

Modification proposal:	<b>Balancing and Settlement Code (BSC): Reinforcing the Commissioning of Metering Equipment Processes (P283)</b>		
Decision:	The Authority <sup>1</sup> directs that this proposal be made <sup>2</sup>		
Target audience:	National Grid Electricity Transmission Plc (NGET), Parties to the BSC and other interested parties		
Date of publication:	31 July 2013	Implementation Date:	6 November 2014

## Background to the modification proposal

Currently, half-hourly Metering Equipment<sup>3</sup> is subject to a commissioning process set out in metering Code of Practice 4 (CoP4) within the Balancing and Settlement Code (BSC).

The commissioning process must be carried out by an appointed Meter Operator Agent (MOA) (in the case of CoP4 tests). It consists of a series of tests and checks on Metering Equipment to establish that it is working properly. The test records are retained for the life cycle of the asset. The commissioning process is designed specifically to demonstrate the accuracy of metering equipment. It also detects any inherent metering problems that would not be identified prior to installation and which would otherwise go undetected.

Metering Equipment can be owned by a number of different parties:

- the Local Distribution System Operator (LDSO),
- the Transmission Owner (TO),
- Suppliers, and
- Licensed Exempt Networks.

All these parties are known as Equipment Owners.

Whether or not the Equipment Owner is a BSC party<sup>4</sup> the responsibility for all Metering Equipment lies with the Registrant<sup>5</sup> to ensure that all the equipment is installed, commissioned, maintained and operated in accordance with the CoP4. The Registrant of a metering system is the relevant Supplier (in the retail market) or in the wholesale market a Generator of electricity who appoints an MOA for commissioning metering equipment.

<sup>1</sup> The terms 'the Authority', 'Ofgem' and 'we' are used interchangeably in this document. Ofgem is the Office of the Gas and Electricity Markets Authority.

<sup>2</sup> This document is notice of the reasons for this decision as required by section 49A of the Electricity Act 1989.

<sup>3</sup> The metering equipment encompasses meters, measurement transformers (voltage, current or combination units), metering protection equipment including alarms, circuitry, associated communications etc.

<sup>4</sup> A BSC party is an organisation that is party to the BSC either because they are obligated to be or because they have chosen to be. Elexon, National Grid, Distribution System Operator, Trading Party (Generators, Non Physical Traders, Interconnector User), Supplier, Interconnector Error administrator (IEA), Interconnector Administrator (IA).

<sup>5</sup> The BSC defines the Registrant (eg supplier (retail), generator (wholesale)) as, in relation to a Metering System, the person for the time being registered in CMRS or SMRS in respect of that Metering System pursuant to Section K (Annex X-1 of the BSC). The Registrant is always a BSC party.

An issue has been identified with the robustness of commissioning for particular types of Metering Equipment (current transformers (CTs) and voltage transformers (VTs)<sup>6</sup>). Due to timing issues, CTs and VTs are currently installed before a MOA is appointed by the Registrant. The MOA may not therefore have the opportunity to commission and confirm that all the Metering Equipment is accurate for settlement purposes prior to installation. This can result in metering equipment being operational without being commissioned, resulting in measurement errors. There is currently no specific requirement on any party to report issues with meter commissioning tests to the Registrant.

Following an investigation into current practices surrounding the commissioning of Metering Equipment, in 2011 Elexon<sup>7</sup> informed the Performance Assurance Board (PAB)<sup>8</sup> about its concerns regarding the accuracy of Metering Equipment not within the control of the Registrant or the MOA, namely, CTs and VTs. These concerns were based on work by the Technical Assurance of Metering Expert Group (TAMEG)<sup>9</sup>.

In January 2012, Elexon informed the PAB of potential solutions to rectify the identified defects in commissioning. PAB recommended to the BSC Panel that a modification proposal be raised to remedy the perceived defects<sup>10</sup>.

