### **Initial Written Assessment**

# 'Assessing the costs and benefits of adjusting Parties' Imbalances following a demand disconnection'

This proposal seeks to require the BSC Panel to set rules that enable BSCCo to determine whether estimates of disconnected energy should be estimated and Imbalance Volumes adjusted following a demand disconnection Demand Control Event.



ELEXON recommends that the Panel raise this Modification in line with F2.1.1(d)(i)



ELEXON recommends this Modification is progressed directly to the Report Phase with an initial recommendation to approve

This Modification is expected to impact:

- The Balancing and Settlement Company (BSCCo);
- Central Data Collection Agent (CDCA);
- National Electricity Transmission System Operator (NETSO);
- Licensed Distribution System Operators (LDSOs);
- Half-Hourly Data Aggregators (HHDAs);
- Half-Hourly Data Collectors (HHDCs);
- Non Half-Hourly Data Aggregators (NHHDAs); and
- Non Half-Hourly Data Collectors (NHHDCs).

# **ELEXON**

**Phase** 

Initial Written Assessment

**Definition Procedure** 

Assessment Procedure

Report Phase

Implementation

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#### **About This Document**

This document is an Initial Written Assessment (IWA), which ELEXON will present to the Panel on 12 December 2019. The Panel will consider the recommendations and agree whether to raise this Modification and, if so, how to progress it.

There are six parts to this document:

- This is the main document. It provides details of the Modification Proposal, an assessment of the potential impacts and a recommendation of how the Modification should progress.
- Attachments A and B contain the proposed redlined changes to deliver the Modification's solution (BSC Sections and BSCPs respectively).
- Attachment C contains the proposed new Category 3 document outlining the Business Rules to support this Modification.
- Attachment D contains this Modification's Proposal Form.
- Attachment E contains the Business Requirements for this Modification

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#### **1** Summary

#### What is the issue?

Settlement Adjustment Processes (also known as the 'bottom-up' processes) introduced into the Balancing and Settlement Code (BSC) under P305 'Electricity Balancing Significant Code Review Developments' in November 2015 may not be efficient to run in all circumstances, for example, when considering a Demand Control Event (DCE) that has minimal material impact on Settlement. This possibility was highlighted following the DCE which occurred on 9 August 2019.

#### What is the proposed solution?

This Modification Proposal would introduce a mechanism through which BSCCo determines whether LDSOs, NETSO, certain Party Agents and BSC Agents, and BSCCo should carry out the Settlement Adjustment Processes. BSCCo would determine the nature of the DCE and, where necessary, determine and then compare the costs and value of the DCE in order to determine whether the value of carrying out the Settlement Adjustment Processes outweigh the costs.

#### **Impacts**

This Modification Proposal creates new obligations for the BSC Panel and BSCCo. In particular, BSCCo will be required to perform an assessment of each future DCE to determine whether Settlement Adjustment Processes should be performed. We estimate that it will cost approximately £1,200 to operate the new processes, which will be required when a DCE is triggered.

We also anticipate that it will cost approximately £2,400 to run the review process as described in the Business Rules (approximately 10 Working Days effort).

There are smaller impacts for LDSOs, HH and NHH Data Collectors and Aggregators, the CDCA and NETSO, who will be required to wait to be notified whether to perform Settlement Adjustment Processes.

Trading Parties will not be required to do anything new or different by this proposal. However, this proposal will affect how Trading Parties Imbalance Volumes are calculated – i.e. only where the value of making adjustments exceeds the cost.

#### **Implementation**

This Modification is proposed to be implemented as a standalone release on the next Working Day (WD) after the Self-Governance Appeals window closes. If the proposed progression timetable is followed, this is anticipated to be 7 February 2020.

