Meeting name	Supplier Volume Allocation Group (SVG)
Date of meeting	5 January 2010
Paper title	Change Proposal Progression
Purpose of paper	For Decision
Synopsis	This paper provides: • 2 Change Proposals (CP1317 and CP1318) for decision; and • details of all Open Draft Change Proposals and Change Proposals.

1 Introduction

1.1 This paper provides the details of 2 Change Proposals (CPs) for you to consider and agree on their progression. ELEXON issued CP1317 and CP1318 for Party/Party Agent Impact Assessment via Change Proposal Circular (CPC) CPC00671. In light of this assessment, we invite you to decide whether to approve or reject these CPs.

2 Summary of Change Proposals for Progression

2.1 CP1317 'Removal of requirement for NHHMOAs to notify NHHDCs of metering work before the event'

2.1.1 We raised CP1317 on 21 October 2009. We issued CP1317 for impact assessment (via CPC00671) in October 2009.

2.1.2 The Code Subsidiary Document review highlighted a large amount of duplication between the requirements in the Party Service Lines (PSLs) and the corresponding BSC Procedures (BSCPs). To resolve this issue, a single generic PSL was created under CP1182[1] to contain participants' non-functional requirements; and various Change Proposals (CPs) were raised to move participants' functional requirements into the relevant BSCPs. In particular, CP1234[2] moved the functional requirements of PSL110[3] into BSCP514[4] and BSCP550.

2.1.3 As a result of merging two paragraphs from PSL110 v16.0 (paragraphs 1.5.1.2 & 1.5.1.3) into BSCP514 (paragraph 2.4.1 b)) a 'new' obligation has been placed, in error, on Non Half Hourly (NHH) Meter Operator Agents (MOAs) to give sufficient notice, except in an emergency, to its associated NHH Data Collector (DC) of the removal, reprogramming, energisation or de-energisation of any Meter.

2.1.4 CP1317 aims to replace this merged paragraph with the two original paragraphs from PSL110.

2.2 Impact Assessment Responses

2.2.1 We received 13 responses; of these 12 agreed and 1 disagreed.

[1] CP1182 – 'Creation of a generic Party Service Line'
[2] CP1234 – 'Movement of the functional requirements within PSL110 to BSCP514 and BSCP550, following the creation of a generic non functional PSL (PSL100) via CP1182'
[3] PSL110 – 'SVA Meter Operation'
[4] BSCP514 – 'SVA Meter Operations for Metering Systems Registered in SMRS'

2.2.2 The respondent who disagreed with the change did so because, whilst they agreed with the sentiment of the CP, they felt that there were drafting issues that meant they were unable to support the change until the issues had been addressed. We have discussed both issues with the respondent, and recommend that one amendment is made to the redlining as a result of their comments. If this change is made then the respondent is happy to support the CP. More details of the issues raised and our responses are available in Appendix 1.

2.2.3 We recommend, based on the fact CP1317 will remove an error created as a result of CP1234 and unanimous industry support, that you:

- **AGREE** our suggested amendment to the redline text; and
- **APPROVE** CP1317 for implementation in the June 2010 Release.

2.3 **CP1318 – 'Minor Changes to BSCP601'**

2.3.1 We raised CP1318 on 21 October 2009. We issued CP1318 for impact assessment (via CPC00671) in October 2009.

2.3.2 CP1318 would make minor changes to BSCP601[5] to:

- update old terminology and standards;
- add necessary disclaimers for the protocol approval and compliance testing application form and certificate forms;
- remove version numbers from the Code of Practice definitions;
- correct minor typos and incorrect grammar;
- clarify phrasing; and
- add a copyright acknowledgement for the British Standards Institute (BSI) for the use of extracts from various British Standards in BSCP601.

2.4 Impact Assessment Responses

2.4.1 We received 12 responses; of these 9 agreed, 1 disagreed and 2 were neutral. The respondent who disagreed with the proposed changes did so because they believed that the legal text for the disclaimers on the application form and certificate forms was too heavy-handed and that a simpler plain English version should be used instead. The respondent did not believe the wording to be a 'show stopper' and is willing to change their response to 'agree'.

2.4.2 Two other respondents who agree with the proposed changes also commented on the legal text for the application form and certificates, saying the wording was difficult to read and comprehend and was excessively lengthy. ELEXON confirmed with all three respondents that, legally, the disclaimer must be very clear and explicit in relation to what it covers and how and to whom it applies - and that consequently disclaimers can become quite long. ELEXON can therefore only make changes to the formatting to improve legibility. These changes have been incorporated into the proposed amendments to the redlining for CP1318 (see Attachment D).

2.4.3 A number of suggestions for changes to the redlining for CP1318 have been raised and we agree that the majority of these amendments should be made on the basis that they are minor, non-material and do add further clarity to BSCP601, which is what the CP was seeking to achieve. Our recommended revised redlining for CP1318 is included in Attachment D, and details of all of the suggested amendments are available in Table 3.

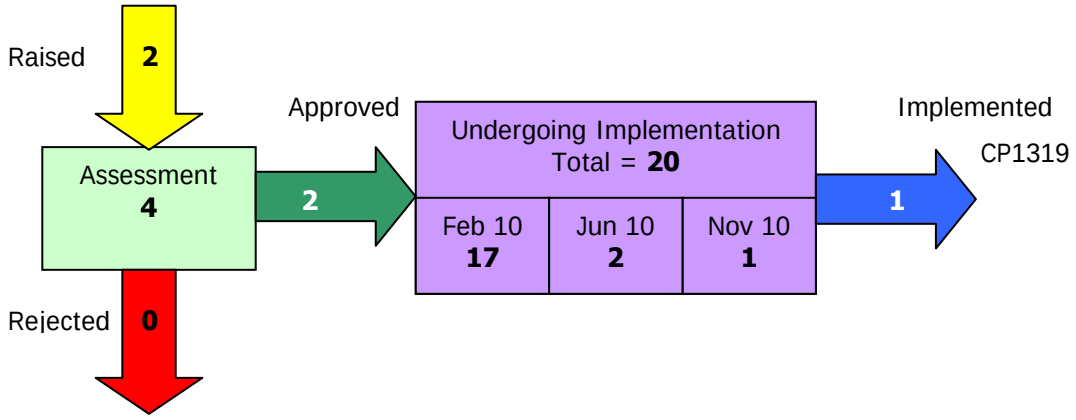
[5] BSCP601 – 'Metering Protocol Approval and Compliance Testing'

2.4.4 We recommend, based on CP1318 adding more clarity generally to BSCP601, and with unanimous industry support for the proposed changes, that you:

- **AGREE** our suggested amendments to the redline text; and
- **APPROVE** CP1318 for implementation in the June 2010 Release.

3 Summary of Open Change Proposals

3.1.1 There are currently **25** open CPs. The SVG own **17** of these CPs, the ISG and the SVG co-own **5** CPs, and the ISG own the remaining **3** CPs. **2** new CPs have been raised since the last SVG meeting. Details of the new CPs are provided in Appendix 3.



Please note:
- The numbers in the boxes indicate current number of CPs in a given phase.
- The numbers in arrows show the variance in the past month.

3.2 Release Information is provided in Appendix 4.

3.3 Since the last SVG meeting no new DCPs have been raised, and there are currently no open Draft Change Proposals (DCPs). E.on have raised a new issue – Issue 5 'Proposed improvements in the use of the D0002 flow in fault resolution situations'. The first Issue 5 meeting will be held on 21 January 2010.

4 Summary of Recommendations

4.1 We invite you to:

a) **APPROVE** CP1317 for inclusion in the June 2010 Release;

b) **APPROVE** CP1318 for inclusion in the June 2010 Release;

c) **AGREE** our suggested amendments to the redline text for CP1317;

d) **AGREE** our suggested amendments to the redline text for CP1318;

e) **NOTE** that CP1318 has also been presented to the ISG; and

f) **NOTE** the status of all open Change Proposals.

List of Appendices:

Appendix 1 – Detailed Analysis of CP1317
Appendix 2 – Detailed Analysis of CP1318
Appendix 3 – New Draft Change Proposals and Change Proposals
Appendix 4 – Release Information

List of Attachments:

Attachment A – CP1317 – BSCP514 redlined
Attachment B – CP1317 – Proposed redlining with amendments
Attachment C – CP1318 – BSCP601 redlined
Attachment D – CP1318 – Proposed redlining with amendments

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Appendix 1 – Detailed Analysis of CP1317 'Removal of requirement for NHHMOAs to notify NHHDCs of metering work before the event'

1 Why Change?

1.1 Background

1.1.1 We raised CP1317 on 21 October 2009.

1.1.2 The Code Subsidiary Document review highlighted a large amount of duplication between the requirements in the PSLs and the corresponding BSCPs. To resolve this issue a single generic PSL (PSL100) was created under CP1182[6] which contains participants' non-functional requirements. CP1234[2] moved the functional requirements of PSL110 into BSCP514 and BSCP550.

1.1.3 The movement of the functional requirements in the PSLs to relevant BSCPs was not intended to create any new requirements on participants.

1.2 The Problem

1.2.1 As a result of merging two paragraphs from PSL110 v16.0 (paragraphs 1.5.1.2 & 1.5.1.3) into BSCP514 (paragraph 2.4.1 b)) a 'new' obligation has been placed, in error, on NHHMOAs to give sufficient notice, except in an emergency, to its associated NHHDC of the removal, reprogramming, energisation or de-energisation of any Meter.

2 Solution

2.1 The solution to this issue is to replace paragraph 2.4.1 b) in BSCP514 with the two separate paragraphs that originally appeared in PSL110 (i.e. paragraphs 1.5.1.2 & 1.5.1.3). As a result the numbering in Section 2.4.1 'Information to Data Collectors' and a cross reference in 2.4.1 e) will also need to be changed.

2.2 In addition to this change, we recommend that a housekeeping change is included in this CP to remove the acronym for the Meter Operation Code of Practice Agreement and replace it with the full title. Please see Attachment A for the exact redline changes.

3 Intended Benefits

3.1 The movement of the functional requirements in the PSLs to relevant BSCPs was not intended to create any new requirements on participants but to remove duplication of existing requirements and create fewer documents where participants needed to look for their obligations. This change will remove the additional requirement imposed on NHHMOAs by CP1234.

3.2 Housekeeping Change - the use of the acronym for the Meter Operation Code of Practice Agreement requires permission as it is now a registered trademark. Therefore, all references to the acronym will be removed and replaced with the full title.

4 Industry Views

4.1 We issued CP1317 for impact assessment in October 2009 (via CPC00671). We received 13 responses; of these 12 agreed and 1 disagreed.

[6] CP1182 - 'Creation of a generic Party Service Line'

4.2 The respondent who disagreed did so because, whilst they agreed with the sentiment of the CP, they felt that there were drafting issues that meant they were unable to support the change until the issues had been addressed.

- The first issue is the addition of a definition of Meter Operation Code of Practice Agreement into Section 1.6.2 'Definitions' of BSCP514. The definition uses the phrase 'meter operator' and the respondent argues that this should be Meter Operator Agent (MOA) to avoid any ambiguity. We disagree with this suggestion because the Meter Operation Code of Practice Agreement covers different requirements for meter operators to those required by MOAs under the Balancing and Settlement Code. We also believe, on reflection, that the definition is not required as the full term is used elsewhere in the document. Another respondent also supports the removal of this definition from the redlining for CP1317. We therefore recommend that the redlining for CP1317 be amended to not include the definition. The disagreeing respondent is now happy to support CP1317, on that basis.

- The other issue the respondent who disagreed with the change had, was that the term 'Associated Data Collector' is not a defined term in Section X of the BSC and that the text in BSCP514 implies that a Data Collector is associated with a MOA when it should be associated to the Metering System ID (MSID) they are appointed to. We explained that BSCP514, Section 1.1 'Purpose and Scope of the Procedure' does define Associated Data Collector and that, under the Supplier Hub principle, the Data Collector is associated with the MOA by virtue of the MSID. The respondent is satisfied with our response and agrees that that their recommended change does not need to be made.

5 Impacts and Costs

Market Participant	Cost/Impact	Implementation time needed
ELEXON (Implementation)	We estimate that it will take approximately 1.25 Working Days to implement these changes, which is equivalent to £225.	June Release suitable
Market Participants	No impacts identified	June Release suitable

6 Implementation Approach

6.1 We recommend that CP1317 is implemented as part of the June 2010 Release as this is the next available Release. All respondents indicated that they are able to meet this date.

7 Conclusion

7.1 The majority of respondents support CP1317 as it will remove an error created as a result of CP1234. One respondent is who was initially unable to support CP1317 (until some drafting issues with BSCP514 were resolved), now supports the CP on the basis that the proposal to insert a definition of Meter Operation Code of Practice Agreement into Section 1.6.2 of BSCP514 is removed from the redlining for CP1317. Please see Attachment B for the revised redlining.

8 Recommendation

8.1 We recommend, based on the fact CP1317 will remove an error created as a result of CP1234 and unanimous industry support, that you:

- **AGREE** our suggested amendments to the redline text; and
- **APPROVE** CP1317 for implementation in the June 2010 Release.

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ELEXON Change Assessment

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Table 1: Industry Impact Assessment Summary for CP1317 - Removal of requirement for NHHMOAs to notify NHHDCs of metering work before the event

IA History CPC number	CPC00671	Impacts	BSCP514

Organisation	Capacity in which Organisation operates in	Agree?	Days to Implement
United Utilities	MOA	Yes	nil
Independent Power Networks Limited	LDSO, SMRA, UMSO	Yes	--
Gemserv	MRASCo Ltd	Yes	--
G4S Utility Services Ltd	NHHDC, NHHDA, NHHMOA	Yes	n/a
British Energy Generation Ltd, British Energy Generation (UK) ltd, Eggborough Power Ltd, British Energy Direct Ltd	Generator, Supplier, CVA MOA	Yes	--
Western Power Distribution	MOA	Yes	0
SSE - Southern Electric Power Distribution; Keadby Generation Ltd; SSE Energy Supply Ltd; SSE Generation Ltd; Scottish Hydro-Electric Power Distribution Ltd; Medway Power Ltd; SSE Metering Ltd	Supplier/Generator/ Trader / Party Agent / Distributor	Yes	--
EDF Energy	Supplier, NHH Agent and HH MOP	Yes	--
E.ON UK	Supplier	Yes	--
E.ON UK Energy Services Limited	MOA NHHDC-DA	No	--
SAIC on behalf of: ScottishPower Energy Management Ltd. ScottishPower Generation Ltd. ScottishPower Energy Retail Ltd. SP Manweb plc. SP Transmission Ltd. SP Distribution Ltd	Supplier, LDSO, HHDA, NHHDA, HHDC, NHHDC, HHMOA, NHHMOA	Yes	0
British Gas	Supplier	Yes	5
NPower Limited	Supplier / Supplier Agents	Yes	--

Table 2: Impact Assessment Responses[7]

Organisation	Agree?	Comments	Impacted?	ELEXON Response
Gemserv	Yes	**Comments:** This change removes the additional requirement imposed on NHHMOAs by CP1234 'Movement of the functional requirements within PSL110 to BSCP514 and BSCP550 following the creation of a generic non functional PSL (PSL100) via CP1182'.	No	-
Western Power Distribution	Yes	**Comment:** Change reflects current practice. **Would implementation have an adverse impact?** No	No	-
E.ON UK Energy Services Limited	No	**Comment:** Whilst we agree with the sentiment of the CP there are drafting issues that mean we are unable to support this change until these issues have been addressed. These issues are detailed below. **Capacity in which Organisation is impacted:** NHHMOA	Yes	See ELEXON's recommendations in Table 3 below.
SAIC	Yes	**Comments:** Document changes only **Other comments:** The CP itself appears to have a couple of minor errors: The Proposed Solution states 'The solution to this issue is to replace paragraph 2.4.1 c) in BSCP514…' Should this not be paragraph 2.4.1 b)? The housekeeping change noted in the Proposed Solution should be for 'copyright' not 'copy write' reasons?	No	We spoke to the respondent and confirmed that there are two errors in CP form but that they do not impact the proposed solution, as shown in the redline text.
British Gas	Yes	**Capacity in which Organisation is impacted:** Supplier **Impact on Organisation:** No **Adverse Impact?** No **Costs:** None	No	-

[7] Please note that we have only included responses in this table where the respondent provided additional information.

Table 3: Comments on the redline text

No.	Organisation	Document name	Location	Severity Code[8]	Comments	ELEXON Recommendation
1	EDF Energy	BSCP514	S1.6.2	M	Addition to this section for MoCoPA is not required. This CP removes only reference to MoCoPA in this BSCP from section 1.6.1. It seems to be unnecessary that we then add a reference in section 1.6.2.	ELEXON recommends that the change should be made for the following reasons: The acronym for Meter Operation Code of Practice Agreement is a protected by copyright and will be removed. We spoke to the respondent and agree that since the full term is already used in BSCP514 (Section 8.1 'Sealing' and Section 9.1 'Sealing') the full term doesn't need to be added to the Definition section (Section 1.6.2) of BSCP514. We recommend therefore that that the full term be deleted from Section 1.6.2 in the redlining for CP1317.
2	E.ON UK Energy Services Ltd	BSCP514	1.6.2	H	The definition contains the phrase "electricity meter operator" this phrase is not defined and as such could lead to ambiguity. as such it should be replaced with the term MOA.	ELEXON recommends that the change should not be made. We spoke to the respondent and suggested that the definition of Meter Operator Code of Practice Agreement be removed from the redlining for CP1317 (as noted in redlining comment 1 above). The respondent is happy for this to happen and as a result is willing to support the CP.
3	E.ON UK Energy Services Ltd	BSCP514	2.4.1 Para b, c & d	H	These Paragraphs use the phrases "Associated Data Collector" and "Associated Half Hourly Data Collector" both of these phrases are capitalised which indicates they are defined terms however no definition of these terms is contained within section X of the BSC. In addition the wording implies that the data collector is associated with the MOA	ELEXON recommends that the change should not made for the following reasons: We spoke to the respondent and confirmed that "Associated Data Collector" is defined in Section 1.1 'Purpose and Scope of the Procedure' of BSCP514. We also explained that under the Supplier Hub principle it is the

[8] High, Medium or Low

					rather than the MPAN. It is suggested that either a definition is entered into the BSC or the BSCP or that the phrases are amended to lower case and made less ambiguous.	Supplier and Party Agents that are Associated with each other by virtue of a particular MSID. The respondent is happy for the change not to be made.

Appendix 2 – Detailed Analysis of CP1318 - Minor Changes to BSCP601

1 Why Change?

1.1 Background

1.1.1 We raised CP1318 on 21 October 2009.

1.1.2 A number of errors exist in BSCP601 which are of a minor nature. Making these changes will make the document clearer to the Compliance Testing Agent and Applicants who are looking to submit Metering Equipment for compliance testing.

1.2 The Problem

1.2.1 A number of minor errors exist in BSCP601. These include the use of old terminology and standards, references to version numbers of Codes of Practice which are no longer the latest versions, and minor typographical/grammatical errors and unclear phrases. We also need to add a copyright acknowledgement for the British Standards Institute (BSI) into BSCP601 for the use of extracts from British Standards.

1.2.2 In addition, we need to add disclaimers to the protocol approval and compliance testing application form and certificate forms. This is because we cannot guarantee or be held responsible for any errors or omissions on our part when witnessing protocol approvals conducted by Half Hourly Data Collectors, or when reviewing test reports carried out by the Compliance Testing Agent on Metering Equipment.