### **The modification proposal**

P283 (the "Modification") was raised by the BSC Panel in April 2012. The Modification seeks to place new obligations where possible on the Equipment Owner where it is a BSC party relating to the commissioning of Metering Equipment.

The Modification would establish a two tier approach in respect of commissioning and testing of measurement transformers (CTs and VTs):

- Where the Equipment Owner is a BSC party, the obligation would lie with it to commission CTs and VTs and provide calibration certificates and commissioning records to the MOA and Registrant. The MOA would be responsible for requesting certificates and commissioning records from the Equipment Owner
- If the Equipment Owner is not a BSC party, the obligation would continue to rest with the Registrant due to its overall responsibility for the Metering System regardless of equipment ownership<sup>11</sup>

The new obligation would also require the MOA to actively identify issues and inform the Registrant who in turn should confirm receipt and notify the Equipment Owner and relevant participants of any concerns. The CoP4 procedure does not currently oblige the

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<sup>6</sup> The issue is particularly significant at High Voltage (HV) sites where connected HV switchgear contains these types of transformers.

<sup>7</sup> Elexon is the Balancing and Settlement Code Company (BSCCo) which manages the electricity trading arrangements for Great Britain.

<sup>8</sup> The PAB conducts and administers activities to provide assurance that all participants in the BSC arrangements are suitably qualified and that the relevant standards are maintained.

<sup>9</sup> The TAMEG is an industry expert group which provides an opportunity to discuss issues and exchange ideas between Elexon and industry participants.

<sup>10</sup> According to Elexon's report 3500 metering systems have no records relating to the accuracy of relevant measurement transformers (CTs and VTs). Furthermore according to TAA further 1600 non compliant metering systems as of January 2012 (Elexon report BSCP 40/03 April 2012).

<sup>11</sup> For licence exempt networks directly connected to LDSO embedded metering point (CT or VT), the Equipment Owner will typically be the licence exempt distributor. In such instances, although this is outside the remit of P283, the Meter Operator (MO) would expect to commission the metering system through its contractual arrangement with the relevant Supplier.

MOA to notify the Registrant of any issues identified through the commissioning and testing process.

The BSC Panel (the "Proposer") considers that the period in which commissioning tests can be reasonably carried out is relatively short.

### **BSC Panel<sup>12</sup> recommendation**

At the BSC Panel meeting held on 12 July 2013, the Panel unanimously voted to recommend that P283 is approved and implemented. The views of the Panel are set out in full in the Final Modification Report (FMR)<sup>13</sup>.

### **The Authority's decision**

We have considered the issues raised by the modification proposal and the Final Modification Report (FMR) dated 12 July 2013. We have also considered and taken into account the responses to Elexon's<sup>14</sup> consultation, which are attached to the FMR, in making our decision.

We have concluded that:

1. implementation of the modification proposal will better facilitate the achievement of the applicable objectives of the BSC<sup>15</sup>; and
2. directing that the modification be made is consistent with the Authority's principal objective and statutory duties<sup>16</sup>.

### **Reasons for the Authority's decision**

The Panel considered that the Modification would better facilitate BSC objectives (b) and (d), with a marginal benefit against objective (c).

We have assessed the Modification against all the applicable objectives and agree that P283 better facilitates objectives (b), (c) and (d). We set out our views below against those objectives we consider are impacted by the Modification. We consider that the Modification has no impact when assessed against the other applicable objectives.

### ***Relevant objective (b) 'the efficient, economic and co-ordinated operation of the national electricity transmission system'***

The Panel considered that P283 would have the following benefits:

- an improvement to the accuracy of metered volumes in settlement which would promote the effective operation of distribution systems
- the availability of more accurate metering data which would facilitate an improvement in the overall efficient operation of the national electricity transmission system and benefit all BSC parties associated with the direct transportation of electricity through the transmission system

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<sup>12</sup> The BSC Panel is established and constituted pursuant to and in accordance with Section B of the BSC.

