



Redlined BSCP02 text for CP1491 'Lack of clarification surrounding the timeliness of Proving Tests and relevant documentation for CVA MOA in BSCP02'

CP1491 proposes changes to Sections 1.2, 2.2, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, Section 4 and Section 5.4.

1. INTRODUCTION

1.1 Purpose and Scope of the Procedure

This BSCP defines the minimum requirements for the proving of new, and changes to existing, Metering Systems. In order to maintain the integrity of Settlement every Metering System is required to go through a full ‘end-to-end’ set of commissioning and Proving Tests when it is first registered for Settlement purposes in the Central Meter Registration Service (CMRS). Commissioning tests and Proving Tests do not necessarily have to be carried out on the same day, provided a reference Settlement Period is identified by the Meter Operator Agent (MOA) for the comparison between Meter Register data and that collected by the Central Data Collection Agent (CDCA) for the same Settlement Period. However, commissioning tests must be completed prior to carrying out a Proving Test, and all testing and sealing completed before the Effective From Date, except where a Supplier Volume Allocation (SVA) Metering System transfers to Central Volume Allocation (CVA) under BSCP68 (see Section 1.5).

This Balancing and Settlement Code Procedure (BSCP) differentiates between commissioning tests and Proving Tests associated with CVA Metering Systems and defines the boundaries of each activity, as shown in Fig. 1. Commissioning tests, as defined in Code of Practice Four (CoP 4), are the minimum requirements necessary to establish that the Metering Equipment is accurately measuring and recording the energy (consumption or generation) in an Outstation at a Site.

Whilst the general requirements for commissioning tests in relation to the various activities performed on CVA Metering Systems by the MOA which may, or may not, lead to a Proving Test being necessary, are covered in the table - Appendix 5: Table of Testing Requirements and Methods of Assurance of Settlement Data and associated Guidance Notes – any detail associated with those commissioning test requirements are out of scope of this procedure, and are not intended to replace the requirements of CoP4.

In Fig. 1, the Metering System is bounded by a thin solid line, and the boundary for ‘commissioning’ by the MOA is shown as a dotted line – Box A.

The purpose of a Proving Test is to establish the following:

- (a) The Meter Technical Details (MTD) submitted by the MOA or Registrant to the CDCA to enable data collection are complete, accurate and correctly transferred to the CDCA instation;
- (b) The CDCA is able to interrogate the Metering System Outstation and satisfactorily retrieve the relevant metered data in the required format; and
- (c) Prove that a Meter register advance for a given Settlement Period is consistent with the metered data retrieved by the CDCA for that same Settlement Period.

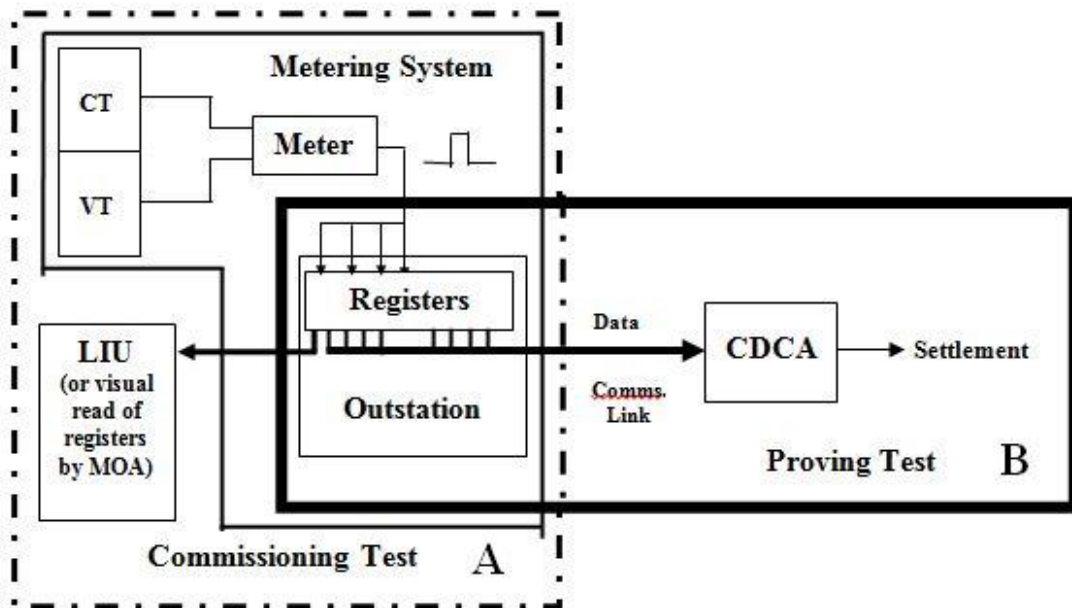


Fig. 1 – Boundaries for Commissioning and Proving Test Activities

The boundary for a Proving Test, carried out by the CDCA in conjunction with the MOA, is shown in Fig. 1 as a thick solid line – Box B.

This procedure describes the process for determining the requirements for carrying out such Proving Tests or other agreed checks on CVA Metering Systems. This procedure also describes the activities involved in carrying out Proving Tests, and any additional checks that may be required either at the same time as, or in place of, a Proving Test.

NOTE: MOAs and CDCA should ensure that all recorded readings associated with commissioning and Proving Tests, in accordance with this procedure, are defined in MWh.

Proving Tests or other agreed checks must use the MTD submitted to the CDCA by the Registrant or MOA in accordance with BSCP20, either via form BSCP20/4.3 ‘Registration of Meter Technical Details’ or the CDCA-I003 ‘Meter Technical Details’. The MOA and CDCA shall not use MTD which are provided by any other method as the basis for a Proving Test or other agreed check.

