

Stage 03: Assessment Report

What stage is this document in the process?

01 Initial Written Assessment

02 Definition Procedure

03 Assessment Procedure

04 Report Phase

P283 'Reinforcing the Commissioning of Metering Equipment Processes'

The Registrant of a Metering System is responsible for its commissioning, and discharges this obligation via its Meter Operator Agent. However, in practice neither Registrant nor MOA can effectively complete particular commissioning tests.

P283 seeks to amend commissioning requirements to place obligations on the relevant Equipment Owner where possible.

P283 would also require the MOA to assess Metering Systems and notify the Registrant of issues, and introduce provisions for the management of such issues by Registrants.



The Workgroup recommends:

- Approval of P283



High Impact:

- Metering System Registrants
- Equipment Owners (where a BSC Party)
- Meter Operator Agents



Low Impact:

- ELEXON

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Any questions?

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About this Document

This is the P283 Assessment Report, which details the discussions of the P283 Workgroup, the P283 solution developed by the Workgroup and the impacts, costs, benefits and potential implementation activities associated with this solution, and the Workgroup's recommendations to the BSC Panel.

ELEXON will present this report to the Panel on 13 June 2013. The Panel will consider the Workgroup's recommendations and agree an initial view on whether or not to recommend to the Authority that P283 should be approved.

Attached to this document are the legal text to implement the P283 solution in the BSC (Attachment A) and the redlined changes to implement P283 in CoP4 (Attachment B).

Further Information

More information is available in:

Attachment **A**: Draft Legal Text

Attachment **B**: Draft CoP4 Redlining

Further information on P283, including the collated responses to the P283 Assessment Procedure industry consultation and the Transmission Company analysis for P283, can be found on the [P283](#) page of the ELEXON website.

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Why Change?

Current practices surrounding the provision and responsibility for Metering Equipment in respect of measurement transformers (i.e. Current Transformers (CTs) and Voltage Transformers (VTs)) make the BSC obligations difficult to meet, potentially putting Settlement at significant risk. Therefore, Metering Equipment which has not been fully commissioned at installation may be significantly inaccurate and could therefore have significant error associated with it which can remain undetected for a considerable time.

Currently the BSC places obligations on the Registrant to ensure that its Meter Operator Agent (MOA) performs the required commissioning of all Metering Equipment in accordance with Code of Practice 4 (CoP4), which includes commissioning and testing of measurement transformers (CTs and VTs). However, measurement transformers are often installed by the network operator before the MOA is appointed, meaning there may not be an opportunity in practice for the MOA to perform commissioning tests on this equipment.

Proposed Solution

P283 seeks to place obligations on the Equipment Owner (where a BSC Party) in respect of newly installed measurement transformers which are, or are to be, installed on its system for Settlement purposes relating to the requirements of CoP4. This will mean that the relevant system operator is required to commission and provide, or make readily available, CT/VT certificates as well as commissioning records to the Registrant.

The P283 Proposed Solution establishes a two tier approach to the obligations in relation to the commissioning and testing of measurement transformers. Where the owner of the measurement transformers is a BSC Party, the obligations would lie with it as the Equipment Owner, i.e. LDSO or Transmission Owner. If the Equipment Owner is not a BSC Party the obligations would rest with the Registrant. Overall responsibility for the Metering System as a whole will remain with the Registrant regardless of equipment ownership.

The MOA will be required to assess and verify the accuracy of all the Metering Equipment associated with a Metering System and where the CTs and/or VTs are owned by a BSC Party they would be obligated to carry out tests on the equipment and provide test results and accuracy certificates to the MOA for it to assess.

P283 also proposes to place a specific requirement on the MOA to report any problems with commissioning to the Registrant in order to identify and resolve any issues or potential undetected errors. A Registrant so informed of a risk by a MOA will then be obligated to contact the relevant Equipment Owner to agree how any uncontrolled risk is to be addressed. For example, if commissioning tests have not been carried out then Registrant and system owner may agree to have the equipment tested at the next opportunity.

Impacts & Costs

The main impacts of P283 would be on Equipment Owners that are BSC Parties and on MOAs. Registrants of Metering Systems would also be affected.

The central impact of P283 is minimal. The main impacts are on the BSC and CoP4, with other document impacts needed to reflect the amended requirements under P283.

Implementation

The Workgroup recommends that the Implementation Date for P283 is 6 November 2014 (the November 2014 BSC Release) if an Authority decision is received on or before 6 November 2013, or the next BSC Release at least 12 months from the date the decision is received if a decision is received after 6 November 2013.

The Case for Change

The Workgroup's unanimous view is that P283 would better facilitate the Applicable BSC Objectives overall compared with the existing baseline.

All of the Workgroup believed P283 would better facilitate Objectives (c), promoting competition in the generation and supply of electricity, and (d), promoting efficiency in the balancing and settlement arrangements, and all but one of the Workgroup also agreed P283 would facilitate Objective (b), relating to the operation of the transmission system.

Recommendations

The Workgroup unanimously recommends that P283 should be approved.

Background

Half Hourly Commissioning process

Section L, section 3.2 of the BSC requires that all Metering Equipment meets, or exceeds, the requirements of the relevant Codes of Practice and for the purpose of calibration, testing and commissioning the relevant Code of Practice is CoP4.

The commissioning process is in place to prove the accuracy of metering and detect any metering problems that would not otherwise be identified. If failure in the commissioning process itself means problems are not detected, significant issues may be masked and not be detected until later.

Commissioning consists of a series of tests and checks used to demonstrate that Metering Equipment complies with the relevant CoP and is therefore working properly. Any failures identified during the Commissioning process must be addressed before the Metering System becomes effective in Settlement.

