

Company Directive

STANDARD TECHNIQUE: TP14D/4

Commissioning of Distribution Business Provided Metering Facilities

Summary

This standard technique document details the tests to be undertaken and the test results & test certificates to be provided by the distribution business in order to enable the accurate measurement of electricity transfers at defined metering points.

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Implementation Date: July 2018

Approved by



Policy Manager

Date:

27 July 2018

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IMPLEMENTATION PLAN

Introduction

This Standard Technique document details the tests to be undertaken by the distribution business, and the test results & test certificates to be provided to the Meter Operator, at customer connections where instrument transformer (i.e. CT & VT) operated metering systems are employed.

Main Changes

This is a revised version of an existing document. The main changes are:

A “CT Metering” iPad Application (App) has been created to expedite and ease the testing and commissioning process. When the App is employed the metering asset details and test results are keyed into the iPad, rather than onto a paper test sheet, and sent wirelessly back to Crown. It is also possible to commission the asset in Crown using the App.

At present the App is available for testing and commissioning of metering CTs & VTs in the following assets:

- LV Combined Cut-out, CT & Meter Cabinets
- LV CT & Meter Cabinets (Separate Cut-Out)
- LV Intake Circuit Breakers
- HV Metering Units

The testing regime has been split into three parts, namely, Pre-Energisation Tests, Energisation Tests (& Commission) and Post Energisation Tests.

- Pre-energisation tests are those tests carried out off-site in a WPD Depot (normally by Network Services).
- Energisation tests are those tests carried out on-site when the asset has been fully installed and the incoming service cable has been energised, but with the customer's installation off load (normally by Network Services).
- Post energisation tests are those carried out on site with the customer's installation energised and on-load (normally by WPD Smart Metering).

WPD has decided to employ ‘Quick Response’ Codes’ (QR codes) on its metering assets. A QR code consists of black squares arranged in a square grid on a white background, which can be read by an imaging device such as a camera. Each metering asset will be assigned its own unique QR code which will unambiguously identify the asset such that the correct Crown record is updated by the App.

Inventory teams are now responsible for acquiring metering assets and uploading test certificates into Crown for those metering assets which are delivered via Central Stores or Plant Centres.

Impact of Changes

This Standard Technique is relevant to all staff who are involved with the planning, costing, design, installation, testing and modification of customer connections where instrument transformer operated metering is employed.

This standard technique is also relevant to Independent Connection Providers.

Implementation Actions

Managers should notify relevant staff that this Standard Technique has been revised and brief them on the changes.

Staff who use Crown and/or iPads should familiarise themselves with the changes described in the new Crown & iPad User Guide.

Staff who carry out installation and testing activities should use the revised Test Sheets and Guidance Notes with immediate effect and dispose of any superseded version they may have in their possession.

Implementation Timetable

This revised Standard Technique shall be implemented with effect from Thursday 26th July 2018.

REVISION HISTORY

DOCUMENT REVISION & REVIEW TABLE		
Date	Comments	Author
July 2018	<p>Issue of Revision 4. The main changes are:</p> <ul style="list-style-type: none"> • Process change as a consequence of implementing a “CT Metering” iPad Application (App) to expedite the testing process for a number of metering assets. • Splitting the testing regime into three parts, namely, pre-energisation tests, energisation tests and post energisation tests. • Process change as a consequence of employing ‘Quick Response’ Codes’ (QR codes) on a number of metering assets. • Revised process for acquiring metering assets and uploading test certificates by Inventory teams for those metering assets received into Central Stores or Plant Centres. • Revised Crown & iPad User Guide. • Revised Test Sheets. • Revised Guidance Notes. 	Graham Brewster
Dec 2017	<p>Issue of Revision 3. The main changes are:</p> <ul style="list-style-type: none"> • Revised Crown User Guide • Inclusion of requirement to upload Test Certificates and Test Results into Crown within a set time of completing the site testing (with time allowed for documentation quality checking and approval process) • Revised Test Sheets for Lucy LV Combined Cut-Out, CT & Meter Cabinet type installations - removal of references to “off-load” {no change of testing requirements} • Revised Guidance Notes for Lucy LV Combined Cut-Out, CT & Meter Cabinet type installations - removal of references to “off-load” and clarification of requirements for “birth certificate” documentation {no change of testing requirements} • Revised Test Sheets for Remote Metering Panel type installations - consolidation of separate “off-load” and “on-load” test sheets into a single document {no change of testing requirements} • Revised Guidance Notes for Remote Metering Panel type installations - consolidation of separate “off-load” and “on-load” guidance notes into a single document and clarification of requirements for “birth certificate” documentation {no change of testing requirements} • Discontinuation of Crown Tutorial 	Graham Brewster

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1.0 INTRODUCTION

The Registrant of a metering system is responsible for its commissioning and discharges this obligation via its agent, the Meter Operator (MOP). In practice the MOP cannot complete particular inspections & tests because this requires access to metering instrument transformers which generally reside in equipment owned by the upstream network operator. As a consequence metering Code of Practice 4 has been amended to place obligations on the equipment owner to complete particular commissioning inspections & tests. The new obligations came into effect on 6th November 2014.