#### Recommendation

We believe that an Issue Group should be established to explore the Panel's concerns more thoroughly. We believe this can only be achieved once the industry has acquired a greater level of experience of the P305 processes currently being executed in relation to the DCE on 9 August 2019. Indeed the definition of this proposal has highlighted that there may be alternative solutions and that the underlying costs to operate the P305



#### What are the Settlement Adjustment Processes?

Settlement Adjustment Processes are necessary to calculate Trading Parties' BM Unit Allocated Demand Disconnection Volume (BMUADDV) and Period **BM Unit Demand** Disconnection Volume (QDD). BMUADDV and QDD are included in the calculation of Trading Parties' **Imbalance Volumes** following a demand disconnection DCE to reflect the volumes of electricity that might have otherwise been Imported or Exported if there hadn't been a DCE.

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processes are not fully understood, which has made it a challenge to confidently propose an initial cost parameter for future DCEs.

Nevertheless, we believe this Modification is a pragmatic and timely solution and as it ought to have a **positive impact on BSC Applicable Objective (d)**. Therefore we recommend that it be raised by the BSC Panel under Section F2.1.1(d)(i) (i.e. on the back of a recommendation by BSCCo that it would facilitate Applicable Objective (d)) and be **progressed straight to Report Phase**. The changes to the BSC are clear and the criteria determining whether or not the P305 Adjustment process proceeds can be amended outside of the formal Modification process.

Further, this should be **progressed as a Self-Governance Modification** as we do not believe it has a material impact on the Self-Governance criteria.

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#### **2** Why Change?

#### What is the issue?

The BSC Panel is concerned that the benefits of operating the processes introduced into the BSC under P305 in June 2015 may not always outweigh the costs. In particular, that certain demand disconnection DCEs may not always warrant the costs incurred by NETSO, BSC Parties, Party Agents and Central Agents to operate the Settlement Adjustment Processes necessary to make the adjustments.

1,025,000 Metering Systems were without power for between 15 and 45 minutes over Settlement Periods 34-36 on 9 August 2019 during a DCE. A comprehensive report of what happened during the event can be found <a href="https://example.com/here.">here.</a>

NETSO sent a single Demand Control Instruction (DC00201) to inform BSCCo of the DCE on 9 August. Of the three Settlement Periods affected by the DCE, the System Prices in Settlement Periods 35 and 36 were adjusted from £64.75/MWh to £65/MWh, just £0.25/MWh, and Settlement Period 34 was unaffected at £64.50/MWh. As a result, the calculated 'benefit' of adjusting BSC Party Imbalance Charges was £46,348¹ as per the R1 Settlement Run, whereas the indicative costs to operate the Settlement Adjustment processes for the 9 August DCE, excluding BSCCo costs, is expected to be approximately £52,644.

#### What was the impact on Settlement?

There was relatively low material impact on System Prices due to the nature of the event. The DCE was determined to be an Automatic Low Frequency Demand Disconnection (ALFDD) DCE meaning any Demand Control action included in the System Price calculation is System Operator (SO) flagged. Ordinarily a Demand Control action is priced equal to the Value of Lost Load (£6000/MWh), however, where any balancing action is SO-flagged it is initially unpriced and may be re-priced equal to the most expensive unflagged balancing action (i.e. the Replacement Price).

However, on this occasion the Demand Control action was also Net Imbalance Volume (NIV) tagged before being repriced, meaning the action was removed from the Imbalance Price calculation in all affected Settlement Periods. Consequently, any System Price change during the DCE was due to a shift in Imbalance Volume rather than a Demand Control being a price setting action.

To summarise, this event was highly unusual and the anticipated fluctuations in the System Price did not materialise as the System Price Calculation ultimately excluded the Demand Control action from the final price calculation. For more information on electricity imbalance pricing, please refer to our <u>quidance note</u> on the subject.