Where individual items of Metering Equipment are to be replaced then only the replaced equipment needs to be re-commissioned to ensure the Metering System's overall accuracy is maintained.

Responsibility for Commissioning

The Registrant of a Metering System is responsible for ensuring that the Metering Equipment that makes up that Metering System is commissioned for Settlement purposes. Registrants discharge this responsibility by appointing a Meter Operator Agent (MOA) to the Metering System.

Under CoP4 the MOA is currently responsible for carrying out commissioning, though it may sometimes be necessary for commissioning tests to be conducted by someone other than the MOA. In such cases the appointed MOA must ensure such commissioning is carried out in accordance with CoP4. The organisation conducting commissioning is known as the 'Commissioning Organisation' in the CoP4 guidance.

Existing Code and other requirements

BSC Section L, 'Metering', sets out requirements relating to Metering Equipment (including installation and commissioning) and the related functions of the Technical Assurance Agent (TAA).

Section L2.1 sets out that the Registrant is responsible for ensuring Metering Equipment is installed, commissioned, maintained and operated to measure and record quantities of energy. The Registrant is responsible whether or not they own the equipment.

The BSC also contains, in paragraph L3.1.2(b), a broad obligation on the Equipment Owner (where a BSC Party) to provide reasonable assistance to the Registrant where the overall accuracy of the Metering System depends upon the Equipment Owner's Metering Equipment (e.g. current and voltage transformers).

In relation to each Metering System, a Registrant must always be in place and at all times must have appointed a MOA for the Metering System. In Supplier Volume Allocation (SVA), a MOA is appointed when the Registrant sends the relevant flow (the D0155) over the Data Transfer Network (DTN) to the MOA, appointing them, and they accept the



What is Metering Equipment?

Meters, measurement transformers (voltage, current or combination units), metering protection equipment including alarms, circuitry, associated Communications Equipment and Outstations and wiring (Annex X-1 of the BSC).



What is the Registrant?

The BSC defines the Registrant as, in relation to a Metering System, the person for the time being registered in CMRS or (as the case may be) SMRS in respect of that Metering System pursuant to Section K (Annex X-1 of the BSC).

In practice, the relevant Supplier (in the retail market) is Registrant of a Metering System, or in the wholesale market a generator may be the Registrant.

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appointment (the MOA can reject the appointment). This process is set out in BSCP514, 'SVA Meter Operations for Metering Systems Registered in SMRS'.



What kind of problems does commissioning detect?

- Reversed CT/VT polarity
- Crossed wiring between CT/VT and Meter
- Currents and voltages not paired correctly
- Incorrect voltage phase rotation
- Wrong CT or VT ratio programmed in Meter
- Meter programmed with wrong VT ratio
- Compensation not applied for power transformer losses, measurement transformer losses
- Voltage failure alarm inoperative

Raising Modification Proposal P283

BSC Panel

After considering a recommendation of the Performance Assurance Board (PAB) to raise a Modification Proposal ([Panel 196/09](#)), on 12 April 2012 the Panel agreed to raise P283. The Panel agreed the P283 Workgroup's Terms of Reference, specifying that the Workgroup should ensure that Assessment of P283 includes consideration of issues relevant to LDSOs (as well as other relevant participants) and discuss the applicability of the Self-Governance Arrangements to P283.

Performance Assurance Board

In 2011 ELEXON informed the PAB ([PAB123/08](#)) that its expert group the Technical Assurance of Metering Expert Group (TAMEG) and ELEXON had concerns around Metering Equipment commissioning, specifically certain Metering Equipment which is not usually within the control of the Registrant or MOA. This means BSC commissioning requirements can be difficult to meet. ELEXON also informed the PAB ([PAB123/09](#)) that a number of key issues prevent proper commissioning of Meter Equipment, leading to incomplete or incorrect records.

In January 2012, ELEXON informed the PAB ([PAB132/04](#)) of the TAMEG's conclusions regarding the underlying problems with Metering Equipment commissioning and how these issues could be addressed. Under Section Z8.2 of the BSC the PAB may recommend to the Panel that the BSC be modified in order to remedy an error, ambiguity, inconsistency or deficiency. Based on the TAMEG work, ELEXON considered the BSC to be deficient in the area of responsibility for certain Metering Equipment (i.e. measurement transformers).

The PAB agreed to recommend this Modification Proposal, which was developed by the TAMEG and which all TAMEG members, the National Grid representative and ELEXON believe is a practical and efficient solution.

TAMEG views

The TAMEG concluded that commissioning problems are predominantly associated with the timing of the appointment of MOAs, Registrants not being in place and the provision and installation of measurement transformers (i.e. CTs and VTs).

At present the MOA is required to perform Metering Equipment commissioning tests, but often no MOA is appointed for a Metering System in the period in which some tests can reasonably be conducted. This issue is particularly significant for High Voltage (HV) sites, where connection of the HV switchgear (which contains the measurement transformers) before MOA appointment means commissioning tests cannot be conducted on CTs and VTs by the MOA.

In addition, there is no specific requirement on any party to report problems with commissioning tests to the Registrant, though ELEXON has encouraged MOAs to record concerns about the commissioning of other Metering Equipment (such as CTs and VTs) on their commissioning record. This means the Registrant is unlikely to be aware of problems, which exacerbates the issue. P283 would formalise this procedure by placing clear obligations on the MOA, via its relationship with the Registrant.

