

Change Proposal – F40/01

CP No: 998

Version No:

Title *(mandatory by originator)*

Merge BSCP026 and BSCP526 to create new Technical Assurance BSCP and update as required to implement the changes recommended by the Review of Technical Assurance for Central Volume Allocation (CVA) and Supplier Volume Allocation (SVA) as part of Phase 2 of the Review of the Performance Assurance Framework (PAF).

Description of Problem/Issue *(mandatory by originator)*

The following changes were approved by the Panel on 13th February 2003

- 1)** Merge BSCP26 and BSCP526 into one BSCP. This will require a Housekeeping Modification to the BSC to change the reference to the existing BSCP documents. This process will also include the following changes to the content of the merged BSCP:
 - Category 3 Non Compliance (N-Cs) will be replaced by Observations. A few Category 3 N-Cs are to be re-classified as Category 2 N-C. Table below indicates the proposed changes.

Category 3 reclassification

Previous Category 3 Non-Compliance	Explanation	Status in Combined BSCP
3.1.2 Metering Equipment Test Facilities	Lack of adequate Metering Equipment test facilities	Category 2
3.1.3 Suitable Environment (minor)	Environmental conditions not likely to cause immediate metering Equipment failure	Observation
3.1.4 Labelling Consistency	- Main/Check/Import/Export - Circuits (feeders) not properly Identified - measurement transformer ratio not correctly identified - "No outgoing calls"	Observation
3.1.5 Standing Data (including Outstation personality)	All standing data other than specified in Category 1 N-C definition in relevant Appendices under N-C 1.01 (does not affect Settlement)	Observation
3.1.6 Miscellaneous	Metering Equipment does not fully	Observation

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	Comply with CoP Specification	or Category2
3.1.7 Timing Reference Within Tolerance	Meter / outstation clock within tolerance defined in table in BSCP	Category 2
<ul style="list-style-type: none"> • The Expert Group highlighted the requirement that any updated BSCP should recognise that rectification action could not, in many cases, be completed within 10 or 15 working days. As such the process should address the need to issue a rectification plan within a specified timescale and outline an appropriate process to ensure progress is monitored by ELEXON against this plan and that issues of under-performance are dealt with appropriately by ELEXON. • The Expert Group agreed that it would be beneficial if there was a quick and efficient Appeals process in place. The proposed approach involves three stages of appeal, initially to the TAA. This is escalated to ELEXON and finally to the Performance Assurance Board if the Registrant is still unhappy with the decision. Supporting evidence will be required and specific timings are attached to completing tasks. • Any anomalies between BSCPs should be rectified when documents are merged e.g. BSCP526 mentions notifying the MOA as well as the Supplier of Non-Compliances, BSCP26 only mentions Registrant. This point was also re-emphasised during discussions about communication and the need to issue N-C, not only to Supplier/Registrant, but also to the person who can undertake necessary rectification. Supplier / Registrant will still be the person responsible for successful rectification. <p>2) Seek to move to quarterly SMRS extracts: It was recognised that only obtaining refreshes from Distribution Businesses of SMRS information based on the dates of 15th January and 15th July made it difficult to identify who supplied the customer, due to data being out of date. It was concluded that if this could be done on a quarterly basis, then it would be easier to identify who now owned that customer and was responsible for the rectification of any outstanding Non-Compliances. It was recognised that this might put an extra burden on Distribution Businesses, and if this was an onerous task for them, then an alternative would be to move to two dates which would capture major sales rounds i.e. 15th April and 15th October. This will require an MRA change request to be made, which can be done by ELEXON, since they are a signatory to the MRA.</p> <p>3) The Expert Group agreed that the introduction of a 'Specific Group' for SVA would provide a more focused and flexible Technical Assurance process. This new group could be considered a representative sample of the more complex metering systems where errors may be more likely to occur, and would be agreed with PAB each year to provide a flexible approach. This would be considered a subset of the wider representative sample as defined in Section L of the Code. The proposed approach is outlined in Attachment 1.</p> <p>4) An integrated approach to Non-Intrusive testing was agreed. This was structured as follows:</p> <p>A requirement of the TAA during a Site visit is to establish that the Settlement Meter is recording energy flows correctly. The ideal method for this is through primary injection however, it is recognised that this is</p>		

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usually not practical and the following steps outline the requirements where primary injection is not possible.