2 Solution

2.1.1 CP1318 would make minor change to BSCP601 to:

- update old terminology and standards;
- add necessary disclaimers for the protocol approval and compliance testing application form and certificate forms;
- remove version numbers from the Code of Practice definitions so that changes to version numbers of the Codes of Practice do not have to be updated in BSCP601;
- correct minor typos and incorrect grammar;
- clarify phrasing; and
- add a copyright acknowledgement for the BSI for using extracts from British Standards in BSCP601.

2.2 Redlining v1.0

2.2.1 Version 1.0 of the redlining for CP1318 (as sent out for impact assessment) is available in Attachment C.

2.3 Redlining v2.0

2.3.1 Three respondents recommended some minor changes to the redlining provided for CP1318 and we agree with the majority of the amendments they suggested as they are minor and non-material in nature.

2.3.2 We recommend that the following suggested amendments are applied (the explanation of why we recommend these changes are made is available in Table 3):

- **Section 1.6.2** - add a footnote to the 'Definitions' Table for each reference to the Codes of Practice (CoPs) mentioned which refers readers to the ELEXON website for the latest versions of the CoPs.
- **3.4.8 Heading** – in addition to deleting the text '{4.2}' in the heading we suggest replacing it with the text '{5.3}'. This is a more relevant reference (i.e. to Section 5.3 'Meters' of CoPs 1, 2, 3 and 5) for the tests under this heading as they are applied to the Meter alone.
- **Test 040** - remove the wording '(where appropriate)' and insert the word 'whether' at the beginning of the text for this test so that the Compliance Testing Agent confirms whether a Meter is capable of displaying a reverse running indication.
- **Section 3.4.14** – remove repeated text, 'can be displayed', in Tests 026 - 029, & 031 – 039 and 'establish' in Tests 054 and 056. ELEXON recommends that the change should be made to Tests 026 - 029, & 031 – 039, but not to remove the repeated word 'establish' from tests 054 and 056 (for legibility reasons). We recommend that additional text is added for Tests 026 and 054 to further aid legibility.
- **Section 3.4.15, Test 058** – add '(CoP1 and 2 only)' after 'MVA'.
- **Footnote for Test 065 and 066** - include the footnote text in the paragraph above the table (containing the two tests).
- **Section 3.4.19, Test 91** - add '; or' for consistency with the other changes proposed in CP1318.
- **Disclaimers in Section 1.1, the application form, the protocol certificate and the compliance certificate** – modify formatting to improve legibility.

2.3.3 We recommend that the following suggested amendments are <u>not</u> applied (more detail on why we recommend that these changes are not made is available in Table 3):

- **Section 3.4.8 Heading** – Replace deleted '{4.2}' with a reference to CoP4. ELEXON does not recommend this change because CoP4 is to do with calibration not compliance testing. See bullet 2, above, for our suggested amendment to this heading.
- **Section 3.4.22, between Tests 101 and 102** - ELEXON confirmed with the respondent that there was no intention to combine this row with the main table above it since the text above the main table doesn't fit with this row.

2.3.4 Version 2.0 of the redlining is available in Attachment D, this includes the suggested amendments, which we recommend are applied as described in section 2.3.2 above.

3 Intended Benefits

3.1 A number of errors exist in BSCP601 which are of a minor nature. Making these changes will make the document clearer to the Compliance Testing Agent and Applicants who are looking to submit Metering Equipment for compliance testing.

4 Industry Views

4.1 We issued CP1318 for impact assessment in October 2009 (via CPC00671). We received 12 responses; of these 9 agreed, 1 disagreed and 2 were neutral.

4.2 The majority of the respondents agree with the proposed changes subject to some minor amendments to the redlining for CP1318, the majority of which we agree with. One respondent disagreed with the change on the basis that the disclaimers used for the application form and the protocol and compliance certificate forms are too heavy-handed for this kind of document. This respondent is now willing to support the CP even though the content of the disclaimers will not be changed.

5 Impacts and Costs

Market Participant	Cost/Impact	Implementation time needed
ELEXON (Implementation)	It will take approximately 1.75 man days, which is equivalent to £295 to apply these changes into the live version.	June Release suitable
Market Participants	No significant impacts identified.	June Release suitable

6 Implementation Approach

6.1 We recommend that CP1318 is implemented as part of the June 2010 Release, as this is the next available Release. All respondents indicated that they are able to meet this date.

7 Conclusion

7.1 The majority of respondents support the proposed changes because they will add clarity to BSCP601. Two of the respondents who agree with the proposed changes and one who initially disagreed with the proposed change believe that the disclaimer on the application form and the protocol and compliance certificate forms are too difficult to understand, and should be written in plain English. ELEXON confirmed with all three respondents that, legally, the disclaimer must be very clear and explicit in relation to what it covers and how and to whom it applies and that consequently disclaimers can become quite long. ELEXON can therefore only make changes to the formatting of the disclaimer to improve legibility. The respondent who originally disagreed with the CP is now willing to support the CP even though the content of the disclaimers will not be changed.

7.2 We agree with the majority of the suggested changes to the redlining and have made the relevant amendments as we believe they are also minor and non-material in nature.

8 Recommendation

8.1 We recommend, based on CP1318 adding more clarity generally to BSCP601 and with unanimous industry support for the proposed changes, that you:

- **AGREE** our suggested amendments to the redline text; and
- **APPROVE** CP1318 for implementation in the June 2010 Release.

Mike Smith

ELEXON Change Assessment

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Table 1: Industry Impact Assessment Summary for CP1318 – Minor Changes to BSCP601

IA History CPC number	CPC00671	Impacts	BSCP601

Organisation	Capacity in which Organisation operates in	Agree?	Days to Implement
Independent Power Networks Limited	LDSO, SMRA, UMSO	Neutral	--
Gemserv	MRASCo Ltd	Yes	--
G4S Utility Services Ltd	NHHDC, NHHDA, NHHMOA	Neutral	n/a
British Energy Generation Ltd, British Energy Generation (UK) ltd, Eggborough Power Ltd, British Energy Direct Ltd	Generator, Supplier, CVA MOA	Yes	0
Western Power Distribution	MOA	Yes	0
SSE - Southern Electric Power Distribution; Keadby Generation Ltd; SSE Energy Supply Ltd; SSE Generation Ltd; and Scottish Hydro-Electric Power Distribution Ltd; Medway Power Ltd; SSE Metering Ltd	Supplier/Generator/ Trader / Party Agent / Distributor	Yes	--
EDF Energy	Supplier, NHH Agent and HH MOP	Yes	--
E.ON UK	Supplier	Yes	--
SAIC on behalf of: ScottishPower Energy Management Ltd. ScottishPower Generation Ltd. ScottishPower Energy Retail Ltd. SP Manweb plc. SP Transmission Ltd. SP Distribution Ltd	Supplier, LDSO, HHDA, NHHDA, HHDC, NHHDC, HHMOA, NHHMOA	Yes	0
SSIL	HHDC	No	0
British Gas	Supplier	Yes	N/A
NPower Limited	Supplier / Supplier Agents	Yes	--

Table 2: Impact Assessment Responses[9]

Organisation	Agree?	Comments	Impact?	ELEXON Response
Gemserv	Yes	**Comments:** Ensures that lower level-level BSC requirements are clear and up-to-date.	No	-
British Energy Generation Ltd, British Energy Generation (UK) ltd, Eggborough Power Ltd, British Energy Direct Ltd	Yes	**Impact on Organisation's Systems and/or Processes?** No **Capacity in which Organisation is impacted**: Supplier/Generator/MOA **Impact on Organisation**: Indirectly, as a buyer and user of BSCP601 approved protocols and equipment. **Other comments**: In reviewing the proposed changes, the main criteria has been to assess whether, as stated in CP1318, the updated document would be clearer to the Compliance Testing Agent & to Applicants looking to submit Metering Equipment for compliance testing.	No	Spoke to respondent to discuss redlining comments. See Table 3.
SAIC	Yes	**Comments:** Document changes only **Other comments:** The CP itself appears to have the same minor error as CP1317 regarding the use of 'copy write' instead of 'copyright'.	No	Spoke to respondent to discuss redlining comments. See Table 3. We note the error in the CP form however, as this doesn't impact the redlining, we will not seek to correct this.
SSIL	No	**Comment**: Disclaimer looks heavy-handed and not compatible with the style of this or similar documents. **Capacity in which Organisation is impacted?** HHDC **Impact on Organisation?** None **Any other comments:** Suggest using a 'Plain English' version.	No	Spoke to the respondent who confirmed that their only concern with the CP was that the disclaimer was too heavy-handed. We got back to the respondent later and confirmed that the wording of the disclaimer was necessary in order to protect ELEXON legally. We also noted that we will propose formatting changes to the disclaimers to make them easier to read. Despite the respondent's feelings about the content of the disclaimer they are willing to change their response to 'agree'.
British Gas	Yes	**Capacity in which Organisation is impacted:** Supplier **Impact on Organisation:** No **Adverse Impact?** No **Costs:** None	No	-

[9] Please note that we have only included responses in this table where the respondent provided additional information.

Table 3: Comments on the redline text

No.	Organisation	Document name	Location	Severity Code[10]	Comments	ELEXON Recommendation
1	EDF Energy	BSCP 601	S1.6.2	L	In all definitions of CoPs we are amending BSCP to say "means the latest version of Code of Practice..". We should also add a footnote in all cases to detail where latest version of CoP is located for the avoidance of any doubt.	ELEXON recommends that the change should be made for the avoidance of any doubt. We recommend that a footnote is added, in each case, to the redlining which points to the ELEXON website for the latest versions of the Codes of Practice. The respondent is happy with this.
2	British Energy	BSCP601	1.1	H	The principle that Elexon is not prepared to accept liability for protocol and equipment approvals is understood. However the proposed new paragraph is legalistic, verbose, difficult to comprehend and quite contrary to the claimed intention of CP1318 to make BSCP601 clearer. The disclaimer should be reworded in a way which provides legal protection while also being easy to read and understand.	Spoke to the respondent and explained that legally, the disclaimer must be very clear and explicit in relation to what it covers and how and to whom it applies. Consequently disclaimers can become quite long. ELEXON can therefore only propose changes to the formatting of the disclaimer. Respondent is disappointed with this outcome as the addition of the disclaimers doesn't achieve the CP's intended aim of making the document clearer.
3	British Energy	BSCP601	1.1	M	Why does CP1318 Appendix B (redlined copy of BSCP601) include text from CP1275? Why does this text include reference to Footnote No. 13 (already used in BSCP601 V13.0)? Should the proposed CP1318 text reference a Footnote No.?	Clarified with the respondent that the redlining for CP1318 was based on a conformed version of BSCP601 (v12.2), hence the inclusion of CP1275 redlining which had already been approved at the time but had not yet been implemented. CP1275 has since been implemented as part of the November 2009 Release. Also confirmed that the footnote numbering is wrong in the CP for CP1275 but this has been correctly entered as footnote 1 in the live version (BSCP601 v13.0).

[10] High, Medium or Low

4	British Energy	BSCP601	3.1.1 Form 601/01	H	Comment as for Item 1 above.	See our response to redlining comment 2.
5	British Energy	BSCP601	3.1.1 Form 601/02	H	Comment as for Item 1 above.	See our response to redlining comment 2.
6	British Energy	BSCP601	3.1.1 Form 601/03	H	Comment as for Item 1 above.	See our response to redlining comment 2.
7	British Energy	BSCP601	3.4.7 Test 007	L	Why does CP1318 Appendix B (redlined copy of BSCP601) include text from CP1296 and 1297?	Clarified with respondent that the redlining for CP1318 was based on a conformed version of BSCP601 (v12.2), hence the inclusion of CP1296/7 redlining which had already been approved at the time but had not yet been implemented.
8	British Energy	BSCP601	3.4.8 Heading	M	Should the deleted reference to '{4.2}' be replaced by a reference to CoP 4 Appendix C?	ELEXON does not recommend this change because CoP4 is to do with calibration, not compliance testing. However, to aid clarity it is suggested that a more appropriate section of CoP1, 2, 3 and 5 that this heading could point to for the generic requirements could be Section 5.3 'Meters' where the appropriate standard for the Meter is defined. We therefore recommend deleting the reference to 4.2, and replacing it with a reference to 5.3. The respondent is happy with this approach.
9	British Energy	BSCP601	3.4.12 Test 040	M	Although the defect description refers to reverse running indication "only if fitted", this is not apparent from the wording which remains after 'Required by' is deleted. Please clarify.	ELEXON agrees that the wording '(where appropriate)' is not clear and suggests deleting this, and inserting the word 'whether' at the beginning of the text for this test; so that the Compliance Testing Agent confirms whether a Meter is capable of displaying a reverse running indication. The respondent is happy with this change.

10	British Energy	BSCP601	3.4.14	M	The logic of removing 'establish that' from Test 049 is understood and agreed. The same should apply to Tests 054 & 056. It is also suggested a similar approach be applied to 3.4.12 by deleting 'can be displayed' from Tests 026 - 029, & 031 - 039	ELEXON does not recommend removing the words 'establish that' from tests 054 & 056 for legibility reasons but does recommend removing 'can be displayed' from tests 026 - 029, & 031 – 039. However, additional wording has been added for Tests 026 and 054 to aid their legibility.
11	British Energy	BSCP601	3.4.15 Test 058	M	Should the maximum demand register 'or MVA' also be followed by '- Cop 1 and 2 only'?	ELEXON agrees and recommends that the change should be made for consistency.
12	British Energy	BSCP601	3.4.15 Tests 064/65	M	As viewed on the PDF review copy, Footnote 14 is not worded as stated under CP1318 Attachment A "Solution". Also, it may be clearer if proposed words 'the following two tests' are replaced by explicit reference to 'Tests 064 and 065'.	ELEXON confirmed that the wording for the footnote captures the essence of the requirement. Note the tests should be 065 and 066 and not 064 and 065 as suggested in Attachment A to CP1318. ELEXON recommends that the footnote text is included in the paragraph above the table (containing the two tests) to eliminate any ambiguity about which tests the text applies to. Also, by not specifying test numbers in the text any future changes in test numbers will not have repercussions on the applicability of the text to intended rows because it is now in the appropriate place. The respondent is happy with the suggestion.
13	British Energy	BSCP601	3.4.21 Test 091	M	The proposed addition of "; or" to the end of the test text cannot be seen in CP1318 App B (redlined copy of BSCP601). Please clarify.	ELEXON recommends that the change should be made (adding ';or') for consistency with Attachment A of CP1318, which was ELEXON's intention.
14	British Energy	BSCP601	3.4.22 between Tests 101 and 102	M	Will the new test 103 will be added as Item (j) of 3.4.22 in an extended table? If so this is not clear from CP1318 App B (redlined copy of BSCP601). Please confirm.	ELEXON confirmed with the respondent that there was no intention to combine this row with the main table above it since the text above the main table doesn't fit with this row. The respondent is happy that it isn't added to the main table.

15	SAIC	BSCP601	1.1	L	First sentence of disclaimer paragraph is excessively lengthy and thus extremely difficult to understand – suggest insertion of colon and semi-colons to break up sentence as follows: *The Panel (and its Committees) and ELEXON and its employees, agents and contractors do not and shall not be deemed to make or give any representation,* *warranty or guarantee, nor shall each or any of them have any liability or responsibility whatsoever or howsoever arising (whether directly or indirectly), in relation to: each or any Metering Equipment, including in relation to any safety matters, in respect of any item of Metering Equipment which is not tested whether or not such item is of the same type, model or version as an item which is tested: the processing of any application for certification or for Compliance Approval, Protocol Approval or any other approval ("approval") in relation to Metering Equipment: the grant, failure or refusal to grant any such certification or approval, any testing, method of testing or analysis of the results of testing of Metering Equipment or any act, error, failure or omission in relation to such testing, method of testing or analysis.*	Spoke to the respondent and explained that legally, the disclaimer must be very clear and explicit in relation to what it covers and how and to whom it applies. Consequently disclaimers can become quite long. ELEXON can therefore only propose changes to the formatting of the disclaimer. The respondent is happy that the proposed suggestions for the disclaimer will be easier to read.

16	SAIC	BSCP601	3.1.1 Form F601/01	L	Same observation as above regarding the disclaimer footnote.	See our response to redlining comment 15.
17	SAIC	BSCP601	3.1.2 Form F601/02	L	Same observation as above regarding the disclaimer footnote.	See our response to redlining comment 15.
18	SAIC	BSCP601	3.1.3 Form F601/03	L	Same observation as above regarding the disclaimer footnote.	See our response to redlining comment 15.
19	SAIC	BSCP601	3.4.21 Test 091	M	(Now Test 092) Unable to see where ';or' has been added.	ELEXON recommends that the change (adding ';or') should be made for consistency with Attachment A, which was ELEXON's intention.

Appendix 3 – New Change Proposals

CP	CVA/ SVA	Title	Description	Raised
1320	SVA	Replacement of erroneous Change of Supplier Readings	ELEXON held two working groups to consider clarification of the use of Gross Volume Correction (GVC) and guidance[11] on the retrospective correction of errors. The group recommended that clarifications should be made, both in terms of when the Change of Supplier (CoS) reading could be replaced and the method used to agree and carry out the replacement. CP1320 proposes to add clarity to BSCP504[12] to the effect that a CoS reading can be disputed no later than 12 months after the Supply Start Date (SSD).	27/11/2009
1321	CVA	Housekeeping Change to correct a manifest errors in BSCP 301 and NETA IDD Part 2	We have raised CP1321 to correct manifest errors in BSCP301 and the NETA IDD Part 2. This error was introduced by CP1313 which is being implemented as part of the February 2010 release.	09/12/2009

[11] Please refer to the following link for Guidance on GVCs (GVC Guidance).
[12] BSCP504 – 'Non-Half Hourly Data Collection For SVA Metering Systems registered in SMRS'

Appendix 4 – Release Information

Key to Release Plan

Change Proposals and Modification Proposals in **BLACK** text represents SVA changes, **RED** text represents CVA changes and **BLUE** text represents changes which impact both the SVA and CVA arrangements.

The Authority decision dates are provided in the following format:	
P	Modification Proposal number
(< date)	Date by which a determination must be made by the Authority in order for the Modification Proposal to be implemented within the indicated release
Pro✓/Pro✗	Indicates that the Panel's recommendation to the Authority was to Approve/Reject the proposed Modification
Alt✓/Alt✗	Indicates that the Panel's recommendation to the Authority was to Approve/Reject the Alternative Modification

		February 2010 Scope (Imp. Date 25 Feb 10)	June 2010 Scope (Imp. Date 24 Jun 10)	Nov 2010 Scope (Imp. Date 5 Nov 10)	Stand Alone Releases
Change Proposals	**Pending**	1321	1315, 1317, 1318, 1320		
	Approved	1295, 1296, 1297, 1298, 1299, 1301, 1302, 1303, 1304, 1306, 1307, 1308, 1310, 1311, 1312, 1313, 1314	1309, 1316	1267	1319
Modifications	**Pending**	Currently there are no Modifications targeted at this Release.	Currently there are no Modifications targeted at this Release.	Currently there are no Modifications targeted at this Release.	
	Approved				
Updates		The design work for the EAC/AA software development for CP1311 is almost complete. Following a review of the EAC/AA URS by the Software Technical Advisory Group (STAG) an issue was identified which required a change to the solution. Logica have agreed to implement the change to the solution at zero cost following negotiation by the Release Team. We will need to make some adjustments to the project plan as a result of this change but we are still on target to implement the Release on 25 February 2010.			CP1319 was approved by the ISG and SVG Committees as a Housekeeping Change with a 5 Working Days implementation date. We implemented CP1319 on the 5 December 2009.