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Agreed solution principles

Following a TAMEG workshop (with balanced participation from CVA and SVA MOAs, Suppliers and LDSOs and input from a Transmission System operator representative) the TAMEG unanimously agreed a set of principles for a solution to address the issues identified around commissioning. The P283 Modification Proposal is based on these agreed principles, which are:

- All Metering Equipment should be commissioned and records retained in accordance with CoP4;
- Responsibility for commissioning CTs and VTs and provision of calibration certificates and commissioning records to the MOA/Registrant should be placed on the relevant Equipment Owner where a BSC Party;
- MOAs shall be responsible for requesting certificates and commissioning records from the Equipment Owner;
- The Registrant should remain responsible for ensuring all Metering Equipment is installed, commissioned and maintained and the MOA should be required to confirm commissioning of Metering Equipment and provision of records and notify the Registrant of any potential uncontrolled risks (e.g. incomplete/incorrect commissioning and/or records); and
- When notified of issues by the MOA, the Registrant should be required to consult with the relevant System Operator to agree steps to minimise the risk.

Arguments for Change

Identified Benefits

Significant issues around CTs and VTs can arise if these components are not properly commissioned upon installation. Such issues have been identified by the Trading Disputes and Technical Assurance Agent processes, and include the incorrect CT/VT ratio being programmed into the meter due to lack of commissioning record. It can take many years for underlying problems to be identified, which may cause issues for previous Registrants as well as the current customer and Registrant.

The period in which commissioning tests can reasonably be carried out is relatively short, and the participants currently responsible (i.e. Registrant and MOA) may not be in place at that time. Placing obligations on the relevant Equipment Owner, with the Registrant retaining ultimate responsibility for the Metering System, appears to be a reasonable and practical way forward. In addition, requiring the MOA to actively identify issues and inform the Registrant should significantly improve the control of these Settlement risks.

Settlement Risk

As detailed in PAB132/094, ELEXON believes the issues around commissioning to be relevant to the following four Settlement Risks, and that Modification P283 would deliver benefits against each of these risks.

- That HHDCs do not use correct MTDs (SR0022);
- That Import/Export Metering Systems are incorrectly installed/configured resulting in inaccurate data entering Settlement (SR0116);



Which Applicable BSC Objectives are relevant?

Objectives (c), which relates to competition in the generation, supply, sale and purchase of electricity, and (d), which relates to the efficiency of the balancing and settlement arrangements.

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- That HHDCs use data from faulty Metering Systems (SR0112); and
- That LDSO Metering Equipment is not maintained (SR0113).

For each of these risks commissioning is identified as a control, so strengthening this area would decrease the significance of each risk. In particular, ELEXON believes that implementation of the solution set out in the P283 Modification Proposal would reduce risk SR0116, which would cause a consequential reduction in SR0022. This could impact deployment of Performance Assurance Techniques in 2014/2015 (depending on Implementation Date).

Applicable BSC Objectives

The Modification Proposal asserts that by addressing the issues set out above the proposed change would better facilitate Applicable BSC Objectives (c) and (d). P283 contends that increased accuracy and reduced risk will promote competition and increased accuracy and placing obligations on the most suitable participants will promote efficiency in the BSC arrangements. The Workgroup has given its initial views of the impact of P283 against the Objectives.

The solution requirements set out in this section detail the Workgroup's view of the central impacts and mandatory requirements for participants that implementation of P283 would introduce.

Solution Requirements for P283 Proposed

The Workgroup has developed the P283 Proposed Modification to amend Half Hourly commissioning based on the Modification Proposal. The Workgroup has not developed an Alternative Modification.

1. Increase Equipment Owners' Commissioning Obligations in the BSC

The changes proposed to the BSC to implement P283 are set out in Attachment A. Under the proposed BSC provisions the Registrant remains primarily responsible under the Code for all obligations. At present an MOA would undertake these obligations on behalf of the Registrant, but under P283 in particular circumstances the relevant Equipment Owner would undertake limited obligations.

BSC Section J 'Party Agents and Qualification under the Code'

J1.2.2 (a) requires Parties that are Registrants to ensure that a MOA is appointed to perform certain activities, including commissioning Metering Equipment. The proposed change to this paragraph would introduce an exception in the case that (Section L and CoP4) provide for the Equipment Owner performing such activities.

BSC Section L 'Metering'

Under P283, paragraph L3.1.2 would be amended to include an obligation on Equipment Owners who are BSC Parties to comply with any requirements that CoP4 places on them in relation to calibrating, commissioning and testing measurement transformers. In order to be consistent with the drafting of Section L, the change refers to the 'relevant Code of Practice', not CoP4 explicitly.

P283 would amend L3.6.1 to specify that the Registrant's responsibilities with respect to Half Hourly Metering Equipment commissioning include notifying the relevant network operator (Distribution System Operator or Transmission Company) of issues identified during commissioning and consulting it about issues identified.

Under the amended L3.6.1 the Registrant would remain responsible for ensuring Metering Equipment is commissioned in accordance with the relevant CoP. However, the changes to the BSC and CoP4 under P283 mean this commissioning obligation may, in particular cases, be discharged through the Equipment Owner instead of the MOA.

No change is proposed to L1.2.3 because it remains an accurate high level description of the MOA's functions and the BSCPs and Party Service Line referred to in L1.2 are not changing. Similarly no change to S2.2.2(a) and Annex X-1 is proposed.



Who is the Equipment Owner?

The Equipment Owner means, in relation to a Metering System, a person which is the owner of the Metering Equipment comprised in that Metering System but is not the Registrant of that Metering System.

