boost for eligible off peak twin element Hot Water loads.	Single Phase Domestic with eligible Hot Water Off Peak ≤30 amp switch & Boost.  Single Phase Domestic without eligible Off Peak Hot Water load.  Multi Phase Domestic without eligible Off Peak Hot Water load.	GH/GL Winner  <b>Note:</b> Retailer may not permit Hot Water "Off Peak" Boost	1  1  2  3  2	EMS 2621 Electronic Three Rate.  EMS 2610 Electronic Two Rate.  a) WHR Electro Mechanical Two Rate & Timeswitch ELEC 1 Circuit or b) WHR Electro Mechanical Two Rate & Timeswitch ELEC 1 Circuit  a) WHR Electro Mechanical Two Rate & Timeswitch ELEC 1 Circuit or b) WHR Electro Mechanical Two Rate & Timeswitch ELEC 1 Circuit  a) WHR Electro Mechanical Two Rate & WHR Electro Mechanical Single Rate & Timeswitch ELEC 2 Circuit or b) WHR Electro Mechanical Two Rate & WHR Electro Mechanical Single Rate & Timeswitch ELEC 2 Circuit	232/5  310/5  226/6 & 819 or 227/6 & 819  228/6 & 819 or 229/6 & 819  226/6 & 185/6 & 820 or 227/6 & 185/6 & 820	≤ 100  ≤ 100  ≤60 >60 ≤100  ≤60 >60 ≤100  ≤60 >60 ≤100	Page 6-22 Figure 6.6  Page 6-22 Figure 6.6 (Top diagram, but electronic meter used)  Page 6-26 Figure 6.10 (Time switch fuse may be omitted)

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Network Tariff	Application	Retail Tariff	Phases	Meter Equipment	Meter Code	Use Rating (Amps)	SIR Specification
Continued from P1			3	a) WHR Electro Mechanical Two Rate & WHR Electro Mechanical Single Rate & Timeswitch ELEC 2 Circuit or b) WHR Electro Mechanical Two Rate & WHR Electro Mechanical Single Rate & Timeswitch ELEC 2 Circuit	228/6 & 185/6 & 820 or 229/6 & 185/6 & 820	≤60  >60 ≤100	
<b>Tariff D1.CS</b> Customer Type - Domestic Standing Charge - None Energy Charge Summer Season Rate – 1 November to 31 March Winter Season Rate – 1 April to 31 October	Domestic installations connected to D1 or D2 Network Tariff with a split system air conditioner with a minimum of 4KW heating capacity connected to a dedicated Climate Saver metered circuit.  <b>Note:</b> Add this CS metering to either D1 or D2 metering requirements shown above as applicable to achieve D1.CS or D2.CS Network Tariffs.	GD and Climate Saver.	1	EMS 2610 Electronic Two Rate	310/5	≤ 100	Page F-2 Figure F1
<b>Tariff D2.CS</b> Customer Type - Domestic Standing Charge - None Energy Charge Summer Season Rate – 1 November to 31 March Winter Season Rate – 1 April to 31 October		GH/GL Winner and Climate Saver.	2	a) WHR Electro Mechanical Two Rate & Timeswitch ELEC 1 Circuit or b) WHR Electro Mechanical Two Rate & Timeswitch ELEC 1 Circuit	226/6 & 819 or 227/6 & 819	≤60  >60 ≤100	Special Drawing obtain from Charlie Cassar. 03 6983 4489
<b>Tariff D2.</b> Customer Type - Domestic Standing Charge - Fixed Energy Charge Peak - 7am to 11pm Monday to Friday Off Peak - 11pm to 7am Monday to Friday and 11pm Friday to 7am Monday. <b>Off Peak Hot Waters</b> ≤30 amp switch for eligible single and/or twin element Hot Water loads; and Off peak boost for eligible off peak twin element Hot Water loads.	Retailer tariff for Domestic installations connected to GD tariff with approved solar water heater.  <b>Note: Example of Retail tariff not matching Network tariff.</b> Network tariff D2 and additional charge to reprogram meter off peak hours to suit Retail tariff applies. This metering includes Retail GD and S4 7 day 4hr off peak to suit Retailer tariff.	GD and S4 Off Peak Solar Water Heating.	1	EMS 2621 Electronic Three Rate.	232/5	≤ 100 GD <30 CS	Page 6-22 Figure 6.6