<sup>13</sup> BSC modification proposals, modification reports and representations can be viewed on the Elexon website at [www.elexon.co.uk](http://www.elexon.co.uk)

<sup>14</sup> The role and powers, functions and responsibilities of Elexon are set out in Section C of the BSC.

<sup>15</sup> As set out in Standard Condition C3(3) of NGET's Transmission Licence, see: <http://epr.ofgem.gov.uk/index.php?pk=folder380751>

<sup>16</sup> The Authority's statutory duties are wider than matters which the Panel must take into consideration and are detailed mainly in the Electricity Act 1989 as amended.

- greater accountability of flows within the systems for settlement purposes reducing data errors and ensuring more accurate traded volumes within the distribution network

One respondent noted that where the Equipment Owner is not a BSC party, eg an Independent Connections Provider (ICP) providing new connections, it may be difficult to ensure that the correct commissioning data is provided. Where subsidiaries or affiliates of BSC parties own metering equipment, they considered that the Modification could also have a limited effect.

We acknowledge that a proportion of new connections are provided by third parties where BSC (CoP4) arrangements are not applicable. However, in such instances Suppliers (as the Registrant) through their relationships with MOAs will continue to have an obligation to commission metering equipment.

We agree with the Panel that the Modification does better facilitate this applicable objective for the reasons they have given above. The new responsibilities on parties to commission Metering Equipment to the requirements of CoP4 will provide greater clarity to interested parties in respect of the commissioning status of that equipment and should increase accurate settlement data flows in industry systems.

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

The Panel considered that P283 marginally better facilitates this objective as competition would be improved through increased confidence in the settlement and commissioning processes as a result of the modified arrangements.

One respondent stated that the Modification increases the obligation to provide accurate commissioning data on the parties that have the information. In the case of ICPs, while the scope of commissioning Metering Equipment is outside the scope of this Modification, the LDSO, through its contractual arrangements with ICPs ensures that they provide valid commissioning certificates prior to transferring the metering assets to the LDSO.

We consider that the revised process would reduce settlement inaccuracies and associated risk to BSC parties and also reduce settlement risk and Technical Assurance Agent (TAA) non compliances.

Improved processes and procedures brought about by the Modification coupled with better information flows (an improved commissioning process) facilitate effective and transparent processes within the supply chain and will facilitate an appropriate allocation of costs.

Furthermore, the Modification removes from the balancing process information asymmetries between BSC parties, aiding an efficient settlement process.

For these reasons, we agree with the Panel that there is a marginal benefit against this objective.

***Relevant objective (d) 'Promoting efficiency in the implementation and administration of the balancing and settlement arrangements'***

The Panel considered that the accuracy of data entering settlement would be improved through the P283 arrangements. A respondent noted that settlement inaccuracies and

risks are likely to be reduced for BSC parties as a result of implementing P283 which concurs with the Panel's recommendation.

Another respondent to the Elexon consultation referred to changes being made to equipment procurement, training and procedures whilst another made reference to changes to contractual obligations with agents to their systems to incorporate the change in data flows.

We recognise that increased accuracy of data flows facilitates a more accurate allocation and settlement process within the supply chain.

Whilst we recognise that changes may be required within different organisations to accommodate P283 in respect of training, equipment procurement and contractual arrangements, we also consider that the Modification will ensure energy volumes are transparent and cost reflective as more accurate information will be available for settlement purposes. Furthermore, this will support networks to meet their wider obligation (i.e. implementing, maintaining and operating asset management standard PAS 55).

We agree with the Panel that the Modification does better facilitate this applicable objective in promoting efficiency in the balancing and settlement arrangements.

### **Decision notice**

In accordance with Standard Condition C3 of NGET's Transmission Licence, the Authority, hereby directs that modification proposal BSC P283 '*Reinforcing the Commissioning of Metering Equipment Processes*' be made.

**Maxine Frerk**  
**Partner Retail Markets & Research**

Signed on behalf of the Authority and authorised for that purpose