



Warning: Printed copies of this document not in an official Manual MAY NOT BE THE LATEST. The most up-to-date version is located on the Intranet.

Customer Initiated Augmentation Works Project Manager

1.0 Introduction

In the Powercor distribution area, when a development requires connection to the distribution system, the customer is responsible for arranging and funding the works including the connection to the Powercor distribution system. The customer has the choice of who is engaged to undertake the work but Powercor undertakes the final connection to the distribution system. Powercor publish a list of recognised contractors from which the customer can choose. Any project where a customer chooses to use recognised contractors is referred to as an Option 2 project.

One of the recognised tasks is Project Management. Every project must have a Project Manager who is appointed by the customer at the initial request to Powercor for an offer of supply. The notification of the appointment of the Project Manager is via the contractor notification form. This form is available on the Powercor WEB site under Contractor & Suppliers/forms reports & bulletins/appointed contractors. This form is attached to this guideline for your reference.

The Project Manager can be the customer, electrical contractor, principle contractor, civil consultant or any other party that has been assessed and accredited by Powercor as competent to perform the Project Manager role. The customer is to engage a Project Manager and notify Powercor of their selection on the contractor notification form.

The Project Manager is responsible for the overall project management and is required to document, implement and maintain a Quality System which provides effective control of all activities involved in the project. For major developments an overall project management plan will be required, which incorporates the installation and coordination of any utility and infrastructure requirements. It is expected that the electrical reticulation infrastructure requirements, will be incorporated within this plan and be managed by the recognised Project Manager.

Note: A development where the customer requests Powercor to complete all the works (contestable and non contestable) is referred to as an Option 1 project, and a Project Manager must be appointed. The same conditions in relation to Project Management will apply, however the responsibility for some of the tasks may vary

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2.0 Purpose

The primary purpose of Project Management recognition is to ensure that contractors involved in the management of the design and construction of electrical infrastructure on behalf of the customer, which becomes the property of Powercor have the necessary skills and systems in place to deliver a project that conforms to all standards and is completed in a timely manner. We also require that there is a single point of contact with Powercor for all matters relating to the activities of the project.

3.0 Categories – Project Management Roles

- **Project Manager Minor (PM1)**

Nominated by the customer/client for minor type projects –

- All Single Customer Projects with loads less than 500kVA.
- All Subdivision Developments of 5 lots or less but excludes any staged developments.

- **Project Manager Major (PM2)**

Nominated by the customer/client for major type projects –

- All Single Customer Projects with loads greater than 500kVA.
- All Subdivision Developments of greater than 5 lots, including any staged developments.

4.0 Tasks - Project Management

The Project Manager will be required to follow the Powercor documented process for CIAW projects and -:

- Submit a project plan of the development that clearly identifies the electrical infrastructure component. The plan should be reviewed and updated regularly.
- Facilitate and make all contact with Powercor on behalf of the customer/client, this may also include the Powercor offer for connection services.
- Ensure that all assets ultimately connected to the Powercor Network System conform to the required technical standards and regulations.
- Ensure that the following process steps are completed:
 - System planning scopes are requested
 - The electrical design plan is approved
 - Approval from other authorities (e.g. RMA, Council Public Lighting Approval, communications, gas, water etc)
 - The tie in requests are submitted
 - As built plans are completed
 - All relevant successful Network compliance audits are completed
 - Any non conformances are managed
 - The Powercor Personnel Safety & Electrical Asset Completion Notice has been Submitted
 - All relevant test results are submitted
 - Coordination of all key stakeholders (electrical contractor, road contractor, Telstra etc)

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5.0 Key Process Steps

The attached process steps provide the interface between the Project Manager and Powercor. This can be used as a guide to assist the Project Manager in managing the project on behalf of the Developer. Copies of standard forms and test sheets that must be used are included for reference only. The most up-to-date versions are available on the Intranet.