#### **Background**

#### **What is a Demand Control Event?**

If National Electricity Transmission System Operator (NETSO) is unable to call upon sufficient generation, or reduce demand, to meet the current demand on the system, it can call upon Demand Control under <u>Grid Code Section OC6 'Demand Control</u>' as a last resort emergency instruction to manage the situation. This enables it to instruct Licensed Distribution System Operators (LDSOs) to reduce demand in their areas, either through

 $^{
m 1}$  Calculated by multiplying the total MWh by the System Price over the three impacted Settlement Periods

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initiating Voltage Reduction and/or disconnecting consumers through Demand Disconnection. An LDSO typically may be required to reduce demand in blocks of approximately 5% of its total demand, and is required to respond to NGESO's instruction within five minutes of it being issued. It is usually left to the LDSO to determine how it achieves the instructed reduction, which will often be through a combination of Demand Disconnection and voltage reduction. A DCE is the term given to the period when Demand Control is in effect.

#### Types of DCE

The BSC requires that NETSO sends details of three types of DCE to BSCCo. These are DCEs that NETSO may instruct and which are provided for in Grid Code OC6:

- Demand disconnection;
- Voltage reduction; and
- Automatic Low Frequency Demand Disconnection (ALFDD).

Each form of Demand Control may be used by NETSO to reduce the consumption of electricity on the system by disconnecting parts of the distribution systems, either manually or by automatic relays (when the frequency on the system drops below 49Hz), or by reducing the voltage on the system.

DCEs typically occur in emergency situations where available "backup" power has already been deployed, e.g. through the Balancing Mechanism, or where an event requires immediate action.

#### What are the P305 processes?

Settlement Adjustment Processes were implemented as part of <u>P305 'Electricity Balancing Significant Code Review Developments'</u>, a Modification that was raised to progress the outcomes of the <u>Electricity Balancing Significant Code Review (EBSCR)</u>. One of the key outcomes was the requirement for the introduction of Demand Control actions into the Imbalance price, priced at the Value of Lost Load (VoLL), and an Imbalance volume correction process to amend Trading Parties' Imbalance Volumes to account for such actions.

In short, following a DCE that results in demand disconnection, the BSC requires that certain Parties, Party Agents and BSC Agents, and ELEXON work together to estimate the electricity that would have been Imported or Exported by disconnected customers (i.e. BM Unit Allocated Demand Disconnection Volume (BMUADDV) and Period BM Unit Demand Disconnection Volume (QDD)) and ensures these are included in Trading Parties' Imbalance Volumes to reflect the effect of any demand disconnection (as though the DCE was the provision of a Balancing Service by the Trading Party). These are known as the Settlement Adjustment Processes.

A DCE is often an urgent emergency action(s) taken by NETSO when there are no other market-based actions available. However, it may cause Parties' Imbalance volumes to be longer than they might otherwise have been through no fault of their own. A longer Imbalance position multiplied by an abnormally high System Price driven by the effect of a DCE (e.g. close or equal to the Voll,  $\pm 6,000/MWh$ ) could result in a significant payment to Parties or a considerable reduction in their Imbalance Charge had there not been a DCE. The Settlement Adjustment processes were designed to ensure the accurate calculations

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of Parties' Imbalance volumes so Trading Parties do not benefit or suffer from the effects of a DCE that is outside of their control.

More details of the Settlement Adjustment processes can be found in the <u>P305 Final</u> Modification Report.

#### **Next Steps**

Given this is the first use of the P305 Settlement Adjustment Processes, ELEXON plans to raise an Issue Group to thoroughly consider the overall experience of operating the processes for the first time (including more detailed understanding of actual costs and any operational challenges encountered) once the DCE on 9 August has been fully processed. A more thorough, evidence based review would enable industry to properly explore the issues and options, before making a recommendation to BSC Panel. The completion of the adjustment process is currently targeted at the final Settlement run (RF) of the impacted August 9 Settlement Periods i.e. March 2020.

The Panel is aware that BSCCo plans to raise an Issue to consider its concerns once it has received lessons from estimating BMUADDV and QDD following the DCE on 9 August 2019. However, the Panel believes that more urgent action is necessary in case there are further DCEs, in particular over the forthcoming winter and spring seasons, which may incur more costs than benefits for consumers.