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2. Amend CoP4 Requirements

Make Equipment Owner responsible for Commissioning Measurement Transformers

P283 would amend CoP4 such that obligations relating to measurement transformers, and equipment up to the meter's testing facilities, are placed on the Equipment Owner of the Metering System where it is a BSC Party. The testing facilities are at the boundary where the MOA's equipment meets the host system operator's equipment.

This would remove responsibility for these items from the MOA, where the Equipment Owner is a BSC Party. The MOA would remain obligated to obtain evidence that the items have been commissioned by the responsible Party.

No changes or amendments are proposed to commissioning timescales or to the provision that if individual items of Metering Equipment are replaced only those items need to be commissioned.

Require MOAs to notify Registrant of Commissioning status

Under P283 MOAs would be required to notify the Registrant of the outcome of the commissioning of HH Meters. MOAs would be required to notify the Registrant that either:

- All items of Metering Equipment have been commissioned in accordance with CoP4; or
- The MOA has identified defects or omissions in the commissioning of Metering Equipment, including details of such defects/omissions and the MOA's assessment of their implications.

CoP4 would not prescribe a process for an MOA notifying a Registrant, and would not require the Registrant to confirm receipt of such a notification.

Require Registrant to assess issues and act to address

Under the present provisions of the BSC and CoP4 the Registrant has overall responsibility for commissioning and there is a Code obligation on the Equipment Owner (if a BSC Party) to provide 'reasonable assistance' to the Registrant with respect to its obligations.

In addition to these existing provisions, under P283 the Registrant would be required to take steps to resolve issues identified by the MOA's notification of defect or omissions in the process of commissioning a Metering System, where the Registrant believes that the issues constitute a risk to Settlement.

Under P283 the Registrant would consult with the relevant participants and agree steps to address issues and minimise risk to Settlement. This could include further commissioning of the Metering System.

3. Provide further details in CoP4 Guidance

P283 would introduce the requirements set out above, and detailed in Attachments A and B to this report, into the BSC and CoP4 respectively. To enable participants to effectively comply with CoP4 requirements introduced by P283 advice and recommended processes will be included in the CoP4 Guidance document, as is the case for other CoP4 requirements.



Meter testing facility

The testing facility is an area at the boundary between the equipment for which the MOA is responsible and the host Distributor's equipment close to the relevant Meters and with appropriate separate fusing to enable testing of the equipment.

Descriptions and examples can be found in the relevant sections on testing facilities and in Appendix C, 'Typical Testing Facilities and Fusing Arrangements', in CoPs 1, 2, 3 and 5.

The equivalent terms 'meter test block' and 'test terminal block' are sometimes used.

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The Modification process only requires that Codes changes are drafted prior to approval of a change but, since CoP4 will contain the requirements that determine how the P283 BSC provisions will be delivered, the Workgroup has developed the CoP4 redlined changes. The Workgroup has therefore not drafted changes to the CoP4 Guidance, or to any Code Subsidiary Documents besides CoP4, in keeping with the standard Modification Process.

Changes to the guidance will be produced as part of the implementation of P283, if approved. The guidance will be amended to reflect the BSC and CoP4 changes introduced by P283, and the Workgroup believes that the following particular areas should be considered in the development of guidance.

Commissioning by Equipment Owner

- Details of the equipment that should be commissioned, in what circumstances, and how;
- How results should be recorded and how and when information should be reported to the MOA;
- Guideline commissioning templates for optional use; and
- Clarification of responsibilities where the Equipment Owner is not a Party.

Equipment Owner records

- Production and retention of records by the Equipment Owner for Metering Equipment it owns and commissions;
- Equivalence of records to current MOA records (calibration certificates and commissioning records); and
- Provision of records to MOA, upon request by MOA, such that MOA and Registrant are able to fulfil their obligations.

MOA notifying the Registrant of commissioning status

- Assessment of status by the MOA, what constitutes fully commissioned, examples of commissioning defects/omissions;
- Process for MOA notifying Registrant and information required in notification; and
- Optional form for use by MOA when notifying Registrant.

Registrant addressing issues

- Assessment of issues by Registrant;
- Process for Registrant contacting relevant Equipment Owner and agreeing steps to address issues; and
- Guidance for cases where the Equipment Owner is not a BSC Party.

BSC Legal text and CoP4 Redlining

The proposed redlined changes to the BSC and CoP4 to deliver the P283 solution, as described above, are set out in Attachments A and B.

The Modification process requires only that changes to the Code are drafted for inclusion as part of the Modification Report, but CoP4 will contain the requirements that determine

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how the provisions introduced into the BSC will be delivered. The Workgroup considered that to enable a full assessment of the merits of P283 the CoP4 changes should be developed as part of the P283 Assessment Procedure and included in the industry consultation and subsequent reports.

Other document impacts

Other document impacts that would result from implementation of the P283 solution will be confirmed as part of ELEXON's impact assessment of P283. Any changes required will not be redlined prior to approval of P283 but would be drafted following approval to reflect the solution requirements. This is the normal process for Code Subsidiary Document changes.

Implementation impacts

Participants' obligations and processes would be impacted by implementation of P283, which has led to the implementation approach developed by the Workgroup, but no estimates of the costs associated with such impacts have been provided. Details of the impacts identified can be found in the responses to the P283 Assessment Procedure industry consultation, the [P283](#) page of the ELEXON website.

Impact on BSC Parties and Party Agents

The obligations and processes of Registrants of Metering Systems, system owners (National Grid, SHETL, SPTL) where they provide and own the Metering Equipment, LDSOs and MOAs relating to commissioning of Metering Equipment would be changed.

Impact on the Transmission Company

The obligations and processes of the Transmission Company as system owner (where it provides and owns the Metering Equipment) relating to commissioning of Metering Equipment would be changed.