Summary of attached documents

No	Name	Doc No	Purpose
1	Contractor Notification Form	D4-280808	Provide details of the appointed Service Providers & proposed construction program. Can be resent as more details become available.
2	Staged Network Compliance Audit	12-F731	Check list of items to that should be included in the stage audit.
3	Tie In Request	PCA4143.D6	Provide details of tie in date. Date can be updated as project progresses but must be submitted with 15 minimum business days prior to the submission of the Personal Safety & Electrical Asset Completion Notice
4	Network Compliance Audit Request	New	Form to be completed and submitted when requesting a final Network compliance audit
5	HV Cable test report	06-F459	Details of results from HV cable tests
6	LV Cable test report	06-F460	Details of results from LV cable tests
7	Public Lighting Earth & Polarity test report	03-F570	Details of results from Public Lighting tests
8	Transformer Kiosk – test report	06-F462	Details of Transformer tests
9	Distribution Plant – HV Metal Clad Switchgear Test Report	06-F456	Details of Metal Clad Switchgear tests
10	Final Network Compliance Audit Report	12-F730	Report of findings from the final Network Compliance audit.
11	Personal Safety & Electrical Asset Completion Notice	06-F370	Declaration that construction has finished, there is no further access to the assets by the Service Provider and assets are ready for Tie In

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Key process Steps

Note: Steps in Yellow are completed by Powercor for Option 1 projects

Project Manager	Document/Form	Powercor	B Days
Appoint Project Manager	Contractor notification form →		
Request conditions for overall plan of total development	Plan of subdivision with staging order →	Prepare Overall Estate Network planning scope.	
	Overall Estate Network Planning Scope ←	Forward Overall Estate Network Planning Scope to Project Manager	20 days Need to agree
Request conditions for individual Stage	Plan of subdivision →	Prepare Network Planning Scope for Stage.	
	Planning Scope ←	Forward Planning Scope to Project Manager	10 days
If staging order changes from original request then it will need to be re-submitted	Plan of subdivision with revised staging order →	Prepare revised Overall Network planning scope.	
	Overall Estate Network Planning Scope ←	Forward revised Overall Estate Network Planning Scope to Project Manager	20 days Need to agree
Submit electrical design	Electrical Design Drawings →	Complete plan approval process	15 days Need to agree
	Approved Electrical Design Drawings ←	Return approved Electrical Design	
	Augmentation Agreement ←	Prepare offer and contracts based on approved plan	20 days
Accept offer & return	Signed Augmentation Agreement →		20 Days expiry
Submit Project Plan		Schedule preliminary dates for pre-commissioning & tie in Scheduling of Tie In not done until successful Final Audit & Test Results / Clearance Doc's received	
	Invoice ←	Invoice Developer and send acceptance letter with copy of signed Augmentation Agreement.	
Make payments once invoice is received from Powercor			
Complete civil works and electrical works			
Arrange staged Network Compliance audits and forward to Powercor	Completed Staged Network Compliance Audit	Arrange for the completion of the construction tie-in file	
Final tie in date confirmed	Tie in confirmation →	Update scheduled preliminary dates for pre-commissioning checks & tie-in	15 days notice
Arrange for As-built drawings to be submitted for approval by Powercor	As-built drawings	Forward As-built drawings to Closeout team and gain approval	2 days
		Forward copy of Approved As-Built drawings to Project Manager	1 day
Arrange final Network Compliance audit	Network compliance request & As built drawings		5 days notice

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	Staged Audit Results →		
Complete all tests	As published →		
Submit completion notice, including test results and audit reports	Personal Safety & Electrical Asset Completion →	Schedule pre-commissioning checks	
	Letter of consent ←	Issue letter of consent	1 day
	Advise Project Manager of any non conformances ←	Complete pre-commissioning checks	10 days
Complete any outstanding non conformances -another successful Final Network Compliance Audit may be required			
		Schedule tie-in	20 days
	Energisation Notice – New form to be introduced ←	Complete Tie-in – Generally up to 6 weeks	
		<u>Conduct Post Tie-in Audit (future)</u>	
Submit HV and Network Contribution requests	HV Rebate Form & Network Contribution tax invoices	Register Rebate requests and process	
	Rebate cheque ←	Process any rebates	

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6.0 How to Contact Powercor Australia LTD

How to contact Powercor

Powercor's Customer Contact Centre: Phone 132206

Facsimile: (03) 54405798

Email inquiry: info@powercor.com.au

If you require assistance to complete any forms, call Powercor's Customer Contact Centre on 132 206 or contact your nearest Powercor Office.

Alternatively, visit our Internet Site at www.powercor.com.au and select the "Connect to the Network" option.