The requirements involve work to be carried out by the TAA, who is required to ensure that adequate competency requirements are fulfilled. The tests required are listed below in order of preference as follows:

1. The instantaneous demand shall be compared to the Meter's instantaneous demand reading for the same period e.g. Prevailing Load Check; or
2. An alternative measurement shall be used to compare with that of the equivalent from the Settlement Meter; or
3. The MOA shall provide the TAA with appropriate commissioning records. The TAA is required to establish that these details sufficiently verify that the Metering System has been proven to be operating correctly during commissioning; or
4. In the event that none of the above (1 – 3) is possible, the TAA will notify BSCCo giving the reasons.(This reflects the fact that other tests will add no value)

The TAA shall provide suitable test equipment to carry out the above tests and shall be responsible for connecting this equipment.

Typical tests, will be provided in a circular when the BSCP is implemented.

Prevailing Load Check

This check is required as a means of establishing the Meter is recording energy appropriately and may identify errors such as a CT/VT ratio mismatch between the Meter and the measurement transformers.

The check requires the primary load current to be obtained (usually, using a clamp type current meter). These readings are used to calculate an instantaneous power value. The same value is obtained from the meter and the two values compared. It is unlikely that these two values will be identical due to fluctuating loads and the assumed applied voltage for example, however it is expected that the two values will be within the range of standard CT/VT ratios thus ensuring the correct operation of the Settlement Metering System.

Alternative Measurement

Where an alternative measurement is used (such as a customers ammeter or sub meter) for the same primary circuit and a prevailing load check is not possible, it may be possible to utilise readings from that equipment for comparison with the Settlement Metering. The alternate measurement should be independent of that of the Settlement Metering including any measurement transformers.

5) Move to considering 'Meter to Bank' impact as follows:

- I. Look at Meter Technical Details provided by both the Data Collector (DC) and Meter Operator (MO) and compare with what TAA observed on-site, plus commissioning and the historic proving test information. This is important, as the Data Collector needs to have the correct meter technical details in order to interpret collected data accurately.

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II. Request same ½ hour data from the DC to check the values in Settlement. CVA data can be accessed almost immediately on-site. For SVA there will be a delay associated with requesting data from DC. In both cases one channel will be requested unless a Non Compliance is identified.

- 6) Estimating Meter Error and Material Settlement Error: A metering system may be recording energy incorrectly due to a non-compliance. However, this metered error may not be passed into Settlement due to validation and estimation activities undertaken as part of normal Settlement processes. The approach presented in Attachment 2 is focused on identifying the potential metered error and making the distinction with a materiality impact that could result from this non-compliance. This facilitates a close link with the recommendations made in NPAB20/233 regarding Changes to the PAB Escalation Cycle.
- 7) ELEXON should set up a published e-mail list that contains Technical Assurance contacts for all Parties and Party Agents. It was agreed that this list should contain e-mail references that were associated with this function and not specific people, where possible. This might make it easier to maintain going forward.

Proposed Solution(s) *(mandatory by originator)*

BSCP026 and BSCP526 will be merged into one BSCP and the changes described above will be incorporated into the new BSCP.

A 'red-lined' copy of a new BSCP will follow highlighting the changes necessary.

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Justification for Change *(mandatory by originator)*

These changes will

- Provide flexibility and an appropriate level of focus on complex (potentially high value) meters that could have a major impact on settlement if they are correct.
- Focuses on the Materiality impact of the Non-Compliance and uses this to help address actions necessary.
- Reduces the level of effort by ELEXON and the Registrant / Supplier to ensure that Non-Compliances are addressed in a timely fashion.
- Reduces the level of spurious Non-Compliances that can occur.

These changes have been recommended by an Expert Group comprising of representatives from across the industry who have worked with the Technical Assurance for Metering since it was set in place. These recommendations were reviewed and accepted by the PAB and Panel.

Configurable Items Potentially Affected by Proposed Solution(s) *(optional by Originator)*

Balancing & Settlement Code Changes Necessary:

The Technical Assurance of CVA and SVA Metering Systems will require minor changes to the Code itself. These changes are potentially necessary because of the following:

- A Proposal to Merge BSCP026 (CVA) and BSCP526 (SVA) into one BSCP document means that reference in the Code (Section L) to these individual BSCP documents should be removed.

MRA

MRA 7.5 (Section 27.4.2) will need to be altered to allow for quarterly provision of the Supply Numbers registered by a Supplier on the MPAS Registration System (SMRS).