The commissioning obligations were modified on 3rd November 2016 when timescales for completing the commissioning were introduced.

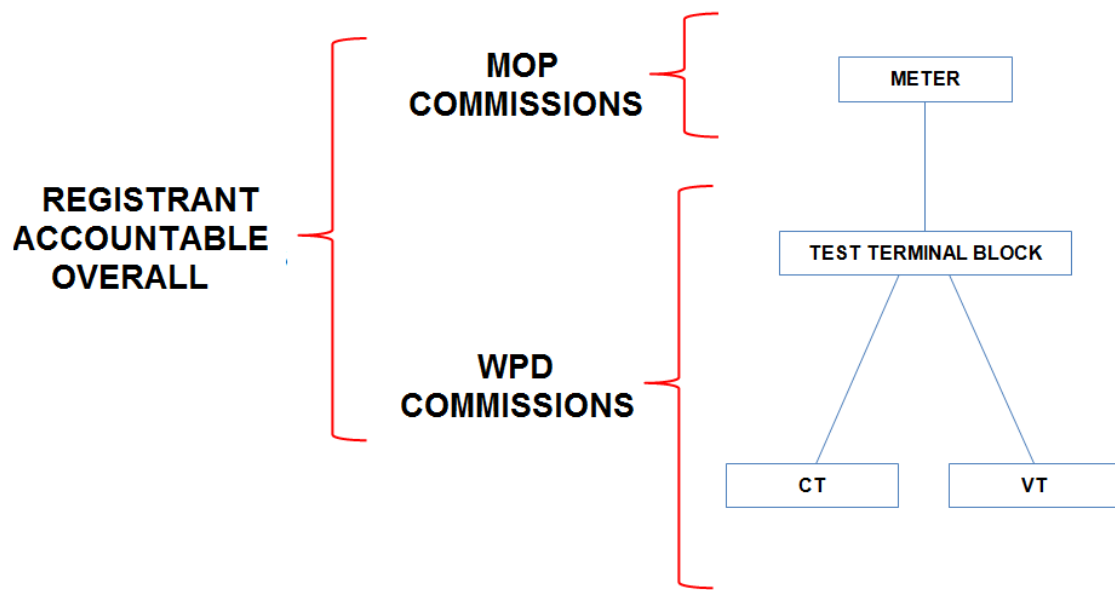
Guidance

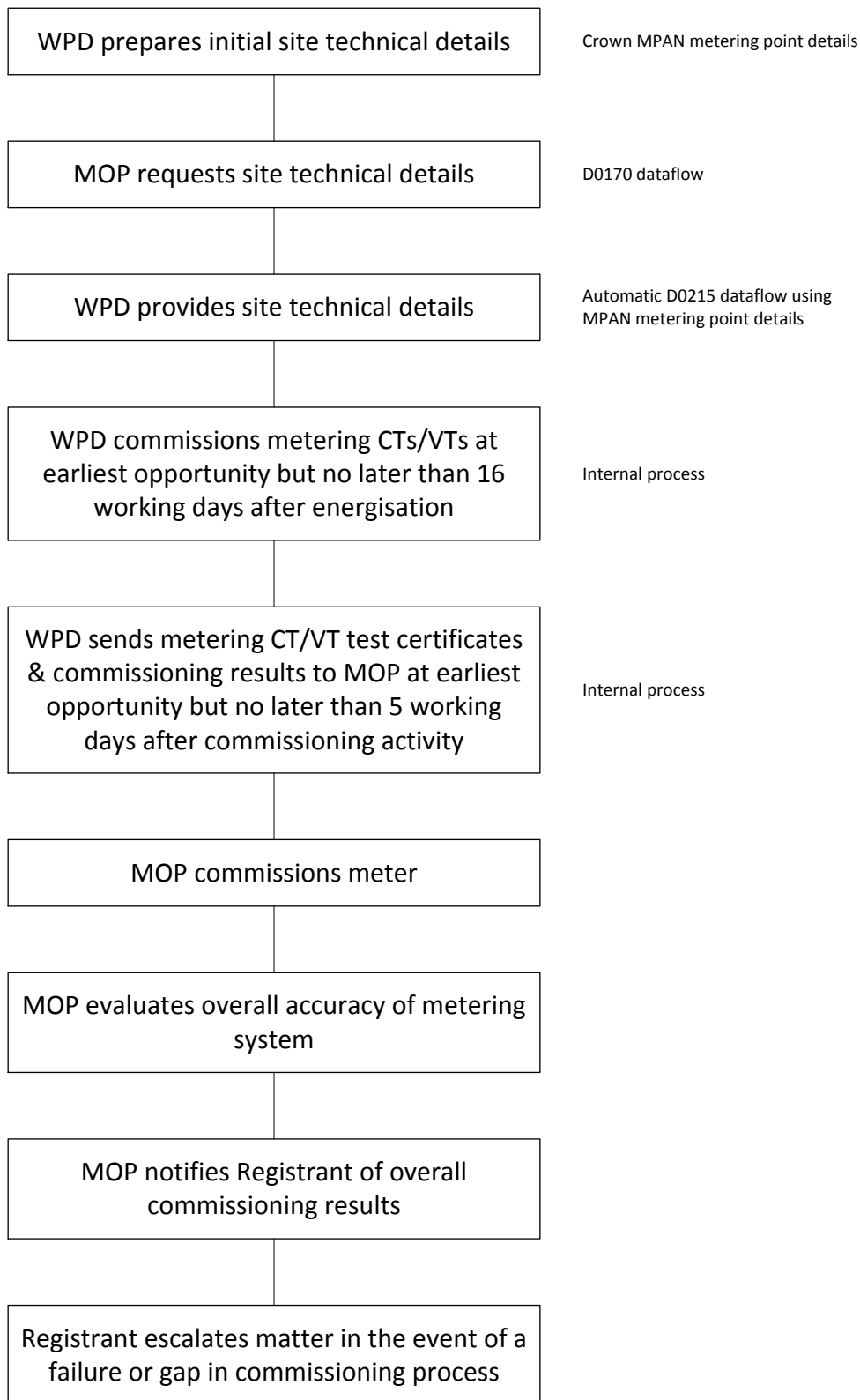
Settlement Metering comes under the auspices of the Balancing & Settlement Code. There are a number of associated codes of practice and Code of Practice 4 (CoP4) specifies the requirements for the calibration, sample calibration and commissioning of metering equipment and the maintaining of associated records.