Powercor Australia Office Locations

	Postal Address	Office Location
Ardeer	Locked Bag 6 , Sunshine 3020 Email Address: customerprojectsardeer@powercor.com.au	740 -742 Ballarat Rd Ardeer Telephone (03) 8363 8285 Fax: (03) 8363 8314
Ballarat	PO Box 572, Ballarat 3353 Email Address: customerprojectsballarat@powercor.com.au	Norman St, Wendouree Telephone: (03) 5327 2454 Fax: (03) 5331 9139
Bendigo	Private Bag 8004, Bendigo 3550 Email Address: customerprojectsbendigo@powercor.com.au	601-611 Napier St, Epsom Telephone: (03) 5440 5804 Fax: (03) 5440 5795
Geelong	PO Box 185, Geelong 3220 Email Address: customerprojectsgeelong@powercor.com.au	Roseneath St, North Geelong Telephone: (03) 5240 7511 Fax: (03) 5240 7751
Mildura	PO Box 544, Mildura 3502 Email Address: customerprojectsmildura@powercor.com.au	Eleventh St, Mildura Telephone: (03) 5022 5902 Fax: (03) 5022 5991
Shepparton	PO Box 6141, Shepparton 3632 Email Address: customerprojectsshepparton@powercor.com.au	8-10 Wheeler St, Shepparton Telephone: (03) 5820 2601 Fax: (03) 5820 2695

7.0 Forms & Documents

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CONTRACTOR NOTIFICATION FORM

*** Mandatory Fields**

Please complete the customer & project details below: (Please print clearly)

Customer Name	*		
Customer Address	*		
	Town/City *	Post Code *	
Business Hours Telephone	Area Code *	Ph No. *	
Address Supply Required	*		
	Town/City *	Post Code *	
Powercor reference No:			

I advise that I/we have appointed the following Powercor Recognised Contractors from the current list located on the Powercor web site: <http://www.powercor.com.au/>

PROJECT MANAGER

Company Name	*		
Contact Name & Phone Number	Name: *	Ph: *	

DESIGNER

Company Name			
Contact Name & Phone Number	Name:	Ph:	

CONSTRUCTOR

Company Name			
Contact Name & Phone Number	Name:	Ph:	

Notes:

- **No construction of electrical infrastructure assets is to commence until the design plan is approved by Powercor.**
- **This form must be submitted to Powercor a minimum of 12 weeks prior to the proposed Tie-in date entered in the table below and a minimum of 10 business days before the scheduled start of construction.**

PROPOSED CONSTRUCTION WORKS PROGRAM

Activity	Complete Date	Activity	Complete Date
Tree Clearing		Poles and Structures	
Civil Works		Conductor Stringing	
Substations and Earthing		Cable Installation and Jointing	
Tie-in		Other (provide details)	
Trench Preparation		Public Lighting pole, bracket and lantern installation	
Conduit and underground service pit installation		Public Lighting Commissioning (if not required at Tie-in date)	

Customer Signature *	Date *
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TIE-IN REQUEST FORM

Powercor Australia Ltd (ABN 89 064 651 109)

I request that Powercor Australia undertake the Tie-in works at the location as detailed below. I understand that if a shutdown is required, Powercor Australia reserves the right to nominate the actual date and time of Tie-in to cause minimal disruption to existing customers.

Customer Name	
Customer's Project Manager	
Supply Address	
Powercor Reference Number	

Proposed Tie-In Date:	Not less than 12 weeks after the customer's acceptance of Powercor's Offer and a not less than 15 Business Days prior to the proposed Tie-In date.
------------------------------	---

To comply with the conditions of the Offer for Network Connection Services, the following requirements must be met prior to the Tie-in of the project.

Payment (if not previously paid) of the Tie-In charges as detailed in the Offer for Network Connection Services a minimum 15 business days prior to tie-in, and return of:

1. The Contractor Notification Form a minimum 10 business days prior to Construction Commencement.
2. **The "As Built Plans" to the Approved Auditor and Powercor prior to the arranged audit and a minimum 5 business days prior to the Tie In date.**
3. **For Public Lighting a written confirmation from the Responsible Road Authority/s agreeing to the lighting design and payment for ongoing operational costs; and, for Non Standard public lighting:**
 - **written confirmation from the Responsible Road Authority/s agreeing to retain full ownership of the non standard poles, brackets, lanterns; and**
 - **agreeing to be responsible for all costs associated with future non standard items including pole, bracket, lantern replacement, including the supply and delivery of these items.**
4. **The Guarantee Agreement a minimum 10 business days prior to Construction Commencement.**
5. A complete final Audit showing no critical or major non-conformances a minimum 5 business days prior to tie-in.
6. **The Powercor Personnel Safety & Electrical Asset Completion Notice to Powercor a minimum 5 business days prior to the Proposed Tie In date or as agreed in writing.**

Failure to provide the above documentation in the timeframes stated, or cancellation of the Tie In within 5 working days, will incur an additional Tie In charge.

