

# Memorandum

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**To** All Construction Service Providers, Resource Managers/Coordinators, Network Compliance Auditors

**Copy** All Customer Project Managers, C Jenkins, J Baker

**Date** 17 February 2006

**Subject** **Network Compliance Bulletin #10 (Underground Projects)**

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This memorandum has been prepared following further issues and incidents in regard to the current process of the tie in of underground estates and the future proposal regarding authorisation of service providers to complete the tie in of their green field projects. A number of improvements in the existing process were considered and implemented as noted in the Memorandum dated 30 June 2005 (updated 14 October 2005).

Further changes covering the preparation of the cables being left in readiness for tie-in are detailed in this memorandum.

*Note for Option 2 Contractors: This document can also be viewed on the Powercor Website / Contractors & Suppliers / Technical Standards / Option 2 Information & Forms*

- **Personnel Safety and Electrical Asset Clearance** (Document No PCA4143.D10) has been revised, the title has been changed to **Personnel Safety and Electrical Asset Completion Notice**, the change has been necessary to eliminate any confusion with the standard Powercor HV operational clearance form. It is required that all the relevant reports / forms are attached and the current drawing number is identified, also included is a requirement to record the Permit To Work No. if applicable - (*attachment a*)
- **Distribution Plant /Transformers Test Reports** – these report forms should be used to record the plant details, continuity and insulation tests, earth tests and a final checks, they are the only accepted forms and are included in the Powercor Standard CB011.
- **Distribution Plant / HV Metal Clad Switchgear Test Reports** – these report forms should be used to record the continuity tests, insulation tests and a final checks, they are the only accepted forms and are included in the Powercor Standard CB021.

*Note: The standard CB011 and CB021 including the associated work instructions / training requirements is currently being reviewed.*

- **Installation of UG Cables For Tie-in** - all new cables required to be tied in to an existing cable should be installed in a manner that overlaps the existing cable by sufficient length to enable the joint to be completed. The constructor must locate existing cable end, lay the new cable over the top of the cover slab and then back fill the trench, note the pit is to be used for identification of the location of the existing cable end. note cover slabs / marker tape should be installed as per GA211 –\_(attachment b)

To allow for the insulation resistance testing of the cables the cables are to be insulated/sealed as per the appropriate standard.

- LV cables are to be insulated/sealed as per standard GS351
- HV cables are to be insulated/sealed as per standard GB351

*The standards have been updated and will be circulated at the end of the month.*

**Note: The MOC's / No Go Zone processes must be adhered to prior to undertaking any excavation.**

- **Preparation of Underground Cables For Tie-in** – there are 4 scenarios, straight jointing, termination on a cable head pole, termination at an existing kiosk substation and termination at an existing switching cabinet, the guidelines are to address standardisation, correct length of cable for termination, allow completion of all work by the constructor and address the health & safety risks to the general public.

The cable, fittings, and installation must be in accordance with the Powercor Technical standards.

The Powercor Project Manager will ensure that the design / construction plan is noted with how / where the tie-in is to be prepared. Constructors must liaise with the Powercor Project Manager to determine the most suitable method, taking into account timeframes for planned tie-in, weather and special situations eg. schools/commercial areas.

**Note: The MOC's / No Go Zone processes must be adhered to prior to undertaking any excavation.**

- **Straight Joint** – Refer to **Installation of UG Cables For Tie-in**
- **Cable head pole** – the cable should be left as per attachment 'c' all cable guards, signage, earthing system and cable protection installed , together with all reinstatement completed. The cable will need to be suitably secured, it is critical to consider the allowable bending radius of the cable. Sufficient cable for the appropriate termination must be provided. Where new pole is required to be installed to facilitate cable head pole, sufficient cable shall be coiled within 3.0 m of new pole location and securely barricaded.
- **Kiosk Substation** – The cables are to be left leaving sufficient cable for termination, the cable is to be sealed with an insulated end as per standard GS351 and GB351, coiled and suitably barricaded within 3.0 m of the substation.  
Note: this is an interim arrangement; further investigation is underway to consider leaving the cables within the substation
- **Switching Cabinet** – The cables are to be left leaving sufficient cable for termination, the cable is to be sealed with an insulated end as per standard GS351 and GB351, coiled and suitably barricaded within 3.0 m of the switching cabinet

These requirements are effective immediately for new projects that have not commenced. Compliance to the above standards for Tie In will be included in the final compliance audit; non conformances will be considered as a major non compliance.