1.1.1 This procedure covers situations where the Registrant or MOA is proposing to:

- (a) Install new, or additions to, existing Metering Systems;
- (b) Remove and / or replace Meters and / or Outstations;
- (c) Reprogram Meters and / or Outstations; and

- (d) Change the registration of a Metering System from a Supplier Metering Registration Service (SMRS) to the Central Metering Registration Service (CMRS), i.e. a SVA Metering System becomes a CVA Metering System.

Some scenarios will not require a Proving Test to be carried out. Simple comparison checks may be adequate in some circumstances by agreement between the MOA and the CDCA using other relevant metered data from the Metering System collected by the CDCA. Where comparison checks are deemed acceptable the evaluation must take into account the overall integrity of Settlement. These comparison checks will largely be dependent on the degree of duplication within each Metering System.

Other scenarios that are not covered by this procedure may require commissioning and / or a limited degree of Proving Tests. In these cases the MOA should consult with the CDCA and / or BSCCo (ELEXON), as appropriate, to agree the scope of testing required. Form BSCP02/4.1 should be used to confirm any agreements between the MOA and CDCA.

- 1.1.2 This procedure specifically excludes the requirement for Proving Tests or additional checks for Metering Systems registered in SMRS (these are covered in BSCP514).

- 1.1.3 Proving Tests or additional checks are not required for:

- (a) Change of Registrant – since there is no impact on the physical Metering System or associated parameters (unless PINs are changed) - this activity is then covered under reprogramming of Meters / Outstations;
- (b) Change of Data Collector – except where there is a transfer of Metering System registration from SMRS to CMRS - since there is only one BSC Agent acting as a Data Collector (CDCA) for CVA Metering Systems.
- (c) Change of Meter Operator Agent – since this only requires a registration change by the Registrant, in accordance with BSCP20;

1.2 Objectives

- (a) Every new Metering System must go through a full end-to-end set of commissioning and Proving Tests before its registration becomes effective for Settlement purposes, although not necessarily on the same day, provided a reference Period is identified by the MOA for the comparison between Meter Register data and that collected by the CDCA for the same Settlement Period. However, all commissioning tests must be completed prior to carrying out a Proving Test, and all testing must be completed prior to the Effective From Date.
- (b) Once Proving Tests are complete, any work on the Metering System must be carried out in such a way as to maintain the integrity of the data entering Settlement and with the prior approval of the CDCA, except in cases of emergency.
- (c) Simplified commissioning and Proving Tests may be employed following subsequent work on a Metering System, with agreement of the CDCA / BSCCo provided the integrity of Settlement data can be shown to be maintained.
- (d) Where a component part of the Metering System being worked on is fully duplicated, and the duplicate item remains intact, i.e. is not physically changed in

any way, then the Proving Tests may be carried out by comparison between the duplicate parts of the Metering System during a complete Settlement Period. In such scenarios the CVA MOA shall submit the Proving Test form to the CDCA. For the avoidance of doubt, where the relevant Section of the BSCP requires a Proving Test form to be submitted and the Proving Test is carried out by a simple dial up, the CVA MOA shall submit the Proving Test form to the CDCA (i.e. Section 3.7 in relation to Ref 14 of Section 5.2.6 for reprogramming an Outstation at system level).

- (e) For non-duplicated items acceptable Proving Tests will be required.

1.3 Main Users of the Procedures and their Responsibilities

This procedure should be used by:

- (a) **CDCA** to liaise with MOA in determining requirements, timing and carrying out a Proving Test or comparison checks, and, in conjunction with the MOA, to provide confirmation of a successful Proving Test; and to notify Registrant of the result of a Proving Test.
- (b) **MOA** to confirm to the CDCA that the Metering Equipment is fully installed and commissioned, to liaise with the CDCA in determining requirements of a Proving Test or comparison checks, timing of such tests, and, in conjunction with the CDCA, to provide confirmation of a successful Proving Test;
- (c) **MOA** to **perform** a risk assessment, where necessary;
- (d) **Registrant** to receive results of Proving Test; and
- (e) **BSCCo** in conjunction with CDCA, to agree the scope of testing required with MOA for scenarios not described in this BSCP, and to agree simplified commissioning and Proving Tests where appropriate.

1.4 Risk Assessment

Where full end-to-end Proving Tests are not considered to be necessary, as defined in Section 5: 'Table of Testing Requirements and Methods of Assurance of Settlement Data', a risk assessment should be carried out to confirm that any reduction in testing will not involve any tangible risk to the accuracy of the Settlement process.

The risk assessment should include the following requirements:

- (i) Confirmation that the combined commissioning and Proving Test(s) will provide a high level of assurance that the changes that have been carried out to the Metering System(s) are correct, the Metering System is functioning correctly and is compliant with the relevant Metering Code of Practice;
- (ii) The communications equipment is installed and operating correctly;
- (iii) The changes resulting from a modification to the MTDs have been correctly applied by the CDCA; and

- (iv) Any components of the Metering System not directly affected, but which interface with any physical changes being made, or could indirectly be disturbed by the physical changes, are fully tested to provide a high level of assurance that all aspects of the Metering System are functioning correctly.

The risk assessment should be developed from the pretext that full commissioning and Proving Tests are always necessary. Individual elements of these tests should then be considered on the basis of the level of assurance they provide in the end-to-end testing process. Where each testing element is assessed as not providing any additional assurance or the required level of assurance is provided by other functional tests, the MOA must state why these tests are not necessary in the risk assessment.

In all situations the MOA shall take a risk adverse stance and shall carry out any tests where there is doubt about the need to do so. The MOA should always support the CDCA in proving that the central systems are processing metered data correctly.