The impact on ELEXON of P283 implementation would be minimal, and would be associated with making the changes to the BSC and CoP4 developed as part of P283, and updating other affected Code Subsidiary Documents.

Impact on ELEXON

Area	Impact
Implementation	Make required changes to documentation as part of implementation.
Performance Assurance	Going forward, Performance Assurance activities may be affected by the changes to participants' obligations; this would be done as part of normal processes.

Impact on the BSC

BSC Section J 'Party Agents and Qualification under the Code'

BSC Section L 'Metering'

Impact on Code Subsidiary Documents

Code of Practice 4 'The Calibration, Testing and Commissioning Requirements of Metering Equipment for Settlement Purposes'

BSCP514 'SVA Meter Operations for Metering Systems Registered in SMRS'

BSCP515 'Licensed Distribution'

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5 Implementation

The Workgroup's recommended Implementation Date for P283 is:

- 6 November 2014 if an Authority decision is received on or before 6 November 2013; or
- The next BSC Release at least 12 months from the date the decision is received (if an Authority decision is received after 6 November 2013).

The Workgroup agreed that 12 months from the date of approval would be a reasonable amount of lead time for implementation of the P283 requirements by impacted participants. Changes to the Code, subsidiary documents and any required system changes would take effect from the Implementation Date.

The Group noted that CoP4 guidance relating to the P283 solution would be important in putting P283 into practice, and considered that participant workshops may be required to develop this guidance. Since the guidance will need to be developed as part of P283 implementation, the Workgroup agreed an implementation lead time of 12 months for P283.

Initial Assessment

Development of Proposed Modification

The Workgroup noted that the TAMEG, in general and via its specific workshop, has given considerable consideration to the underlying issues behind P283 and to developing, with the input of a representative range of participants, a practical way forward to address the identified issues. In developing the P283 solution the Workgroup was mindful of the TAMEG work as the basis of the Proposed Modification.

The Workgroup has considered whether there are any alternative solutions to P283; however it has not identified any which it believes would better facilitate the Applicable BSC Objectives compared with the Proposed solution.

CoP4 Drafting

The Workgroup considered whether the requirement in CoP4 should be for the MOA to notify the Registrant whether or not a Metering System has been fully commissioned. However, they decided that the term 'fully commissioned' allowed scope for interpretation, and that it would be more clear and precise for the requirement to refer to a Metering System being commissioned 'in accordance with CoP4'.

The Workgroup noted that the metering equipment testing area is at the boundary between the equipment for which the MOA is responsible and the host Distributor's equipment, and therefore considered that it was appropriate to make reference to this in the new provisions. The Workgroup noted that various terms were used for this area, but agreed that the term 'test facilities' should be used in the P283 drafting because this is consistent with the other CoPs, and considered that in the interests of clarity the term should also be defined as part of CoP4 for clarification purposes.

The Group considered that overall the approach and wording of the CoP4 drafting produced to implement the P283 solution is appropriate but that further work will be needed to put the requirements into practice effectively, including the production of CoP4 guidance as part of P283 implementation.

Putting into practice the P283 requirements

The Workgroup agreed that a mandatory reporting process and obligatory reporting templates could not be effectively introduced to CoP4 as part of P283. In practice, this means that under the CoP4 requirements each MOA will interpret, and discuss with Registrants, what details they need to put into their reports to the Registrant.

Therefore initially, upon implementation of P283, different MOAs may provide varying levels of detail in reports. The Workgroup agreed that as part of the implementation of P283 the guidance to CoP4 should be updated to advise MOAs how to meet the new requirements with a view to promoting efficient processes and the provision of useable and useful reports to Registrants. In future, following practical application of the P283 requirements, the CoP4 obligations could be tightened up via a CP, or the guidance notes could be further updated to amend the advice on how best to discharge the obligations.

The Workgroup agreed that the provisions introduced to CoP4 by P283 should require that MOAs provide positive notification of commissioning being completed in accordance with CoP4 or notification of any problems identified, in order that Registrants can be confident that they have received all relevant information. The Workgroup believed that Suppliers would prefer that MOA's 'over-report' rather than risk providing too little information, and considered that Registrants should have discretion to determine whether and how to act in response to reports received.

Equipment Owner considerations

The Workgroup considered the impact that a change of Equipment Owner with respect to metering equipment would have under the P283 arrangements, in particular what happens in the case that CTs/VTs are transferred to the customer. They concluded that this does not cause an issue because transferral of CTs/VTs to the customer means the Boundary Point also changes and the Registrant would be required to re-locate the CTs and/or VTs (and re-commission them) or apply for a Metering Dispensation.

The Workgroup also considered what would happen under the P283 arrangements if the Equipment Owner, i.e. the owner of the CTs/VTs, is not known at the time when commissioning is required. They noted that this situation was only likely to occur where the Equipment Owner is not a BSC Party, since it should be possible to identify the Equipment Owner where that owner is a Party. The Workgroup concluded that under P283 if the Equipment Owner is not known then responsibility would fall to the Registrant. This matches the situation under the current provisions and means that the Registrant can act as it sees fit to meet its obligations.

Offshore Transmission System Owners (OFTOs)

The Workgroup discussed whether equipment associated with an OFTO required particular consideration under the P283 provisions. Registrants receive and become responsible for metering assets once they are commissioned; OFTOs have the same issues as other sites, but commissioning is carried out before assets are transported offshore. The Workgroup therefore concluded that the obligations P283 would introduce no special concerns for OFTOs and no specific consideration is necessary in this respect.