Draft CP Scope of the February 2010 Release

CP	Title	Impacts	BSC Agent (Demand Led)	ELEXON Operational		Total
				Man Days	Cost	
CP1295	Process for distribution of MDD Updates not included in D0269/D0270 flows	BSCP505, BSCP508, SVA Data Catalogue Vol. 1 and Vol. 2	£6,000	20	£4,400	£10,400
CP1296	Mandatory Capability to Record Reactive Power Demand (kvar) Values in Code of Practice 5 (CoP5) Meters	BSCP601, CoP5	£0	2	£440	£440
CP1297	Mandatory Capability to Record Reactive Power Demand (kvar) Values in Code of Practice 10 (CoP10) Meters	BSCP601, CoP10	£0	2	£440	£440
CP1298	Requirement on MOAs to Configure Meters to Record Half Hourly Reactive Power Data (for Half Hourly Settled CT-Metered Customers)	BSCP514	£0	2	£440	£440
CP1299	Requirement on Half Hourly Data Collectors to Collect and Report Reactive Power Data (where the Meter is configured to record it)	BSCP502	£0	2	£440	£440
CP1301	Registration Requirements for System Connection Points between Onshore Distribution Systems and Offshore Transmission Systems	BSCP25, BSCP75, CRA URS	£700	4	£880	£1,580
CP1302	Requirement on Half Hourly Data Collectors to Validate Reactive Power Demand Values	BSCP502	£0	2	£440	£440
CP1303	Requirement on Half Hourly Data Collectors to Estimate Missing Reactive Power Demand Values	BSCP502	£0	2	£440	£440
CP1304	Exclusion of certain Site Visit Cehck Codes (SVCC) within the Long Term Vacant (LTV) site process	BSCP504	£0	1	£220	£220
CP1306	Removal of second criterion for identifying a site as Long Term Vacant (LTV)	BSCP504	£0	1	£220	£220
CP1307	Minor Changes to the Long Term Vacant Site Process	BSCP504	£0	1	£220	£220
CP1308	Changes to Long Term Vacant Site process where a reading is obtained via a warrant	BSCP504	£0	1	£220	£220
CP1310	Clarifications to Gross Volume Correction Process	BSCP504	£0	2.5	£550	£550
CP1311	Replacing Erroneous Forward Looking EACs	BSCP504	£18,700	55	£12,100	£30,800

CP	Title	Impacts	BSC Agent (Demand Led)	ELEXON Operational		Total
				Man Days	Cost	
CP1312	Use of Gross Volume Correction in Post Final Settlement Runs	BSCP504	£0	2.5	£600	£600
CP1313	Remove ELEXON from the Minimum Eligible Amount (MEA) request process	BSCP301, NETA Interface Definition and Design (IDD) Part 1, NETA Agent Interface Definition and Design (IDD) Part 2.	£3,200	8	£1,800	£5,000
CP1314	Housekeeping change to SAA Service Description	SAA Service Description	£0	0	£0	£0
		Total[13]	**£28,600**	**108**	**£23,630**	**£52,450**

Draft CP Scope of the June 2010 Release

CP	Title	Impacts	BSC Agent (Demand Led)	ELEXON Operational		Total
				Man Days	Cost	
CP1309	Include reference to D0303 in BSCP514 and circumstances in which its use is mandatory.	BSCP514, SVA Data Catalogue Volume 1	£0	3	£660	£660
CP1316	Removal from BSCP536 of obligation to attach a copy of Form 536/01 to BSCCo Bill	BSCP536	£0	1	£220	£220
		Total[14]	**£0**	**4**	**£880**	**£880**

[13] A Tolerance of 20% applies for both Demand Led costs and ELEXON Operational Costs
[14] A Tolerance of 20% applies for both Demand Led costs and ELEXON Operational Costs

CP1317 Attachment – Redlined changes to BSCP514 v16.2 conformed

Paragraphs 1 to 1.5 are not affected by CP1317

1.6 Acronyms and Definitions

1.6.1 Acronyms

The terms used in this BSCP are defined as follows.

BSC	Balancing and Settlement Code
BSCP	BSC Procedure
CMRS	Central Meter Registration Service
CoMC	Change of Measurement Class
CoP	Code of Practice
CoS	Change of Supplier
CT	Current Transformer
CVA	Central Volume Allocation
DC	Data Collector
DTC	Data Transfer Catalogue
DTN	Data Transfer Network
EFSD {REGI}	Effective From Settlement Date {Registration}
ETSD {MOA}	Effective to Settlement Day {Meter Operator Agent}
HH	Half Hourly
HHDA	Half Hourly Data Aggregator
HHDC	Half Hourly Data Collector
HHMOA	Half Hourly Meter Operator Agent
HHU	Hand Held Unit
Id	Identifier
kV	Kilo Volt
kWh	Kilowatt hour
LDSO	Licensed Distribution System Operator
LLF	Line Loss Factor

MAR	Meter Advance Reconciliation
MDD	Market Domain Data
MDDM	Market Domain Data Manager
ME	Metering Equipment
MOA	Meter Operator Agent
[Housekeeping]~~MoCoPA~~	~~Meter Operation Code of Practice Agreement~~
MS	Metering System
MSID	Metering System Identifier
MTD	Meter Technical Details
NHH	Non-Half Hourly
NHHDC	Non-Half Hourly Data Collector
NHHMOA	Non-Half Hourly Meter Operator Agent
PSL	Party Service Line
Ref	Reference
SFIC	Systems Fault Information Centre
SMRS	Supplier Meter Registration System
SSD	Supply Start Date
SVA	Supplier Volume Allocation
SVAA	Supplier Volume Allocation Agent
UMetS	Urgent Metering Service
UTC	Co-ordinated Universal Time
VT	Voltage Transformer
WD	Working Day

1.6.2 Definitions

Full definitions of the above acronyms are, where appropriate, included in the BSC.

'Manually intervened (with regard to proving tests)' is defined under Appendix 8.3 'Proving of Half Hourly Metering Systems'.

'Complex Site' is defined under Appendix 8.4 'Guide to Complex Sites'.

[Housekeeping]'Meter Operation Code of Practice Agreement' is an agreement between electricity distribution businesses and electricity meter operators in Great Britain.

Paragraphs 2 to 2.3.2 are not affected by CP1317

2.4 Interface to Other Party Agents

2.4.1 Information to Data Collectors

a) Upon any change of Meter Technical Details or any change of Associated Data Collector or upon the MOA's appointment in respect of a SVA Metering System, the MOA shall give Meter Technical Details, commissioning details and access details of the SVA Metering System and its energisation status at feeder level to its Associated Data Collector.

~~b) The MOA shall inform and, except in an emergency, give sufficient notice to its Associated Data Collector of the installation, repair, removal, reprogramming, energisation or de-energisation of any Meter for which the Associated Data Collector is responsible. The MOA shall use all reasonable endeavours to assist its Associated Data Collector in recovering data required for Settlement from any Meter that is about to be removed or de-energised.~~

b) The MOA shall inform its Associated Data Collector of the installation, repair, removal, reprogramming, energisation or de-energisation of any Meter for which the Associated Data Collector is responsible. The MOA shall use all reasonable endeavours to assist its Associated Data Collector in recovering data required for Settlement from any Meter that is about to be removed or de-energised.

c) Except in an emergency, the MOA shall give its Associated Half Hourly Data Collector sufficient notice of the installation, repair, removal, reprogramming, energisation or de-energisation of any Meter for which the Associated Half Hourly Data Collector is responsible to enable the Associated Half Hourly Data Collector to recover the data required for Settlement using its normal method of data collection.

~~c)~~d) The MOA shall provide initial / final Meter readings to its Associated Data Collector following installation, removal, reprogramming, energisation, de-energisation or replacement of a Meter by the MOA in accordance with this BSCP.

~~d)~~e) In the case where the outgoing Non Half Hourly Collector returns Meter readings to the MOA, as the Non Half Hourly Data Collector has been de-appointed for the Non Half Hourly SVA Metering System and the Meter reading history has already been transferred to the incoming Non Half Hourly Data Collector, the MOA shall pass these Meter readings to the incoming Non Half Hourly Data Collector.

~~e)~~f) Where the MOA has collected data from a SVA Metering System, other than for the circumstances described in Section 2.4.1 ~~c~~d) the Metered Data shall be provided to the Associated Half Hourly Data Collector via the Associated Supplier.

Paragraphs 2.4.2 to 10.2 (end of document) are not affected by CP1317

CP1317 Attachment B – Redlined changes to BSCP514 v16.2 conformed with suggested amendments

Paragraphs 1 to 1.5 are not affected by CP1317

1.6 Acronyms and Definitions

1.6.1 Acronyms

The terms used in this BSCP are defined as follows.

BSC	Balancing and Settlement Code
BSCP	BSC Procedure
CMRS	Central Meter Registration Service
CoMC	Change of Measurement Class
CoP	Code of Practice
CoS	Change of Supplier
CT	Current Transformer
CVA	Central Volume Allocation
DC	Data Collector
DTC	Data Transfer Catalogue
DTN	Data Transfer Network
EFSD {REGI}	Effective From Settlement Date {Registration}
ETSD {MOA}	Effective to Settlement Day {Meter Operator Agent}
HH	Half Hourly
HHDA	Half Hourly Data Aggregator
HHDC	Half Hourly Data Collector
HHMOA	Half Hourly Meter Operator Agent
HHU	Hand Held Unit
Id	Identifier
kV	Kilo Volt
kWh	Kilowatt hour
LDSO	Licensed Distribution System Operator

LLF	Line Loss Factor
MAR	Meter Advance Reconciliation
MDD	Market Domain Data
MDDM	Market Domain Data Manager
ME	Metering Equipment
MOA	Meter Operator Agent
[Housekeeping]~~MoCoPA~~	~~Meter Operation Code of Practice Agreement~~
MS	Metering System
MSID	Metering System Identifier
MTD	Meter Technical Details
NHH	Non-Half Hourly
NHHDC	Non-Half Hourly Data Collector
NHHMOA	Non-Half Hourly Meter Operator Agent
PSL	Party Service Line
Ref	Reference
SFIC	Systems Fault Information Centre
SMRS	Supplier Meter Registration System
SSD	Supply Start Date
SVA	Supplier Volume Allocation
SVAA	Supplier Volume Allocation Agent
UMetS	Urgent Metering Service
UTC	Co-ordinated Universal Time
VT	Voltage Transformer
WD	Working Day

1.6.2 Definitions

Full definitions of the above acronyms are, where appropriate, included in the BSC.

'Manually intervened (with regard to proving tests)' is defined under Appendix 8.3 'Proving of Half Hourly Metering Systems'.

'Complex Site' is defined under Appendix 8.4 'Guide to Complex Sites'.

Paragraphs 2 to 2.3.2 are not affected by CP1317

2.4 Interface to Other Party Agents

2.4.1 Information to Data Collectors

a) Upon any change of Meter Technical Details or any change of Associated Data Collector or upon the MOA's appointment in respect of a SVA Metering System, the MOA shall give Meter Technical Details, commissioning details and access details of the SVA Metering System and its energisation status at feeder level to its Associated Data Collector.

~~b) The MOA shall inform and, except in an emergency, give sufficient notice to its Associated Data Collector of the installation, repair, removal, reprogramming, energisation or de-energisation of any Meter for which the Associated Data Collector is responsible. The MOA shall use all reasonable endeavours to assist its Associated Data Collector in recovering data required for Settlement from any Meter that is about to be removed or de-energised.~~

b) The MOA shall inform its Associated Data Collector of the installation, repair, removal, reprogramming, energisation or de-energisation of any Meter for which the Associated Data Collector is responsible. The MOA shall use all reasonable endeavours to assist its Associated Data Collector in recovering data required for Settlement from any Meter that is about to be removed or de-energised.

c) Except in an emergency, the MOA shall give its Associated Half Hourly Data Collector sufficient notice of the installation, repair, removal, reprogramming, energisation or de-energisation of any Meter for which the Associated Half Hourly Data Collector is responsible to enable the Associated Half Hourly Data Collector to recover the data required for Settlement using its normal method of data collection.

~~c)~~d) The MOA shall provide initial / final Meter readings to its Associated Data Collector following installation, removal, reprogramming, energisation, de-energisation or replacement of a Meter by the MOA in accordance with this BSCP.

~~d)~~e) In the case where the outgoing Non Half Hourly Collector returns Meter readings to the MOA, as the Non Half Hourly Data Collector has been de-appointed for the Non Half Hourly SVA Metering System and the Meter reading history has already been transferred to the incoming Non Half Hourly Data Collector, the MOA shall pass these Meter readings to the incoming Non Half Hourly Data Collector.

~~e)~~f) Where the MOA has collected data from a SVA Metering System, other than for the circumstances described in Section 2.4.1 ~~e~~d) the Metered Data shall be provided to the Associated Half Hourly Data Collector via the Associated Supplier.

Paragraphs 2.4.2 to 10.2 (end of document) are not affected by CP1317

CP1318 Attachment - Proposed redlining drafted against BSCP601 v12.2 (conformed)

1 Introduction

1.1 Scope and Purpose of the Procedure

This BSC Procedure defines the processes for Meter Manufacturers, Meter Operator Agents, Suppliers, Half Hourly Data Collectors and other Half Hourly Metering Equipment users to apply for Compliance Testing and Protocol Approval. This procedure covers the application process, submission of Metering Equipment, communications with the Compliance and Protocol Testing Agents, the issue and removal of certificates. For the avoidance of doubt, this procedure applies only to Half Hourly Metering Equipment.

Protocol Approval

This process is defined to:

a) Approve a Protocol for Settlement purposes; and

b) ensure that a qualified Half Hour Data Collector is capable of appropriate communications with Metering Equipment.

Metering Equipment Compliance

This process is defined to ensure that Metering Equipment is designed and manufactured to the requirements of the relevant Code/s of Practice. Each Compliance Approval is specific to that Metering Equipment tested including type reference and any firmware and software versions. Metering Equipment firmware and software updates not affecting Compliance need not be re-approved. Notification of any such change is to be provided to BSCCo.

[CP1275v2.0]When applying for Compliance Approval in respect of Metering Equipment, the Meter Manufacturer should acknowledge, on its application form included at section 3.1.3, its intention to provide relevant Settlement outstation Protocols to BSC Parties (via their Party Agents) upon request. The Meter Manufacturer should also acknowledge, on its application form included at section 3.1.3 its intention to make available to Meter Operator Agents, upon request, the Meter Manufacturer's software that will enable the Meter Operator Agent to re-configure the relevant Meters and/or Outstations (the "Configuration Software"). The Meter Manufacturer may require the disclosure of Settlement Outstation Protocols and Configuration Software to be subject to a confidentiality agreement[13].

The Panel (and its Committees) and ELEXON and its employees, agents and contractors do not and shall not be deemed to make or give any representation, warranty or guarantee, nor shall each or any of them have any liability or

[13] [CP1275v2.0]Confidentiality agreements shall not prohibit Party Agents from fulfilling their BSC obligations.

responsibility whatsoever or howsoever arising (whether directly or indirectly), in relation to each or any Metering Equipment, including in relation to any safety matters, in respect of any item of Metering Equipment which is not tested whether or not such item is of the same type, model or version as an item which is tested, the processing of any application for certification or for Compliance Approval, Protocol Approval or any other approval ("approval") in relation to Metering Equipment, the grant, failure or refusal to grant any such certification or approval, any testing, method of testing or analysis of the results of testing of Metering Equipment or any act, error, failure or omission in relation to such testing, method of testing or analysis. All Parties and applicants for certification and approval acknowledge and accept the foregoing and that the processes, requirements and tests relating to Metering Equipment referred to in Code Subsidiary Documents relate to matters concerning settlement and not matters relating to health and safety, which matters are the sole responsibility of the Parties and/or the applicant. All Parties and applicants for certification and/or approval agree that they accept the foregoing and accept that all applications for certification and/or approval are processed by ELEXON subject to and on the basis of the foregoing.

Paragraphs 1.2 through to 1.5 are not affected by CP1318.

1.6 Acronyms and Definitions

1.6.1 Acronyms

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

The terms used in this BSC~~Agreed~~ Procedure are defined as follows.

BSCCo	Balancing and Settlement Code Company
CDCA	Central Data Collection Agent
CoP	Code of Practice
CT	Current Transformer
CTA	Compliance Testing Agent
HHDC	Half Hourly Data Collector (Qualified~~Accredited~~)
MD	Maximum Demand
ME	Metering Equipment
MOA	Meter Operator Agent
SMRS	Supplier Meter Registration Service
WD	Working Day

1.6.2 Definitions

Applicant	Person applying for Compliance and/or Protocol approval
BSCCo	The Balancing and Settlement Code Company

Compliance Testing	means the testing of Metering Equipment in accordance with this BSCP601 to determine whether it conforms with the relevant Code of Practice to obtain approval from the Panel.
Compliance Testing Agent	The agent responsible for the testing of Metering Equipment, accredited against an appropriate (as determined by BSCCo) body such as the UK Accreditation Service (UKAS).
Code of Practice One	means the latest version of Code of Practice One~~: Issue 2, version 3.0; dated 23 February 2006~~ - CODE OF PRACTICE FOR THE METERING OF CIRCUITS WITH A RATED CAPACITY EXCEEDING 100MVA FOR SETTLEMENT.
Code of Practice Two	means the latest version of Code of Practice Two~~: Issue 4, version 3.0; dated 23 February 2006~~ - CODE OF PRACTICE FOR THE METERING OF CIRCUITS WITH A RATED CAPACITY NOT EXCEEDING 100MVA FOR SETTLEMENT PURPOSES.
Code of Practice Three	means the latest version of Code of Practice Three~~: Issue 5, version 5.0; dated 3 November 2005~~ - CODE OF PRACTICE FOR THE METERING OF CIRCUITS WITH A RATED CAPACITY NOT EXCEEDING 10MVA FOR SETTLEMENT PURPOSES.
Code of Practice Five	means the latest version of Code of Practice Five~~: Issue 7, version 5.0; dated 28 February 2008~~ - CODE OF PRACTICE FOR THE METERING OF ENERGY TRANSFERS WITH A MAXIMUM DEMAND OF UP TO (AND INCLUDING) 1MW FOR SETTLEMENT PURPOSES.
Code of Practice Six	means the latest version of Code of Practice Six~~: Issue 4, version 4.20; dated Code Effective Date~~ - CODE OF PRACTICE FOR THE METERING OF ENERGY IMPORTS VIA LOW VOLTAGE CIRCUITS FUSED AT 100 AMPS OR LESS PER PHASE FOR SETTLEMENT PURPOSES.
Code of Practice Ten	means the latest version of Code of Practice Ten~~: Issue 2, version 2.0; dated 25 June 2009~~ - CODE OF PRACTICE FOR METERING OF ENERGY VIA LOW VOLTAGE CIRCUITS FOR SETTLEMENT PURPOSES.
Instation	means a computer based system which sends data to, or receives data from Outstation Systems on a routine basis.

Interrogation Unit	means a Hand Held Unit "HHU" (also known as Local Interrogation Unit "LIU") or portable computer which can program Metering Equipment parameters and extract information from the Metering Equipment and store this for later retrieval.
Metering Equipment	has, for the purposes of this BSCP601, the meaning ascribed to that term in the Balancing and Settlement Code, but excluding voltage and current measurement transformers
person	includes any individual, company, corporation, firm, partnership, joint venture, association, committee, organisation or trust (in each case, whether or not having separate legal personality).
Settlement	has the meaning ascribed to that term in the Balancing and Settlement Code.
Test Laboratory	means the testing body so agreed with BSCCo to perform Compliance Testing to this BSCP601.
Type Approval	means the approval from the Electricity Meter Examination Service of the Office of Gas and Electricity Markets.
UTC	means Co-ordinated Universal Time based on atomic clocks as distinct from Greenwich Mean Time (GMT).