1.5 Key Milestones

The key milestones in this procedure are:

- For new Metering Systems / additions to Metering Systems - satisfactory completion of Commissioning Tests and Proving Tests at least 8 WD prior to the Effective From Date, as registered in accordance with BSCP20;
- For existing commissioned and proven Metering Systems in SMRS which are being transferred into CMRS – satisfactory completion of CVA Proving Tests within 5 WD of the Effective From Date;
- For all other work – as soon as practicable, recognising the importance of maintaining integrity of Settlement data.

1.6 Balancing and Settlement Code Provision

This BSCP should be read in conjunction with the Code and in particular Section L. This BSCP has been produced in accordance with the provisions of the Code. In the event of an inconsistency between the provisions of this BSCP and the Code, the provisions of the Code shall prevail.

1.7 Associated BSC Procedures

BSCP06	CVA Meter Operations for Metering Systems Registered in CMRS
BSCP20	Registration of Metering Systems for Central Volume Allocation
BSCP25	Registration of Transmission System Boundary Points, Grid Supply Points, GSP Groups and Distribution System Connection Points

BSCP38 Authorisations

BSCP68 Transfer of Registration of Metering Systems between CMRS and SMRS

2.2 List of Definitions

For the purpose of this Balancing and Settlement Code Procedure –

calibration	<i>means</i>	<i>the procedure whereby the relevant errors of any item of Metering Equipment are determined.</i> <i>Initial calibration shall be performed in a laboratory or test house, as defined in CoP 4</i> <i>(a) Periodic calibrations of all Meters other than Active Energy Meters Class 0.2S may be performed on site provided that the error limits and overall uncertainty requirements defined in CoP 4 are met; and</i> <i>(b) Periodic calibration of Class 0.2S Active Energy Meters shall be performed in a laboratory or test house (including any manufacturers works.</i>
commissioning	<i>means</i>	<i>activities carried out by the MOA to ensure that the accurate measured data is available at the Meter Register(s) and Outstation(s), as described in CoP 4.</i>
Proving Test	<i>means</i>	<i>with respect to a CVA Metering System, a Proving Test will confirm that the stored metered data associated with the energy imported to, or exported from the Total System (including System Connection Points), or alternatively provided by supply injection, and derived from a fully commissioned and BSC compliant Metering System at a Site, can be satisfactorily transferred via a suitable communications link to, and correctly recorded by, the Central Data Collection Agent systems.</i>
Meter reprogramming	<i>means</i>	<i>adjustment to the Meter to change Current Transformer (CT) and / or Voltage Transformer (VT) ratios, pulse values, and CT / VT or power transformer compensation, etc.</i>
simple dial up	<i>means</i>	<i>a communication check carried out by the CDCA to confirm that an instation can collect data from an Outstation. No further validation of this data is required.</i>

Full definitions of the acronyms in Section 2.1 are, where appropriate, included in the Balancing and Settlement Code.

3. INTERFACE AND TIMETABLE INFORMATION

3.1 Proving Test Requirements for New Installations

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.1.1	At least 15 WD prior to Effective From Date	Advise CDCA of the date commissioning will be completed and the proposed date for Proving Test.	MOA	CDCA	Proposed Proving Test date NOTE: The Proving Test date must be at least 8 WD prior to the Effective From Date and after the Metering Equipment has been fully commissioned.	Fax / Email
3.1.2	Prior to 3.1.3 <u>and completion of Proving Test</u>	Carry out commissioning tests in accordance with CoP 4	MOA		BSCP02 / 4.2(a) & BSCP02 / 4.2(b): Metering System Commissioning Test Record	
3.1.3	<u>Before or in the same time period as 3.1.6</u> Before Proving Test	Confirm that the Metering System has been installed, commissioned in accordance with CoP 4, and is operating satisfactorily in accordance with the relevant Code of Practice. Send commissioning test records to CDCA	MOA	CDCA	BSCP02/4.4: Confirmation of Installation of Metering Equipment BSCP02 / 4.2(a) & BSCP02 / 4.2(b): Metering System Commissioning Test Record	Fax / Email / Letter
3.1.4	On date agreed in 3.1.1	Carry out Proving Tests in accordance with Section 5 – Ref. 1 in section 5.1	MOA / CDCA		BSCP20 / 4.3: Registration of Meter Technical Details (CDCA-I003 Meter Technical Details) NOTE: A Proving Test or other agreed check shall not be considered successful unless it is carried out using MTD submitted in this format.	Fax / Email / Post

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.1.5	On day of Proving Test	Liaise with CDCA to confirm that half-hourly data is correct.	MOA	CDCA		Phone
3.1.6	Within 3 + WD of completion of Proving Test	Send completed form BSCP02/4.3	MOA	CDCA	BSCP02/4.3: Metering System Proving Test Record. NOTE: Form must be signed by an Authorised Person registered in accordance with BSCP38/5.3.	Fax / Email
3.1.7	Within 1 WD of 3.1.6	Confirm results of Proving Test. Where it is unsuccessful agree measures to rectify problem and return to 3.1.3.	CDCA	Registrant MOA	BSCP02/4.3: Metering System Proving Test Record.	Fax / Email