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Impact on Core Industry Documents <i>(optional by originator)</i> Need to update any BSCP which references BSCP26 or BSCP526 with merged BSCP details.	
Related Changes and/or Projects <i>(mandatory by BSSCo)</i>	
Requested Implementation Date <i>(mandatory by originator)</i> Reason:	
Agreed Release/Implementation Date <i>(mandatory by BSSCo)</i>	
Originator's Details: BCA Name <i>Margaret Longden</i> Organisation <i>ELEXON</i> Email Address Date <i>05/08/03</i>	
Attachments: Y/N* (If Yes, No. of Pages attached:...3.....) <i>(delete as appropriate)</i>	

Attachment 1 – Sampling Metering Systems for Technical Assurance

Introduction

Increasing the flexibility of the Technical Assurance (TA) sampling process would enable the Technical Assurance Agent (TAA) to focus on the areas that the Performance Assurance Board (PAB) and the Industry decide have the greatest risk to Settlement. ELEXON recommend that the type and percentage from each group should be set initially as follows:

- 60-80% Representative Sample;
- 10-20% 'Specific Sample';
- 10% Targeted and
- 10% Revisits.

To introduce more flexibility to the process it is planned that the details of the new 'Specific Sample' will be agreed each year by the PAB. The PAB approval will cover both the Metering Systems to be included and the relative percentage size of the sample. For example, this could include Metering Systems with a particular age or type of Metering Equipment. It is envisaged that each Metering System within the specific sample will be checked once every five years. This will enable Technical Assurance to focus on a particular type of Metering System and take a long-term view without being restrained by an out of date sampling methodology.

'Specific Sample' Metering Systems

This new 'complex metering' sampling group should be identified from following:

I. Code of Practice

The Expert Group recommends that the proportion of Code of Practice (CoP) One, Two and G Metering Systems should be increased. This would significantly expand the visits to Metering Systems recording large amounts of electricity. The Meter Operator (MO) could provide the necessary information because it will be provided by the MO on the enhanced D0268.

In future years the Alpha Codes of Practice could be targeted as a whole.

II. Export Metering Systems

The Expert Group recommends those metering systems that record import and export electricity should be targeted for inspection to ensure that the import and export details have been correctly recorded in Settlement.

The Meter Operator can provide the information to identify these sites via the measurement quantity ID which records active export energy. Assuming that all export metering systems must also be import, these can be identified for inspection. However, although the export MPAN can be identified there is not a robust method of identifying the related import MPAN, the most effective solution is to identify these sites by customer name and address.

III. Multi-Feeder Metering Systems

Multi-Feeder Metering Systems have the potential to be incorrectly recorded in settlement and should be targeted for Technical Assurance visits. The Meter Operator can identify these sites with the aid of the Distribution Business.

IV. Complex Metering Systems

Complex Metering Systems have a greater potential for error during installation and in recording technical details. Sampling by CoP, Export Metering Systems and Multi-Feeder sites will identify many Complex Metering Systems but not all.

Complex Metering Systems are generally identified as those Metering Systems, which cannot be adequately explained via the D0268, and the Meter Operator provides additional information, which could be provided to the TAA for sampling.

Attachment 2 - Materiality Derivation Approach for CVA / SVA Metering Systems

The basis of this derivation is that if an N-C can be quantified, even in an indicative manner, it will provide an enhanced insight into the magnitude of the issue. The basis of the approach is as follows:

- Identify the type of meter against which the N-C has been identified e.g. CoP 1.
- Select a value in the mid-point of the range dictated by the specific Code of Practice.
- Identify the likely Load factor for this type of meter. It is recognised that in many cases this will be dependent on the industry in which the company operates, but an average value will suffice.
- Estimate the size of the N-C in terms of absolute MWh or a percentage value.
- Derive the potential Materiality for a year, based on 8760 hours in a year.

This is best illustrated by an example. If the meter with a N-C against it was

- a CoP 3 meter (1MW to 10MW), implies using 5.5 MW as mid-point of range;
- estimated as being +30% out;
- an assumed average Load Factor of 50%.

The derivation of potential Materiality for a year would then be as follows:

- $5.5 \text{ MW} \times 30\% \text{ error} \times 50\% \text{ LF} \times 8760 \text{ hours} = 7,227 \text{ MWh}$

A number of points were made by the Expert group about this approach:

- The estimates derived by this approach did not mean that this was the level of impact on Settlement, since a Data Collector could pick up problems and apply estimates to values that would minimise impact on Settlement;
- For CoP 1 over 100MVA use 200MW as value for Materiality calculation.