Paragraphs 2 through to 2.4.5 are not affected by CP1318.

3 Appendices

3.1 Forms

3.1.1 Form F601/01 – Certificate of Compliance

F601/01

Certificate of Compliance

Code of Practice [Five]

CODE OF PRACTICE FOR THE METERING OF ENERGY TRANSFERS [WITH A MAXIMUM DEMAND OF UP TO (AND INCLUDING) 1MW FOR SETTLEMENT PURPOSES]

Application Reference No:

Issued To:

Meter Description: Type: Firmware Version:

Test Reference No. Date of Test: Software Version:

Test Laboratory:

Test Environment:

[ABC Manufacturer's] Metering Equipment has undergone Compliance Testing in accordance with Code of Practice [Five], Issue * (v *.**) dated nth Month Year, and Type Testing Version [5.0] dated nth Month Year (and subsequent revisions) and BS EN 61036.

The Metering Equipment was tested in conjunction with the Manufacturer's "XXXX Software, version V*.**".

Certificate of Compliance:

The review of the Compliance Testing results on nth Month Year confirmed that the Metering Equipment was found to comply with the requirements of Code of Practice [Five] in all respects.

Signed: …… Date: …….
On Behalf of the Panel, ELEXON Limited (as the Balancing and Settlement Code Company ('BSCCo'))

The Panel (and its Committees) and ELEXON and its employees, agents and contractors do not and shall not be deemed to make or give any representation, warranty or guarantee, nor shall each or any of them have any liability or responsibility whatsoever or howsoever arising (whether directly or indirectly), in relation to each or any Metering Equipment, including in relation to any safety matters, in respect of any item of Metering Equipment which is not tested whether or not such item is of the same type, model or version as an item which is tested, the processing of any application for certification or for Compliance Approval, Protocol Approval or any other approval ("approval") in relation to Metering Equipment, the grant, failure or refusal to grant any such certification or approval, any testing, method of testing or analysis of the results of testing of Metering Equipment or any act, error, failure or omission in relation to such testing, method of testing or analysis. All Parties and applicants for certification and approval acknowledge and accept the foregoing and that the processes, requirements and tests relating to Metering Equipment referred to in Code Subsidiary Documents relate to matters concerning settlement and not matters relating to health and safety, which matters are the sole responsibility of the Parties and/or the applicant. All Parties and applicants for certification and/or approval agree that they accept the foregoing and accept that all applications for certification and/or approval are processed by ELEXON subject to and on the basis of the foregoing.

3.1.2 Form F601/02 – Certificate of Protocol Approval

F601/02

Certificate of Protocol Approval

METERING EQUIPMENT PROTOCOL MEETING THE REQUIREMENTS OF BSCP601 FOR SETTLEMENT PURPOSES

Application Reference No:

Issued To:

Meter Description: Type: Firmware Version:

Test Reference No. Date of Test: Software Version:

Test Laboratory:

Test Environment:

[ABC Manufacturer's] Metering Equipment listed above, has undergone Protocol Testing in accordance with BSC Procedure BSCP601, Issue * (v *.**), dated n^th Month Year.

The Metering Equipment was tested in conjunction with the Manufacturer's "XXXX Software, version V*.**" and the following Qualified~~Accredited~~ Half Hourly Data Collector.

Half Hourly Data Collector	**System or Process[4]**	**Instation Version**	**Outstation Version**

Certificate of Protocol Approval:

The review of the Protocol Testing results on n^th Month Year confirmed that the Metering Equipment was found to be suitable for Settlement use in conjunction with the Qualified~~Accredited~~ Half Hourly Data Collector listed above.

Signed: …… Date: …….

On Behalf of the Panel, ELEXON Limited (as the Balancing and Settlement Code Company ('BSCCo'))

The Panel (and its Committees) and ELEXON and its employees, agents and contractors do not and shall not be deemed to make or give any representation, warranty or guarantee, nor shall each or any of them have any liability or responsibility whatsoever or howsoever arising (whether directly or indirectly), in relation to each or any Metering Equipment, including in relation to any safety matters, in respect of any item of Metering Equipment which is not tested whether or not such item is of the same type, model or version as an item which is tested, the processing of any application for certification or for Compliance Approval, Protocol Approval or any other approval ("approval") in relation to Metering Equipment, the grant, failure or refusal to grant any such certification or approval, any testing, method of testing or analysis of the results of testing of Metering Equipment or any act, error, failure or omission in relation to such testing, method of testing or analysis. All Parties and applicants for certification and approval acknowledge and accept the foregoing and that the processes, requirements and tests relating to Metering Equipment referred to in Code Subsidiary Documents relate to matters concerning settlement and not matters relating to health and safety, which matters are the sole responsibility of the Parties and/or the applicant. All Parties and applicants for certification and/or approval agree that they accept the foregoing and accept that all applications for certification and/or approval are processed by ELEXON subject to and on the basis of the foregoing.

Form F601/03 – Protocol Approval and Compliance Testing

Part 1 of 3

F601/03

PROTOCOL APPROVAL AND COMPLIANCE TESTING APPLICATION FORM (PART 1)

Ref. No[5]……..

I wish to apply for Protocol Approval of the Products identified in Section **B** below: ☐ tick as appropriate

I wish to apply for Compliance Testing of the Products identified in Section **C** below: ☐ tick as appropriate

Section A: DETAILS OF APPLICANT

Company Name: ……

Address: ……..….

……..……

Participant Role: ……..(e.g. Meter Manufacturer)

Contact Name: ……

Contact Tel. No: ……...……..

Fax. No: ……..……...

E-mail: ……..……...

Signature: ……

Date of Application: ……

The Panel (and its Committees) and ELEXON and its employees, agents and contractors do not and shall not be deemed to make or give any representation, warranty or guarantee, nor shall each or any of them have any liability or responsibility whatsoever or howsoever arising (whether directly or indirectly), in relation to each or any Metering Equipment, including in relation to any safety matters, in respect of any item of Metering Equipment which is not tested whether or not such item is of the same type, model or version as an item which is tested, the processing of any application for certification or for Compliance Approval, Protocol Approval or any other approval ("approval") in relation to Metering Equipment, the grant, failure or refusal to grant any such certification or approval, any testing, method of testing or analysis of test results of Metering Equipment or any act, error, failure or omission in relation to such testing, method of testing or analysis. The Applicant acknowledges and accepts the foregoing and that the processes, requirements and tests relating to Metering Equipment referred to in Code Subsidiary Documents relate to matters concerning settlement and not matters relating to health and safety, which matters are the sole responsibility of the Applicant. The Applicant by making an application for certification and/or approval agrees to accept the foregoing and to accept that all applications for certification and/or approval are processed by ELEXON subject to and on the basis of the foregoing.

Parts 2 and 3 of this Form (F601/03) are not affected by CP1318.

Paragraphs 3.2 through to 3.3.3.2 are not affected by CP1318.

3.4 Compliance Testing of Metering Equipment for Codes of Practice One, Two, Three, Five and Ten

Paragraphs 3.4.1 through to 3.4.6 are not affected by CP1318.

3.4.7 Demand Values {4.1.2}

The following tests shall be performed to confirm that Demand V~~v~~alues are provided:

(a)	confirm that a kW value is provided for each Demand Period for each Active Energy Measured Quantity; [CP1297]and	**007**

	[CP1297]kvarh value is provided for each Demand Period for each Reactive Energy Measured Quantity (CoP1, 2 ,3, [CP1296]5 and 10)	
(b)	where Import and Export values are provided confirm that each value is gross and recorded separately. (~~*Applies to*~~ *CoP 3, 5~~, 3~~ and 10 only);* and	**008**
(c)	confirm that Demand V~~v~~alues are available in both kilo and Mega values. *(CoPs 1 and 2 only)*	**009**

3.4.8 Accuracy Requirements ~~(4.2)~~

(a) Active Energy

Meters subject to CoP10 compliance testing shall meet all of the accuracy requirements for Active Energy if the Meter is approved under SI 1998 No 1566 or SI 2006 No 1679.

Tests shall be carried out at fundamental frequency (50Hz) to verify that the Active Energy measurements are within the limits shown in Table 1 below. The measurement uncertainty at fundamental frequency of the measurement system used shall not be greater than: ±0.01% (CoP1); ±0.05% (CoP2); ±0.1% (CoP3); or ±0.2% (CoP5).	**010**

Table 1 Active Energy

Value of Current (I)		**Power factor (Cos φ)**	**Percentage error limits[8] for Meters of Class**				
For whole current Meters	**For transformer operated Meters[9]**		**0.2S (CoP1)**	**0.5S (CoP2)**	**0.5 (CoP2)**	**1 (CoP3)**	**2 (CoP5)**
-	$0.01\ I_n \leq I < 0.05 I_n$	1	±0.4	±1.0	-	-	-
-	$0.05\ I_n \leq I \leq I_{max}$	1	±0.2	±0.5	-	-	-
-	$0.02\ I_n \leq I < 0.1 I_n$	0.5 ind 0.8 cap	±0.5 ±0.5	±1.0 ±1.0	-	-	-
-	$0.1\ I_n \leq I \leq I_{max}$	0.5 ind 0.8 cap	±0.3 ±0.3	±0.6 ±0.6	-	-	-
$0.05\ I_b \leq I < 0.1$	$0.02\ I_n \leq I < 0.05$	1	-	-	±1.0	±1.5	±2.5

I_b[10]	I_n						
$0.1\ I_b \leq I \leq I_{max}$	$0.05\ I_n \leq I \leq I_{max}$	1	-	-	±0.5	±1.0	±2.0
$0.1\ I_b \leq I < 0.2\ I_b$[11]	$0.05\ I_n \leq I < 0.1\ I_n$	0.5 ind 0.8 cap	-	-	±1.3 ±1.3	±1.5 ±1.5	±2.5 -
$0.2\ I_b \leq I \leq I_{max}$	$0.1\ I_n \leq I \leq I_{max}$	0.5 ind 0.8 cap	-	-	±0.8 ±0.8	±1.0 ±1.0	±2.0 -

Source†: BS EN 62053 - 22 for CoP1 and 2 (Class 0.2S and 0.5S), or BS EN 62053 - 11 for CoP2 (Class 0.5), and BS EN 60521 and BS EN 61036 for CoP3 and 5 (Class 1 and 2).

(b) Reactive Energy

Tests shall be carried out at fundamental frequency (50Hz) to verify that the Reactive Energy measurements are within the limits show in Table 2 below. The measurement uncertainty at fundamental frequency of the measurement system used shall not be greater than ±0.4%. Not applicable to CoP10	**011**

Table 2 Reactive Energy

Value of Current (I)		**Sin φ**	**Percentage error limits[8] for Meters of Class**		**Applicable BS EN Standard for Test Criteria**
For whole current Meters	**For transformer operated Meters**		**2 (CoP1)**	**3 (CoP2, 3 and 5)**	
$0.05\ I_b \leq I < 0.1\ I_b$	$0.02\ I_n \leq I < 0.05\ I_n$	1	±2.5	±4.0	BS EN 62053 - 23 and BS EN 61268
$0.1\ I_b \leq I \leq I_{max}$	$0.05\ I_n \leq I \leq I_{max}$	1	±2.0	±3.0	
$0.1\ I_b \leq I < 0.2\ I_b$	$0.05\ I_n \leq I < 0.1\ I_n$	0.5 ind or cap	±2.5	±4.0	
$0.2\ I_b \leq I \leq I_{max}$	$0.1\ I_n \leq I \leq I_{max}$	0.5 ind or cap	±2.0	±3.0	
$0.2\ I_b \leq I \leq I_{max}$	$0.1\ I_n \leq I \leq I_{max}$	0.25 ind or cap	±2.5	±4.0	BS EN 62053 - 23
$0.2\ I_b \leq I \leq I_b$	$0.1\ I_n \leq I \leq I_n$	0.25 ind or cap	-	±10.0	BS EN 61268
$0.1\ I_b \leq I \leq 0.2\ I_b$	-	1	-	±4.0	BS 5685 Part 4
$0.2\ I_b < I \leq I_{max}$	-	1	-	±3.0	
$0.2\ I_b \leq I \leq I_{max}$	-	0.5 ind and 0.8 cap	-	±3.0	

Source†: BS EN 62053 - 23 for CoP1 and 2 (Class 2 and 3), and BS EN 61268 (Class 3) for CoP 3 and 5 or BS 5685: Part 4 (Class 3) for CoP 2, 3 and 5. * for whole current metering percentage relates to $I_{max.}$

These limits of error for both Active and Reactive Energy shall apply at the reference conditions defined in the appropriate Meter.

3.4.12 Displays {5.4}

(a) Confirm that the Metering Equipment is capable of displaying the following primary information (not necessarily simultaneously):

(a)	the total cumulative energy values for each Measured Quantity in actual scaled values can be displayed and stored in non–volatile memory;	**026**
(b)	the current time and date can be displayed;	**027**
(c)	the CT and/or VT ratios that have been programmed into the Meter can be displayed;	**028**
(d)	any compensation factor applied for measurement transformer errors and/or system losses can be displayed; and Not applicable to CoP10.	**029**
(e)	that, where the Meter is combined with the display and/or Outstation and a constant factor is applied, such factor is applied at security level 3. Not applicable to CoP10.	**030**

(b) Confirm that the Metering Equipment is capable of enabling the display of the following information:

(a)	the Maximum Demand ("MD") for kW ~~(~~or MW *(CoP 1 and 2 only~~as appropriate))~~* per month can be displayed;	**031**
(b)	the Maximum Demand ("MD") for kW ~~(~~or MW *(CoP 1 and 2 only~~as appropriate))~~* for other programmable charging periods can be displayed;	**032**

(c)	the Maximum Demand ("MD") for kVA ~~(~~or MVA *(CoP 1 and 2 only~~as appropriate))~~* per month can be displayed;	**033**
(d)	the Maximum Demand ("MD") for kVA ~~(~~or MVA *(CoP 1 and 2 only~~as appropriate))~~* for other programmable charging periods can be displayed;	**034**
(e)	twice the kWh ~~(~~or MWh *(CoP 1 and 2 only~~as appropriate))~~* advance from the commencement of the current Demand period can be displayed;	**035**
(f)	twice the kVAh ~~(~~or MVAh *(CoP 1 and 2 only~~as appropriate))~~* advance from the commencement of the current Demand period can be displayed; Not applicable to CoP10.	**036**
(g)	the cumulative Maximum Demand can be displayed;	**037**
(h)	the number of Maximum Demand resets can be displayed;	**038**
(i)	the multi rate display sequence, for at least 8 rates selectable over the calendar year, can be displayed;	**039**
(j)	a reverse running indication for Active Energy is provided (where appropriate). *(~~Required for~~ CoPs 3 and 5 only)*;	**040**
(k)	the indicated Maximum Demand is re-settable at midnight of the last day of the selected charging period;	**041**
(l)	the indicated Maximum Demand is re-settable for a part of a charging period; and	**042**
(m)	any Maximum Demand manual reset button is sealable.	**043**

Paragraph 3.4.13 is not affected by CP1318.

3.4.14 Outstation {5.5}

Where an Outstation has been provided as part of the Metering Equipment for test, the protocol shall be Approved in accordance with this BSCP.

Establish~~ing~~ that:

(a)	The Outstation has a unique Outstation identification code;	**048**
(b)	For Meters with integral Outstations ~~establish that~~ an auxiliary terminal provides for the Outstation's energisation for remote interrogation purposes (*CoP1 only*). For Meters with integral Outstations record whether an auxiliary terminal provides for the Outstation's energisation for remote interrogation purposes (*CoP2 only*);	**049**
(c)	The Outstation is capable of communicating with more than one Instation (not simultaneously and of similar type or otherwise);	**050**
(d)	It is possible to repeatedly retrieve data throughout the Outstation data storage period;	**051**
(e)	Any "read" operation does not alter or delete any stored metered data; and	**052**
(f)	The Outstation can provide all metered data stored from the time of commencement of any specified date upon request by the Instation during the data storage period of the outstation.	**053**
(g)	Establish whether the Outstation is capable of sending metering data automatically *(CoP 5 and 10 only)*;	**054**
(h)	Verify that the metering data sent complies with section 3.4.22 'Level 1 Passwords' of this test specification *(CoP 5 and 10 only)*; and	**055**

(i)	Establish whether the Outstation is capable of sending metering data on a daily basis as a minimum *(CoP 5 and 10 only)*.	**056**

3.4.15 Data Storage {5.5.1}

The Metering Equipment shall be continuously energised at full load for a period of five days and afterwards at a cyclical variable load for a further fifteen days, to determine the total number of kWh or MWh *(CoP 1 and 2 only)* supplied to the Meter over the whole twenty day period.

During the test cycle establish that:

(a)	from the beginning of the current Demand Period, twice the kWh (or MWh *(CoP 1 and 2 only)*as appropriate) is being registered in the kW (or MW *(CoP 1 and 2 only)*) Maximum Demand register; and	**057**
(b)	from the beginning of the current Maximum Demand period, twice the kVAh (or MVAh *(CoP 1 and 2 only*as appropriate)) is being registered in the kVA (or MVA) Maximum Demand register.	**058**

on completion of the twenty day cycle above, the following tests shall be performed and confirm that:

(a)	each Demand Value is identifiable to its respective date and time; and	**059**
(b)	a storage capacity of 48 periods per day in accordance with Table 4 below is available for all Demand Values as integer multiples of kW (or MW *(CoP 1 and 2 only*as appropriate));	**060**

Table 4 Data Storage Periods

Code of Practice	Minimum Storage Period(days)
1	10
2	10
3	20
5	20
10	20

(a)	for each of the initial five days, the sum of the Demand Values for each block of 48 half-hour periods are within 0.1% of the advance of the total cumulative register of the associated Meter for the same interval;	**061**
(b)	the value of any energy measured in a Demand Period, but not stored in that	**062**

	Demand Period are carried forward to the next Demand Period;	
(c)	for each of the twenty days under test that the contents of the kW ~~(~~or MW *(CoP 1 and 2 only~~as appropriate))~~* data stored facility have been stored correctly; and	**063**
(d)	for separate Meter/Outstation combinations, that the Outstation registers can be set to match and increment with the Meter registers. Not applicable to CoP10	**064**

One test sample of the Outstation shall be provided by the Applicant with its memory occupied with data to within twenty days of capacity[14] (appropriate for the number of channels configured).

Upon further Energisation, confirm that;

(a)	on reaching maximum memory storage capacity, that any new data overwrites the oldest stored data; and	**065**
(b)	no other data has been altered or removed.	**066**

Paragraphs 3.4.16 through to 3.4.17.4 are not affected by CP1318.

3.4.17.5 Reverse Running

Where an Active Energy reverse running display is provided, determine that the requirements of BS EN 61036 or BS EN 62053-22 as appropriate are met. Establish under what conditions the reverse running flag is activated and record those conditions. Tests should include single and polyphase power reversals and set the appropriate flag for the Demand Period affected *(CoP 3 and 5 only, and if fitted)*.	**082**
Test that upon return to normal power flow, the reverse running flag is no longer present in the unaffected Demand Period *(CoP 3 and 5 only, and if fitted)*.	**083**

Paragraph 3.4.18 is not affected by CP1318.