3.2 Proving Test Requirements for Extension to Existing Installation

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.1	At least 15 WD prior to Effective From Date	Advise CDCA of the date commissioning of additional Metering Equipment will be completed and the proposed date for Proving Test.	MOA	CDCA	Proposed Proving Test date NOTE: The Proving Test date must be at least 8 WD prior to the Effective From Date and after the Metering Equipment has been fully commissioned.	Fax / Email
3.2.2	Prior to 3.2.3 <u>and completion of Proving Test</u>	Carry out commissioning tests in accordance with CoP 4	MOA		BSCP02 / 4.2(a) & BSCP02 / 4.2(b): Metering System Commissioning Test Record	
3.2.3	<u>Before or on the same day as in 3.2.6</u> Before Proving Test	Confirm that the Metering System has been installed, commissioned in accordance with CoP 4, and is operating satisfactorily in accordance with the relevant Code of Practice. Send commissioning test records to CDCA.	MOA	CDCA	BSCP02/4.4: Confirmation of Installation of additional Metering Equipment BSCP02 / 4.2(a) & BSCP02 / 4.2(b): Metering System Commissioning Test Record	Fax / Email / Letter
3.2.4	On date agreed in 3.2.1	Carry out Proving Tests in accordance with Section 5 – Ref. 2 in section 5.1.	MOA / CDCA		BSCP20 / 4.3: Registration of Meter Technical Details (CDCA-I003 Meter Technical Details) NOTE: A Proving Test or other agreed check shall not be considered successful unless it is carried out using MTD submitted in this format.	Fax / Email / Post

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.5	On day of Proving Test	Liaise with CDCA to confirm that half-hourly data is correct.	MOA	CDCA		Phone
3.2.6	Within 3+ WD of completion of Proving Test	Send completed form BSCP02/4.3.	MOA	CDCA	BSCP02/4.3: Metering System Proving Test Record. NOTE: Form must be signed by an Authorised Person registered for purpose in accordance with BSCP38/5.3.	Fax / Email - followed by postal delivery of original
<u>3.2.7</u>	Within 1 WD of 3.2.6	Confirm results of Proving Test. Where it is unsuccessful agree measures to rectify problem and return to 3.2.3.	CDCA	Registrant MOA	BSCP02/4.3: Metering System Proving Test Record.	Fax / Email

3.3 Proving Test Requirements where a Metering System Registration is transferred from SMRS to CMRS

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
<u>3.3.1</u>	<u>Within 5 WD prior to the Effective From Date</u>	<u>Assess whether the Metering System is operating satisfactorily in accordance with the relevant Code of Practice.</u>	<u>MOA</u>		<u>Commissioning records and calibration certificates and any onsite checks</u>	
<u>3.3.2</u>	<u>As in 3.3.1</u>	<u>Agree date for Proving Test</u>	<u>MOA</u>	<u>CDCA</u>	<u>Proposed Proving Test date</u>	<u>Phone</u>
<u>3.3.3</u>	<u>Before or on the same day as in 3.3.6-Within 5 WD prior to the Effective From Date</u>	Confirm that the Metering System is operating satisfactorily in accordance with the relevant Code of Practice and agree date for Proving Test.	MOA	CDCA	BSCP02/4.4: Confirmation of Installation of Metering Equipment Proposed Proving Test date	Fax/ Letter
<u>3.3.4</u>	On date agreed in <u>3.3.4</u> and within 5 WD after Effective From date	Carry out Proving Tests in accordance with Section 5 Ref. 27 in section 5.4.	MOA / CDCA		BSCP20/4.3: Registration of Meter Technical Details (CDCA-I003 Meter Technical Details) NOTE: A Proving Test or other agreed check shall not be considered successful unless it is carried out using MTD submitted in this format.	Fax / Email / Post
<u>3.3.5</u>	On day of Proving Test	Liaise with CDCA to confirm that half-hourly data is correct.	MOA	CDCA		Phone

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3. 64	Within 34 WD of completion of Proving Test	Send completed form BSCP02/4.3 NOTE: CDCA may provide initial information to MOA to allow this process to start, e.g. where Proving Test is by comparison of data in the CDCA system with the data collected by a SVA data collector.	MOA	CDCA	BSCP02/4.3: Metering System Proving Test Record. NOTE: Form must be signed by an Authorised Person, registered for purpose, in accordance with BSCP38/5.3.	Fax/ Email
3.3. 75	Within 1 WD of 3.3. 64	Confirm results of Proving Test. Where it is unsuccessful agree measures to rectify problem and return to 3.3. 34 .	CDCA	Registrant MOA	BSCP02/4.3: Metering System Proving Test Record.	Fax/ Email

NOTE: For Metering Systems installed to CoP 3 or below, alternative Proving Test methods and timescales may be more appropriate. Any alternatives shall be agreed with the CDCA beforehand, using BSCP02 / 4.1.

3.4 Proving Test Requirements where a Meter has been Replaced with a Different Meter

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.4.1	Immediately on replacing the Meter	Carry out commissioning tests in accordance with CoP 4	MOA		BSCP02/4.2(a) & BSCP02/4.2(b): Metering System Commissioning Test Record	
3.4.2	Within 1 WD of 3.4.1	Advise CDCA of the date commissioning will be completed and the proposed date for Proving Test. Proving Test to be as soon as practicable following, but within 5 WD of, 3.4.1	MOA	CDCA	Proposed Proving Test date NOTE: The Proving Test date must be after the Metering Equipment has been fully commissioned.	Fax/ Email
3.4.3	<u>Before or on the same day as in 3.4.6</u> Prior to Proving Test date ⁺	Confirm that the Meter has been installed, commissioned in accordance with CoP 4, and is operating satisfactorily in accordance with the relevant Code of Practice. Send commissioning test records to CDCA	MOA	CDCA	BSCP02/4.4: Confirmation of Installation of Metering Equipment BSCP02/4.2(a) & BSCP02/4.2(b): Metering System Commissioning Test Record	Fax/ Email
3.4.4	On date agreed in 3.4.2	Carry out Proving Tests in accordance with Section 5 Ref. 6 in section 5.2	CDCA/ MOA		BSCP20/4.3: Registration of Meter Technical Details (CDCA-I003 Meter Technical Details) NOTE: A Proving Test or other agreed check shall not be considered successful unless it is carried out using MTD submitted in this format.	Fax / Email / Post