At its meeting on 14 November 2019, the Panel challenged BSCCo to develop a Modification Proposal that it could adopt at its December 2019 Panel meeting. This is in the hope that a mechanism is in place as soon as practically possible in the event another low materiality DCE occurs, thus minimising unnecessary negative impacts on Parties, Party Agents and BSCCo.

Whilst we believe an Issue will enable a more thorough examination of the processes, we believe that this proposal will nevertheless positively impact Applicable BSC Objective (d). Therefore, ELEXON recommends that the Panel raise this Modification under Section F2.1.1(d)(i). Whilst we have a preferred way forward and defining this proposal has been challenging (i.e. without a full understanding of the costs for performing the Settlement Adjustment Processes), it is a pragmatic approach which should reduce costs by avoiding the operation of Settlement processes in certain circumstances where the perceived benefits do not outweigh the costs.

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#### **3** Solution

#### **Proposed solution**

The Proposed Solution seeks to introduce a mechanism wherein the Panel sets rules for BSCCo to use to determine whether relevant parties should operate the Settlement Adjustment Processes or not, based on whether the value of doing so exceeds the associated costs.

The solution comprises the following core elements:

- BSC Panel establishes and maintains business rules 'Demand Disconnection Event Threshold Rules' – which will set out:
  - The circumstances in which BSCCo should asses the costs and benefits of a DCE;
  - A method for assessing the costs and benefits of a DCE including any specific calculations or parameters that BSCCo should follow or use in its assessment – whereby Settlement Adjustment Processes should not be performed where the costs are equal to or greater than the value; and
  - Other criteria, timescales, parameters or calculations necessary to assess the DCE.
- New requirements on BSCCo to complete an assessment of each DCE in accordance with the BSC Panel's Rules and to notify BSC Parties, Party Agents and BSC Panel of its findings.

The specific process and calculations that BSCCo will follow are set out in detail in the Business Rules document and proposed redline changes to BSC Sections and BSCPs in Attachments B, C and D.

To summarise, the benefit of running the processes (i.e. 'DCE Value', £/MWh) is defined as the sum of the value of the disconnected volumes within each impacted Settlement Period (£) divided by the total amount of energy disconnected during the DCE being assessed (MWh). The DCE Value is derived for each DCE to be assessed. The DCE Value is then compared against a pre-determined estimated cost of running the process (i.e. 'DCE Cost', £/MWh) for all impacted parties. Following a DCE, BSCCo would follow the rules outlined in Attachment D to determine these values and therefore whether the costs are greater or equal to the value. In all cases, BSCCo must notify all BSC Parties, Party Agents and the BSC Panel of its conclusion.

#### **DCE Value**

The proposal proposes to calculate DCE Value using the following formula:

$$DCE\_Value = \frac{\sum_{j} (SP_{j} \times DDE\_Size_{j})}{DDE\_Size_{total}}$$

Where:

 $\mathbf{SP_j}$  – is the System Price for a Settlement Period affected by demand disconnection or auto low frequency demand disconnection during the DCE

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 ${f DDE\_Size_j}$  (MWh) – is the anticipated energy disconnected during a Settlement Period due to demand disconnection and derived from a DCI(s) sent by the NETSO to BSCCo for the DCE being assessed

**DDE\_Size<sub>total</sub>** (MWh) – is the total anticipated energy disconnected due to demand disconnection and derived from the DCI(s) sent by the NETSO to BSCCo for the DCE being assessed.

The calculation of DCE Value uses the actual System Price(s) from affected Settlement Period(s). This is because whether or not the DCE affects the calculation of the System Price, the DCE will affect Parties' Imbalance Volumes and those Parties may benefit or disbenefit by the amount of energy disconnected multiplied by the System Price irrespective of any DCE effect.

DC00201 affected three Settlement Periods. The corresponding System Prices and disconnected volumes are set out in Table 1 below. The total disconnected volume was 714MWh.