3.4.19 Local Port

Using the Local Interrogation Unit provided by the Applicant, confirm that:

(a)	The local port provides data to a Local Interrogation Unit via an opto port to BS EN 61107 *(CoP 3 and 5)* or BS EN 62056-21 *(CoP 1, ~~and~~ 2 and 10)*; or	**085**
(b)	The local port provides data to a Local Interrogation Unit via another type of port; and	**086**
(c)	Repeat collections of stored data are available throughout the storage period and verify that and "read" operation does not delete or modify any stored metering data.	**087**

[14] With prior agreement from BSCCo integration periods other than 30mins may be used to facilitate the following two tests.

Paragraph 3.4.20 is not affected by CP1318.

3.4.21 Password Protection

(a)	For separate Outstations establish that a password is required to read or change any data. Not applicable to CoP10	**090**
(b)	For integral Outstations establish that **four**[15] discrete password controlled access levels are provided for both local and remote interrogation.	**091**

[Insert new row in table as shown and join up table with table below]

~~For integral Outstations establish that **four**[14] discrete password controlled access levels are provided for both local and remote interrogation.~~

(c~~b~~)	For alpha numeric character passwords, ensure that passwords are no less than six characters and no more than twelve characters long. Ensure that passwords are formed from case insensitive or sensitive alpha characters (A to Z) and/or digits (0 to 9) and/or the underscore character (_). Not applicable to CoP10	**092** ~~**1**~~
(d~~c~~)	For hexadecimal character passwords, ensure that passwords are no less than eight characters and no more than twelve characters long. Ensure that passwords are formed from upper case hexadecimal characters (0 to F). Not applicable to CoP10	**093** ~~**2**~~

[15] For CoP 10 only three are required

3.4.22 Level 1 Passwords

Using the Level 1 password, establish that the following data can be retrieved:

(a)	Outstation ID;	094 ~~3~~
(b)	all programmable Demand Values;	095 ~~4~~
(c)	all programmable cumulative Measured Quantities;	096 ~~5~~
(d)	the Maximum Demand for kW and/or kVA per programmable charging period;	097 ~~6~~
(e)	the multi-rate cumulative Active Energy values;	098 ~~7~~
(f)	the VT and CT transformer ratios, where appropriate;	099 ~~8~~
(g)	(for combined Meter and Outstation only), the VT and CT transformer error correction factor and/or system loss factor applied as a constant factor to the entire dynamic range; Not applicable to CoP10.	100 ~~099~~
(h)	all alarm indications; and	101 ~~0~~
(i)	Outstation time and date	102 ~~1~~

Establish that it is **not** possible to change any of the above values at Level 1 Password.	103

~~Establish that it is **not** possible to change any of the above values at Level 1 Password.~~

3.4.23 Level 2 Passwords

Using the Level 2 Password, establish that all the data listed at Level 1 can be retrieved and in addition that the following actions can be performed:		104 ~~2~~
(a)	changes to time and date; and	105 ~~3~~
(b)	resetting of all Maximum Demands.	106 ~~4~~

3.4.24 Level 3 Passwords

Using the Level 3 Password, establish that all the functionality listed at Level 2 can be performed and in addition that the following programming can be performed:		107 ~~5~~
(a)	Displays and Facilities as defined in Clause 5.4;	108 ~~6~~
(b)	measurement transformer ratios as defined in Clause 5.3;	109 ~~7~~
(c)	(for combined Meter and Outstation only), the VT and CT transformer error	110 ~~08~~

	correction factor and/or system loss factor applied as a constant factor to the entire dynamic range; and Not applicable to CoP10.	
(d)	passwords for Levels 1, 2 and 3.	**1110~~09~~**
(e)	where applicable, confirm it is possible to programme the schedule for automated transfer of Level 1 metering data via Level 3 access *(CoP 5 and 10 only)*.	**1120~~~~**

Establish that it is possible to read additional information within the Metering Equipment to enable the programmed information to be confirmed.	**1131~~~~**

3.4.25 Level 4 Passwords

Not applicable to CoP10

If the Level 4 Password is implemented electronically then:

(a)	establish that all the functionality listed at Level 3 can be performed and in addition that the following alterations can be performed:	**114**
(b~~a~~)	calibration of the Meter (only where the Meter is integral with the Outstation);	**1153~~~~**
(c~~b~~)	setting the measurement transformer ratios, where appropriate;	**1164~~~~**
(d~~c~~)	setting the measurement transformer error correction and/or system loss factors applied as a complex factor; and	**1175~~~~**
(e~~d~~)	programming the Level 3 & 4 Passwords.	**1186~~~~**

If the Level 4 Password is implemented by removing the seals and cover, then establish that the following alterations can be performed:

(a)	calibration of the Meter (only where the Meter is integral with the Outstation);	**1197**
(b)	setting the measurement transformer ratios, where appropriate; and	**12018**
(c)	setting the measurement transformer error correction and/or system loss factors applied as a complex factor.	**12119**

3.4.26 Password Monitoring {Appendix D}

Using the Approved Protocol[164], verify that the password offered determines the Level of access to the data within the Metering Equipment.	**1220**

Verify, by accessing the Metering Equipment at least eight times with an "illegal" password(s), that:

Not applicable to CoP10

(a)	the illegal password counter resets to zero every hour on the hour change; and	**1231**
(b)	after the seventh illegal password attempt entered between counter resets, that access is prohibited at all levels until the counter resets.	**1242**

3.4.27 Additional Tests

3.4.27.1 Electromagnetic Compatibility Tests

Not applicable to CoP10

In addition to the EMC tests carried out by the Electricity Meter Examination Service of the Director of Electricity Supply as part of the process of Type Approval for the Meter in accordance with BS EN 61036, verify, by testing under all the conditions detailed in BS EN 61036, that:

(a)	any stored data and time/date is not corrupted or has been destroyed; and	**1253**
(b)	the metering accuracy remains within the requirements of Clause 5.4 of this Compliance Testing .	**1264**

[16] If the protocol has not yet received Approval, record the status and description of the protocol used for testing purposes.

3.4.27.2 Immunity to Electromagnetic HF Fields

Not applicable to CoP10

Verify, by testing in accordance with IEC 61000-4-3, and under the following conditions:

- the voltage and auxiliary circuits energised with reference voltage;
- a frequency band of 26MHz to 1GHz;
- a test field strength of 12.5V/m; and
- a carrier of 80% amplitude modulated with a 1kHz sine wave.

(a)	that without any current in the current circuits and the current terminals open circuit the application of the HF fields shall not produce a change in the Meter Register reading of more than 0.01kWh and the test output shall not produce a signal equivalent to more than 0.01kWh. (Where VT and CT connected Meter(s) is under test, equivalent scaled values should be used taking into account the transformer ratios); and	**1275**
(b)	that with basic current Ib, and power factor equal to 1.0, at sensitive frequencies or frequencies of dominant interest, the variation of error does not exceed 3%.	**1286**

On completion of each EMC test verify that:

(a)	any stored data is not corrupted or has been destroyed; and	**1297**
(b)	the metering accuracy remains within the requirements of Clause 5.4 of this .	**13028**

NOTE: Where VT and CT connected Meter(s) are under test the equivalent scaled values, taking into account the transformer ratios, should be used when considering any differences in Meter Register reading and output signals.

3.4.27.3 Sealing {5.7}

Ensure that adequate sealing facilities are provided for Settlement requirements.	**13129**

Paragraphs 3.5 through to 3.5.12.2 are not affected by CP1318.

3.5.12.2.1 Verify, by testing in accordance with IEC 61000-4-3, and under the following conditions:-

- voltage and auxiliary circuits energised with

- reference voltage;
- frequency band: 26MHz to 1GHz;
- test field strength: 12.5V/m;
- carrier 80% amplitude modulated with a 1KHz sinewave,

(i) that without any current in the current circuits and the current terminals open circuit the application of the HF fields shall not produce a change in the Meter Register reading of more than 0.01kWh and the test output shall not produce a signal equivalent to more than 0.01kWh.; and

(ii) that with basic current Ib, and power factor equal to 1.0, at sensitive frequencies or frequencies of dominant interest, the variation of error does not exceed 3%,

and on completion of each EMC test verify that:-

(i) any stored data is not corrupted or has been destroyed; and

(ii) the metering accuracy remains within the requirements of this specification 3.5.

3.5.13 Sealing

Ensure that all Metering Equipment sealing facilities are in accordance with the Code of Practice Six, Section 6.6.

End of Document

Attachment D – CP1318 Proposed redlining with amendments drafted against BSCP601 v12.2 (conformed)

1 Introduction

1.1 Scope and Purpose of the Procedure

This BSC Procedure defines the processes for Meter Manufacturers, Meter Operator Agents, Suppliers, Half Hourly Data Collectors and other Half Hourly Metering Equipment users to apply for Compliance Testing and Protocol Approval. This procedure covers the application process, submission of Metering Equipment, communications with the Compliance and Protocol Testing Agents, the issue and removal of certificates. For the avoidance of doubt, this procedure applies only to Half Hourly Metering Equipment.

Protocol Approval

This process is defined to:

a) Approve a Protocol for Settlement purposes; and

b) ensure that a qualified Half Hour Data Collector is capable of appropriate communications with Metering Equipment.

Metering Equipment Compliance

This process is defined to ensure that Metering Equipment is designed and manufactured to the requirements of the relevant Code/s of Practice. Each Compliance Approval is specific to that Metering Equipment tested including type reference and any firmware and software versions. Metering Equipment firmware and software updates not affecting Compliance need not be re-approved. Notification of any such change is to be provided to BSCCo.

[CP1275v2.0]When applying for Compliance Approval in respect of Metering Equipment, the Meter Manufacturer should acknowledge, on its application form included at section 3.1.3, its intention to provide relevant Settlement outstation Protocols to BSC Parties (via their Party Agents) upon request. The Meter Manufacturer should also acknowledge, on its application form included at section 3.1.3 its intention to make available to Meter Operator Agents, upon request, the Meter Manufacturer's software that will enable the Meter Operator Agent to re-configure the relevant Meters and/or Outstations (the "Configuration Software"). The Meter Manufacturer may require the disclosure of Settlement Outstation Protocols and Configuration Software to be subject to a confidentiality agreement[13].

The Panel (and its Committees) and ELEXON and its employees, agents and contractors do not and shall not be deemed to make or give any representation,

[13] [CP1275v2.0]Confidentiality agreements shall not prohibit Party Agents from fulfilling their BSC obligations.

warranty or guarantee, nor shall each or any of them have any liability or responsibility whatsoever or howsoever arising (whether directly or indirectly), in relation to:

- *each or any Metering Equipment (including in relation to any safety matters) in respect of any item of Metering Equipment which is not tested whether or not such item is of the same type, model or version as an item which is tested;*
- *the processing of any application for certification or for Compliance Approval, Protocol Approval or any other approval ("approval") in relation to Metering Equipment; and/or*
- *the grant, failure or refusal to grant any such certification or approval, any testing, method of testing or analysis of the results of testing of Metering Equipment or any act, error, failure or omission in relation to such testing, method of testing or analysis.*

All Parties and applicants for certification and approval acknowledge and accept the foregoing and that the processes, requirements and tests relating to Metering Equipment referred to in Code Subsidiary Documents relate to matters concerning settlement and not matters relating to health and safety, which matters are the sole responsibility of the Parties and/or the applicant. All Parties and applicants for certification and/or approval agree that they accept the foregoing and accept that all applications for certification and/or approval are processed by ELEXON subject to and on the basis of the foregoing.

Paragraphs 1.2 through to 1.5 are not affected by CP1318.

1.6 Acronyms and Definitions

1.6.1 Acronyms

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

The terms used in this BSC~~Agreed~~ Procedure are defined as follows.

BSCCo	Balancing and Settlement Code Company
CDCA	Central Data Collection Agent
CoP	Code of Practice
CT	Current Transformer
CTA	Compliance Testing Agent
HHDC	Half Hourly Data Collector (Qualified~~Accredited~~)
MD	Maximum Demand
ME	Metering Equipment
MOA	Meter Operator Agent
SMRS	Supplier Meter Registration Service
WD	Working Day

1.6.2 Definitions

Applicant	Person applying for Compliance and/or Protocol approval
BSCCo	The Balancing and Settlement Code Company
Compliance Testing	means the testing of Metering Equipment in accordance with this BSCP601 to determine whether it conforms with the relevant Code of Practice to obtain approval from the Panel.
Compliance Testing Agent	The agent responsible for the testing of Metering Equipment, accredited against an appropriate (as determined by BSCCo) body such as the UK Accreditation Service (UKAS).
Code of Practice One	means the latest version[§] of Code of Practice One~~: Issue 2, version 3.0; dated 23 February 2006~~ - CODE OF PRACTICE FOR THE METERING OF CIRCUITS WITH A RATED CAPACITY EXCEEDING 100MVA FOR SETTLEMENT.
Code of Practice Two	means the latest version[§] of Code of Practice Two~~: Issue 4, version 3.0; dated 23 February 2006~~ - CODE OF PRACTICE FOR THE METERING OF CIRCUITS WITH A RATED CAPACITY NOT EXCEEDING 100MVA FOR SETTLEMENT PURPOSES.
Code of Practice Three	means the latest version[§] of Code of Practice Three~~: Issue 5, version 5.0; dated 3 November 2005~~ - CODE OF PRACTICE FOR THE METERING OF CIRCUITS WITH A RATED CAPACITY NOT EXCEEDING 10MVA FOR SETTLEMENT PURPOSES.
Code of Practice Five	means the latest version[§] of Code of Practice Five~~: Issue 7, version 5.0; dated 28 February 2008~~ - CODE OF PRACTICE FOR THE METERING OF ENERGY TRANSFERS WITH A MAXIMUM DEMAND OF UP TO (AND INCLUDING) 1MW FOR SETTLEMENT PURPOSES.
Code of Practice Six	means the latest version[§] of Code of Practice Six~~: Issue 4, version 4.20; dated Code Effective Date~~ - CODE OF PRACTICE FOR THE METERING OF ENERGY IMPORTS VIA LOW VOLTAGE CIRCUITS FUSED AT 100 AMPS OR LESS PER PHASE FOR SETTLEMENT PURPOSES.
Code of Practice Ten	means the latest version[§] of Code of Practice Ten~~: Issue 2, version 2.0; dated 25 June 2009~~ - CODE OF PRACTICE FOR METERING OF ENERGY VIA LOW VOLTAGE CIRCUITS FOR SETTLEMENT PURPOSES.
Instation	means a computer based system which sends data to, or receives data from Outstation Systems on a routine basis.

Interrogation Unit	means a Hand Held Unit "HHU" (also known as Local Interrogation Unit "LIU") or portable computer which can program Metering Equipment parameters and extract information from the Metering Equipment and store this for later retrieval.
Metering Equipment	has, for the purposes of this BSCP601, the meaning ascribed to that term in the Balancing and Settlement Code, but excluding voltage and current measurement transformers
person	includes any individual, company, corporation, firm, partnership, joint venture, association, committee, organisation or trust (in each case, whether or not having separate legal personality).
Settlement	has the meaning ascribed to that term in the Balancing and Settlement Code.
Test Laboratory	means the testing body so agreed with BSCCo to perform Compliance Testing to this BSCP601.
Type Approval	means the approval from the Electricity Meter Examination Service of the Office of Gas and Electricity Markets.
UTC	means Co-ordinated Universal Time based on atomic clocks as distinct from Greenwich Mean Time (GMT).

§ The latest versions of the Codes of Practice can be found on the BSCCo website (www.elexon.co.uk).

Paragraphs 2 through to 2.4.5 are not affected by CP1318.

3 Appendices

3.1 Forms

3.1.1 Form F601/01 – Certificate of Compliance

F601/01

Certificate of Compliance

Code of Practice [Five]

CODE OF PRACTICE FOR THE METERING OF ENERGY TRANSFERS [WITH A MAXIMUM DEMAND OF UP TO (AND INCLUDING) 1MW FOR SETTLEMENT PURPOSES]

Application Reference No:

Issued To:

Meter Description: Type: Firmware Version:

Test Reference No. Date of Test: Software Version:

Test Laboratory:

Test Environment:

[ABC Manufacturer's] Metering Equipment has undergone Compliance Testing in accordance with Code of Practice [Five], Issue * (v *.**) dated nth Month Year, and Type Testing Version [5.0] dated nth Month Year (and subsequent revisions) and BS EN 61036.

The Metering Equipment was tested in conjunction with the Manufacturer's "XXXX Software, version V*.**".

Certificate of Compliance:

The review of the Compliance Testing results on nth Month Year confirmed that the Metering Equipment was found to comply with the requirements of Code of Practice [Five] in all respects.

Signed: …… Date: …….
On Behalf of the Panel, ELEXON Limited (as the Balancing and Settlement Code Company ('BSCCo'))

The Panel (and its Committees) and ELEXON and its employees, agents and contractors do not and shall not be deemed to make or give any representation, warranty or guarantee, nor shall each or any of them have any liability or responsibility whatsoever or howsoever arising (whether directly or indirectly), in relation to:

- each or any Metering Equipment (including in relation to any safety matters) in respect of any item of Metering Equipment which is not tested whether or not such item is of the same type, model or version as an item which is tested;
- the processing of any application for certification or for Compliance Approval, Protocol Approval or any other approval ("approval") in relation to Metering Equipment; and/or
- the grant, failure or refusal to grant any such certification or approval, any testing, method of testing or analysis of the results of testing of Metering Equipment or any act, error, failure or omission in relation to such testing, method of testing or analysis.

All Parties and applicants for certification and approval acknowledge and accept the foregoing and that the processes, requirements and tests relating to Metering Equipment referred to in Code Subsidiary Documents relate to matters concerning settlement and not matters relating to health and safety, which matters are the sole responsibility of the Parties and/or the applicant. All Parties and applicants for certification and/or approval agree that they accept the foregoing and accept that all applications for certification and/or approval are processed by ELEXON subject to and on the basis of the foregoing.

3.1.2 Form F601/02 – Certificate of Protocol Approval

F601/02

Certificate of Protocol Approval

METERING EQUIPMENT PROTOCOL MEETING THE REQUIREMENTS OF BSCP601 FOR SETTLEMENT PURPOSES

Application Reference No:

Issued To:

Meter Description: Type: Firmware Version:

Test Reference No. Date of Test: Software Version:

Test Laboratory:

Test Environment:

[ABC Manufacturer's] Metering Equipment listed above, has undergone Protocol Testing in accordance with BSC Procedure BSCP601, Issue * (v *.**), dated n^th^ Month Year.

The Metering Equipment was tested in conjunction with the Manufacturer's "XXXX Software, version V*.**" and the following Qualified~~Accredited~~ Half Hourly Data Collector.

Half Hourly Data Collector	**System or Process**[4]	**Instation Version**	**Outstation Version**

Certificate of Protocol Approval:

The review of the Protocol Testing results on n^th^ Month Year confirmed that the Metering Equipment was found to be suitable for Settlement use in conjunction with the Qualified~~Accredited~~ Half Hourly Data Collector listed above.

Signed: …… Date: …….

On Behalf of the Panel, ELEXON Limited (as the Balancing and Settlement Code Company ('BSCCo'))

The Panel (and its Committees) and ELEXON and its employees, agents and contractors do not and shall not be deemed to make or give any representation, warranty or guarantee, nor shall each or any of them have any liability or responsibility whatsoever or howsoever arising (whether directly or indirectly), in relation to:

- each or any Metering Equipment (including in relation to any safety matters) in respect of any item of Metering Equipment which is not tested whether or not such item is of the same type, model or version as an item which is tested;
- the processing of any application for certification or for Compliance Approval, Protocol Approval or any other approval ("approval") in relation to Metering Equipment; and/or
- the grant, failure or refusal to grant any such certification or approval, any testing, method of testing or analysis of the results of testing of Metering Equipment or any act, error, failure or omission in relation to such testing, method of testing or analysis.