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Network Tariff	Application	Retail Tariff	Phases	Meter Equipment	Meter Code	Use Rating (Amps)	SIR Specification
Continued from P 2 <b>Tariff ND1</b> <b>Customer Type –</b> <ul style="list-style-type: none"> <li>Industrial/Commercial</li> <li>Community Service</li> <li>Farming.</li> </ul> <b>Standing Charge - Fixed Energy Charge</b> 24hr, 7 Day single rate	Industrial/Commercial sites without significant Off Peak or Weekend Load. Retail Tariff E.  Community Service sites without significant Off Peak or Weekend Load. Retail Tariff N.  Farming sites without significant Off Peak or Weekend Load. Retail Tariff B.	E, N & B have the same Metering set up.	1  2  3	WHR Electro Mechanical Single Rate.  a) WHR Electro Mechanical, Single Rate or b) WHR Electro Mechanical, Single Rate.  a) WHR Electro Mechanical, Single Rate or b) WHR Electro Mechanical, Single Rate.	185/6  221/6 or 222/6  223/6 or 224/6	≤ 100  ≤60 >60 ≤100  ≤60 >60 ≤100	Page 6-22 Figure 6.6  Page 6-25 Figure 6.9
<b>Tariff ND2.</b> <b>Customer Type –</b> <b>Industrial /Commercial</b> <b>Standing Charge - Fixed Energy Charge</b> Peak - 7am to 11pm Monday to Friday Off Peak - 11pm to 7am Monday to Friday and 11pm Friday to 7am Monday.	Single Phase Industrial/Commercial sites with significant Off Peak or Weekend Load.  Multi Phase Industrial/Commercial sites with significant Off Peak or Weekend Load.	D.	1  2  3	EMS 2610 Electronic Two Rate.  a) WHR Electro Mechanical Two Rate & Timeswitch ELEC 1 Circuit or b) WHR Electro Mechanical Two Rate & Timeswitch ELEC 1 Circuit  a) WHR Electro Mechanical Two Rate & Timeswitch ELEC 1 Circuit or b) WHR Electro Mechanical Two Rate & Timeswitch ELEC 1 Circuit	310/5  226/6 & 819 or 227/6 & 819  228/6 & 819 or 229/6 & 819	≤ 100  ≤60 >60 ≤100  ≤60 >60 ≤100	Page 6-22 Figure 6.6 (Top diagram, but electronic meter used)  Page 6-26 Figure 6.10
<b>Tariff DL.</b> (Several Categories) <b>Customer Type –</b> <b>Large Industrial /Commercial</b> <b>Standing Charge - Fixed Energy Charge</b> Peak - 7am to 11pm Monday to Friday Off Peak - 11pm to 7am Monday to Friday and 11pm Friday to 7am Monday. <b>Demand Charge.</b> Minimum chargeable demand 120KW or 250kW per month.	Contract Demand Large Industrial/Commercial sites. Multi Phase Current Transformer Metering.  Retailer requested Manually Read Interval Meter.	L.	3  3	WHR Electro Mechanical Two Rate & Timeswitch ELEC 1 Circuit  Half Hour KW Interval Electronic Meter. Q4.	166/5 & 819  306/5.1	> 100	Page 6-12 Low Voltage Current Transformer Metering.

# ***Builder Supply Poles (BSP)***

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As a result of frequently occurring inconsistencies relating to BSPs, Powercor has written to major BSP installers to remind them of key industry standards that apply to these installations. Other installers must also adhere to these standards to ensure they and our mutual customers are not affected by refusal to connect due to installations not meeting applicable standards.

## **Location of poles that may be serviced by an overhead service cable**

The Electricity Safety (Installations) Regulations only permit installation of private poles to accept overhead service cables and private overhead lines in Low Bush Fire Risk Areas. Therefore, connection of a Powercor overhead service cable to private poles, including Builder Supply Poles, to other than those installed in Low Bush Fire Risk Areas will not occur unless the customer has exemption from the Office of the Chief Electrical Inspector to do so. Reference SIR Clause 5.1.

## **Height Extensions to Builder Supply Poles**

Any height extension to a Builders Supply Pole:

- must be safe to work on the point of attachment and consumer terminals (mains box) from a portable extension ladder; Reference SIR Clause 5.5.1.2.
- must have a strength rating of at least 1kN for 2 wire service cables and 2kN for all other service cables at the point of attachment; Reference SIR Clause 5.5.1.3.
- metallic extensions must be in accordance with SIR “VESI Specification – Service Raiser Brackets and their Installation”. Reference SIR Clause 5.5.1.6.

## **Mains Box Location**

The mains box (FOLCB) must be located adjacent to the point of attachment. Reference SIR Clause 5.2.6.

As a guide, “adjacent” means there should be no more than 500mm length of service cable between the service cable attachment hook and the point where the service cable enters the customer’s mains box.

It is not acceptable to expect Powercor to dress the service cable down through conduit, or to have excessive lengths of service cable between the point of attachment and mains box.

# ***Backfilling Consumer Mains Trenches***

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Established industry practice has been to connect underground consumer mains to supply whether or not the trench had been left open or partially filled, (usually for the convenient installation of other services), or completely back filled.

The Service & Installation Rules Management Committee recently sought clarification of regulatory requirements from the Office of the Chief Electrical Inspector on this practice, and the Office has advised in part:

“Clearly there are responsibilities on the licensed electrical worker and the licensed electrical inspector to ensure that the underground consumer mains are installed in accordance with the requirements of the Electricity Safety Act and Electricity Safety (Installations) Regulations.

# *Notification of Electrical Work*

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The Victorian Electricity Supply Industry book containing updated Electrical Work Request and Field Works Order forms and a new "Application for Abolishment of Electrical Supply" was released during the latter months of 2002.

The Electrical Work Request (EWR) form has been amended to include a new privacy statement. Other alterations were made to ensure essential customer installation details are provided in the most expedient manner and the original copy colour changed to white to enable clearer copies when facsimiled.

The Field Works Order updates include the provision of privacy information and credit card details for payment where this is acceptable to the Retailer or Distributor.

The new "Application for Abolishment of Electrical Supply" should be completed and submitted where the person responsible requires an installation to be abolished.

The form should be submitted to the Customer's Retailer if the installation is on supply, and the relevant Distributor if the installation is not on supply.

As before, the books may be ordered from Powercor General Network Enquiries 13 22 06 or New Connections 1300 360 410.

Forms must be submitted in accordance with the processes detailed in the January 2002 Tech Talk. In particular, it must be remembered that a correctly completed EWR must be provided to Powercor (usually to the service truck crew) prior to reconnection of work following a fault.

## *Change of Address*

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To ensure this document continues to reach you please contact  
Anna Marinovic on (03) 9683 4276 or email [amarinovic@powercor.com.au](mailto:amarinovic@powercor.com.au)  
with any changes to your mailing address.