⁺ ~~If possible, or within 1 WD of 3.4.1 if commissioning and Proving Tests are carried out at the same time.~~

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.4.5	On day of Proving Test	Liaise with CDCA to confirm that half-hourly data is correct.	MOA	CDCA		Phone
3.4.6	Within <u>3+</u> WD of completion of Proving Test	Send completed form BSCP02/4.3 NOTE: CDCA may provide initial information to MOA to allow this process to start, e.g. where Proving Test is by comparison of data in the CDCA system	MOA	CDCA	BSCP02/4.3: Metering System Proving Test Record. NOTE: Form must be signed by an Authorised Person registered in accordance with BSCP38/5.3.	Fax / Email
3.4.7	Within 1 WD of 3.4.6	Confirm results of Proving Test. Where it is unsuccessful agree measures to rectify problem and return to 3.4.3.	CDCA	Registrant MOA	BSCP02/4.3: Metering System Proving Test Record.	Fax / Email

3.5 Proving Test Requirements where a Outstation has been Replaced by Same Type

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.5.1	Immediately on replacing Outstation	Carry out commissioning tests in accordance with CoP 4	MOA		BSCP02/4.2(a) & BSCP02/4.2(b): Metering System Commissioning Test Record	
3.5.2	Immediately on replacing Outstation	Advise CDCA that the replacement Outstation has been commissioned and agree date when the dial-up checks can be carried out. The dial-up check should be carried out as soon as practicable following, but within 5 WD of, 3.5.1	MOA	CDCA	NOTE: The dial-up checks must be carried out after the Metering Equipment has been fully commissioned.	Fax/ Email
<u>3.5.3</u>	<u>Within 3WD of 3.5.1</u>	<u>Confirm that the Outstation has been installed, commissioned in accordance with CoP4, and is operating satisfactorily in accordance with the relevant Code of Practice.</u> <u>Send commissioning test records to CDCA.</u>	<u>MOA</u>	<u>CDCA</u>	<u>BSCP02/4.4: Confirmation of Installation of Metering Equipment</u> <u>BSCP02/4.2(a) & BSCP02/4.2(b): Metering System Commissioning Test Record</u>	<u>Fax/ Email</u>
3.5. 43	On date agreed in 3.5.2	Carry out dial-up checks in accordance with Section 5 Ref. 11 in section 5.3	CDCA			
3.5. 54	Within 1 WD of 3.5. 43	Confirm results of dial-up checks to MOA. Where test are unsuccessful agree actions to rectify problem and retest.	CDCA	MOA	Confirmation of successful dial-up	Fax/ Email

3.6 Proving Test Requirements where a Outstation has been Replaced by Different Type

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.6.1	Immediately on replacing Outstation	Carry out commissioning tests in accordance with CoP 4	MOA		BSCP02/4.2(a) & BSCP02/4.2(b): Metering System Commissioning Test Record	
3.6.2	At 3.6.1 or within 1 WD of 3.6.1	Advise CDCA of the date commissioning of replacement Outstation will be completed, and the date when Proving Tests can be carried out. Proving Test to be as soon as practicable following, but within 5 WD of, 3.6.1	MOA	CDCA	Proposed date of Proving Tests NOTE: The Proving Tests must be carried out after the Metering Equipment has been fully commissioned.	Fax/ Email
3.6.3	<u>Before or on the same day as in 3.6.6</u> Prior to Proving Test date²	Confirm that the Outstation has been installed, commissioned in accordance with CoP 4, and is operating satisfactorily in accordance with the relevant Code of Practice. <u>Send commissioning test records to CDCA</u>	MOA	CDCA	BSCP02/4.4: Confirmation of Installation of Metering Equipment <u>BSCP02/4.2(a) & BSCP02/4.2(b): Metering System Commissioning Test Record</u>	Fax/ Email
3.6.4	On date agreed in 3.6.2	Carry out Proving Tests in accordance with Section 5 Ref. 12 in section 5.3	CDCA / MOA		BSCP20/4.3: Registration of Meter Technical Details (CDCA-I003 Meter Technical Details) NOTE: A Proving Test or other agreed check shall not be considered successful unless it is carried out using MTD submitted in this format.	Fax / Email / Post

² ~~If possible, or within 1 WD of 3.6.1 if commissioning and Proving Test are carried out at the same time.~~

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.6.5	On day of Proving Test	Liaise with CDCA to confirm that half-hourly data is correct.	MOA	CDCA	BSCP02/4.3: Metering System Proving Test Record.	Fax
3.6.6	Within 3+ WD of completion of Proving Test	Send completed form BSCP02/4.3 NOTE: CDCA may provide initial information to MOA to allow this process to start, e.g. where Proving Test is by comparison of data in the CDCA system	MOA	CDCA	BSCP02/4.3: Metering System Proving Test Record. NOTE: Form must be signed by an Authorised Person, registered for purpose, in accordance with BSCP38/5.3.	Fax - followed by postal delivery of original
3.6.7	Within 1 WD of 3.6.6	Confirm results of Proving Test. Where it is unsuccessful agree measures to rectify problem and return to 3.6.3.	CDCA	Registrant MOA	BSCP02/4.3: Metering System Proving Test Record.	Fax/ Email