All Parties and applicants for certification and approval acknowledge and accept the foregoing and that the processes, requirements and tests relating to Metering Equipment referred to in Code Subsidiary Documents relate to matters concerning settlement and not matters relating to health and safety, which matters are the sole responsibility of the Parties and/or the applicant. All Parties and applicants for certification and/or approval agree that they accept the foregoing and accept that all applications for certification and/or approval are processed by ELEXON subject to and on the basis of the foregoing.

Form F601/03 – Protocol Approval and Compliance Testing

Part 1 of 3

F601/03

PROTOCOL APPROVAL AND COMPLIANCE TESTING APPLICATION FORM (PART 1)

Ref. No[5]……..

I wish to apply for Protocol Approval of the Products identified in Section **B** below: ☐ tick as appropriate

I wish to apply for Compliance Testing of the Products identified in Section **C** below: ☐ tick as appropriate

Section A: DETAILS OF APPLICANT

Company Name: ……

Address: ……

……

Participant Role: ……(e.g. Meter Manufacturer)

Contact Name: ……

Contact Tel. No: ……..……..

Fax. No: ……..……...

E-mail: ……..……...

Signature: ……

Date of Application: …….

The Panel (and its Committees) and ELEXON and its employees, agents and contractors do not and shall not be deemed to make or give any representation, warranty or guarantee, nor shall each or any of them have any liability or responsibility whatsoever or howsoever arising (whether directly or indirectly), in relation to:

- each or any Metering Equipment, (including in relation to; any safety matters), in respect of any item of Metering Equipment which is not tested whether or not such item is of the same type, model or version as an item which is tested;
- the processing of any application for certification or for Compliance Approval, Protocol Approval or any other approval ("approval") in relation to Metering Equipment; and/or
- the grant, failure or refusal to grant any such certification or approval, any testing, method of testing or analysis of test results of Metering Equipment or any act, error, failure or omission in relation to such testing, method of testing or analysis.

The Applicant acknowledges and accepts the foregoing and that the processes, requirements and tests relating to Metering Equipment referred to in Code Subsidiary Documents relate to matters concerning settlement and not matters relating to health and safety, which matters are the sole responsibility of the Applicant. The Applicant by making an application for certification and/or approval agrees to accept the foregoing and to accept that all applications for certification and/or approval are processed by ELEXON subject to and on the basis of the foregoing.

Parts 2 and 3 of this Form (F601/03) are not affected by CP1318.

Paragraphs 3.2 through to 3.3.3.2 are not affected by CP1318.

3.4 Compliance Testing of Metering Equipment for Codes of Practice One, Two, Three, Five and Ten

Paragraphs 3.4.1 through to 3.4.6 are not affected by CP1318.

3.4.7 Demand Values {4.1.2}

The following tests shall be performed to confirm that Demand Values are provided:

(a)	confirm that a kW value is provided for each Demand Period for each Active Energy Measured Quantity; [CP1297]and [CP1297]kvarh value is provided for each Demand Period for each Reactive Energy Measured Quantity (CoP1, 2 ,3, [CP1296]5 and 10)	**007**
(b)	where Import and Export values are provided confirm that each value is gross and recorded separately. (~~*Applies to*~~ *CoP 3, 5~~, 3~~ and 10 only);* and	**008**
(c)	confirm that Demand Values are available in both kilo and Mega values. *(CoPs 1 and 2 only)*	**009**

3.4.8 Accuracy Requirements ~~{4.2}~~{5.3}

(a) Active Energy

Meters subject to CoP10 compliance testing shall meet all of the accuracy requirements for Active Energy if the Meter is approved under SI 1998 No 1566 or SI 2006 No 1679.

Tests shall be carried out at fundamental frequency (50Hz) to verify that the Active Energy measurements are within the limits shown in Table 1 below. The measurement uncertainty at fundamental frequency of the measurement system used shall not be greater than: ±0.01% (CoP1); ±0.05% (CoP2); ±0.1% (CoP3); or ±0.2% (CoP5).	**010**

Table 1 Active Energy

Value of Current (I)		**Power factor (Cos φ)**	**Percentage error limits[8] for Meters of Class**				
For whole current Meters	**For transformer operated Meters[9]**		**0.2S (CoP1)**	**0.5S (CoP2)**	**0.5 (CoP2)**	**1 (CoP3)**	**2 (CoP5)**
-	$0.01\ I_n \leq I <$	1	±0.4	±1.0	-	-	-

	$0.05I_n$						
-	$0.05\ I_n \leq I \leq I_{max}$	1	±0.2	±0.5	-	-	-
-	$0.02\ I_n \leq I < 0.1I_n$	0.5 ind 0.8 cap	±0.5 ±0.5	±1.0 ±1.0	-	-	-
-	$0.1\ I_n \leq I \leq I_{max}$	0.5 ind 0.8 cap	±0.3 ±0.3	±0.6 ±0.6	-	-	-
$0.05\ I_b \leq I < 0.1\ I_b$[10]	$0.02\ I_n \leq I < 0.05\ I_n$	1	-	-	±1.0	±1.5	±2.5
$0.1\ I_b \leq I \leq I_{max}$	$0.05\ I_n \leq I \leq I_{max}$	1	-	-	±0.5	±1.0	±2.0
$0.1\ I_b \leq I < 0.2\ I_b$[11]	$0.05\ I_n \leq I < 0.1\ I_n$	0.5 ind 0.8 cap	-	-	±1.3 ±1.3	±1.5 ±1.5	±2.5 -
$0.2\ I_b \leq I \leq I_{max}$	$0.1\ I_n \leq I \leq I_{max}$	0.5 ind 0.8 cap	-	-	±0.8 ±0.8	±1.0 ±1.0	±2.0 -

Source†: BS EN 62053 - 22 for CoP1 and 2 (Class 0.2S and 0.5S), or BS EN 62053 - 11 for CoP2 (Class 0.5), and BS EN 60521 and BS EN 61036 for CoP3 and 5 (Class 1 and 2).

(b) Reactive Energy

Tests shall be carried out at fundamental frequency (50Hz) to verify that the Reactive Energy measurements are within the limits show in Table 2 below. The measurement uncertainty at fundamental frequency of the measurement system used shall not be greater than ±0.4%. Not applicable to CoP10	**011**

Table 2 Reactive Energy

Value of Current (I)		**Sin φ**	**Percentage error limits[8] for Meters of Class**		**Applicable BS EN Standard for Test Criteria**
For whole current Meters	**For transformer operated Meters**		**2 (CoP1)**	**3 (CoP2, 3 and 5)**	
$0.05\ I_b \leq I < 0.1\ I_b$	$0.02\ I_n \leq I < 0.05\ I_n$	1	±2.5	±4.0	BS EN 62053 - 23 and BS EN 61268
$0.1\ I_b \leq I \leq I_{max}$	$0.05\ I_n \leq I \leq I_{max}$	1	±2.0	±3.0	
$0.1\ I_b \leq I < 0.2\ I_b$	$0.05\ I_n \leq I < 0.1\ I_n$	0.5 ind or cap	±2.5	±4.0	
$0.2\ I_b \leq I \leq I_{max}$	$0.1\ I_n \leq I \leq I_{max}$	0.5 ind or cap	±2.0	±3.0	
$0.2\ I_b \leq I \leq I_{max}$	$0.1\ I_n \leq I \leq I_{max}$	0.25 ind	±2.5	±4.0	BS EN

		or cap			62053 - 23
$0.2\ I_b \leq I \leq I_b$	$0.1\ I_n \leq I \leq I_n$	0.25 ind or cap	-	±10.0	BS EN 61268
$0.1\ I_b \leq I \leq 0.2\ I_b$	-	1	-	±4.0	BS 5685 Part 4
$0.2\ I_b < I \leq I_{max}$	-	1	-	±3.0	
$0.2\ I_b \leq I \leq I_{max}$	-	0.5 ind and 0.8 cap	-	±3.0	

Source†: BS EN 62053 - 23 for CoP1 and 2 (Class 2 and 3), and BS EN 61268 (Class 3) for CoP 3 and 5 or BS 5685: Part 4 (Class 3) for CoP 2, 3 and 5. * for whole current metering percentage relates to $I_{max.}$

These limits of error for both Active and Reactive Energy shall apply at the reference conditions defined in the appropriate Meter.

3.4.12 Displays {5.4}

(a) Confirm that the Metering Equipment is capable of displaying the following primary information (not necessarily simultaneously):

(a)	the total cumulative energy values for each Measured Quantity in actual scaled values ~~can be displayed~~ and that such values are stored in non–volatile memory;	**026**
(b)	the current time and date ~~can be displayed~~;	**027**
(c)	the CT and/or VT ratios that have been programmed into the Meter ~~can be displayed~~;	**028**
(d)	any compensation factor applied for measurement transformer errors and/or system losses ~~can be displayed~~; and Not applicable to CoP10.	**029**

(e)	that, where the Meter is combined with the display and/or Outstation and a constant factor is applied, such factor is applied at security level 3. Not applicable to CoP10.	**030**

(b) Confirm that the Metering Equipment is capable of enabling the display of the following information:

(a)	the Maximum Demand ("MD") for kW ~~(~~or MW *(CoP 1 and 2 only~~as appropriate))~~* per month ~~can be displayed~~;	**031**
(b)	the Maximum Demand ("MD") for kW ~~(~~or MW *(CoP 1 and 2 only~~as appropriate))~~* for other programmable charging periods ~~can be displayed~~;	**032**
(c)	the Maximum Demand ("MD") for kVA ~~(~~or MVA *(CoP 1 and 2 only~~as appropriate))~~* per month ~~can be displayed~~;	**033**
(d)	the Maximum Demand ("MD") for kVA ~~(~~or MVA *(CoP 1 and 2 only~~as appropriate))~~* for other programmable charging periods ~~can be displayed~~;	**034**
(e)	twice the kWh ~~(~~or MWh *(CoP 1 and 2 only~~as appropriate))~~* advance from the commencement of the current Demand period ~~can be displayed~~;	**035**
(f)	twice the kVAh ~~(~~or MVAh *(CoP 1 and 2 only~~as appropriate))~~* advance from the commencement of the current Demand period ~~can be displayed~~; Not applicable to CoP10.	**036**
(g)	the cumulative Maximum Demand ~~can be displayed~~;	**037**
(h)	the number of Maximum Demand resets ~~can be displayed~~;	**038**
(i)	the multi rate display sequence, for at least 8 rates selectable over the calendar year~~, can be displayed~~;	**039**
(j)	whether a reverse running indication for Active Energy is provided ~~(where appropriate)~~. *(~~Required for~~ CoPs 3 and 5 only)*;	**040**
(k)	the indicated Maximum Demand is re-settable at midnight of the last day of the selected charging period;	**041**
(l)	the indicated Maximum Demand is re-settable for a part of a charging period; and	**042**
(m)	any Maximum Demand manual reset button is sealable.	**043**

Paragraph 3.4.13 is not affected by CP1318.

3.4.14 Outstation {5.5}

Where an Outstation has been provided as part of the Metering Equipment for test, the protocol shall be Approved in accordance with this BSCP.

Establish~~ing~~ that:

(a)	The Outstation has a unique Outstation identification code;	**048**
(b)	For Meters with integral Outstations ~~establish that~~ an auxiliary terminal provides for the Outstation's energisation for remote interrogation purposes (*CoP1 only*). For Meters with integral Outstations record whether an auxiliary terminal provides for the Outstation's energisation for remote interrogation purposes (*CoP2 only*);	**049**

(c)	The Outstation is capable of communicating with more than one Instation (not simultaneously and of similar type or otherwise);	**050**
(d)	It is possible to repeatedly retrieve data throughout the Outstation data storage period;	**051**
(e)	Any "read" operation does not alter or delete any stored metered data; and	**052**
(f)	The Outstation can provide all metered data stored from the time of commencement of any specified date upon request by the Instation during the data storage period of the outstation.	**053**
(g)	In addition, e~~E~~stablish whether the Outstation is capable of sending metering data automatically *(CoP 5 and 10 only)*. If this test is satisfied then:~~;~~	**054**
(h)	Verify that the metering data sent complies with section 3.4.22 'Level 1 Passwords' of this test specification *(CoP 5 and 10 only)*; and	**055**
(i)	Establish whether the Outstation is capable of sending metering data on a daily basis as a minimum *(CoP 5 and 10 only)*.	**056**

3.4.15 Data Storage {5.5.1}

The Metering Equipment shall be continuously energised at full load for a period of five days and afterwards at a cyclical variable load for a further fifteen days, to determine the~~o~~ total number of kWh or MWh *(CoP 1 and 2 only)* supplied to the Meter over the whole twenty day period.

During the test cycle establish that:

(a)	from the beginning of the current Demand Period, twice the kWh ~~(~~or MWh *(CoP 1 and 2 only)*~~as appropriate)~~ is being registered in the kW ~~(~~or MW *(CoP 1 and 2 only)*~~)~~ Maximum Demand register; and	**057**
(b)	from the beginning of the current Maximum Demand period, twice the kVAh ~~(~~or MVAh *(CoP 1 and 2 only*~~as appropriate))~~ is being registered in the kVA ~~(~~or MVA *(CoP 1 and 2 only)*~~)~~ Maximum Demand register.	**058**

on completion of the twenty day cycle above, the following tests shall be performed and confirm that:

(a)	each Demand Value is identifiable to its respective date and time; and	**059**
(b)	a storage capacity of 48 periods per day in accordance with Table 4 below is available for all Demand Values as integer multiples of kW ~~(~~or MW *(CoP 1 and 2 only*~~as appropriate))~~;	**060**

Table 4 Data Storage Periods

Code of Practice	Minimum Storage Period(days)

1	10
2	10
3	20
5	20
10	20

(a)	for each of the initial five days, the sum of the Demand Values for each block of 48 half-hour periods are within 0.1% of the advance of the total cumulative register of the associated Meter for the same interval;	**061**
(b)	the value of any energy measured in a Demand Period, but not stored in that Demand Period are carried forward to the next Demand Period;	**062**
(c)	for each of the twenty days under test that the contents of the kW ~~(~~or MW *(CoP 1 and 2 only~~as appropriate~~)~~* data stored facility have been stored correctly; and	**063**
(d)	for separate Meter/Outstation combinations, that the Outstation registers can be set to match and increment with the Meter registers. Not applicable to CoP10	**064**

One test sample of the Outstation shall be provided by the Applicant with its memory occupied with data to within twenty days of capacity (appropriate for the number of channels configured). With prior agreement from BSCCo integration periods other than 30mins may be used to facilitate the following two tests.

Upon further Energisation, confirm that;

(a)	on reaching maximum memory storage capacity, that any new data overwrites the oldest stored data; and	**065**
(b)	no other data has been altered or removed.	**066**

Paragraphs 3.4.16 through to 3.4.17.4 are not affected by CP1318.

3.4.17.5 Reverse Running

Where an Active Energy reverse running display is provided, determine that the requirements of BS EN 61036 or BS EN 62053-22 as appropriate are met. Establish under what conditions the reverse running flag is activated and record those conditions. Tests should include single and polyphase power reversals and set the appropriate flag for the Demand Period affected *(CoP 3 and 5 only, and if fitted)*.	**082**
Test that upon return to normal power flow, the reverse running flag is no longer present in the unaffected Demand Period *(CoP 3 and 5 only, and if fitted)*.	**083**

Paragraph 3.4.18 is not affected by CP1318.

3.4.19 Local Port

Using the Local Interrogation Unit provided by the Applicant, confirm that:

(a)	The local port provides data to a Local Interrogation Unit via an opto port to BS EN 61107 *(CoP 3 and 5)* or BS EN 62056-21 *(CoP 1, ~~and~~ 2 and 10)*; or	**085**
(b)	The local port provides data to a Local Interrogation Unit via another type of port; and	**086**
(c)	Repeat collections of stored data are available throughout the storage period and verify that and "read" operation does not delete or modify any stored metering data.	**087**

Paragraph 3.4.20 is not affected by CP1318.

3.4.21 Password Protection

(a)	For separate Outstations establish that a password is required to read or change any data. Not applicable to CoP10	**090**
(b)	For integral Outstations establish that **four**[14] discrete password controlled access levels are provided for both local and remote interrogation.	**091**

[Insert new row in table as shown and join up table with table below]

~~For integral Outstations establish that **four**[14] discrete password controlled access levels are provided for both local and remote interrogation.~~

(c~~b~~)	For alpha numeric character passwords, ensure that passwords are no less than six characters and no more than twelve characters long. Ensure that passwords are formed from case insensitive or sensitive alpha characters (A to Z) and/or digits (0 to 9) and/or the underscore character (_)~~.~~; or Not applicable to CoP10	**092** ~~**1**~~
(d~~c~~)	For hexadecimal character passwords, ensure that passwords are no less than eight characters and no more than twelve characters long. Ensure that passwords are formed from upper case hexadecimal characters (0 to F). Not applicable to CoP10	**093** ~~**2**~~

[14] For CoP 10 only three are required

3.4.22 Level 1 Passwords

Using the Level 1 password, establish that the following data can be retrieved:

(a)	Outstation ID;	094 ~~3~~
(b)	all programmable Demand Values;	095 ~~4~~
(c)	all programmable cumulative Measured Quantities;	096 ~~5~~
(d)	the Maximum Demand for kW and/or kVA per programmable charging period;	097 ~~6~~
(e)	the multi-rate cumulative Active Energy values;	098 ~~7~~
(f)	the VT and CT transformer ratios, where appropriate;	099 ~~8~~
(g)	(for combined Meter and Outstation only), the VT and CT transformer error correction factor and/or system loss factor applied as a constant factor to the entire dynamic range; Not applicable to CoP10.	100 ~~099~~
(h)	all alarm indications; and	101 ~~0~~
(i)	Outstation time and date	102 ~~1~~

Establish that it is **not** possible to change any of the above values at Level 1 Password.	103

~~Establish that it is **not** possible to change any of the above values at Level 1 Password.~~

3.4.23 Level 2 Passwords

Using the Level 2 Password, establish that all the data listed at Level 1 can be retrieved and in addition that the following actions can be performed:		104 ~~2~~
(a)	changes to time and date; and	105 ~~3~~
(b)	resetting of all Maximum Demands.	106 ~~4~~

3.4.24 Level 3 Passwords

Using the Level 3 Password, establish that all the functionality listed at Level 2 can be performed and in addition that the following programming can be performed:		107 ~~5~~
(a)	Displays and Facilities as defined in Clause 5.4;	108 ~~6~~
(b)	measurement transformer ratios as defined in Clause 5.3;	109 ~~7~~
(c)	(for combined Meter and Outstation only), the VT and CT transformer error	110 ~~08~~

	correction factor and/or system loss factor applied as a constant factor to the entire dynamic range; and Not applicable to CoP10.	
(d)	passwords for Levels 1, 2 and 3.	**1110~~09~~**
(e)	where applicable, confirm it is possible to programme the schedule for automated transfer of Level 1 metering data via Level 3 access *(CoP 5 and 10 only)*.	**1120~~~~**

Establish that it is possible to read additional information within the Metering Equipment to enable the programmed information to be confirmed.	**1131~~~~**

3.4.25 Level 4 Passwords

Not applicable to CoP10

If the Level 4 Password is implemented electronically then:

(a)	establish that all the functionality listed at Level 3 can be performed and in addition that the following alterations can be performed:	**114**
(b~~a~~)	calibration of the Meter (only where the Meter is integral with the Outstation);	**1153~~~~**
(c~~b~~)	setting the measurement transformer ratios, where appropriate;	**1164~~~~**
(d~~c~~)	setting the measurement transformer error correction and/or system loss factors applied as a complex factor; and	**1175~~~~**
(e~~d~~)	programming the Level 3 & 4 Passwords.	**1186~~~~**

If the Level 4 Password is implemented by removing the seals and cover, then establish that the following alterations can be performed:

(a)	calibration of the Meter (only where the Meter is integral with the Outstation);	**1197**
(b)	setting the measurement transformer ratios, where appropriate; and	**12018**
(c)	setting the measurement transformer error correction and/or system loss factors applied as a complex factor.	**12119**

3.4.26 Password Monitoring {Appendix D}

Using the Approved Protocol[154], verify that the password offered determines the Level of access to the data within the Metering Equipment.	**1220**

Verify, by accessing the Metering Equipment at least eight times with an "illegal" password(s), that:

Not applicable to CoP10

(a)	the illegal password counter resets to zero every hour on the hour change; and	**1231**
(b)	after the seventh illegal password attempt entered between counter resets, that access is prohibited at all levels until the counter resets.	**1242**

3.4.27 Additional Tests

3.4.27.1 Electromagnetic Compatibility Tests

Not applicable to CoP10

In addition to the EMC tests carried out by the Electricity Meter Examination Service of the Director of Electricity Supply as part of the process of Type Approval for the Meter in accordance with BS EN 61036, verify, by testing under all the conditions detailed in BS EN 61036, that:

(a)	any stored data and time/date is not corrupted or has been destroyed; and	**1253**
(b)	the metering accuracy remains within the requirements of Clause 5.4 of this Compliance Testing .	**1264**

[15] If the protocol has not yet received Approval, record the status and description of the protocol used for testing purposes.

