BSC CHANGE – APPROVED REDLINING

The following document is an entirely new Category 3 Configurable Item. It is entitled 'Demand Disconnection Event Threshold Rules', v1.0.

Please note that the effective date will be updated as part of implementation.

If you require assistance in assessing this redlining, please contact Craig Murray on 020 7380 4201 or email BSC.change@elexon.co.uk.

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Balancing and Settlement Code

Demand Disconnection Event Threshold Rules

Version 0.1

Date: Effective Date

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DEMAND DISCONNECTION EVENT THRESHOLD RULES

relating to

The methods used to calculate the costs and benefits of operating Demand Disconnection Event Obligations following a Demand Disconnection Event

1. Reference is made to the Balancing and Settlement Code and, in particular, to the Demand Disconnection Event Threshold Methodology in Section S 9.2A thereof.

2. This document, Version 1.0, is effective from DD Month YYYY.

3. The BSC Panel has approved this document.

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Amendment Record

Version	Date	Description of Change	Changes Included	Mods/Panel/Committee Refs.
0.1	XXXXX	PXXX	P397	298/05

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1 Introduction

1.1 Purpose and Scope of the Procedure

This document (‘the Rules’) sets out the process and method established by the Panel in accordance with S9.2A, which the Balancing and Settlement Code Company (BSCCo) should follow after a Demand Control Event (DCE) to determine the cost and value of following the Demand Disconnection Event (DDE) Obligations[1]. Having followed the process and method in this document, BSCCo will notify BSC Parties, Party Agents, BSC Agents and BSC Panel Members of the outcome of its assessment and therefore whether the DDE Obligations should be followed.

The DDE Obligations are defined in Section R 8.1 and Section S 9.2A. That is, the processes to calculate BM Unit Allocated Demand Disconnection Volume (BMUADDV) and Period BM Unit Demand Disconnection Volumes (QDD).

This document includes:

(a) The circumstances in which BSCCo should assess the costs and benefits of running the DDE Obligations associated with a DCE;

(b) The processes BSCCo should follow for determining whether the DDE Obligations should be operated and how this should be communicated;

(c) The calculations BSCCo must use in the determination of the anticipated costs and value of operating the DDE Obligations following a DDE; and

(d) The processes to follow for reviewing, updating and publishing amendments to this document.

1.2 Balancing and Settlement Code Provision

Interested parties should read this document in conjunction with the BSC and in particular Sections R and S. The Panel established this document in accordance with the provisions of BSC Section S 9.2A. In the event of an inconsistency between these Rules and the BSC, the provisions of the BSC shall prevail.

1.3 Review Procedure for the Demand Disconnection Event Threshold Rules

The Panel (or its delegated authority) may review these Rules in whole or in part, from time to time, either using its own initiative or by recommendation by BSCCo, a BSC Party or any other interested person.

BSCCo will perform any such review on behalf of the Panel and submit its findings and any recommendations in a paper for the Panel to consider.

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[1] “Demand Disconnection Event (DDE) Obligations" means the obligations in Sections R8.1, S9.1 and S9.2 together with any consequential obligations which are necessary to calculate BM Unit Allocated Demand Disconnection Volumes and Period BM Unit Demand Disconnection Volumes.

Before the Panel may make changes to these Rules, whether by adopting a recommendation(s) made by BSCCo or of its own design, the Panel must consult BSC Parties and consider any representations made during the consultation.

Where the Panel approves a revision of the Demand Disconnection Event Threshold Rules:

(a) Such revised Rules shall be effective from such date as the Panel shall determine; and

(b) The Panel Secretary shall give notice of such date to the National Electricity Transmission System Operator (NETSO), the Authority and each Party.

1.4 Main Users of the Procedure

The main users of this document are:

- BSCCo; and
- BSC Panel (or its delegated authority).

1.5 Use of Procedure

The remaining sections in this document are:

- Section 2 – Process and Timetable information: this section defines the process for the determination as to whether the DDE Obligations should be operated.
- Section 3 – Demand Disconnection Event Threshold Calculations: this section contains the calculations used to determine the anticipated costs and value of operating the DDE Obligations following a Demand Disconnection Event.