Settlement Period	System Price	DDE_Size <sub>j</sub>
34	£64.50/MWh	93.1 MWh
35	£65/MWh	465.5 MWh
36	£65/MWh	155.166 MWh

Based on the System Prices and disconnection volumes, the DCE\_Value for DC00201 is  $\pounds 64.91/MWh$ .

#### **DCE Cost**

$$= \frac{HHA\_Cost}{DDE\_Size'_{total}} + \frac{LDSO\_Cost}{DDE\_Size'_{total}} + \frac{NHHA\_Cost_{Cost} + NETSO\_Cost + BSC\_Agent\_Cost + BSCCO\_Cost}{DDE\_Size'_{total}}$$

#### Where:

**HHA\_Cost**  $(\pounds)$  – the expected cost for HHDCs and HHDAs to carry out 'bottom-up' processes for a historical or indicative DCE.

**LDSO\_Cost**  $(\pounds)$  – the expected costs for LDSOs to carry out 'bottom-up' processes for a historical or indicative DCE.

**NHHA\_Cost**  $(\pounds)$  – the expected costs for NHHDCs and NHHDAs to carry out 'bottom-up' processes for a historical or indicative DCE.

**NETSO\_Cost** ( $\pounds$ ) - the expected costs for NETSO to carry out 'bottom-up' processes for a historical or indicative DCE.

**BSC\_Agent\_Cost**  $(\pounds)$  – the expected costs for BSC Agents to carry out 'bottom-up' processes for a historical or indicative DCE.

**BSCCo\_Cost**  $(\pounds)$  – the expected costs for BSCCo to carry out 'bottom-up' processes for a historical or indicative DCE.

**DDE\_Size'**<sub>total</sub> (MWh) – the total volume of electricity anticipated to be disconnected as a consequence of demand disconnection or auto low frequency demand disconnection derived from a historical or indicative DCE.

Based on indicative costs shared by some LDSOs and Party Agents and described in the proposal, upon implementation of this Modification DCE\_Cost will be set equal to  $\pounds 75.13/MWh$ .

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In the case of DC00201, the consequence of following the method described above would have resulted in the conclusion that the Settlement Adjustment processes should **not** be followed to estimate BMUADDV and QDD. This is because:

- DC00201 comprised a single DCI for auto low frequency demand disconnection;
   and
- 2. The DCE\_Cost, £75.13/MWh, is greater than the DCE\_Value, £64.91/MWh.

#### **Justification**

The proposer believes its solution strikes a balance between being the straightforward to implement and operate, and reflecting the costs and values of different sized DCEs.

An option suggested during the BSC Panel's discussion at its November meeting was for an overall cost threshold (£) to be set, against which the value of individual DCEs could be compared. Such an approach would rely on the assumption that all DCEs are broadly similar and don't vary based on the size of the event (whether in terms of disconnected energy or affected Metering Systems). We do not believe this is the case.

Depending on the circumstance, NETSO may instruct some or all LDSOs to shed load. Each LDSO may have different means of achieving the different levels of Demand Control requested by NETSO, these methods may change over time and, depending on the nature of the event, NETSO may require the use of different combinations of Demand Control instruction. In practice, the numbers of Metering Systems affected and volume of energy disconnected by a DCE is likely to vary from one DCE to the next.

Our understanding is that the Settlement Adjustment Processes' underlying costs are driven by identifying affected Metering Systems and then producing estimates of the Imports and Exports that have been disconnected. In simple terms it is the number of Metering Systems, not the volume of electricity disconnected, that affects the cost of operation. Furthermore, whilst NHH DCs and DAs rely on a largely automated solution meaning their costs are likely to be fairly fixed no matter the size of the DCE, our understanding is that HHDCs must use a method to individually estimate Imports or Exports for each disconnected HH Metering System. In order to reflect the number of disconnected MSIDs, or even the variability in HH cost, when determining the cost of a DCE would require LDSOs to identify the numbers (and types) of disconnected Metering Systems – i.e. the first stage of the Settlement Adjustment Processes, which might otherwise be avoided if a simpler solution (i.e. the proposed solution) were used.