I acknowledge that should the constructed works not meet the required Powercor standards this Tie-In Request and the associated Powercor Personnel Safety & Electrical Asset Completion Notice will be cancelled.

Upon notification of cancellation I acknowledge that a new Tie-In Request and Powercor Personnel Safety Electrical Asset Completion Notice & Test Form will need to be submitted prior to Powercor rescheduling the tie-in of the project.

Signature of Customer

Date

--

/ /

Office Use Only

Date Recd / /	Shut down Required Y/N	Fees Paid Y/N
Date Customer notified of Tie-in date / /		Date of Shut down / /

Document No: PCA4143.D6

Date of Issue: 28 Aug 2008

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**AUDIT REQUEST
FOR OVERHEAD / UNDERGROUND ELECTRICAL
INFRASTRUCTURE PROJECTS**



Open Trench, Staged (Civil & Electrical), Network Final (Civil & Electrical)

Project Name					
Project Network			Drawing		
Location					
Project Type	<input type="checkbox"/> Network Managed (Opt. 1)		<input type="checkbox"/> Customer Managed (Opt. 2)		
	<input checked="" type="checkbox"/> Domestic – U/G		<input type="checkbox"/> Industrial/Commercial		
	<input type="checkbox"/> Domestic - O/H		<input type="checkbox"/> System Improvement		
	<input type="checkbox"/> Public Lighting		<input type="checkbox"/> Quality		
	<input type="checkbox"/> Pole to Pit		<input type="checkbox"/> Other		
PROJECT SCOPE <i>(description should also include no of lots / pits / P/Ls etc. and any adjacent works outside the construction site relevant to the project)</i>					
Contact Details					
Project Manager					
Phone No.		Mobile No		Email	
Customer/Agent/Developer					
Phone No.		Mobile No		Email	
Electrical Constructor					
Phone No.		Mobile No		Email	
Civil Contractor					
Phone No.		Mobile No		Email	
Worksite Auditor/s					
Phone No.		Mobile No		Email	
Cable Detailer					
Phone No.		Mobile No		Email	
Network Auditor					
Phone No.		Mobile No		Email	
Audit Requestor					
Name				Position	
Company				Phone No	
Date Requested				Date Required	

High Voltage XLPE, EPR and Hybrid PILC/XLPE Cable Commissioning Test Report

Job Title:

Cable Circuit Details			
Test Instrument Model		Instrument No.	
Test Instrument Model		Instrument No	
Tested by		Date	
Cable Type Details			

Tests to be undertaken as outlined in Test Procedure Flow Chart

1. All circuits identified and labelled Yes / No
 2. Continuity / Phase Sequence Tests passed Yes / No

3. Sheath Integrity Test

SHEATH INTEGRITY TEST 1 KV	
Screen Wires to Earth	Resistance
Red	MΩ
White	MΩ
Blue	MΩ

4. Insulation Resistance Test

INSULATION RESISTANCE TEST 5KV				
Phase to Screen - All Cables	1 min. reading	10 min. reading	Polarisation Index	Phase Comparison
Red	MΩ	MΩ		
White	MΩ	MΩ		
Blue	MΩ	MΩ		

5 VLF Test

Phase to screen
Pass <input type="checkbox"/>
Fail <input type="checkbox"/>

Screen Wires to Earth - must be greater than or equal to 1 MΩ
Polarisation Index = ten minute reading / one minute reading ≥ 2.
Phase Comparison = variation between phases must be less than 25%.
Note: All Constructors must complete items 1,2,3,4 and 5 as per flow chart.

Comments

Signed: _____ **Date:** _____ **Test Result (Pass / Fail)**

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Low Voltage Cable Test Report

Job Title:

Test Instrument Model		Instrument No.	
Test Instrument Model		Instrument No	
Tested by		Date	

CIRCUIT DETAILS (Put circuit name in box below)

	CIRCUIT 1	CIRCUIT 2	CIRCUIT 3	CIRCUIT 4
--	------------------	------------------	------------------	------------------

Confirm Cable & Switchgear Label Matches Cable Route

Tick the box	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------	--------------------------	--------------------------	--------------------------	--------------------------

PHASE TO PHASE

Red to White	MΩ	MΩ	MΩ	MΩ
White to Blue	MΩ	MΩ	MΩ	MΩ
Blue to Red	MΩ	MΩ	MΩ	MΩ

ALL PHASES TESTED TO NEUTRAL – NEUTRALS DISCONNECTED

Red to Neutral	MΩ	MΩ	MΩ	MΩ
White to Neutral	MΩ	MΩ	MΩ	MΩ
Blue to Neutral	MΩ	MΩ	MΩ	MΩ