3.4.27.2 Immunity to Electromagnetic HF Fields

Not applicable to CoP10

Verify, by testing in accordance with IEC 61000-4-3, and under the following conditions:

- the voltage and auxiliary circuits energised with reference voltage;
- a frequency band of 26MHz to 1GHz;
- a test field strength of 12.5V/m; and
- a carrier of 80% amplitude modulated with a 1kHz sine wave.

(a)	that without any current in the current circuits and the current terminals open circuit the application of the HF fields shall not produce a change in the Meter Register reading of more than 0.01kWh and the test output shall not produce a signal equivalent to more than 0.01kWh. (Where VT and CT connected Meter(s) is under test, equivalent scaled values should be used taking into account the transformer ratios); and	**1275**
(b)	that with basic current Ib, and power factor equal to 1.0, at sensitive frequencies or frequencies of dominant interest, the variation of error does not exceed 3%.	**1286**

On completion of each EMC test verify that:

(a)	any stored data is not corrupted or has been destroyed; and	**1297**
(b)	the metering accuracy remains within the requirements of Clause 5.4 of this .	**13028**

NOTE: Where VT and CT connected Meter(s) are under test the equivalent scaled values, taking into account the transformer ratios, should be used when considering any differences in Meter Register reading and output signals.

3.4.27.3 Sealing {5.7}

Ensure that adequate sealing facilities are provided for Settlement requirements.	**13129**

Paragraphs 3.5 through to 3.5.12.2 are not affected by CP1318.

3.5.12.2.1 Verify, by testing in accordance with IEC 61000-4-3, and under the following conditions:-

- voltage and auxiliary circuits energised with

- reference voltage;
- frequency band: 26MHz to 1GHz;
- test field strength: 12.5V/m;
- carrier 80% amplitude modulated with a 1KHz sinewave,

(i) that without any current in the current circuits and the current terminals open circuit the application of the HF fields shall not produce a change in the Meter Register reading of more than 0.01kWh and the test output shall not produce a signal equivalent to more than 0.01kWh.; and

(ii) that with basic current Ib, and power factor equal to 1.0, at sensitive frequencies or frequencies of dominant interest, the variation of error does not exceed 3%,

and on completion of each EMC test verify that:-

(i) any stored data is not corrupted or has been destroyed; and

(ii) the metering accuracy remains within the requirements of this specification 3.5.

3.5.13 Sealing

Ensure that all Metering Equipment sealing facilities are in accordance with the Code of Practice Six, Section 6.6.

End of Document

Attachment E – CP1318 Proposed redlining with amendments drafted against BSCP601 v12.2 (conformed)

1 Introduction

1.1 Scope and Purpose of the Procedure

This BSC Procedure defines the processes for Meter Manufacturers, Meter Operator Agents, Suppliers, Half Hourly Data Collectors and other Half Hourly Metering Equipment users to apply for Compliance Testing and Protocol Approval. This procedure covers the application process, submission of Metering Equipment, communications with the Compliance and Protocol Testing Agents, the issue and removal of certificates. For the avoidance of doubt, this procedure applies only to Half Hourly Metering Equipment.

Protocol Approval

This process is defined to:

a) Approve a Protocol for Settlement purposes; and

b) ensure that a qualified Half Hour Data Collector is capable of appropriate communications with Metering Equipment.

Metering Equipment Compliance

This process is defined to ensure that Metering Equipment is designed and manufactured to the requirements of the relevant Code/s of Practice. Each Compliance Approval is specific to that Metering Equipment tested including type reference and any firmware and software versions. Metering Equipment firmware and software updates not affecting Compliance need not be re-approved. Notification of any such change is to be provided to BSCCo.

[CP1275v2.0]When applying for Compliance Approval in respect of Metering Equipment, the Meter Manufacturer should acknowledge, on its application form included at section 3.1.3, its intention to provide relevant Settlement outstation Protocols to BSC Parties (via their Party Agents) upon request. The Meter Manufacturer should also acknowledge, on its application form included at section 3.1.3 its intention to make available to Meter Operator Agents, upon request, the Meter Manufacturer's software that will enable the Meter Operator Agent to re-configure the relevant Meters and/or Outstations (the "Configuration Software"). The Meter Manufacturer may require the disclosure of Settlement Outstation Protocols and Configuration Software to be subject to a confidentiality agreement[13].

The Panel (and its Committees) and ELEXON and its employees, agents and contractors do not and shall not be deemed to make or give any representation,

[13] [CP1275v2.0]Confidentiality agreements shall not prohibit Party Agents from fulfilling their BSC obligations.

warranty or guarantee, nor shall each or any of them have any liability or responsibility whatsoever or howsoever arising (whether directly or indirectly), in relation to:

- *each or any Metering Equipment (including in relation to any safety matters) in respect of any item of Metering Equipment which is not tested whether or not such item is of the same type, model or version as an item which is tested;*
- *the processing of any application for certification or for Compliance Approval, Protocol Approval or any other approval ("approval") in relation to Metering Equipment;*
- *the grant, failure or refusal to grant any such certification or approval; and/or*
- ~~,~~ *any testing, method of testing or analysis of the results of testing of Metering Equipment or any act, error, failure or omission in relation to such testing, method of testing or analysis.*

All Parties and applicants for certification and approval acknowledge and accept the foregoing and that the processes, requirements and tests relating to Metering Equipment referred to in Code Subsidiary Documents relate to matters concerning settlement and not matters relating to health and safety, which matters are the sole responsibility of the Parties and/or the applicant.

All Parties and applicants for certification and/or approval agree that they accept the foregoing and accept that all applications for certification and/or approval are processed by ELEXON subject to and on the basis of the foregoing.

Paragraphs 1.2 through to 1.5 are not affected by CP1318.

1.6 Acronyms and Definitions

1.6.1 Acronyms

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

The terms used in this BSC~~Agreed~~ Procedure are defined as follows.

BSCCo	Balancing and Settlement Code Company
CDCA	Central Data Collection Agent
CoP	Code of Practice
CT	Current Transformer
CTA	Compliance Testing Agent
HHDC	Half Hourly Data Collector (Qualified~~Accredited~~)
MD	Maximum Demand
ME	Metering Equipment
MOA	Meter Operator Agent
SMRS	Supplier Meter Registration Service
WD	Working Day

1.6.2 Definitions

Applicant	Person applying for Compliance and/or Protocol approval
BSCCo	The Balancing and Settlement Code Company
Compliance Testing	means the testing of Metering Equipment in accordance with this BSCP601 to determine whether it conforms with the relevant Code of Practice to obtain approval from the Panel.
Compliance Testing Agent	The agent responsible for the testing of Metering Equipment, accredited against an appropriate (as determined by BSCCo) body such as the UK Accreditation Service (UKAS).
Code of Practice One	means the latest version[§] of Code of Practice One~~: Issue 2, version 3.0; dated 23 February 2006~~ - CODE OF PRACTICE FOR THE METERING OF CIRCUITS WITH A RATED CAPACITY EXCEEDING 100MVA FOR SETTLEMENT.
Code of Practice Two	means the latest version[§] of Code of Practice Two~~: Issue 4, version 3.0; dated 23 February 2006~~ - CODE OF PRACTICE FOR THE METERING OF CIRCUITS WITH A RATED CAPACITY NOT EXCEEDING 100MVA FOR SETTLEMENT PURPOSES.
Code of Practice Three	means the latest version[§] of Code of Practice Three~~: Issue 5, version 5.0; dated 3 November 2005~~ - CODE OF PRACTICE FOR THE METERING OF CIRCUITS WITH A RATED CAPACITY NOT EXCEEDING 10MVA FOR SETTLEMENT PURPOSES.
Code of Practice Five	means the latest version[§] of Code of Practice Five~~: Issue 7, version 5.0; dated 28 February 2008~~ - CODE OF PRACTICE FOR THE METERING OF ENERGY TRANSFERS WITH A MAXIMUM DEMAND OF UP TO (AND INCLUDING) 1MW FOR SETTLEMENT PURPOSES.
Code of Practice Six	means the latest version[§] of Code of Practice Six~~: Issue 4, version 4.20; dated Code Effective Date~~ - CODE OF PRACTICE FOR THE METERING OF ENERGY IMPORTS VIA LOW VOLTAGE CIRCUITS FUSED AT 100 AMPS OR LESS PER PHASE FOR SETTLEMENT PURPOSES.
Code of Practice Ten	means the latest version[§] of Code of Practice Ten~~: Issue 2, version 2.0; dated 25 June 2009~~ - CODE OF PRACTICE FOR METERING OF ENERGY VIA LOW VOLTAGE CIRCUITS FOR SETTLEMENT PURPOSES.
Instation	means a computer based system which sends data to, or receives data from Outstation Systems on a routine basis.

Interrogation Unit	means a Hand Held Unit "HHU" (also known as Local Interrogation Unit "LIU") or portable computer which can program Metering Equipment parameters and extract information from the Metering Equipment and store this for later retrieval.
Metering Equipment	has, for the purposes of this BSCP601, the meaning ascribed to that term in the Balancing and Settlement Code, but excluding voltage and current measurement transformers
person	includes any individual, company, corporation, firm, partnership, joint venture, association, committee, organisation or trust (in each case, whether or not having separate legal personality).
Settlement	has the meaning ascribed to that term in the Balancing and Settlement Code.
Test Laboratory	means the testing body so agreed with BSCCo to perform Compliance Testing to this BSCP601.
Type Approval	means the approval from the Electricity Meter Examination Service of the Office of Gas and Electricity Markets.
UTC	means Co-ordinated Universal Time based on atomic clocks as distinct from Greenwich Mean Time (GMT).

§ The latest versions of the Codes of Practice can be found on the BSCCo website (www.elexon.co.uk).

Paragraphs 2 through to 2.4.5 are not affected by CP1318.

3 Appendices

3.1 Forms

3.1.1 Form F601/01 – Certificate of Compliance

F601/01

Certificate of Compliance

Code of Practice [Five]

CODE OF PRACTICE FOR THE METERING OF ENERGY TRANSFERS [WITH A MAXIMUM DEMAND OF UP TO (AND INCLUDING) 1MW FOR SETTLEMENT PURPOSES]

Application Reference No:

Issued To:

Meter Description: Type: Firmware Version:

Test Reference No. Date of Test: Software Version:

Test Laboratory:

Test Environment:

[ABC Manufacturer's] Metering Equipment has undergone Compliance Testing in accordance with Code of Practice [Five], Issue * (v *.**) dated nth Month Year, and Type Testing Version [5.0] dated nth Month Year (and subsequent revisions) and BS EN 61036.

The Metering Equipment was tested in conjunction with the Manufacturer's "XXXX Software, version V*.**".

Certificate of Compliance:

The review of the Compliance Testing results on nth Month Year confirmed that the Metering Equipment was found to comply with the requirements of Code of Practice [Five] in all respects.

Signed: …… Date: …….
On Behalf of the Panel, ELEXON Limited (as the Balancing and Settlement Code Company ('BSCCo'))

The Panel (and its Committees) and ELEXON and its employees, agents and contractors do not and shall not be deemed to make or give any representation, warranty or guarantee, nor shall each or any of them have any liability or responsibility whatsoever or howsoever arising (whether directly or indirectly), in relation to:

- each or any Metering Equipment (including in relation to any safety matters) in respect of any item of Metering Equipment which is not tested whether or not such item is of the same type, model or version as an item which is tested;
- the processing of any application for certification or for Compliance Approval, Protocol Approval or any other approval ("approval") in relation to Metering Equipment;
- the grant, failure or refusal to grant any such certification or approval; and/or
- any testing, method of testing or analysis of the results of testing of Metering Equipment or any act, error, failure or omission in relation to such testing, method of testing or analysis.

All Parties and applicants for certification and approval acknowledge and accept the foregoing and that the processes, requirements and tests relating to Metering Equipment referred to in Code Subsidiary Documents relate to matters concerning settlement and not matters relating to health and safety, which matters are the sole responsibility of the Parties and/or the applicant.

All Parties and applicants for certification and/or approval agree that they accept the foregoing and accept that all applications for certification and/or approval are processed by ELEXON subject to and on the basis of the foregoing.

3.1.2 Form F601/02 – Certificate of Protocol Approval

F601/02

Certificate of Protocol Approval

METERING EQUIPMENT PROTOCOL MEETING THE REQUIREMENTS OF BSCP601 FOR SETTLEMENT PURPOSES

Application Reference No:

Issued To:

Meter Description: Type: Firmware Version:

Test Reference No. Date of Test: Software Version:

Test Laboratory:

Test Environment:

[ABC Manufacturer's] Metering Equipment listed above, has undergone Protocol Testing in accordance with BSC Procedure BSCP601, Issue * (v *.**), dated n^th Month Year.

The Metering Equipment was tested in conjunction with the Manufacturer's "XXXX Software, version V*.**" and the following Qualified~~Accredited~~ Half Hourly Data Collector.

Half Hourly Data Collector	**System or Process**[4]	**Instation Version**	**Outstation Version**

Certificate of Protocol Approval:

The review of the Protocol Testing results on n^th Month Year confirmed that the Metering Equipment was found to be suitable for Settlement use in conjunction with the Qualified~~Accredited~~ Half Hourly Data Collector listed above.

Signed: …… Date: …….

On Behalf of the Panel, ELEXON Limited (as the Balancing and Settlement Code Company ('BSCCo'))

The Panel (and its Committees) and ELEXON and its employees, agents and contractors do not and shall not be deemed to make or give any representation, warranty or guarantee, nor shall each or any of them have any liability or responsibility whatsoever or howsoever arising (whether directly or indirectly), in relation to:

- each or any Metering Equipment (including in relation to any safety matters) in respect of any item of Metering Equipment which is not tested whether or not such item is of the same type, model or version as an item which is tested;
- the processing of any application for certification or for Compliance Approval, Protocol Approval or any other approval ("approval") in relation to Metering Equipment;
- the grant, failure or refusal to grant any such certification or approval; and/or;
- any testing, method of testing or analysis of the results of testing of Metering Equipment or any act, error, failure or omission in relation to such testing, method of testing or analysis.

All Parties and applicants for certification and approval acknowledge and accept the foregoing and that the processes, requirements and tests relating to Metering Equipment referred to in Code Subsidiary Documents relate to matters concerning settlement and not matters relating to health and safety, which matters are the sole responsibility of the Parties and/or the applicant.

All Parties and applicants for certification and/or approval agree that they accept the foregoing and accept that all applications for certification and/or approval are processed by ELEXON subject to and on the basis of the foregoing.

Form F601/03 – Protocol Approval and Compliance Testing

Part 1 of 3

F601/03

PROTOCOL APPROVAL AND COMPLIANCE TESTING APPLICATION FORM (PART 1)

Ref. No[5]……..

I wish to apply for Protocol Approval of the Products identified in Section **B** below: ☐ tick as appropriate

I wish to apply for Compliance Testing of the Products identified in Section **C** below: ☐ tick as appropriate

Section A: DETAILS OF APPLICANT

Company Name: …….

Address: ……..…

……..……

Participant Role: ……(e.g. Meter Manufacturer)

Contact Name: ……

Contact Tel. No: ……...……..

Fax. No: ……..……...

E-mail: ……..……..

Signature: ……

Date of Application: …….

The Panel (and its Committees) and ELEXON and its employees, agents and contractors do not and shall not be deemed to make or give any representation, warranty or guarantee, nor shall each or any of them have any liability or responsibility whatsoever or howsoever arising (whether directly or indirectly), in relation to:

- each or any Metering Equipment, (including in relation to; any safety matters), in respect of any item of Metering Equipment which is not tested whether or not such item is of the same type, model or version as an item which is tested;
- the processing of any application for certification or for Compliance Approval, Protocol Approval or any other approval ("approval") in relation to Metering Equipment;
- the grant, failure or refusal to grant any such certification or approval; and/or~~,~~
- any testing, method of testing or analysis of test results of Metering Equipment or any act, error, failure or omission in relation to such testing, method of testing or analysis.

All Parties and applicants for certification and approval acknowledge and accept the foregoing and that the processes, requirements and tests relating to Metering Equipment referred to in Code Subsidiary Documents relate to matters concerning settlement and not matters relating to health and safety, which matters are the sole responsibility of the Parties and/or the applicant.

All Parties and applicants for certification and/or approval agree that they accept the foregoing and accept that all applications for certification and/or approval are processed by ELEXON subject to and on the basis of the foregoing.

Parts 2 and 3 of this Form (F601/03) are not affected by CP1318.

Paragraphs 3.2 through to 3.3.3.2 are not affected by CP1318.

3.4 Compliance Testing of Metering Equipment for Codes of Practice One, Two, Three, Five and Ten

Paragraphs 3.4.1 through to 3.4.6 are not affected by CP1318.

3.4.7 Demand Values {4.1.2}

The following tests shall be performed to confirm that Demand Values are provided:

(a)	confirm that a kW value is provided for each Demand Period for each Active Energy Measured Quantity; [CP1297]and [CP1297]kvarh value is provided for each Demand Period for each Reactive Energy Measured Quantity (CoP1, 2 ,3, [CP1296]5 and 10)	**007**
(b)	where Import and Export values are provided confirm that each value is gross and recorded separately. (~~*Applies to*~~ *CoP 3, 5~~, 3~~ and 10 only);* and	**008**
(c)	confirm that Demand Values are available in both kilo and Mega values. *(CoPs 1 and 2 only)*	**009**

3.4.8 Accuracy Requirements ~~{4.2}~~{5.3}

(a) Active Energy

Meters subject to CoP10 compliance testing shall meet all of the accuracy requirements for Active Energy if the Meter is approved under SI 1998 No 1566 or SI 2006 No 1679.