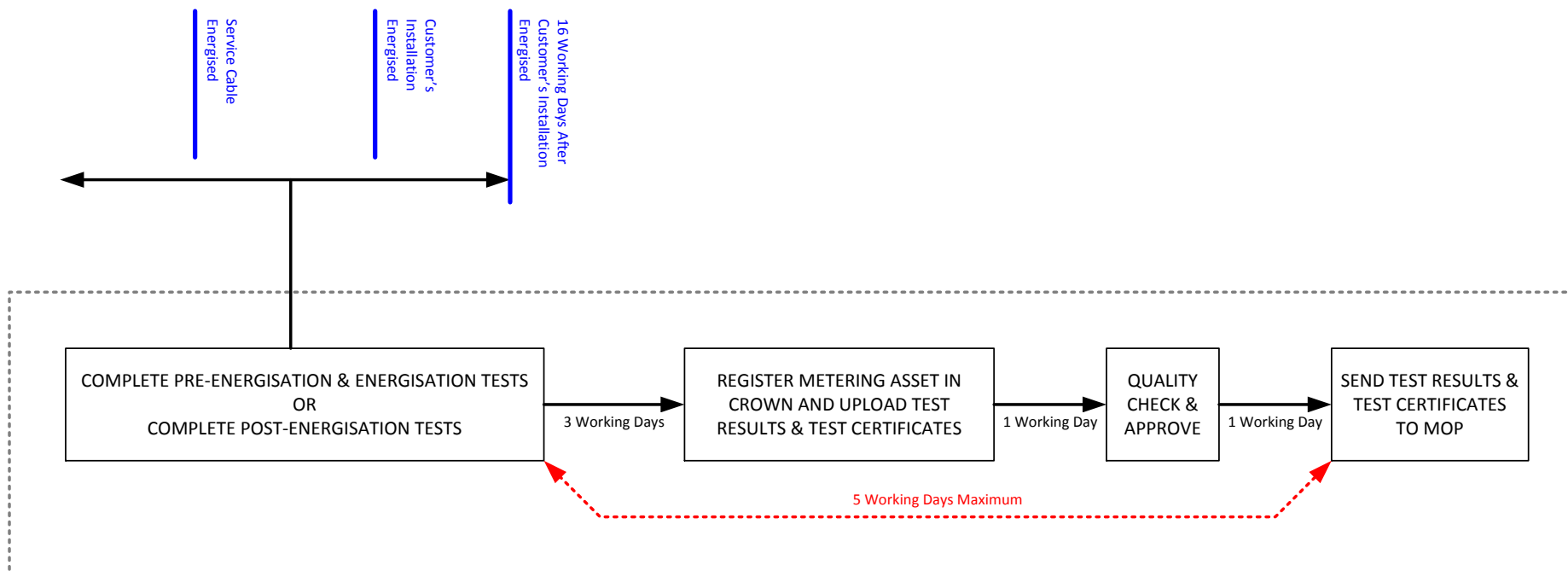
Compliance with the Balancing & Settlement Code is a condition of WPD's Distribution Licence (Licence Condition 20).