ALL CONDUCTORS TESTED TO EARTH – NEUTRALS DISCONNECTED

Red to Earth	MΩ	MΩ	MΩ	MΩ
White to Earth	MΩ	MΩ	MΩ	MΩ
Blue to Earth	MΩ	MΩ	MΩ	MΩ
Neutral to Earth	MΩ	MΩ	MΩ	MΩ

CONTINUITY AND PHASE IDENTIFICATION TEST

Phase	Checked	Checked	Checked	Checked
Red				
White				
Blue				

FINAL TEST - NEUTRALS CONNECTED

Red to Neutral	MΩ	MΩ	MΩ	MΩ
White to Neutral	MΩ	MΩ	MΩ	MΩ
Blue to Neutral	MΩ	MΩ	MΩ	MΩ

Comments

Signed: Date:

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A. Transformers-Kiosk -Three Phase - Test Report

Job Title:

Test Instrument Model		Instrument No.	
Test Instrument Model		Instrument No.	
Tested by		Date	

DSM (location) Number	
Make	
Serial Number	
Rating	
Voltage	
Tap Setting	

CONTINUITY TESTS on SWITCHES (HV Fuses Removed) ALL SWITCHES CLOSED (Not applicable for kiosks with RM6 Switchgear).							
		Switch 2			Switch 3		
		A	B	C	A	B	C
Switch 1	A	(0Ω)			(0Ω)		
	B		(0Ω)			(0Ω)	
	C			(0Ω)			(0Ω)

INSULATION RESISTANCE TESTS on SWITCHES (HV Fuses Removed)		
	Test on Switch 1	Results
Switch 1, 2 and 3 are Closed,	A-B	(>1GΩ)
	A-C	(>1GΩ)
	B-C	(>1GΩ)

INSULATION RESISTANCE TESTS on SWITCHES (HV Fuses Removed)				
Switch 2 CLOSED				
		A	B	C
Switch 1 OPEN	A	(>1GΩ)		
	B		(>1GΩ)	
	C			(>1GΩ)

INSULATION RESISTANCE TESTS on SWITCHES (HV Fuses Removed)				
Switch 3 CLOSED				
		A	B	C
Switch 2 OPEN	A	(>1GΩ)		
	B		(>1GΩ)	
	C			(>1GΩ)

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INSULATION RESISTANCE TESTS on SWITCHES (HV Fuses Removed)				
		Switch 1 CLOSED		
		A	B	C
Switch 3 OPEN	A	(>1GΩ)		
	B		(>1GΩ)	
	C			(>1GΩ)

CONTINUITY AND INSULATION RESISTANCE TESTS on TRANSFORMER					
Three phase					
HV Load Switch Closed		A-B	A-C	B-C	Expected Value
Service Tap		Ω	Ω	Ω	0Ω
		A	B	C	
	A - transformer tank	MΩ			>1000 MΩ (1GΩ)
LV	Red-neutral	A-B	A-C	B-C	
	0Ω	0Ω	0Ω	0Ω	0Ω
		A	B	C	
a - transformer tank	MΩ	MΩ	MΩ	>10 MΩ	
HV-LV	HV - LV	MΩ	MΩ	MΩ	>1000 MΩ (1GΩ)

VOLTAGE TEST	
Three phase	
Red to Neutral	V
White to Neutral	V
Blue to Neutral	V
Red to White	V
White to Blue	V
Blue to Red	V

PHASE IDENTIFICATION TEST	
Phase	Checked

PHASE OUT TEST	
Three Phase	
Red to Red	
White to White	
Blue to Blue	

EARTH RESISTANCE TEST	
Substation Type (tick type applicable)	
Kiosk	

Earthing System (tick system applied)		Earthing arrangement (tick applied arrangement)	
CMEN		Common	
MEN		Bonded HV/LV	
IMEN		Separate HV/LV	

Maximum Resistance			
Earth System to Ground		Allowed (Refer to CB011)	Measured
	HV	Ω	Ω
	LV	Ω	Ω
	Common	Ω	Ω
Neutral to Ground		Ω	Ω

Ratio Changer Test	Passed
Tap Changer	Operational
Vector Group	Correct.