3.7 Proving Test Requirements where a Outstation has been Reprogrammed

(i) at Channel Level

(ii) at System Level

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.7.1	On identifying reprogramming of Outstation is required	Notify CDCA of intended work and date when to be carried out. Advise CDCA of proposed date for Proving Tests. Proving Test to be carried out within 5 WD of <u>completing reprogramming of Outstation</u> 3.7.2	MOA	CDCA	Proposed date for Proving Tests. NOTE: The Proving Tests must be carried out after the Metering Equipment has been fully commissioned.	Fax/Email
<u>3.7.2</u>	<u>Immediately on reprogramming Outstation</u>	<u>Carry out commissioning tests in accordance with CoP 4.</u>	<u>MOA</u>		<u>BSCP02/4.2(a) & BSCP02/4.2(b): Metering System Commissioning Test Record</u>	
3.7.3 <u>3.7.32</u>	<u>Before or on the same day as in 3.7.6</u> Immediately on completing reprogramming of Outstation	Confirm that work is completed and fully commissioned <u>Send commissioning test records to CDCA</u>	MOA	CDCA	BSCP02/4.4: Confirmation of Installation of Metering Equipment <u>BSCP02/4.2(a) & BSCP02/4.2(b): Metering System Commissioning Test Record</u>	Fax/ Email

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.7. 43	On date agreed in 3.7.1	Carry out Proving Tests in accordance with Section 5 Ref. 13 in section 5.3 (for Channel level); and Ref. 14 in section 5.3 (for System level)	CDCA / MOA		BSCP20/4.3: Registration of Meter Technical Details (CDCA-I003 Meter Technical Details) NOTE: A Proving Test or other agreed check shall not be considered successful unless it is carried out using MTD submitted in this format.	Fax / Email / Post
3.7. 54	On day of Proving Test	Liaise with CDCA to confirm that half-hourly data is correct.	MOA	CDCA		Phone
3.7. 65	Within 34 WD of completion of Proving Test	Send completed form BSCP02/4.3 ³	MOA	CDCA	BSCP02/4.3: Metering System Proving Test Record. NOTE: Form must be signed by an Authorised Person, registered for purpose, in accordance with BSCP38/5.3.	Fax - followed by postal delivery of original
3.7. 76	Within 1 WD of 3.7. 65	Confirm results of Proving Test. Where it is unsuccessful agree measures to rectify problem and return to 3.7. 32 .	CDCA	Registrant MOA	BSCP02/4.3: Metering System Proving Test Record.	Fax/ Email

³ For the avoidance of doubt, the CVA MOA shall submit the Proving Test form to the CDCA where a simple dial up is required (i.e. when reprogramming an Outstation at system level. See Ref 14 of Section 5.2.6).

4 APPENDICES

The following forms and table should be used in conjunction with Section 3: Interface and Timetable Information.

Forms

BSCP02/4.1: Confirmation of Discussion / Testing Requirements with CDCA

Form 4.1 should be used whenever a method of assurance is proposed which deviates from the methods defined in the BSCP.

BSCP02/4.2: Metering System Commissioning Test Record

a – Dial Advance Tests (Primary Outstation)

b – Dial Advance Tests (Secondary Outstation)

Form 4.2 is included within this BSCP in recognition that a dial advance record is required as part of the full ‘end-to-end’ commissioning and Proving Tests required on a new installation. The form ensures consistency of record keeping.

BSCP02/4.3: Metering System Proving Test Record

Form 4.3 should be used to record and sign-off all Proving Tests which are carried out. Information recorded in Form 4.2 as part of the commissioning process may be used to populate the fields in Form 4.3.

BSCP02/4.4: Confirmation of Installation of Metering Equipment (including Extension or Modification of Metering System)

Form 4.4 is the official certificate provided by the MOA, on behalf of the Registrant, that the Metering System has been installed and commissioned in accordance with the Meter Technical Details forwarded to the CDCA.

BSCP02/4.5: Risk Assessment

Form 4.5 should be used by the MOA to identify the proposed work to be carried out, the component parts of the Metering System involved, the potential risks and impact of that work on data quality, and the controls employed to mitigate against those risks.

BSCP02/4.1 - Confirmation of Discussion / Testing Requirements with CDCA

To: CDCA	Date Sent: _____
From: Participant Details	
MOA ID: _____	Name of Sender: _____
Contact email address: _____	
Our Ref: _____	Contact Tel. No. _____
Name of Authorised Signatory: _____	
Authorised Signature: _____	Password: _____

Site: _____ **MSID:** _____

Name of CDCA Operator

confirms that the Proving Test requirements for the Metering System(s) at the above location, and required for Settlement purposes, have been discussed between the MOA and CDCA. The result of those discussions and the testing requirements are listed below.

Location of Metering System

OS Grid Reference:

GSP Reference:

(if applicable)

MSID:

Site Name: _____

Site Address: _____

Detail of Testing Requirements

Confirmed by CDCA

Name: _____	Date: _____
Signature: _____	

BSCP02/4.2a - Metering System COMMISSIONING Test Record

To: CDCA	Date Sent: _____
From: Participant Details	
MOA ID: _____	Name of Sender: _____
Contact email address: _____	
Our Ref: _____	Contact Tel. No. _____
Name of Authorised Signatory: _____	
Authorised Signature: _____	Password: _____

A Dial Advance Tests

The purpose of this test is to ensure that UPI and dial values set in the Outstation(s) align with the meter. All additional commissioning tests required by CoP-4 will have been completed.

	Primary Outstation <u>(if separate from Meter)</u>	Secondary Outstation⁴ <u>(if separate from Meter)</u> <small>-(normally CoP1 only)</small>
Check UPI values in Outstation align with the meters.		
Check dial values in Outstation align with the meters.		