Should you have further queries please contact Les Ferris ph. 53272404 or Graeme Davenport ph. 53272238

**Les Ferris**  
**Network Compliance Manager**  
**Ph. 0419 893 082**  
[lferris@powercor.com.au](mailto:lferris@powercor.com.au)

**(attachment a)**

**Powercor Australia Ltd**  
(ABN 89 064 651 109)

<b>PERSONNEL SAFETY AND ELECTRICAL ASSET COMPLETION NOTICE</b>
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Further to the request for Tie-in works related to the following project:

Project Name			
Customer's Name			
Powercor Network Number		Powercor Ref. No	
Project Approval Date			

Description of Works/Assets


**I confirm the following details:**

Drawing No/s. 'As Built'		Verified by	

Date of Tie-in			
Nominated audits undertaken by			
Completed on (date)	NW Staged Compliance Audit		
	Final NW Compliance		

**Tick the relevant boxes to indicate report/form attached**

- Low Voltage Test Report –CC091
- High Voltage Test Report (sections 1, 2 3, 4) –CC101
- Public Lighting Polarity / Earth Test Report –03-F570
- Distribution Plant Transformers Test Report –CB011
- Distribution Plant HV Metal Clad Switchgear Test Report –CB021
- Alterations/Additions to Assets - 06-F855
- Network Staged Audit Checklist –12-F731
- Final Network Audit Report –12 F-730
- Permit to Work No. (if applicable)

**I declare and understand that:**

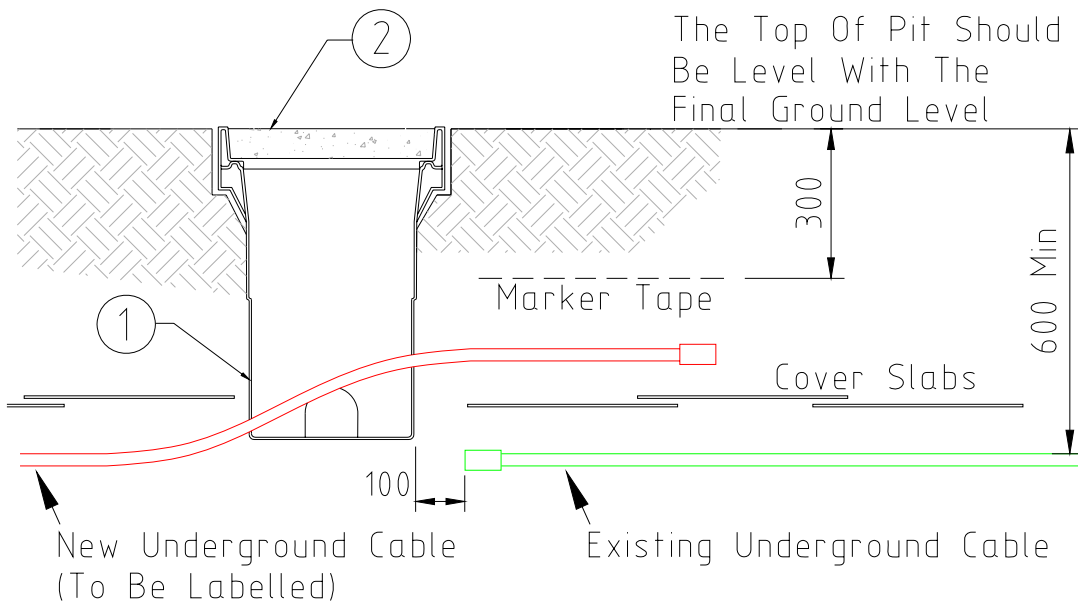
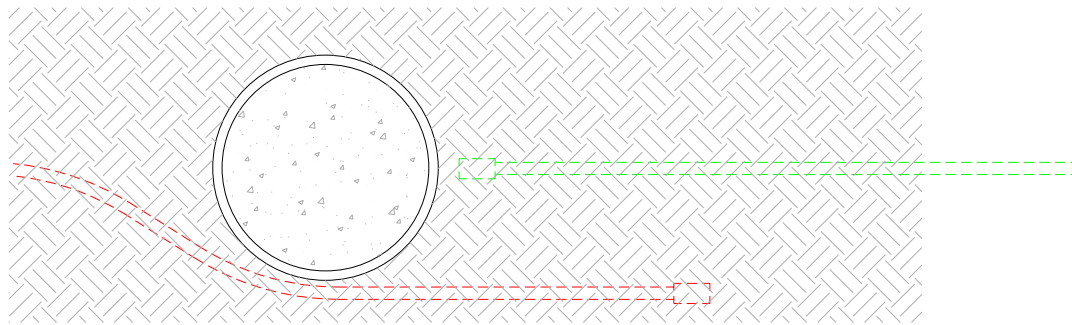
- All work excluding the Tie In is complete.
- The project has been designed and built to the approved Powercor/CitiPower standards and specifications
- The installed electrical apparatus must now be treated as alive and that any further work required on this apparatus shall only be carried out by authorised Powercor Australia employees.

Signed		Printed Name	
Position		Company	
Date			

Failure to lodge this form a minimum of five (5) business days prior to the nominated Tie In date will result in planned Tie In works being re-scheduled and an additional Tie In Fee being charged to the Developer.

**(attachment b)**

- 1 GS701 Body, Service Pit, Underground, Polyethylene, 600mm Long
- 2 GS711 Lid, Service Pit, Underground, Concrete, 300mm ID



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INSTALLATION OF  
UNDERGROUND CABLE  
TIE IN

DISTRIBUTION  
CONSTRUCTION URD

Network Compliance  
Manager.

L. Ferris

**(attachment c)**