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CHECKLIST		
Items	Checked	Comment (if any)
All required tests satisfactorily completed as per CB011		
HV metalclad switchgear tests satisfactorily completed as per CB021, if applicable		
Substation and complete installation complies with the work instruction requirements a) Is the transformer the correct polarity? b) Correct Vector Group? c) Correct Rating?		
No visible damage		
Is the correct earthing system installed		
Is the appropriate earth conductor size used		
Fuses appropriate for substation size are correctly installed where applicable		
Have all breather caps been removed as required		
Is the transformer oil level correct		
Insulating caps placed on unused bushings (kiosk substation only)		
Signs and Labels		
Ensure all signage and labelling complies with DS411		

Commissioning Test Passed Yes - No -

Comments

Signed:

Date:

Procedure & Information about this Test Report can be found on Technical Standard CB012

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HV Metal Clad Switchgear Test Report

Job Title:

Test Instrument Model		Instrument No.	
Test Instrument Model		Instrument No	
Tested by		Date	

Type of Switchgear	
Manufacturer	
Serial No	

CONTINUITY TEST	
Phase/Switch	
White	Ω
Red	Ω
Blue	Ω
Earth switch	Ω

INSULATION RESISTANCE TEST	
Phase to Earth	
Red to Earth	M Ω
White to Earth	M Ω
Blue to Earth	M Ω

HI POT – 11kV EXTENSIBLE EQUIPMENT ONLY			
Phase to Phase		Phase to Earth	
Red to White	M Ω	Red to Earth	M Ω
Red to Blue	M Ω	White to Earth	M Ω
Blue to White	M Ω	Blue to Earth	M Ω

CHECKLIST		
Items	Checked	Comments (if any)
All required tests satisfactorily completed as per CB021		
Check that the switchgear and complete installation complies with the work instruction requirements		
No visible damage		
Mechanical operation checks all carried out with all sources of supply disconnected		
Check all switches open/close correctly		
Check all breakers open/close correctly		
Check all earth switches open/close correctly		
Ensure that interlocks preventing the closure of an earth switch, on a closed switch circuit, operate		
Switchgear body is correctly earthed		
Labels identifying each circuit are correct		
Labels identifying the switchgear by unique number and name are correct		
Cables are correctly terminated		
Cable screen wires are earthed		
Cable phasing is correct		
Cable terminations are correctly installed on the terminations		
Cables are fixed below the terminations		
Current transformers where required are fitted, including fault indicator CTs		

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Unused bushings have the dust cover removed and an insulating cap fitted		
Panel mounted fault indicators are on the correct setting		
Unit fitted with Fuses		
Fuses appropriate to the substation size are installed where applicable		
Units fitted with Circuit Breaker		
RESIS/TRESIS No		
Protection relay correctly set		
Trip supply correct & connected		
Test trip		

Commissioning Test Passed Yes - No -

Comments

Signed:

Date:

Procedure & Information about this Test Report can be found on Technical Standard CB021

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PERSONNEL SAFETY AND ELECTRICAL ASSET COMPLETION NOTICE

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

- | | |
|---|--|
| <input type="checkbox"/> Network Staged Audit Checklist: 12-F731 | <input type="checkbox"/> High Voltage Cable Test Report: (sect.1,2,3,4) 06-F459 |
| <input type="checkbox"/> Network Final Audit Report: 12-F730 | <input type="checkbox"/> Dist. Plant HV Metal C. Sw. Test Report: 06-F456 |
| <input type="checkbox"/> Alterations/Additions to Assets: 06-F855 | <input type="checkbox"/> Transformer - Kiosk Test Report: 06-F462 |
| <input type="checkbox"/> P/L. Polarity / Earth Test Report: 03-F570 | <input type="checkbox"/> Transformer - Distribution Test Report: – as applicable |
| <input type="checkbox"/> Low Voltage Cable Test Report: 06-F460 | |
| <input type="checkbox"/> 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.