Test certificates and commissioning records

The Workgroup discussed who should be responsible for the production (and retention) of records, and how to ensure that records/reports from MOA to Registrant contain sufficient information in a way that is useful to the Registrant (e.g. a Supplier). The Group agreed that the MOA should be required to always report to the Registrant on the status of the Metering System's commissioning in accordance with CoP4, i.e. whether or not the MOA has identified omissions/defects in commissioning. The MOA should identify any specific defects/omissions in commissioning and it is their responsibility to inform the Registrant of this. If no defects/omissions are identified by the MOA, the MOA must send a positive confirmation to the Registrant notifying it that the Metering System has been commissioned in accordance with CoP4.

The Workgroup considered whether the Registrant is ultimately responsible for holding records (since under Section L 'Metering' the Registrant has overall responsibility) and it discharges this responsibility via its MOA. BSCP27 'Technical Assurance of Half Hourly Metering Systems for Settlement Purposes' requires that records are produced on demand, implying that the original record or copies of it must be accessible. The records are only needed either during a TAA site visit or if requested by the BSC auditor.

The Workgroup agreed that whoever carries out the commissioning (MOA or Equipment Owner) should hold the records, and that the MOA should contact the Equipment Owner to obtain record held by it as necessary.

Applicability to Half Hourly and Non Half Hourly Metering Systems

The Workgroup considered whether the same approach to the notification of defects/omissions or positive notification of commissioning being carried out should apply for both Non Half Hourly (NHH) and Half Hourly (HH) Metering Systems. They agreed that there would be more value in introducing the reporting requirements for HH sites, and conversely the introduction of such requirements for NHH metering would make the requirements much more onerous, due to the much greater number of NHH meters compared with HH, for relatively little benefit.

The Workgroup considered that P283 was raised to address issues with HH metering commissioning. Because it concerns CTs/VTs it relates to HH meters, and the Workgroup therefore agreed considerations relating to NHH metering are not relevant to P283. The Workgroup therefore agreed that the notification requirements should apply only with respect to HH meters.

It was noted that if the reporting requirement is introduced initially for HH sites only, NHH sites can potentially be included in the future in a manner that promotes consistency and takes into account any issues arising from the application of the reporting requirements to HH sites.

The Workgroup discussed whether it might be useful to further limit the reporting requirement by making it applicable to only High Voltage (HV) sites, since errors on such sites will have the most material effects. However, they agreed that the requirements should apply for all HH metering.

Registrant taking action

The Workgroup considered whether the Registrant should be required to take action in response to all reports from MOAs notifying the Registrant of omissions/defects in commissioning, and agreed that the Registrant should have discretion to consider the information received from the MOA and decide whether to act and, if so, what action to take. The Workgroup agreed that there would be no benefit in requiring Registrants to acknowledge receipt of notifications from MOAs under P283.

The Workgroup agreed that action by the Registrant would include re-commissioning of metering equipment. In line with its agreement that notification reports from MOAs shall relate to commissioning in accordance with CoP4, the Workgroup considered that actions that may be taken by a Registrant include any measures to ensure a Metering System becomes commissioned in accordance with CoP4. Commercial arrangements would presently be in place between Registrant and MOA, and Registrants could develop further commercial arrangements with participants as necessary under P283. This would enable Registrants to fulfil their obligation to act in response to a notification from an MOA to ensure meters are commissioned in accordance with CoP4.

Developing guidance

The Workgroup considered that development of arrangements between participants to ensure commissioning in accordance with CoP4 should not be part of the assessment of P283, and agreed that such arrangements could be included as part of the CoP4 guidance to assist participants. Such guidance should be produced as part of the implementation of P283.

P283 solution not retrospective

P283 is intended to help to address issues going forward, and would not apply to Metering Systems retrospectively or seek to address existing 'legacy' issues. The Workgroup noted that it is anticipated that the TAMEG will separately consider ways to address legacy issues.

The Workgroup confirmed that the P283 Proposed solution would not apply retrospectively, and the P283 arrangements would therefore apply only to new Metering Systems and Metering Systems that are re-commissioned. The group agreed that as part of P283 implementation consideration should be given to making it clear in the CoP4 Guidance how the provisions of P283 apply with respect to existing and new Metering Systems.

Though P283 will not address legacy issues, the Workgroup considered that P283 will improve the commissioning process going forward by giving the Registrant more opportunity to resolve any issues in commissioning. At present there is no requirement for the Registrant to be told whether Metering Systems are fully commissioned or whether there are issues; P283 would introduce a requirement for the MOA to inform the Registrant of commissioning status.

Guidance and Templates

The Workgroup agreed that guidance and optional templates supporting the P283 solution should not be included in CoP4. In line with the approach to CoP4 provisions, only high level requirements should be included in CoP4. The Workgroup considered that particular circumstances like a change of MOA without a change of metering system should be addressed in the CoP4 guidance.

The Workgroup considered that guidance will play an important role in the implementation of P283 and putting the new requirements into practice. Once P283 is approved, the development of guidance and templates for inclusion in the CoP4 guidance, and other documentation as appropriate, should be done as part of P283 implementation. This would include guidance on reporting, etc. and any templates that are deemed necessary.

Not suitable for Self-Governance Arrangements

The Workgroup believed that, given the change to participants' obligations proposed by P283, the Authority should determine whether or not it should be approved, and therefore agreed that P283 was not suitable for progression as a Self-Governance Modification Proposal. However, they agreed to ask a specific question to get the views of industry participants on this matter.

Workgroup's initial views against the Applicable BSC Objectives

The Workgroup unanimously agreed that P283 would better facilitate the Applicable BSC Objectives overall compared with the existing baseline.