1.8 Abbreviations, Acronyms and Definitions

Any capitalised term that is not defined in this document shall have the same meaning given to it as in the Code.

The acronyms used in this document are defined as follows:

BMUADDV	BM Unit Allocated Demand Disconnection Volume
BSC	Balancing and Settlement Code (the “Code”)
BSCCo	Balancing and Settlement Code Company
DCE	Demand Control Event
DDE	Demand Disconnection Event
HHDA	Half-Hourly Data Aggregator
HHDC	Half-Hourly Data Collector

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LDSO	Licensed Distribution System Operator
NETSO	National Electricity Transmission System Operator
NHHDA	Non Half-Hourly Data Aggregator
NHHDC	Non Half-Hourly Data Collector
QDD	Period BM Unit Demand Disconnection Volumes

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2. Process and Timetable

2.1 Overall process

BSCCo shall complete the steps described in 2.2, 2.3 and 2.4 within one full working day of the Demand Control Instruction indicating the end of the DCE in question.

In summary, BSCCo will

i. Determine whether the DCE comprises a DDE – paragraph 2.2
ii. Determine and compare the cost and value of the DCE, if the DCE comprises a DDE - paragraph 2.3
iii. Communicate the outcomes of BSCCo’s assessment - paragraph 2.4

2.2 Circumstances of Assessment

BSCCo must determine whether the DCE comprises a DDE, i.e. that the DCE is the subject of at least one Demand Control Instruction for either demand disconnection or Auto Low Frequency Demand Disconnection.

Where a DCE is determined to comprise a DDE, then BSCCo must perform the assessment described in paragraph 2.3 and then communicate its findings in accordance with paragraph 2.4.

If the DCE does not comprise a DDE then BSCCo must skip the assessment in paragraph 2.3 and communicate this in accordance with paragraph 2.4. Where a DCE does not comprise a DDE, then DDE Obligations should not be followed.

2.3 Determination of Demand Disconnection Threshold

If a DCE has been determined to include a DDE per paragraph 2.2, BSCCo will calculate the anticipated costs and values of the DDE Obligations as described in Sections 3.1 and 3.2.

If a DCE is determined to include a DDE in accordance with paragraph 2.2, BSCCo shall compare the ~~calculated~~ pre-determined cost and calculated DCE-specific benefit values to determine whether ~~or not~~ the Settlement Adjustment Processes shall be run. That is, if:

1. ~~IF~~ $\boldsymbol{DCE\_Cost} \geq \boldsymbol{DCE\_Value}$ = Settlement adjustment process is **not** run
2. ~~IF~~ $\boldsymbol{DCE\_Value} > \boldsymbol{DCE\_Cost}$ = ~~Settlement adjustment process is run~~LDSOs must send P0238 data flows to BSCCo in accordance with BSCP515

The Demand Disconnection Threshold is equal to the DCE Cost. Therefore the DDE Obligations will only be performed if DCE Value is greater than the DCE Cost.

DCE_Cost and DCE_Value are defined below – see paragraphs 3.1.1 and 3.2.

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2.4 Communications

Once the processes described in paragraph 2.1, 2.2 (where necessary) and 2.3 have been performed, BSCCo shall communicate the outcome of its assessment to BSC Parties, Party Agents, BSC Agents and the Panel. BSCCo shall notify Category A authorised persons via email and shall also publish a Circular on the BSC website.

BSCCo shall present a paper to the BSC Panel at the next available Panel meeting following the DCE. The paper shall summarise its assessment and explain the notice it made to BSC Parties, Party Agents and BSC Agents.

Whereby BSCCo notifies BSC Parties, Party Agents and BSC Agents that the DDE Obligations should be followed, then BSC Parties, Party Agents and BSC Agents must follow the steps and timescales set out in BSC Section R 8.1 and Section S 9.2A, and BSCP03 paragraph 3.4, BSCP502 paragraph 3.4.5, BSCP503 paragraph 3.4.3, BSCP504 paragraph 3.3.15, BSCP505 paragraph 3.3.4, BSCP508 paragraph 3.13 and BSCP515 paragraph 3.14.