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NETWORK STAGED COMPLIANCE AUDIT CHECKLIST – UNDERGROUND ELECTRICAL ASSETS

Project Name			
Location			
Powercor References (Network Order/ CPM No)		Drawing No	
Powercor Project Manager		Phone No	
Client / Developer		Phone No	
Electrical Constructor		Phone No	
Civil Contractor		Phone No	

Inspection item guidelines	Date	Initials	Comments
SITE REFERENCES			
Lot title boundaries pegged			
Kerb & channel installation complete			
Final surface levels determined			
TRENCH (Standard GA 211)			
WIDTH - To design specification eg. shared use			
DEPTH - Compliant with plan and final surface level			
OFFSET - Alignment correct			
DEVIATION - No unapproved route deviations			
CABLES			
Type and size as specified on plan			
DEPTH - Compliant with plan and final surface level			
OFFSET - Correct as specified on plan			
Laid in correct order & with correct circuit separation			
Separation for Telco installation (as per GA211)			
BEDDING SAND (Standard GA 211)			
Correct depth when compacted			
Correct grade/type			
Free of rocks, sharp or foreign objects			
JOINTS & TERMINATIONS			
Joints located >5m from any property boundary			
Cable sealed/insulated located as per plan			

Network Compliance Audit Report - Construction Projects

AUDIT NUMBER	
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PROJECT REFERENCES			
Project Network #		Drawing #	
Project Name			
Location			
Project Type	<input type="checkbox"/> CIAW Opt.1	<input type="checkbox"/> CIAW Opt.2 - URD	
	<input type="checkbox"/> CIAW Opt.1 - URD	<input type="checkbox"/> CIAW Opt.2 - NON URD	
	<input type="checkbox"/> Maintenance	<input type="checkbox"/> Supply Quality	
	<input type="checkbox"/> Pole to Pit	<input type="checkbox"/> System Improvement	
7.0.1 Business			
7.0.2 Service		7.0.3 Work	

CONTACT DETAILS				
Powercor Project Mgr / Senior Customer Projects Advisor				
Contact No		Mobile No		Email
Constructor Project Manager				
Contact No		Mobile No		Email
7.0.4 Construction				
Contact No		Mobile No		Email
Project Designer			Contact No	
Developer			Contact No	

ASSESSMENT DETAILS			
Initiator		Audit Date	
Initiator Company or Group		Audited By	
Const. Rep. Notified of Audit	<input type="checkbox"/> Yes <input type="checkbox"/> No	Auditor Name	

PROJECT SCOPE <i>(Brief description)</i>

SUMMARY OF NON-COMPLIANCES & OBSERVATIONS BY CATEGORY (OBS – Observation, NC – Non-Compliance)

Audit #		Network #		PM Order #	
Project Name					

7.0.5	Standards or Policy Reference	Detail	Location	Deduction & Assignment*
NETWORK FINAL AUDIT (RISK) SCORE				(Audit Pass > 90)

*Applicable to Powercor internal Projects only: **WEIGHTED CONSTRUCTION SPLIT SCORE** (Refer signature page for details)

Notes:

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*** Powercor use only: Assignment of Points Deduction and Weighted Construction Split Score**

Non-compliances (NCs) will be assigned to the relevant group (as shown below) by NWS Business Improvement or Network Compliance. Construction NCs will be initially assigned to the relevant construction work group, subject to challenge and satisfactory demonstration that the NC should be assigned elsewhere. NWS BI is the final arbiter.

Abbreviations: Construction = (CONS), Design = (DSGN), Project Manager = (PM), Closeout Team = (C/OUT),
Sub-contractor RO = (RO), External (civil) = (EXT). Note: No assignment (default) = Construction.

Weighted Construction Split Score Calculation = 100 – [(Construction NC points x 100)/Construction m.hrs*] * Where Construction m.hrs > 100.

Network Final Audit Score (Network Risk Score - NRS)						
Non-Compliance Assignment (points)						
CONS	DSGN	PM	C/OUT	RO	EXT	
Project actual Construction man-hours (from PM Order)						
Weighted Construction Split Score (Work Group Score - WGS)						

CRITICAL RANKING ADVICE <i>To Network Operations ph.1800 639 680</i>		
Detail	Advice To	Date/Time

APPROVED FOR TIE IN - CIAW Opt 2 & URD type projects <i>(Check Box X)</i>	
<input type="checkbox"/>	No Non-Compliances
<input type="checkbox"/>	Conditional upon rectification of Non-Compliances prior to Tie-In
<input type="checkbox"/>	Re-audit required after rectification of Non-Compliances

8.0	AUDIT RESULT ADVICE <i>(Advice to: Project Manager/Developer/Contractor/NCM/BIC)</i>	
Detail	Advice To:	Date

OFFICER TITLE	PRINT NAME	SIGNATURE	DATE
Auditor			
Constructor Representative			
Project Mgr / Responsible Officer			

Note: This audit has been conducted in accordance with Powercor Standard Work Instructions 12-W730 & 12-W735 (i.e. Not all aspects of the project may have been subject to audit)