All of the Workgroup believed P283 would better facilitate:

- Objective (b) because it would improve the accuracy of metered volumes which would promote effective operation of distributions systems; and
- Objective (d) because data entering Settlement would be improved under the P283 arrangements.



The Applicable BSC Objectives

(a) The efficient discharge by the Transmission Company of the obligations imposed upon it by the Transmission Licence

(b) The efficient, economic and co-ordinated operation of the National Electricity Transmission System

(c) Promoting effective competition in the generation and supply of electricity and (so far as consistent therewith) promoting such competition in the sale and purchase of electricity

(d) Promoting efficiency in the implementation of the balancing and settlement arrangements

(e) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency

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The majority of the Workgroup also agreed that P283 would better facilitate Objective (c) because competition would be improved by increased confidence in the Settlement and commissioning processes as a result of the P283 arrangements.

One Workgroup member believed that P283 was neutral with respect to Objective (c) because, while they note the qualitative arguments put forward, they did not believe there would be any significant impact in practice.

Transmission Company Analysis

The Transmission Company's analysis of P283 did not identify any impacts on National Grid as a result of implementation of P283, and no impact on its ability to operate the Transmission System.

The Transmission Company suggested that rectification timescales for material and non-material defects should be clarified and that standardising the processes and format for information exchange between parties should be considered. The Workgroup considered that these areas would be addressed by the CoP4 guidance that would be produced as part of P283 implementation.

Responses to the industry consultation

Respondents

11 responses were received to the P283 Assessment Procedure industry consultation. The respondents to the consultation operate in a range of capacities, including one or more of Supplier, LDSO and Party Agent roles (including MOA, HH and NHH DA, and HH and NHH DC). The consultation sought participants' views on the Workgroup's consideration of P283 and also aimed to establish the impact on participants of implementing P283.

Implementation impacts

Nine respondents identified impacts on them as a result of implementation of P283. Only one respondent identified significant impact, and none were able to estimate the cost of the impacts. The impacts identified were related to changing process and procedures, and training associated with delivering such changes.

LDSOs identified the greatest impacts due to the commissioning requirements that P283 would place on them as Equipment Owners. However, most LDSO respondents stated that while they would need to modify some of their procedures, the impact was not significant because they already carry out most or all of the activities that P283 would mandate. One LDSO, UK Power Networks, stated that the P283 impact would be significant because P283 would place a completely new obligation upon it as Equipment Owner, which would require preparation and training in procedures for either its performance or contracting out of the required activities.

The two responses that did not identify implementation impacts were from a Supplier and an organisation that operates in Party Agent roles, but not as an MOA.

The responses were in line with the Workgroup's view of the likely impacts on participants.

Legal Text and Redlining

Ten respondents agreed that the BSC legal text and CoP4 redlining consulted upon would deliver the P283 solution, and one was neutral. Two respondents queried particular aspects, the exclusion of NHH commissioning and the layout of commissioning tests.

The inclusion of NHH commissioning under P283 would be a significant change to P283, and as such is considered under 'P283 Solution and possible Alternative Solutions', below.

With respect to the layout of commissioning tests, UK Power Networks would have preferred, in the interests of clarity, that the tests the Equipment Owner would conduct under P283 were separated out in CoP4. There was some sympathy among the Workgroup for this suggestion, but overall the Workgroup agreed to retain the straightforward approach used in the drafting, and not change the CoP4 redlining. If considered beneficial, clarification can be provided in the CoP4 guidance produced as part of P283 implementation.

One respondent, EDF Energy, was neutral because, while they agreed with the drafting approach, they suggested some minor amendments to the L3.6.1 of the legal text and to the CoP4 redlining. The Workgroup agreed that EDF Energy's suggestions were sensible and facilitated the implementation of the P283 solution consulted upon, and agreed that the BSC legal text and CoP4 redlining should be amended to incorporate them. The attached legal text and CoP4 redlining have been updated to address EDFs comments, as set out in its response to consultation question 3.

Implementation Approach

Consultation respondents unanimously agreed with the Workgroup's initial recommendation to implement P283 in a scheduled BSC Release and to allow a minimum of 12 months from approval to implement P283.

The BSC Releases fall in February, June and November each year. The next feasible Release in which P283 could be implemented is on 6 November 2014. A decision would be required from the Authority to be received on or before 6 November 2013 in order to implement P283 on 6 November 2014.

Most respondents indicated a minimum 12 month lead time was a reasonable period given that this would include the development of guidance and other documentation, and that changes would be required to processes and training. Scottish Power believed that, based on the impacts on it, it might be possible to implement P283 more quickly, though they acknowledged that the impacts on other participants had to be taken into account.

Only UK Power Networks was concerned that 12 months may not be enough time. This concern was due to considerations around altering contractor and staff processes, introducing new requirements and also burdens relating to Independent Connections Providers (ICPs), specifically setting out requirements and ensuring ICP compliance.

A Workgroup member clarified that the concern was that development of arrangements between LDSOs and ICPs was likely to be quite onerous, and might take in the region of 12 months on its own; therefore any significant delay in the clarification of the P283 requirements via the CoP4 guidance and could threaten LDSOs' ability to make arrangements with ICPs by the P283 Implementation Date.

The Workgroup considered that there was some validity in the concerns around ICPs, but did not believe it was necessary to extend the implementation lead time for P283 beyond 12 months. The Workgroup considered that it would be reasonable for ELEXON to begin to draft CoP4 guidance relating to the P283 arrangements prior to approval of P283, seeking industry input on the guidance in an efficient manner, for instance by discussing it with existing industry groups such as the TAMEG. The guidance should then be available to participants shortly after approval of P283.