Tests shall be carried out at fundamental frequency (50Hz) to verify that the Active Energy measurements are within the limits shown in Table 1 below. The measurement uncertainty at fundamental frequency of the measurement system used shall not be greater than: ±0.01% (CoP1); ±0.05% (CoP2); ±0.1% (CoP3); or ±0.2% (CoP5).	**010**

Table 1 Active Energy

Value of Current (I)		**Power factor (Cos φ)**	**Percentage error limits[8] for Meters of Class**				
For whole current Meters	**For transformer operated Meters[9]**		**0.2S (CoP1)**	**0.5S (CoP2)**	**0.5 (CoP2)**	**1 (CoP3)**	**2 (CoP5)**
-	$0.01\ I_n \leq I < 0.05 I_n$	1	±0.4	±1.0	-	-	-
-	$0.05\ I_n \leq I \leq I_{max}$	1	±0.2	±0.5	-	-	-
-	$0.02\ I_n \leq I < 0.1 I_n$	0.5 ind 0.8 cap	±0.5 ±0.5	±1.0 ±1.0	-	-	-
-	$0.1\ I_n \leq I \leq I_{max}$	0.5 ind 0.8 cap	±0.3 ±0.3	±0.6 ±0.6	-	-	-
$0.05\ I_b \leq I < 0.1\ I_b$[10]	$0.02\ I_n \leq I < 0.05\ I_n$	1	-	-	±1.0	±1.5	±2.5
$0.1\ I_b \leq I \leq I_{max}$	$0.05\ I_n \leq I \leq I_{max}$	1	-	-	±0.5	±1.0	±2.0
$0.1\ I_b \leq I < 0.2\ I_b$[11]	$0.05\ I_n \leq I < 0.1\ I_n$	0.5 ind 0.8 cap	-	-	±1.3 ±1.3	±1.5 ±1.5	±2.5 -
$0.2\ I_b \leq I \leq I_{max}$	$0.1\ I_n \leq I \leq I_{max}$	0.5 ind 0.8 cap	-	-	±0.8 ±0.8	±1.0 ±1.0	±2.0 -

Source†: BS EN 62053 - 22 for CoP1 and 2 (Class 0.2S and 0.5S), or BS EN 62053 - 11 for CoP2 (Class 0.5), and BS EN 60521 and BS EN 61036 for CoP3 and 5 (Class 1 and 2).

(b) Reactive Energy

Tests shall be carried out at fundamental frequency (50Hz) to verify that the Reactive Energy measurements are within the limits show in Table 2 below. The measurement uncertainty at fundamental frequency of the measurement system used shall not be greater than ±0.4%. Not applicable to CoP10	**011**

Table 2 Reactive Energy

Value of Current (I)		**Sin φ**	**Percentage error limits[8] for Meters of Class**		**Applicable BS EN Standard for Test Criteria**
For whole current Meters	**For transformer operated Meters**		**2 (CoP1)**	**3 (CoP2, 3 and 5)**	
$0.05\ I_b \leq I < 0.1\ I_b$	$0.02\ I_n \leq I < 0.05\ I_n$	1	±2.5	±4.0	BS EN 62053 - 23

$0.1\ I_b \leq I \leq I_{max}$	$0.05\ I_n \leq I \leq I_{max}$	1	±2.0	±3.0	and BS EN 61268
$0.1\ I_b \leq I < 0.2\ I_b$	$0.05\ I_n \leq I < 0.1\ I_n$	0.5 ind or cap	±2.5	±4.0	
$0.2\ I_b \leq I \leq I_{max}$	$0.1\ I_n \leq I \leq I_{max}$	0.5 ind or cap	±2.0	±3.0	
$0.2\ I_b \leq I \leq I_{max}$	$0.1\ I_n \leq I \leq I_{max}$	0.25 ind or cap	±2.5	±4.0	BS EN 62053 - 23
$0.2\ I_b \leq I \leq I_b$	$0.1\ I_n \leq I \leq I_n$	0.25 ind or cap	-	±10.0	BS EN 61268
$0.1\ I_b \leq I \leq 0.2\ I_b$	-	1	-	±4.0	BS 5685 Part 4
$0.2\ I_b < I \leq I_{max}$	-	1	-	±3.0	
$0.2\ I_b \leq I \leq I_{max}$	-	0.5 ind and 0.8 cap	-	±3.0	

Source†: BS EN 62053 - 23 for CoP1 and 2 (Class 2 and 3), and BS EN 61268 (Class 3) for CoP 3 and 5 or BS 5685: Part 4 (Class 3) for CoP 2, 3 and 5. * for whole current metering percentage relates to I_{max}.

These limits of error for both Active and Reactive Energy shall apply at the reference conditions defined in the appropriate Meter.

3.4.12 Displays {5.4}

(a) Confirm that the Metering Equipment is capable of displaying the following primary information (not necessarily simultaneously):

(a)	the total cumulative energy values for each Measured Quantity in actual scaled values ~~can be displayed~~ and that such values are stored in non–volatile memory;	**026**

(b)	the current time and date ~~can be displayed~~;	**027**
(c)	the CT and/or VT ratios that have been programmed into the Meter ~~can be displayed~~;	**028**
(d)	any compensation factor applied for measurement transformer errors and/or system losses ~~can be displayed~~; and Not applicable to CoP10.	**029**
(e)	that, where the Meter is combined with the display and/or Outstation and a constant factor is applied, such factor is applied at security level 3. Not applicable to CoP10.	**030**

(b) Confirm that the Metering Equipment is capable of enabling the display of the following information:

(a)	the Maximum Demand ("MD") for kW ~~(~~or MW *(CoP 1 and 2 only~~as appropriate)~~* per month ~~can be displayed~~;	**031**
(b)	the Maximum Demand ("MD") for kW ~~(~~or MW *(CoP 1 and 2 only~~as appropriate)~~* for other programmable charging periods ~~can be displayed~~;	**032**
(c)	the Maximum Demand ("MD") for kVA ~~(~~or MVA *(CoP 1 and 2 only~~as appropriate)~~* per month ~~can be displayed~~;	**033**
(d)	the Maximum Demand ("MD") for kVA ~~(~~or MVA *(CoP 1 and 2 only~~as appropriate)~~* for other programmable charging periods ~~can be displayed~~;	**034**
(e)	twice the kWh ~~(~~or MWh *(CoP 1 and 2 only~~as appropriate)~~* advance from the commencement of the current Demand period ~~can be displayed~~;	**035**
(f)	twice the kVAh ~~(~~or MVAh *(CoP 1 and 2 only~~as appropriate)~~* advance from the commencement of the current Demand period ~~can be displayed~~; Not applicable to CoP10.	**036**
(g)	the cumulative Maximum Demand ~~can be displayed~~;	**037**
(h)	the number of Maximum Demand resets ~~can be displayed~~;	**038**
(i)	the multi rate display sequence, for at least 8 rates selectable over the calendar year~~, can be displayed~~;	**039**
(j)	whether a reverse running indication for Active Energy is provided ~~(where appropriate)~~. *(~~Required for~~ CoPs 3 and 5 only)*;	**040**
(k)	the indicated Maximum Demand is re-settable at midnight of the last day of the selected charging period;	**041**
(l)	the indicated Maximum Demand is re-settable for a part of a charging period; and	**042**
(m)	any Maximum Demand manual reset button is sealable.	**043**

Paragraph 3.4.13 is not affected by CP1318.

3.4.14 Outstation {5.5}

Where an Outstation has been provided as part of the Metering Equipment for test, the protocol shall be Approved in accordance with this BSCP.

Establish~~ing~~ that:

(a)	The Outstation has a unique Outstation identification code;	**048**
(b)	For Meters with integral Outstations ~~establish that~~ an auxiliary terminal provides for the Outstation's energisation for remote interrogation purposes (*CoP1 only*). For Meters with integral Outstations record whether an auxiliary terminal provides for the Outstation's energisation for remote interrogation purposes (*CoP2 only*);	**049**
(c)	The Outstation is capable of communicating with more than one Instation (not simultaneously and of similar type or otherwise);	**050**
(d)	It is possible to repeatedly retrieve data throughout the Outstation data storage period;	**051**
(e)	Any "read" operation does not alter or delete any stored metered data; and	**052**
(f)	The Outstation can provide all metered data stored from the time of commencement of any specified date upon request by the Instation during the data storage period of the outstation.	**053**
(g)	In addition, e~~E~~stablish whether the Outstation is capable of sending metering data automatically *(CoP 5 and 10 only)*. If this test is satisfied then:~~;~~	**054**
(h)	Verify that the metering data sent complies with section 3.4.22 'Level 1 Passwords' of this test specification *(CoP 5 and 10 only)*; and	**055**
(i)	Establish whether the Outstation is capable of sending metering data on a daily basis as a minimum *(CoP 5 and 10 only)*.	**056**

3.4.15 Data Storage {5.5.1}

The Metering Equipment shall be continuously energised at full load for a period of five days and afterwards at a cyclical variable load for a further fifteen days, to determine the~~o~~ total number of kWh or MWh *(CoP 1 and 2 only)* supplied to the Meter over the whole twenty day period.

During the test cycle establish that:

(a)	from the beginning of the current Demand Period, twice the kWh ~~(~~or MWh *(CoP 1 and 2 only)*~~as appropriate)~~ is being registered in the kW ~~(~~or MW *(CoP 1 and 2 only)*~~)~~ Maximum Demand register; and	**057**
(b)	from the beginning of the current Maximum Demand period, twice the kVAh ~~(~~or MVAh *(CoP 1 and 2 only*~~as appropriate))~~ is being registered in the kVA ~~(~~or MVA *(CoP 1 and 2 only)*~~)~~ Maximum Demand register.	**058**

on completion of the twenty day cycle above, the following tests shall be performed and confirm that:

(a)	each Demand Value is identifiable to its respective date and time; and	**059**
(b)	a storage capacity of 48 periods per day in accordance with Table 4 below is available for all Demand Values as integer multiples of kW ~~(~~or MW *(CoP 1 and 2 only*~~as appropriate)~~);	**060**

Table 4 Data Storage Periods

Code of Practice	Minimum Storage Period(days)
1	10
2	10
3	20
5	20
10	20

(a)	for each of the initial five days, the sum of the Demand Values for each block of 48 half-hour periods are within 0.1% of the advance of the total cumulative register of the associated Meter for the same interval;	**061**
(b)	the value of any energy measured in a Demand Period, but not stored in that Demand Period are carried forward to the next Demand Period;	**062**
(c)	for each of the twenty days under test that the contents of the kW ~~(~~or MW *(CoP 1 and 2 only~~as appropriate~~)~~* data stored facility have been stored correctly; and	**063**
(d)	for separate Meter/Outstation combinations, that the Outstation registers can be set to match and increment with the Meter registers. Not applicable to CoP10	**064**

One test sample of the Outstation shall be provided by the Applicant with its memory occupied with data to within twenty days of capacity (appropriate for the number of channels configured). With prior agreement from BSCCo integration periods other than 30mins may be used to facilitate the following two tests.

Upon further Energisation, confirm that;

(a)	on reaching maximum memory storage capacity, that any new data overwrites the oldest stored data; and	**065**
(b)	no other data has been altered or removed.	**066**

Paragraphs 3.4.16 through to 3.4.17.4 are not affected by CP1318.

3.4.17.5 Reverse Running

Where an Active Energy reverse running display is provided, determine that the requirements of BS EN 61036 or BS EN 62053-22 as appropriate are met. Establish under what conditions the reverse running flag is activated and record those conditions. Tests should include single and polyphase power reversals and set the appropriate flag for the Demand Period affected *(CoP 3 and 5 only, and if fitted)*.	**082**
Test that upon return to normal power flow, the reverse running flag is no longer present in the unaffected Demand Period *(CoP 3 and 5 only, and if fitted)*.	**083**

Paragraph 3.4.18 is not affected by CP1318.

3.4.19 Local Port

Using the Local Interrogation Unit provided by the Applicant, confirm that:

(a)	The local port provides data to a Local Interrogation Unit via an opto port to BS EN 61107 *(CoP 3 and 5)* or BS EN 62056-21 *(CoP 1, ~~and~~ 2 and 10)*; or	**085**
(b)	The local port provides data to a Local Interrogation Unit via another type of port; and	**086**
(c)	Repeat collections of stored data are available throughout the storage period and verify that and "read" operation does not delete or modify any stored metering data.	**087**

Paragraph 3.4.20 is not affected by CP1318.

3.4.21 Password Protection

(a)	For separate Outstations establish that a password is required to read or change any data. Not applicable to CoP10	**090**
(b)	For integral Outstations establish that **four**[14] discrete password controlled access levels are provided for both local and remote interrogation.	**091**

[Insert new row in table as shown and join up table with table below]

~~For integral Outstations establish that **four**[14] discrete password controlled access levels are provided for both local and remote interrogation.~~

(c~~b~~)	For alpha numeric character passwords, ensure that passwords are no less than six characters and no more than twelve characters long. Ensure that passwords are formed from case insensitive or sensitive alpha characters (A to Z) and/or digits (0 to 9) and/or the underscore character (_)~~.~~; or Not applicable to CoP10	**092** ~~**1**~~

[14] For CoP 10 only three are required

(de)	For hexadecimal character passwords, ensure that passwords are no less than eight characters and no more than twelve characters long. Ensure that passwords are formed from upper case hexadecimal characters (0 to F). Not applicable to CoP10	**093** ~~**2**~~

3.4.22 Level 1 Passwords

Using the Level 1 password, establish that the following data can be retrieved:

(a)	Outstation ID;	094 ~~3~~
(b)	all programmable Demand Values;	095 ~~4~~
(c)	all programmable cumulative Measured Quantities;	096 ~~5~~
(d)	the Maximum Demand for kW and/or kVA per programmable charging period;	097 ~~6~~
(e)	the multi-rate cumulative Active Energy values;	098 ~~7~~
(f)	the VT and CT transformer ratios, where appropriate;	099 ~~8~~
(g)	(for combined Meter and Outstation only), the VT and CT transformer error correction factor and/or system loss factor applied as a constant factor to the entire dynamic range; Not applicable to CoP10.	100 ~~099~~
(h)	all alarm indications; and	101 ~~0~~
(i)	Outstation time and date	102 ~~1~~

Establish that it is **not** possible to change any of the above values at Level 1 Password.	103

~~Establish that it is **not** possible to change any of the above values at Level 1 Password.~~

3.4.23 Level 2 Passwords

Using the Level 2 Password, establish that all the data listed at Level 1 can be retrieved and in addition that the following actions can be performed:		104 ~~2~~
(a)	changes to time and date; and	105 ~~3~~
(b)	resetting of all Maximum Demands.	106 ~~4~~

3.4.24 Level 3 Passwords

Using the Level 3 Password, establish that all the functionality listed at Level 2 can be performed and in addition that the following programming can be performed:		107 ~~5~~
(a)	Displays and Facilities as defined in Clause 5.4;	108 ~~6~~
(b)	measurement transformer ratios as defined in Clause 5.3;	109 ~~7~~
(c)	(for combined Meter and Outstation only), the VT and CT transformer error	1100 ~~8~~

	correction factor and/or system loss factor applied as a constant factor to the entire dynamic range; and Not applicable to CoP10.	
(d)	passwords for Levels 1, 2 and 3.	**1110~~09~~**
(e)	where applicable, confirm it is possible to programme the schedule for automated transfer of Level 1 metering data via Level 3 access *(CoP 5 and 10 only)*.	**1120~~~~**

Establish that it is possible to read additional information within the Metering Equipment to enable the programmed information to be confirmed.	**1131~~~~**

3.4.25 Level 4 Passwords

Not applicable to CoP10

If the Level 4 Password is implemented electronically then:

(a)	establish that all the functionality listed at Level 3 can be performed and in addition that the following alterations can be performed:	**114**
(b~~a~~)	calibration of the Meter (only where the Meter is integral with the Outstation);	**1153~~~~**
(c~~b~~)	setting the measurement transformer ratios, where appropriate;	**1164~~~~**
(d~~c~~)	setting the measurement transformer error correction and/or system loss factors applied as a complex factor; and	**1175~~~~**
(e~~d~~)	programming the Level 3 & 4 Passwords.	**1186~~~~**

If the Level 4 Password is implemented by removing the seals and cover, then establish that the following alterations can be performed:

(a)	calibration of the Meter (only where the Meter is integral with the Outstation);	**1197**
(b)	setting the measurement transformer ratios, where appropriate; and	**12018**
(c)	setting the measurement transformer error correction and/or system loss factors applied as a complex factor.	**12119**

3.4.26 Password Monitoring {Appendix D}

Using the Approved Protocol[154], verify that the password offered determines the Level of access to the data within the Metering Equipment.	**1220**

Verify, by accessing the Metering Equipment at least eight times with an "illegal" password(s), that:

Not applicable to CoP10

(a)	the illegal password counter resets to zero every hour on the hour change; and	**1231**
(b)	after the seventh illegal password attempt entered between counter resets, that access is prohibited at all levels until the counter resets.	**1242**

3.4.27 Additional Tests

3.4.27.1 Electromagnetic Compatibility Tests

Not applicable to CoP10

In addition to the EMC tests carried out by the Electricity Meter Examination Service of the Director of Electricity Supply as part of the process of Type Approval for the Meter in accordance with BS EN 61036, verify, by testing under all the conditions detailed in BS EN 61036, that:

(a)	any stored data and time/date is not corrupted or has been destroyed; and	**1253**
(b)	the metering accuracy remains within the requirements of Clause 5.4 of this Compliance Testing .	**1264**

[15] If the protocol has not yet received Approval, record the status and description of the protocol used for testing purposes.

3.4.27.2 Immunity to Electromagnetic HF Fields

Not applicable to CoP10

Verify, by testing in accordance with IEC 61000-4-3, and under the following conditions:

- the voltage and auxiliary circuits energised with reference voltage;
- a frequency band of 26MHz to 1GHz;
- a test field strength of 12.5V/m; and
- a carrier of 80% amplitude modulated with a 1kHz sine wave.

(a)	that without any current in the current circuits and the current terminals open circuit the application of the HF fields shall not produce a change in the Meter Register reading of more than 0.01kWh and the test output shall not produce a signal equivalent to more than 0.01kWh. (Where VT and CT connected Meter(s) is under test, equivalent scaled values should be used taking into account the transformer ratios); and	**1275**
(b)	that with basic current Ib, and power factor equal to 1.0, at sensitive frequencies or frequencies of dominant interest, the variation of error does not exceed 3%.	**1286**

On completion of each EMC test verify that:

(a)	any stored data is not corrupted or has been destroyed; and	**1297**
(b)	the metering accuracy remains within the requirements of Clause 5.4 of this .	**13028**

NOTE: Where VT and CT connected Meter(s) are under test the equivalent scaled values, taking into account the transformer ratios, should be used when considering any differences in Meter Register reading and output signals.

3.4.27.3 Sealing {5.7}

Ensure that adequate sealing facilities are provided for Settlement requirements.	**13129**

Paragraphs 3.5 through to 3.5.12.2 are not affected by CP1318.

3.5.12.2.1 Verify, by testing in accordance with IEC 61000-4-3, and under the following conditions:-

- voltage and auxiliary circuits energised with

- reference voltage;
- frequency band: 26MHz to 1GHz;
- test field strength: 12.5V/m;
- carrier 80% amplitude modulated with a 1KHz sinewave,

(i) that without any current in the current circuits and the current terminals open circuit the application of the HF fields shall not produce a change in the Meter Register reading of more than 0.01kWh and the test output shall not produce a signal equivalent to more than 0.01kWh.; and

(ii) that with basic current Ib, and power factor equal to 1.0, at sensitive frequencies or frequencies of dominant interest, the variation of error does not exceed 3%,

and on completion of each EMC test verify that:-

(i) any stored data is not corrupted or has been destroyed; and

(ii) the metering accuracy remains within the requirements of this specification 3.5.

3.5.13 Sealing

Ensure that all Metering Equipment sealing facilities are in accordance with the Code of Practice Six, Section 6.6.

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