Without more detailed investigation of LDSOs agreed processes for carrying out demand control the proposed solution assumes that the balance of disconnected HH:NHH Metering Systems stays the same regardless of the size (MWh) of the DCE.

BSCCo believes the simplest means of reflecting that different DCEs may have different overall costs is to determine a weighted cost measurement using the estimate of what NETSO anticipates will be disconnected that it reports in Demand Control Instructions to Balancing Mechanism Reporting Agent (BMRA).

BSCCo does not believe an appeals process is necessary. That is, the proposed Business Rules are intended to produce an assessment of value and cost that does not allow for judgement or subjectivity by BSCCo. Parties may encourage the Panel to change its rules if Parties believe the rules are inappropriate or do not properly reflect the costs and value of performing the Settlement Adjustment Processes.

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It should also be highlighted that the Issue Group due to be raised once the end-to-end process for the 9 August DCE has been completed will review these rules, and any other lessons learned from the process. It is expected that this Issue Group, with the benefit of having a full set of relevant data, will determine a more thorough, enduring solution. However, we do believe that this Modification is pragmatic and delivers a timely interim mechanism to help minimise the costs associated with potentially inefficient processes.

#### **Applicable BSC Objectives**

Implementation of this Modification Proposal would positively impact Applicable BSC Objective (d) as the P305 adjustment process would not be performed in situations where the cost of running the process is expected to exceed the perceived benefits. This should reduce the overall cost to deliver the BSC by focusing only on those situations expected to deliver a net benefit.

#### **Implementation approach**

It is recommended that this proposed Modification is implemented as a standalone release the Working Day after the Self-Governance Appeals window closes. If the progression plan is followed, this is anticipated to be the 16<sup>th</sup> Working day after the Panel meeting i.e. 7 February 2020.



# What are 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 coordinated 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 [for the Co-operation of Energy Regulators]
- (f) Implementing and administrating the arrangements for the operation of contracts for difference and arrangements that facilitate the operation of a capacity market pursuant to EMR legislation
- (g) Compliance with the Transmission Losses Principle

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#### 4 Proposed Progression

#### **Next steps**

As this Modification positively impacts BSC Applicable Objective (d), we recommend it be raised by the Panel under Section F1.1.2(d)(i), and subsequently sent directly to the Report Phase and hence be subject to the Report Phase Consultation. However, this means any substantive changes to the solution will not be possible following the Report Phase Consultation. The basis for submitting this proposal straight to the Report Phase are that the changes to the BSC are clear and the criteria will be set by the BSC Panel, which can be subsequently determined outside of the formal Modification process. Furthermore, the Panel's desire is to implement a solution sooner than later.

#### **Self-Governance**

We request that this Modification be progressed as a Self-Governance Modification (no Ofgem approval sought) as it is not likely to have an impact on the Self-Governance criteria.

This Modification aims to improve the efficiency of the balancing and Settlement arrangements by avoiding the operation of processes where the costs outweigh the benefits. Any costs saved will ultimately benefit consumers, but is unlikely to be material. As such, it is unlikely to have a material effect on consumers, competition, system operation, safety, security, management of emergencies or code governance; nor will it discriminate between different classes of Party.

At this time we do not believe this proposal, if sent directly to the Report Phase, should be treated as Urgent.