*A Red Alert and a detailed report must be completed for all **Critical Non-Compliances**
The information contained within this report must be entered into the Compliance Audit Database.
Failed audits are to be managed by the CARE system.*

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Minor - 1	Multiple - 5	Major - 10	Critical - 20
10.0	Multiple occurrences of minor non conformances	Major impact on Key Business Strategies, Regulatory compliance breach with risk present in the short term	Critical impact on Key Business Strategies, Regulatory compliance breach with immediate risk presence
11.0 NON-COMPLIANCE CATEGORIES			
1. CONSTRUCTION FILE 1.1. <i>Appropriate authorisation</i> 1.2. <i>MOA/lease/easement acquisition</i> 1.3. <i>Vegetation clearing approval</i> 1.4. <i>Shutdown approval & affected customer records</i> 1.5. <i>Risk management pre-planning (incl Hazard Identification and control)</i> 1.6. <i>Application of Technical Standards</i> 1.7. <i>Information sufficient to complete the project</i> 1.8. <i>Identification of environmental issues</i> 1.9. <i>CPL and constructor identified</i> 1.10. <i>Site access arrangements (short/long term)</i>		2. AUDIT CHECKLISTS & SUPPLEMENTARY FORMS 2.1. <i>Compulsory Staged Audit checklist (URD & UG)</i> 2.2. <i>Public Lighting Earth Test Result Sheet</i> 2.3. <i>Quality Audit Checklist</i> 2.4. <i>Environmental Control Checklist</i> 2.5. <i>Road Management Act requirements (RMA)</i>	
3. CONSTRUCTION FILE CLOSEOUT) 3.1. <i>Alteration/variation to scope, plan or design documentation</i> 3.2. <i>Critical document completion & return (eg. EAP, Clearance, Test result sheets.)</i> 3.3. <i>"As built"detail recording and return</i> 3.4. <i>Asset recording systems update and customer x-ref assignment</i> 3.5. <i>Toolbox Checklist completion</i>		4. SPECIFICATIONS AND STANDARDS 4.1. <i>Civil works compliance</i> 4.2. <i>Powercor technical or VESI standards compliance</i> 4.3. <i>Design specification compliance</i> 4.4. <i>Installation at correct locations</i> 4.5. <i>Accepted standard of practice or workmanship</i> 4.6. <i>Appearance/aesthetics</i> 4.7. <i>Reinstatement standard</i> 4.8. <i>Compliance to PAL policy/work practice</i>	
5. CLEARANCES AND SEPARATIONS 5.1. <i>Height above ground</i> 5.2. <i>Phase conductor separation</i> 5.3. <i>Circuit separation to other voltages and equipment</i> 5.4. <i>Separation/clearance to earthed/bonded equipment</i> 5.5. <i>Clearance to buildings/structures</i> 5.6. <i>Separation/clearance to assets of other authorities</i> 5.7. <i>Bird/animal clearance reduction precautions</i> 5.8. <i>Clearance to vegetation</i> 5.9. <i>Depth below ground</i>		6. STRENGTH AND LOADING 6.1. <i>Poles</i> 6.2. <i>Stays</i> 6.3. <i>OH Conductor</i> 6.4. <i>Cross arms</i> 6.5. <i>Insulators and attachments</i> 6.6. <i>Bearing foundations</i> 6.7. <i>General line and pole hardware</i>	
7. PROTECTION 7.1. <i>O/C, O/V load breaking and isolation equipment</i> 7.2. <i>Earthing systems</i> 7.3. <i>Mechanical protection equipment</i> 7.4. <i>Security and locking devices</i>		8. SIGNAGE 8.1. <i>Asset naming and numbering signs</i> 8.2. <i>Phase plates</i> 8.3. <i>Neutral tags and plates</i> 8.4. <i>Circuit ID</i> 8.5. <i>Earth system ID and earth bar labels</i> 8.6. <i>Danger/warning/instructional signs and markers</i>	
9. DETERIORATION 9.1. <i>Joints and connectors</i> 9.2. <i>Securing devices</i> 9.3. <i>Electrical insulation</i> 9.4. <i>Corrosion and chemical reactions</i> 9.5. <i>Expansion/contraction control</i> 9.6. <i>Moisture ingress</i> 9.7. <i>Vibration fatigue</i> 9.8. <i>Conductor ratings</i>		10. EXTERNAL RISKS 10.1. <i>Human safety and injury by fall, collision, impact or electric shock</i> 10.2. <i>Property and equipment damage or interference</i> 10.3. <i>Environmental pollution, contamination or damage</i>	

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