P283 Solution and possible Alternative Solutions

Ten respondents confirmed that there were no alternative solutions that the Workgroup should consider.

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Require Registrant to make arrangements with local LDSO

E.ON UK believed that commissioning requirements defaulting to the MOA if the LDSO is not the Equipment Owner means that the issue behind P283 is not fully addressed, and suggested that responsibility should pass back to the Registrant with some sort of agreement that the local LDSO can carry out the work if the MOA is not able to.

The Workgroup considered that this approach was not precluded by P283 and did not believe that P283 should be amended to incorporate this possibility explicitly, or that this should be progressed as a separate solution. It could be clarified in the CoP4 guidance that this approach could be pursued in accordance with the P283 arrangements.

Applicability to Half Hourly Commissioning only

The exclusion of NHH commissioning was queried by RWE npower (in its response with regard to the legal text), which noted that although the volumes are lower there are CT and even VT operated sites within the NHH market. Though not identified as a possible alternative solution, the inclusion of NHH commissioning in P283 would be either a material change to the P283 Proposed Solution or would constitute a P283 Alternative.

The Workgroup considered that there could be some benefit in extending the P283 arrangements to NHH meters, but reaffirmed its original view that P283 should apply to HH meters only. The Workgroup reiterated its original views that P283 was raised to address issues with HH metering commissioning and that requirements relating to NHH sites can be progressed via a separate change in the future that would take into account any issues arising from the application of requirements to NHH sites.

Not retrospective

IMServ, which operates as an MOA amongst other roles and was supportive of P283, did not suggest an alternative solution but queried what effect P283 would have with respect to the historical issue of lost or destroyed measurement transformer test certificates. They noted that whenever a meter is changed it must be commissioned in accordance with the new CoP4 requirements (but note that If an element of a meter is changed only that element must be commissioned in accordance with the relevant CoP, not the whole meter), but that the change to obligations proposed by P283 would not change the fact that loss of the test certificate will still cause the process to fail.

P283 would not address the issue of lost test certificates, but this concern is not directly relevant to P283. The requirement under P283 for MOAs to advise Suppliers of failures in the commissioning process should facilitate monitoring of commissioning failures and the identification of the reasons for failures, which could help participants to take action to address underlying issues in future, including lost certificates.

P283 compared with the current baseline

Consultation respondents unanimously agreed that P283 would better facilitate the Applicable BSC Objectives compared with the existing arrangements. Of the six respondents that gave views against specific BSC Objectives - rather than indicating general agreement with the Workgroup - five believed Objective (d) would be better facilitated, four that Objective (b) would be better facilitated and three that Objective (c) would be better facilitated.

Though some respondents indicated that they gave more weight to some of the Workgroup's arguments than others, no new arguments were identified by respondents.

P283 and Self-Governance

Consultation respondents unanimously agreed with the Workgroup's view that P283 is not suitable for determination as a Self-Governance Modification. Respondents agreed that the impact that P283 would have on participant's obligations meant that it was not suitable for Self-Governance.

CoP4 Guidance

As noted in the 'Implementation Approach' discussions, above, the Workgroup agreed that it would be sensible for ELEXON to begin to draft CoP4 guidance relating to the P283 arrangements prior to approval of P283 so that the guidance should be available to participants shortly after approval of P283.

Though ELEXON would be responsible for the production of the guidance, the Workgroup considered that it would be sensible for ELEXON to seeking industry input on the guidance in an efficient manner, for instance by discussing it with existing industry groups such as the TAMEG. The Workgroup agreed that the suggestions relating to the guidance considered under P283, and noted throughout this report, should be considered as part of the production of guidance, along with any areas identified by ELEXON and industry participants.

It should be noted that though guidance relating to P283 can be produced, and publicised, as final for the purposes of P283 implementation, the guidance is a 'live' document and subject to change by ELEXON (and not subject to the BSC change process). In the interests of giving participants clarity and certainty around the guidance, between P283 approval and implementation ELEXON would undertake not to make unnecessary changes to the guidance in areas related to P283 during P283 implementation.

Workgroup's final views against the Applicable BSC Objectives

The Workgroup unanimously agreed that P283 would better facilitate the Applicable BSC Objectives overall compared with the existing baseline.

All of the Workgroup believed P283 would better facilitate:

- Objective (c), because competition would be improved by increased confidence in the Settlement and commissioning processes as a result of the P283 arrangements; and
- Objective (d), because data entering Settlement would be improved under the P283 arrangements.

All but one of the Workgroup also believed P283 would better facilitate Objective (b), because it would improve the accuracy of metered volumes which would promote effective operation of distributions systems. One Workgroup Member believed that P283 would be neutral with respect to Objective (b).

The Workgroup considered that the main benefits of P283 would be against Objectives (b) and (d), with marginal benefit against (c). One Workgroup member commented that they did not believe P283 would have any significant impact against Objective (c) in practice, but they accepted the qualitative arguments put forward against (c).

8 Recommendations

The P283 Workgroup invites the Panel to:

- AGREE an initial recommendation that Proposed Modification P283 should be made;
- AGREE an initial Implementation Date for Proposed Modification P283 of 6 November 2014 if an Authority decision is received on or before 6 November 2013, or if an Authority decision is received after 6 November 2013 the next BSC Release at least 12 months from the date the decision is received;
- AGREE the draft legal text and CoP4 redlining for Proposed Modification P283;
- AGREE that Modification Proposal P283 be submitted to the Report Phase; and
- AGREE that ELEXON should issue the draft P283 Modification Report for consultation and submit results to the Panel to consider at its meeting on 11 July 2013.