In the event of an inconsistency between the requirements contained within this document and the Balancing & Settlement Code and its associated Code of Practice 4, the provisions of the Code and the associated Code of Practice shall prevail.

The overall process is shown in diagrammatic form below.







This standard technique document details the inspections & tests to be undertaken by the distribution business and by Independent Connections Providers in order to satisfy the metering Code of Practice 4 requirements.

It applies:

- To all new (i.e. commissioned on or after 06/11/2014) instrument transformer operated metering systems
- To any existing (i.e. in commission prior to 06/11/2014) instrument transformer operated metering system in the event of changing:
 - An instrument transformer, or
 - The connected ratio on a multi-ratio instrument transformer, or
 - The connections between an instrument transformer and the test terminal block
- Only where WPD owns or is to adopt the metering instrument transformers
- Only to metering systems employed for settlement purposes

It does not apply:

- To existing instrument transformer operated metering systems (until they are modified)
- Where the metering instrument transformers are owned by a third party, for example, the customer, an independent distribution network operator (IDNO), another distribution network operator (DNO) or the transmission network operator (National Grid)
- Where metering is not used for settlement purposes

A number of different configurations of distribution owned metering assets are employed by WPD, including:

- LV Combined Cut-out, CT & Meter Cabinet
- LV CT & Meter Cabinet (Separate Cut-out)
- LV Intake CB & Remote Meter Cabinet
- HV Metering Unit & Remote Meter Cabinet
 - i.e. 12kV metering unit in accordance with EE SPEC 2
- HV Metering CB & Remote Meter Cabinet
 - i.e. Metering CTs & VTs associated with 12kV indoor switchgear to EE SPEC 3 & 185
- EHV Metering CB & Remote Meter Cabinet
 - i.e. Metering CTs & VTs associated with 36kV indoor switchgear to EE SPECs 3 & 182 or 36kV outdoor switchgear to EE SPEC 10
- 66kV Metering CB & Remote Meter Cabinet
 - i.e. Metering CTs & VTs associated with 72kV switchgear to EE SPEC 7

- 132kV Metering CB & Remote Meter Cabinet
i.e. Metering CTs & VTs associated with 145kV switchgear to EE SPEC 7
- 25kV Metering CB & Remote Meter Cabinet

Network Services teams are responsible for commissioning distribution owned LV combined cut-out, CT & meter cabinets. #

WPD Smart Metering (acting as a contractor to the Distribution Business) are responsible for commissioning all other distribution owned metering assets. \$

Except where installed by an ICP and adopted by WPD, in which case testing is a contestable activity.

\$ *WPD Smart Metering is only responsible for commissioning the **metering** assets. Network Services are responsible for commissioning the non-metering assets i.e. the LV cut-out, LV ACB & HV switchgear.*

2.0 DEFINITIONS

CT	Current transformer
CT Pre-Note	A form which is sent to WPD Smart Metering for all new connections, upgrades and alterations involving CT metered supplies
CT Install Note	A form which is sent to WPD Smart Metering whenever the Distribution Business requires it to install a separate LV CT / Meter Panel, remote LV Metering Panel, or remote HV Metering Panel
Commissioning	A process to ensure that the energy flowing across a defined metering point is accurately recorded by the associated metering system
Commissioning Report	A convenient label for a collection of the following documents: metering CT test certificates metering VT test certificates test sheets
MOP	Meter Operator. An agent of the Registrant who has overall responsibility for the commissioning of the metering system. Also known as a Meter Operator Agent (MOA)

Test Certificate	A certificate provided by the manufacturer which identifies the magnitude and phase displacement errors in the metering CT or VT. Also known as calibration certificate, error certificate or test cert
Test Terminal Block	The facilities provided close to the meter which enable such meters to be routinely tested. Sometimes referred to as the Test Facilities
VT	Voltage transformer
WPD	Western Power Distribution
WPD Smart Metering	WPD's independent meter operator business which, for the purpose of this Standard Technique, is acting as a contractor to the Distribution Business

3.0 REQUIREMENTS

3.1 General

Where metering instrument transformers are owned or are to be adopted by WPD then the inspections & tests described in Section 3.4 shall be performed up to and including the Test Terminal Block. The tests shall be completed at the earliest opportunity but no later than 16 working days after energisation of the customer's installation.

In addition, a "Commissioning Report" in accordance with Section 3.5 shall be prepared and sent to the appointed MOP at the earliest opportunity but no later than 5 working days after completion of the inspections & tests.

3.2 Test Certificates

Test Certificates are supplied by the manufacturer of the metering CTs / VTs.

Copies of metering CT & VT Test Certificates shall be obtained from the manufacturer and uploaded into Crown at the earliest opportunity but no later than 3 working days after completion of the inspections & tests.

The metering CT & VT Test Certificates within Crown shall be retained for the life of the associated metering CTs / VTs.