Dial advance tests should then be performed under conditions of injection test where appropriate. In order to achieve sufficient resolution, dial advances equivalent to operating the Meter at rated voltage and current for at least 10 minutes should be achieved.

Site: _____

MSID: _____

Commissioning Test Date: _____

A.1 **Primary (or main Meter if integral) Outstation – for first 16 Channels**

Primary (or main Meter & integral) Outstation for first 16 Channels												
Ch	Estimated Energy Injected / Prevailing Load *	Meter dial values					Outstation dial values (for Installations with separate Meters and Outstations)					Dial advance diff. (%)
		MWh / MVARh					MWh / MVARh					
		Start Time	Start Value	Finish Time	Finish Value	Adv.	Start Time	Start Value	Finish Time	Finish Value	Adv.	
00												
01												
02												
03												
04												
05												
06												
07												
08												
09												
10												
11												
12												
13												
14												
15												

To be completed by on-site Meter Operator Agent personnel at time of test

⁴ Normally CoP1 only

BSCP02/4.2a (Cont'd)

A.1 Primary (or main Meter if integral) Outstation – for 32 Channel Outstations

SITE: _____

MSID: _____

Commissioning Test Date: _____

Ch	Estimated Energy Injected / Prevailing Load *	Meter dial values					Outstation dial values (for Installations with separate Meters and Outstations)					Dial advance diff. (%)
		MWh / MVARh					MWh / MVARh					
		Start Time	Start Value	Finish Time	Finish Value	Adv.	Start Time	Start Value	Finish Time	Finish Value	Adv.	
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												

Comments:

To be completed by on-site Meter Operator Agent personnel at time of test

* *This column is for use by the MOA to confirm that the Meter is functioning correctly. It is not an accuracy test. The value may differ from the Meter advance for a number of reasons, e.g. Meter compensation, changes in load when carried out against prevailing load conditions, or the method of estimating the injected energy.*

BSCP02/4.2b

A.2 Secondary (or check Meter if integral) Outstation – for first 16 Channels

SITE: _____

MSID: _____

Commissioning Test Date: _____

Ch	Estimated Energy Injected / Prevailing Load *	Meter dial values					Outstation dial values (for Installations with separate Meters and Outstations)					Dial advance diff. diff. (%)
		MWh / MVARh					MWh / MVARh					
		Start Time	Start Value	Finish Time	Finish Value	Adv.	Start Time	Start Value	Finish Time	Finish Value	Adv.	
00												
01												
02												
03												
04												
05												
06												
07												
08												
09												
10												
11												
12												
13												
14												
15												

~~Meter dial advances agree with estimated value of primary energy applied to the Meter? — Y/N~~

~~Are all dial advance differences in A.1 and A.2 less than 2%? — Y/N~~

~~Are the respective Primary and Secondary Outstation dial advances in A.1 and A.2 within 2% of each other? i.e. Primary ch 1 to Secondary ch 1 — Y/N~~

Comments:

To be completed by on-site Meter Operator Agent personnel at time of test

BSCP02/4.2b (Cont'd)

A 2 Secondary (or check Meter if integral) Outstation – for 32 Channels

SITE: _____

MSID: _____

Commissioning Test Date: _____

Ch	Estimated Energy Injected / Prevailing Load *	Meter dial values					Outstation dial values (for Installations with separate Meters and Outstations)					Dial advance diff. (%)
		MWh / MVARh					MWh / MVARh					
		Start Time	Start Value	Finish Time	Finish Value	Adv.	Start Time	Start Value	Finish Time	Finish Value	Adv.	
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												

Meter dial advances agree with estimated value of primary energy applied to the Meter?	Y/N	
Are all dial advance differences in A.1 and A.2 less than 2%?	Y/N	
Are the respective Primary (or main Meter if integral) and Secondary (or check Meter if integral) Outstation dial advances in A.1 and A.2 within 2% of each other? i.e. Primary ch 1 to Secondary ch 1	Y/N	

Comments:

To be completed by on-site Meter Operator Agent personnel at time of test

* This column is for use by the MOA to confirm that the Meter is functioning correctly. It is not an accuracy test. The value may differ from the Meter advance for a number of reasons, e.g. Meter compensation, changes in load when carried out against prevailing load conditions, or the method of estimating the injected energy.

BSCP02/4.3 - Metering System PROVING Test Record

To: CDCA	Date Sent: _____
From: Participant Details	
MOA ID: _____	Name of Sender: _____
Contact email address: _____	
Our Ref: _____	Contact Tel. No. _____
Name of Authorised Signatory: _____	
Authorised Signature: _____	Password: _____

SITE: _____ **MSID:** _____

Related MSIDs:			
-----------------------	--	--	--

Complete the tables below for a selected demand period, all channels must be driven to a count of at least 100 pulses.

For use with 16 Channel Outstations

			Primary <u>(or main Meter if integral)</u> Outstation Values			Secondary <u>(or check Meter if integral)</u> Outstation Values		
			Outstation / LIU¹	Settlement Instation		Outstation / LIU¹	Settlement Instation	
Ch	Start Time / Sett. Period	End Time / Sett. Period	Demand MW*/MVAR Advance MWh*/MVARh	Collected (Pulses * / MWh * /MVARh)	Scaled MWh / MVARh	Demand MW*/MVAR Advance MWh*/MVARh	Collected (Pulses * / MWh * /MVARh)	Scaled MWh / MVARh
00								
01								
02								
03								
04								
05								
06								
07								
08								
09								
10								
11								
12								
13								
14								
15								

* *Delete as appropriate*

Are all Primary Outstation and Settlement instation values the same for each channel? —Y/N	
Are all Secondary Outstation and Settlement instation values the same for each channel? —Y/N	