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3. Demand Disconnection Event Calculations

3.1 Cost of DCE Calculation

DCE Cost is a parameter set and updated by the Panel from time to time using the following formula. It is set by collecting actual or estimated costs from Parties and Party Agents involved in the bottom up processes, i.e. Licensed Distribution System Operators (LDSOs), Half-Hourly Data Collectors (HHDCs), Half-Hourly Data Aggregators (HHDAs), Non Half-Hourly Data Collectors (NHHDCs), Non Half-Hourly Data Aggregators (NHHDAs), NETSO, BSC Agents and BSCCo. These costs are used to derive an indicative cost (£/MWh):

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

Where:

HHA_Cost (£) – the expected cost ~~for~~ of all active HHDCs and HHDAs[2] (at the time the Panel reviews and sets this cost) to carry out ~~‘bottom up’~~the Settlement Adjustment P~~p~~rocesses for a historical or indicative DCE. HHA_Cost is calculated by multiplying the total number of active HH agents by the average HH agent cost. The pre-determined average HH agent cost is based on HH agents’ expected costs of performing the Settlement Adjustment Processes once for a future DCE (i.e. for one Settlement Run).

LDSO_Cost (£) – the expected costs for all active LDSOs[3] (at the time the Panel reviews and sets this cost) to carry out ~~‘bottom-up’ p~~Settlement Adjustment Processes for a historical or indicative DCE. LDSO_Cost is calculated by multiplying the total number of active LDSOs by a pre-determined average LDSO cost. The pre-determined average LDSO cost is based on LDSOs expected costs of performing the Settlement Adjustment Processes once for a future DCE (i.e. producing a single P0238).

NHHA_Cost (£) – the expected costs for all active NHHDCs and NHHDAs[4] (at the time the Panel reviews and sets this cost) to carry out Settlement Adjustment ~~‘bottom-up’ p~~Processes for a historical or indicative DCE. NHHA_Cost is calculated by multiplying the total number of active NHH agents by average NHH agent cost. The average NHH agent cost is based on NHH agents’ expected costs of performing the Settlement Adjustment Processes once for a future DCE (i.e. for one Settlement Run).

NETSO_Cost (£) - the expected costs for NETSO to carry out ‘bottom-up’ processes for a historical or indicative DCE.

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[2] Active HHDCs and HHDAs are determined by reviewing SMRS registration records to determine which agents are appointed to Metering Systems. Where an agent performs both HHDC and HHDA roles, it will be counted as a single HH agent.

[3] Where each LDSO is represented by a specific MPID.

[4] Active NHHDCs and NHHDAs are determined by reviewing SMRS registration records to determine which agents are appointed to Metering Systems. Where an agent performs both NHHDC and NHHDA roles, it will be counted as a single NHH agent.

BSC_Agent_Cost (£) – the expected costs for BSC Agents to carry out 'bottom-up' processes for a historical or indicative DCE.

BSCCo_Cost (£) – the expected costs for BSCCo to carry out 'bottom-up' processes for a historical or indicative DCE.

DDE_Size'$_{total}$ (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.

When determining DCE_Cost, all indicative stakeholder cost data must be collected based on the same assumptions, e.g. the same historical or indicative DCE, which in turn determines the DDE_Size'$_{total}$ for this calculation.

DCE_Cost is set to two decimal places.

For the avoidance of doubt, DCE_Cost is not recalculated as part of BSCCo assessment of each DCE as described in Section 2 above. Nevertheless, the Panel may choose to review the DCE_Cost following each DCE in accordance with subsection 1.3 above.

As per the implementation of P397, **DCE_Cost is £75.13/MWh**. Please see the P397 Final Modification Report for an explanation of the costs used to derive it.

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3.2 Value of DCE Calculation

The value of a DCE shall be determined for each DCE that comprises a DDE using the following formula:

$$\boldsymbol{DCE\_Value = \frac{\sum_j (SP_j \times \ DDE\_Size_j)}{DDE\_Size_{total}}}$$

Where:

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

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_{total} (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.

DCE_Value is calculated to two decimal places.

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