#### **Timetable**

Proposed Progression Timetable		
Event	Date	
Present Initial Written Assessment to Panel	12 Dec 2019	
Report Phase Consultation (15 WDs)	16 Dec 19 – 8 Jan 20	
Present Draft Modification Report to Panel	16 Jan 2020	
Final Modification Report published	20 Jan 2020	
Self-Governance Appeal Window (15 Working Days)	10 Jan 20 – 6 Feb 20	



#### What is the Self-Governance Criteria?

A Modification that, if implemented:

(a) is unlikely to have a material effect on: (i) existing or future electricity consumers; and (ii) competition in the generation, distribution, or supply of electricity or any commercial activities connected with the generation, distribution, or supply of electricity; (iii) the operation of the national electricity transmission system; and (iv) matters relating to sustainable development,

(b) is unlikely to discriminate between different classes of Parties.

safety or security of

management of market or network emergencies; and

(v) the Code's governance

procedures or Modification

supply, or the

procedures; and

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#### **5** Likely Impacts and costs

This Modification's greatest impact is on the BSC Panel and BSCCo. This is because it proposes to introduce new requirements on each. On the one hand BSC Panel will be required to establish and maintain new business rules that govern how an assessment of the costs and benefits of a DCE should be completed. It will also require BSCCo to perform this assessment following a DCE in accordance with the Panel's business rules.

This Modification is expected to have a small impact on certain BSC Parties, Party Agents and BSC Agents because depending on BSCCo's assessment of costs and benefits, they may be instructed not to progress the P305 Settlement Adjustment Processes. In particular, we expect the following Parties, Party Agents and BSC Agents to be affected CDCA; LDSOs; NETSO; HHDAs; HHDCs; NHHDAs; and NHHDCs.

This Modification will not require Trading Parties to do anything differently. However, Trading Parties may experience a small impact by the implementation of the Modification. That is, whereas the BSC currently requires that Trading Parties' Imbalances Volumes are always adjusted by the estimation of BMUADDV and QDD, this Modification will mean that BMUADDV and QDD is only estimated in certain circumstances.

#### **Estimated central implementation costs**

ELEXON's costs to implement this Modification will be approximately £3,840. This is primarily driven by the need to develop new internal processes, update guidance documents and the BSC Website:

- 4 Working Days effort to implement new internal processes and documents: and
- 5.5 Working Days to implement document changes to the BSC and Code Subsidiary Documents.

We also estimate that it will cost approximately £1,200 to operate the new processes, which will be required when a DCE is triggered.

Finally, we anticipate that it will cost approximately £2,400 to run the review process as described in the Business Rules (approximately 10 Working Days effort).

Impact on BSC Parties and Party Agents		
Party/Party Agent	Potential Impact	
LDSO	May be instructed not to operate Settlement Adjustment processes after a DCE, saving time and money.	
HHDA		
NHHDC		
HHDC		
NHHDA		

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Impact on BSC Parties and Party Agents		
Party/Party Agent Potential Impact		
CDCA	May be instructed not to operate Settlement Adjustment processes after a DCE	

#### Impact on NETSO

The NETSO may be instructed not to send details about Metering Systems providing balancing services during the disconnection event

Impact on BSCCo		
Area of ELEXON	Potential Impact	
Market Operations	As the team responsible for running the Settlement Adjustment Processes, they will need to update their Local working Instruction (LWI), guidance documents, the BSC Website and may need to answer ad hoc queries about the process.	

#### Impact on BSC Settlement Risks

A positive impact on the following Risks as the participants in question may well process less data, therefore lowering the Risk of error manifestation. Risk 008 'Processing of [SVA] Metered Data', Risk 009 'Data Aggregated Processes – Metered Data', Risk 021 'Retrieval and processing of [CVA] Metered data'

Impact on Code		
Code Section	Potential Impact	
Section R	Include new requirements to ensure Settlement Adjustment	
Section S	Processes are only operated where the requirements described in the new Category 3 document are met.	