BSCP02/4.3 (cont'd)

For use with 32 Channel Outstations

MSID: _____

			Primary <u>(or main Meter if integral)</u> Outstation Values			Secondary <u>(or check Meter if integral)</u> Outstation Values		
			Outstation / LIU ¹	Settlement Instation		Outstation / LIU ¹	Settlement Instation	
Ch	Start Time / Sett. Period	End Time / Sett. Period	Demand MW*/MVAR Advance MWh*/MVARh	Collected (Pulses * / MWh * /MVARh)	Scaled MWh / MVARh	Demand MW*/MVAR Advance MWh*/MVARh	Collected (Pulses * / MWh * /MVARh)	Scaled MWh / MVARh
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								

* Delete as appropriate

Are all Primary (or main Meter if integral) Outstation and Settlement instation values the same for each channel? _____ Y/N

Are all Secondary (or check Meter if integral) Outstation and Settlement instation values the same for each channel? _____ Y/N

MOA must state the units of Demand and Meter Advance data (e.g. MW/MWh)

MOA completes Outstation data. CDCA completes Settlement Instation data.

Comments:

Signed for CDCA

Date: _____

Name: _____

Signature: _____

¹ Where the commissioning and Proving Tests are not carried out at the same time, the recorded values in the Local Interrogation Unit (LIU) at the time of commissioning may be substituted for the Proving Test provided the same Settlement Period data is collected and compared by the CDCA.

BSCP02/4.4 - Confirmation of Installation of Metering Equipment

(Including Extension or Modification to Metering Systems)

To: CDCA		Date Sent: _____
From: Participant Details		
MOA ID: _____	Name of Sender: _____	
Contact email address: _____		
Our Ref: _____	Contact Tel. No. _____	
Name of Authorised Signatory: _____		
Authorised Signature: _____	Password: _____	

Details of Registrant and Meter Operator Agent

Name of Registrant: _____

Name of Meter Operator Agent: _____

confirm that as at hours on/...../..... the Metering System required for the purposes of the Code is fully installed, commissioned and operational at the site detailed below.

Location of Metering System

OS Grid Reference: _____

GSP reference: (if applicable) _____

MSID: _____

Site Name: _____

Site Address: _____

Signed for Registrant

Name of Authorised Signatory: _____		Date: _____
Authorised Signature: _____	Password: _____	

To: CDCA	Date Sent: _____
From: Participant Details	
MOA ID: _____	Name of Sender: _____
Contact email address: _____	
Our Ref: _____	Contact Tel. No. _____
Name of Authorised Signatory: _____	
Authorised Signature: _____	Password: _____

Metering Equipment DetailsSite: _____ **MSID:** _____

Circuit(s): _____

Details of work to be carried out:**Details of proposed Proving Test:**

Metering System Component	Potential Impact of Proposed Work on Metering Data Quality	Method of Controlling Risk
Primary Plant		
CTs and VTs		
Cabling and Marshalling Boxes		
Metering Panel		

Metering System Component	Potential Impact of Proposed Work on Metering Data Quality	Method of Controlling Risk
Meters		
Data Collectors		
Auxiliary Power Supplies		
Communications Equipment		
Other		

Existing Control Measures:

Additional Information:

CDCA Comments:

Signed for CDCA

Date: _____	
Signatory: _____	
Signature: _____	

5.4 Other Activities

Ref.	Activity	Commissioning Test Required		Proving Test Required		Notes
		Non Duplicate System *	Duplicate System *	Non Duplicate System *	Duplicate System *	
20	Change of primary plant which affects Metering System	Primary injection test (where practicable)	Meter Comparison by MOA, provided change does not affect both main and check metering channels. Otherwise treat as non-duplicate system.	None	None	Only applies to components of Metering System. (e.g. Gen Transformer covered by reprogramming meter) Additional tests will be required if there is a change to Meter Technical Details or Meter programming.
21	VT/CT multicore changes	Secondary injection test as close as practicable to CT/VT	Secondary injection test as close as practicable to CT/VT or Comparison Test if full duplicity	None	None	If CT/VT burden affected see 45 Ref 8 for reprogramming Meter
22	Other wiring changes affecting tariff metering	Secondary injection test or prevailing load test	Secondary injection test or prevailing load test or Comparison Test if full duplicity	None	None	Risk assessment required
23	Other wiring changes operational (non tariff)	None	None	None	None	Risk assessment required
24	Change of Registrant	None	None	None	None	
25	Change of MOA	None	None	None	None	
26	Change of DC	None	None	Parallel running of CDCA's systems	Parallel running of CDCA's systems	Out of scope of proposed BSCP

Ref.	Activity	Commissioning Test Required		Proving Test Required		Notes
		Non Duplicate System *	Duplicate System *	Non Duplicate System *	Duplicate System *	
27	Change from SVA to CVA	None	None	Proving test or compare with SVA DC metered data for same period.	Proving test or compare with SVA DC metered data for same period.	
28	Replacement of critical components (applicable to all Metering Systems)	Secondary injection test or prevailing load test	Secondary injection test or prevailing load test	None	None	e.g. single card in Opus data collector. Risk assessment required.
29	Change to power supplies (auxiliary)	None	None	None	None	Reset alarms

NOTE: *Reference to ‘Non-Duplicate System’ and ‘Duplicate System’ relates to the specific requirement of a Code of Practice, i.e. CoP 1 requires installation of ‘duplicate’ Outstations, whereas CoP 2 requires only one Outstation, but has a limit for storage of data of 100MW Aggregated Circuit Capacity, and is therefore ‘non-duplicate’.