Guidance

Test Certificates are sometimes incorporated into the "Birth Certificate" information provided by the manufacturer.

See also Standard Technique TP14J: Management of Metering CT & VT Test Certificates.

3.3 Test Equipment & Instruments

All test equipment & instruments used during commissioning shall be suitable for the application intended and have been commercially manufactured.

All test equipment & instruments shall have been calibrated / re-calibrated within the last 24 months (and preferably within the last 12 months).

Calibration shall comprise checking for compliance with the published specification at appropriate points, using working standards which are periodically verified and which are traceable to National Standards.

3.4 Inspections & Tests

Inspections and tests shall be carried out for the purpose of verifying & recording:

- That metering CTs & VTs are correctly located (in relation to the defined metering point) to record the required power flow
- That metering CTs have the correct ratio, polarity and phase rotation
- That metering VTs have the correct ratio, polarity and phase rotation
- That the relationship between metering voltages and currents is correct

Guidance

Phase rotation must be standard on both the test block terminals and on the terminals at which the supply is delivered to the customer's installation.

The inspections and tests are split into three parts, namely, Pre-Energisation Tests, Energisation Tests, and Post Energisation Tests.

- Pre-energisation tests are either carried out on-site when the metering asset has been fully installed, or are carried out off-site prior to installation, for example, in a WPD Depot or Plant Centre.
- Energisation tests are carried out on-site when the metering asset has been fully installed and the incoming service cable has been energised, but with the customer's installation off-load.

- Post energisation tests are carried out on-site with the customer's installation energised and on load.

Pre-energisation tests, energisation tests, and post-energisation tests shall be completed for each metering asset as per the following table:

ASSET	PRE ENERGISATION TESTS	ENERGISATION TESTS	POST ENERGISATION TESTS
LV Combined Cut-out, CT & Meter Cabinet	Yes	Yes	No
LV CT & Meter Cabinet (Separate Cut-out)	No	No	Yes
LV Intake Circuit Breakers	No	No	Yes
HV Metering Units	No	No	Yes
HV Metering Circuit Breakers	No	No	Yes
EHV Metering Circuit Breakers	No	No	Yes
66kV Metering Circuit Breakers	No	No	Yes
132kV Metering Circuit Breakers	No	No	Yes
25kV Metering Circuit Breakers	No	No	Yes

Pre-energisation tests, energisation tests, and post-energisation tests shall be carried out in accordance with the “Test Sheets” and “Guidance Notes” contained in Sections 5 & 6 respectively.

A copy of the completed Test Sheets shall be uploaded into Crown at the earliest opportunity, but no later than 3 working days after completion of the associated inspections and tests.

The Test Sheets within Crown shall be retained for the life of the associated metering CTs / VTs.

3.5 “Commissioning Report”

A “Commissioning Report” shall be prepared which shall contain, as a minimum and where applicable, the following information:

- Site name
- Site address
- MPAN (where relevant)
- Supply / Feeder number (where more than one)
- Date of Commissioning

- A copy of metering CT test certificates
- A copy of metering VT test certificates (where relevant)
- A copy of the completed Pre-Energisation, Energisation, and Post-Energisation Test Sheets (as appropriate)

Guidance

The ‘Commissioning Report’ is not an actual document but a collection of test certificates and test sheets which incorporate the metering CT & VT asset attributes and test result data.

The Commissioning Report is prepared automatically by Crown using the documentation which has been uploaded into it.

3.6 “Commissioning Report” Check & Approval / Rejection

The “Commissioning Report” shall be checked to ensure that all applicable test sheets and CT/VT test certificates are present and that no blank pages, blank forms, partially completed forms or other spurious documents have been uploaded instead.

The “Commissioning Report” shall only be approved where all applicable information is present and correct.

The check and approval / rejection shall be completed no later than one working day after receiving the “Commissioning Report” for approval.

The “Commissioning Report” shall be automatically emailed to the appointed Meter Operator following approval.

The relevant Network Services team shall be automatically notified by email following rejection and requested to remedy the deficiencies with the “Commissioning Report”.

3.7 Remedial Actions Following “Commissioning Report” Rejection

Remedial actions must be completed without delay if non-conformance with the Balancing & Settlement Code timescales is to be avoided.

3.8 Metering Label

A Metering Label shall be provided at each metering point in order to furnish relevant instrument transformer data to the Meter Operator, BSC Technical Assurance Agent and any other relevant party.

Guidance

See Section 4.4 of ST: TP14C for further details.

The E5 Code for the Metering Label is 42723.

3.9 Quick Response (QR) Codes

A unique Quick Response (QR) Code shall be assigned to the following assets

- LV Combined Cut-out, CT & Meter Cabinets
- LV CT & Meter Cabinets (separate cut-out)
- LV Intake Circuit Breakers
- HV Metering Units

The QR Code shall unambiguously identify the asset such that the correct Crown record is updated when the 'CT Metering' iPad Application is employed.