Impact on Code Subsidiary Documents	
CSD	Potential Impact
BSCP03 – Data Estimation and Substitution for Central Volume Allocation	
BSCP502 – Half Hourly Data Collection for SVA Metering Systems Registered in SMRS	Consequential changes to reflect the
BSCP503 – Half Hourly Data Aggregation for SVA Metering Systems Registered in SMRS	requirement to wait for instruction from BSCCo before operating the Settlement Adjustment Processes
BSCP504 – Non Half Hourly Data Collection for SVA Metering Systems Registered in SMRS	

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Impact on Code Subsidiary Documents	
CSD	Potential Impact
BSCP505 – Non Half Hourly Data Aggregation for SVA Metering Systems Registered in SMRS	
BSCP508 – Supplier Volume Allocation Agent	
BSCP515 – Licensed Distribution	
New Category 3 Document – Business Rules for Assessing Demand Control Event	Conception of the document will create new Business Rules within the BSC framework

Impact on a Significant Code Review (SCR) or other significant industry change projects

No direct impact expected. We requested SCR exempt this proposal from any of its open SCRs on 05 December 2019.

#### Impact on Consumers

No direct impact – If implemented this Modification proposal should ensure the operation of the 'bottom up' process is only in situations where the costs are greater than the benefits. This should ultimately reduce costs for Parties and therefore the costs to Consumers.

#### Impact on the Environment

No direct impact expected.

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#### **6** Recommendations

#### We invite the Panel to:

- **RAISE** this Modification Proposal in accordance with Section F2.1.1(d)(i);
- AGREE that this Modification progresses directly to the Report Phase;
- AGREE that this Modification:
  - o **DOES** better facilitate Applicable BSC Objective (d);
- AGREE an initial recommendation that this Modification should be approved;
- AGREE an initial Implementation Date of:
  - One Working Day after the Self Governance Appeal window closes as a standalone Release, which at this point in time is anticipated to be 7 February 2020
- AGREE the draft legal text
- AGREE the draft redlined changes to BSC subsidiary documents, including the new category 3 document;
- AGREE an initial view that this Modification should be treated as a Self-Governance Modification; and
- NOTE that ELEXON will issue the draft Modification Report (including the draft BSC legal text) for a 15 Working Day Consultation and will present the results to the Panel at its meeting on 16 January 2020.

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## Appendix 1: Glossary & References

#### **Acronyms**

Acronyms used in this document are listed in the table below.

Acronym		
Acronym	Definition	
ALFDD	Automatic Low Frequency Demand Disconnection	
BMRA	Balancing Mechanism Reporting Agent	
BMUADDV	BM Unit Allocated Demand Disconnection Volume	
BSC	Balancing and Settlement Code	
BSCCo	Balancing and Settlement Code Company	
BSCP	Balancing and Settlement Code Procedure	
CDCA	Central Data Collection Agency	
DCE	Demand Control Event	
EBSCR	Electricity Balancing Significant Code Review	
HHDA	Half Hourly Data Aggregator	
HHDC	Half Hourly Data Collector	
IWA	Initial Written Assessment	
NETSO	National Electricity Transmission System Operator	
NHHDA	Non Half Hourly Data Aggregator	
NHHDC	Non Half Hourly Data Collector	
NIV	Net Imbalance Volume	
LDSO	Licensed Distribution System Operator	
QDD	Period BM Unit Demand Disconnection Volume	
RF	Final Settlement Run	
SO	System Operator	
VoLL	Value of Lost Load	
WD	Working Day	

#### **External links**

A summary of all hyperlinks used in this document are listed in the table below.

All external documents and URL links listed are correct as of the date of this document.

External Links		
Page(s)	Description	URL
2	P305	https://www.elexon.co.uk/mod- proposal/p305/

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External Links		
Page(s)	Description	URL
2	Imbalance Pricing Guidance Note	https://www.elexon.co.uk/documents/tra ining-guidance/bsc-guidance- notes/imbalance-pricing/
4	Electricity Balancing Significant Code Review	https://www.ofgem.gov.uk/electricity/wholesale-market/market-efficiency-review-and-reform/electricity-balancing-significant-code-review
5	Technical Report on the events of 9 August 2019	https://www.nationalgrideso.com/docum ent/152346/download
6	Grid Code OC6	https://www.nationalgrideso.com/document/33866/download

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