The self-adhesive QR Code label shall be affixed in the following locations:

ASSET	LOCATION OF QR CODE LABEL
LV Combined Cut-out, CT & Meter Cabinet	Exterior of cabinet on front face
LV CT & Meter Cabinet (separate cut-out)	Exterior of cabinet on front face
LV Intake Circuit Breaker Cabinet	Exterior of cabinet on upper front door
HV Metering Unit	Exterior of metering unit terminal / fuse box on the hinged / removable cover

3.10 Crown & iPad App User Guide

The overall process shall be managed via Crown and the iPad Application, with the procedures to be followed to be as per the following Crown User Guide.

[CROWN and iPad APP User Guide](#)

3.11 Contestable Connections

Where an Independent Connection Provider (ICP) offers up metering CTs, VTs and Remote Meter Cabinets for adoption the ICP is responsible for:

- a) Obtaining metering CT & VT Test Certificates from the manufacturer
- b) Providing WPD with copies of the metering CT & VT Test Certificates
- c) Carrying out Pre-Energisation Tests specified in Section 3.4 above on LV Combined Cut-out, CT & Meter Cabinet installations only and completing a paper copy of the Pre-Energisation Test Sheet

- d) Carrying out Energisation Tests specified in Section 3.4 above on LV Combined Cut-out, CT & Meter Cabinet installations only and completing a paper copy of the Energisation Test Sheet
- e) Providing WPD with copies of the completed Pre-Energisation and Energisation Test Sheets

Item b), c), d) and e) shall be completed at the earliest possible opportunity but no later than the date of energisation of the metered connection.

WPD undertakes inspections of an ICP's contestable works prior to adoption. Inspections are carried out by a WPD Inspector who is appointed by the local Network Services Team Manager (See ST: NC2H: Inspection, Recording and Commissioning for further details).

Network Services shall reject the adoption in the event that metering CT & VT Test Certificates and Pre-Energisation & Energisation Test Sheets have not been provided, or are incomplete, or are inaccurate. Network Services shall inform the ICP's nominated contact of the reason for the rejection and confirm it in writing using the "Notice of Defect Prior to Energisation" form provided in Appendix E of ST: NC2H. The ICP's contestable works shall not be connected to the WPD distribution system until fully completed and accurate Test Sheets and Test Certificates have been provided.

Where Network Services are satisfied with accuracy and completeness of the documentation it shall make arrangements for the contestable works to be energised.

4.0 RESPONSIBILITIES

4.1 LV Combined Cut-Out, CT & Meter Cabinet Installations

Responsibility for particular activities associated with LV Combined Cut-Out, CT & Meter Cabinet installations are described in the table below:

ACTIVITY	RESPONSIBLE PARTY
Entering initial CT ratios, class and rating details into Crown	Network Services
Provision of CT Test Certificates: Non-contestable connections Contestable connections	Cabinet Supplier ICP
Acquisition of LV Combined Cabinet in Crown Non-contestable connections Contestable connections	Inventory Network Services
Uploading CT Test Certificates into Crown Non-contestable connections Contestable connections	Inventory Network Services
Affixing QR Code onto LV Combined Cabinet	Network Services
Undertaking Pre-Energisation Testing Non-contestable connections Contestable connections	Network Services ICP
Uploading Pre-Energisation Test Sheet into Crown If test results keyed-in to iPad App If test results written on paper Test Sheet	Automatic process Network Services
Undertaking Energisation Testing Non-contestable connections Contestable connections	Network Services ICP
Uploading Energisation Test Sheet into Crown If test results keyed-in to iPad App If test results written on paper Test Sheet	Automatic process Network Services

ACTIVITY	RESPONSIBLE PARTY
Commissioning of LV Combined Cabinet in Crown If commissioning performed via iPad App If commissioning performed via Crown	Automatic process Network Services
Quality check & approval / rejection of "Commissioning Report"	WPD Smart Metering
Remedial measures following "Commissioning Report" rejection Non-contestable connections Contestable connections	Network Services Network Services via ICP
Completing "Metering Label" on LV Combined Cabinet	Cabinet Supplier

4.2 LV CT & Meter Cabinet Installations (Separate Cut-Out)

Responsibility for particular activities associated with LV CT & Meter Cabinet installations (separate cut-out) are described in the table below:

ACTIVITY	RESPONSIBLE PARTY
Entering initial CT ratios, class and rating details into Crown	Network Services
Provision of CT Test Certificates: Non-contestable connections Contestable connections	CT Supplier ICP
Acquisition of LV CT & Meter Cabinet in Crown Non-contestable connections Contestable connections	Inventory Network Services
Uploading CT Test Certificates into Crown Non-contestable connections Contestable connections	WPD Smart Metering Network Services
Affixing QR Code onto LV CT & Meter Cabinet	WPD Smart Metering
Undertaking Post-Energisation Testing	WPD Smart Metering
Uploading Post-Energisation Test Sheet into Crown If test results keyed-in to iPad App If test results written on paper Test Sheet	Automatic process Network Services
Commissioning of LV CT & Meter Cabinet in Crown If commissioning performed via iPad App If commissioning performed via Crown	Automatic process Network Services
Quality check & approval / rejection of "Commissioning Report"	WPD Smart Metering
Remedial measures following "Commissioning Report" rejection Non-contestable connections Contestable connections	WPD Smart Metering Network Services via ICP
Completing "Metering Label" on LV CT & Meter Cabinet	WPD Smart Metering

4.3 LV Intake Circuit Breaker Cabinet Installations

Responsibility for particular activities associated with LV Intake Circuit Breaker Cabinet Installations are described in the table below:

ACTIVITY	RESPONSIBLE PARTY
Entering initial CT ratios, class and rating details into Crown	Network Services
Provision of CT Test Certificates: Non-contestable connections Contestable connections	Cabinet Supplier ICP
Acquisition of LV Intake Circuit Breaker Cabinet in Crown Non-contestable connections Contestable connections	Inventory Network Services
Uploading CT Test Certificates into Crown Non-contestable connections Contestable connections	Inventory Network Services
Affixing QR Code onto LV Intake Circuit Breaker Cabinet	Plant Centre
Undertaking Post-Energisation Testing	WPD Smart Metering
Uploading Post-Energisation Test Sheet into Crown If test results keyed-in to iPad App If test results written on paper Test Sheet	Automatic process Network Services
Commissioning of LV Intake Circuit Breaker Cabinet in Crown If commissioning performed via iPad App If commissioning performed via Crown	Automatic process Network Services
Quality check & approval / rejection of "Commissioning Report"	WPD Smart Metering
Remedial measures following "Commissioning Report" rejection Non-contestable connections Contestable connections	Network Services Network Services via ICP
Completing "Metering Label" on Remote Meter Cabinet	Network Services

4.4 HV Metering Unit Installations

Responsibility for particular activities associated with HV (i.e. 6.6kV or 11kV) Metering Unit Installations are described in the table below:

ACTIVITY	RESPONSIBLE PARTY
Entering initial CT ratios, class and rating details into Crown	Network Services
Provision of CT & VT Test Certificates: Non-contestable connections Contestable connections	Metering Unit Supplier ICP
Acquisition of HV Metering Unit in Crown Non-contestable connections Contestable connections	Inventory Network Services
Uploading CT & VT Test Certificates into Crown Non-contestable connections Contestable connections	Inventory Network Services
Affixing QR Code onto HV Metering Unit	Plant Centre
Undertaking Post-Energisation Testing	WPD Smart Metering
Uploading Post-Energisation Test Sheet into Crown If test results keyed-in to iPad App If test results written on paper Test Sheet	Automatic process Network Services
Commissioning of HV Metering Unit in Crown If commissioning performed via iPad App If commissioning performed via Crown	Automatic process Network Services
Quality check & approval / rejection of "Commissioning Report"	WPD Smart Metering
Remedial measures following "Commissioning Report" rejection Non-contestable connections Contestable connections	Network Services Network Services via ICP
Completing "Metering Label" on Remote Meter Cabinet	Network Services

4.5 HV Metering Circuit Breaker Installations

Responsibility for particular activities associated with HV (i.e. 6.6kV or 11kV) Metering Circuit Breaker Installations are described in the table below:

ACTIVITY	RESPONSIBLE PARTY
Entering initial CT ratios, class and rating details into Crown	Network Services
Provision of CT & VT Test Certificates: Non-contestable connections Contestable connections	Metering CB Supplier ICP
Acquisition of HV Metering CB & HV Metering VTs in Crown	Network Services
Uploading CT & VT Test Certificates into Crown	Network Services
Undertaking Post-Energisation Testing	WPD Smart Metering
Uploading Post-Energisation Test Sheet into Crown	Network Services
Commissioning of HV Metering CB & HV Metering VTs in Crown	Network Services
Quality check & approval / rejection of "Commissioning Report"	WPD Smart Metering
Remedial measures following "Commissioning Report" rejection Non-contestable connections Contestable connections	Network Services Network Services via ICP
Completing "Metering Label" on Remote Meter Cabinet	Network Services

4.6 EHV Metering Circuit Breaker Installations

Responsibility for particular activities associated with EHV (i.e. 33kV) Metering Circuit Breaker Installations are described in the table below:

ACTIVITY	RESPONSIBLE PARTY
Entering initial CT ratios, class and rating details into Crown	Primary System Design
Provision of CT & VT Test Certificates: Non-contestable connections Contestable connections	EHV CB & VT Supplier(s) ICP
Acquisition of EHV Metering CB & EHV Metering VTs in Crown	Network Services
Uploading CT & VT Test Certificates into Crown	Network Services
Undertaking Post-Energisation Testing	WPD Smart Metering
Uploading Post-Energisation Test Sheet into Crown	Network Services
Commissioning of EHV Metering CB & EHV Metering VTs in Crown	Network Services
Quality check & approval / rejection of "Commissioning Report"	WPD Smart Metering
Remedial measures following "Commissioning Report" rejection Non-contestable connections Contestable connections	Network Services Network Services via ICP
Completing "Metering Label" on Remote Meter Cabinet	Network Services

4.7 66kV Metering Circuit Breaker Installations

Responsibility for particular activities associated with 66kV Metering Circuit Breaker Installations are described in the table below:

ACTIVITY	RESPONSIBLE PARTY
Entering initial CT ratios, class and rating details into Crown	Primary System Design
Provision of CT & VT Test Certificates: Non-contestable connections Contestable connections	66kV CB & VT Supplier(s) ICP
Acquisition of 66kV Metering CB & 66kV Metering VTs in Crown	Network Services
Uploading CT & VT Test Certificates into Crown	Network Services
Undertaking Post-Energisation Testing	WPD Smart Metering
Uploading Post-Energisation Test Sheet into Crown	Network Services
Commissioning of 66kV Metering CB & 66kV Metering VTs in Crown	Network Services
Quality check & approval / rejection of "Commissioning Report"	WPD Smart Metering
Remedial measures following "Commissioning Report" rejection Non-contestable connections Contestable connections	Network Services Network Services via ICP
Completing "Metering Label" on Remote Meter Cabinet	Network Services

4.8 132kV Metering Circuit Breaker Installations

Responsibility for particular activities associated with 132kV Metering Circuit Breaker Installations are described in the table below:

ACTIVITY	RESPONSIBLE PARTY
Entering initial CT ratios, class and rating details into Crown	Primary System Design
Provision of CT & VT Test Certificates: Non-contestable connections Contestable connections	66kV CB & VT Supplier(s) ICP
Acquisition of 132kV Metering CB & 132kV Metering VTs in Crown	Network Services
Uploading CT & VT Test Certificates into Crown	Network Services
Undertaking Post-Energisation Testing	WPD Smart Metering
Uploading Post-Energisation Test Sheet into Crown	Network Services
Commissioning of 132kV Metering CB & 132kV Metering VTs in Crown	Network Services
Quality check & approval / rejection of "Commissioning Report"	WPD Smart Metering
Remedial measures following "Commissioning Report" rejection Non-contestable connections Contestable connections	Network Services Network Services via ICP
Completing "Metering Label" on Remote Meter Cabinet	Network Services

4.9 25kV Metering Circuit Breaker Installations

Responsibility for particular activities associated with 25kV Metering Circuit Breaker Installations are described in the table below:

ACTIVITY	RESPONSIBLE PARTY
Entering initial CT ratios, class and rating details into Crown	Primary System Design
Provision of CT & VT Test Certificates: Non-contestable connections Contestable connections	25kV CB & VT Supplier(s) ICP
Acquisition of 25kV Metering CB & 25kV Metering VTs in Crown	Network Services
Uploading CT & VT Test Certificates into Crown	Network Services
Undertaking Post-Energisation Testing	WPD Smart Metering
Uploading Post-Energisation Test Sheet into Crown	Network Services
Commissioning of 25kV Metering CB & 25kV Metering VTs in Crown	Network Services
Quality check & approval / rejection of "Commissioning Report"	WPD Smart Metering
Remedial measures following "Commissioning Report" rejection Non-contestable connections Contestable connections	Network Services Network Services via ICP
Completing "Metering Label" on Remote Meter Cabinet	Network Services

5.0 TEST SHEETS

The following Test Sheets shall be employed.

[Test Sheet: Pre-Energisation Tests](#) [For LV Combined Cabinet Installations only]

[Test Sheet: Energisation Tests](#) [For LV Combined Cabinet Installations only]

[Test Sheet: Post-Energisation Tests](#)

6.0 GUIDANCE NOTES

The following Guidance Notes have been prepared to support the commissioning of metering.

[Guidance Note: Pre-Energisation Tests](#) [For LV Combined Cabinet Installations only]

[Guidance Note: Energisation Tests](#) [For LV Combined Cabinet Installations only]

[Guidance Note: Post Energisation Tests](#)

APPENDIX A

SUPERSEDED DOCUMENTATION

This document supersedes ST: TP14D/3 dated December 2017 which should now be withdrawn.

APPENDIX B

ANCILLARY DOCUMENTATION

POL: TP14	Electricity Metering Interface
ST: TP14C	Distribution Provided Metering Facilities
ST: NC2H	Inspection, Recording and Commissioning
ST: CA1G	Procedures for Making Low Voltage Mains Cable Terminations

APPENDIX C

KEY WORDS

Metering; Commissioning; Current Transformers; Voltage Transformers; Balancing & Settlement Code; Code of Practice; COP; P283